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OPENTEXT INTEGRA

FINAL REPORT

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Prepared by,

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August 11, 2023

CANINE BUSINESS SOLUTIONS

**OPENTEXT INTEGRA - FINAL REPORT**

**CANINE BUSINESS SOLUTIONS**

**INFO 8685 – INFORMATION TECHNOLOGY BUSINESS ANALYSIS CAPSTONE**

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**Document Revision Table**

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# **Introduction**

This document provides a detailed report on the “OpenText Integra – Implementing a cloud-based project management software” project proposed by CANINE Business Solutions. The report begins with a brief introduction about CANINE Business Solutions, followed by a summary of OpenText Corporation and the financial overview of OpenText Corporation. It compares the organization’s current versus desired position and performs a gap analysis to identify the problems that must be addressed to enhance its financial status.

Central to this document is a detailed gap analysis, which carefully examines the differences between where OpenText Corporation is and where it wants to be. This analysis sets the stage for the rest of the investigation, where problems that need solving come into focus, like bright beacons of potential. These problems become the cornerstone around which the entire report revolves, forming a harmonious arrangement of solutions crafted by the clever minds at CANINE Business Solutions.

The report includes the results of the competitive analysis (competitors: Microsoft, IBM, CGI) performed by CANINE Business Solutions. Based on the findings, CANINE Business Solutions proposes a solution to increase the OpenText Corporation’s revenue and enhance customer satisfaction. The solution is proposed after thorough market research and feasibility studies conducted by CANINE Business Solutions. The detailed feasibility analysis has been included in the report to facilitate a better understanding of the proposed project. Additionally, the report includes a solution evaluation section where different solutions (proposed by other consultants) have been evaluated using a weighted scoring model, and the solution with the highest score (“OpenText Integra”) has been recommended. To conduct solution evaluation, CANINE Business Solutions has considered the “Do Nothing” solution as a baseline and performed a required evaluation.

Notably, the report doesn't stop at the presentation of a singular solution. It ventures beyond, into the realm of solution evaluation. This analysis represents the convergence of various proposed remedies, evaluated with a discerning eye through a weighted scoring model. With the outcome in tow, "OpenText Integra" emerges as the pinnacle of this evaluation, chosen for its superior score. This approach, fostering a holistic understanding of options, empowers OpenText Corporation to make informed decisions.

The results of the feasibility studies have been included in the report for a clear understanding of the project’s significance. A major part of the findings revolves around the results of the financial feasibility studies (refer to the Excel file: INFO 8685 CANINE Business Solutions Financial Feasibility report), which explains the expected revenue and ROI for the project – “OpenText Integra.” The ROI and the revenue results are projected for 20 years. The ROI section also discusses the proposed project's expected revenue and ROI for other possible solutions (Solution #3 – “Do Nothing” as a baseline). By referring to this section, OpenText Corporation can compare the financial advantages of all the possible solutions and proceed with the profitable project.

The next section of the document describes the business processes that can be affected by the proposed solution. The business processes are illustrated as process flow (AS-IS and TO-BE) diagrams (refer to Visio diagrams). Based on the identified business processes that will be affected by implementing the proposed solution, the functional and non-functional requirements of the proposed project have been discussed under the requirements section. Post requirement identification, CANINE Business Solutions has developed a database design for the proposed project “OpenText Integra”. The database design document outlines the logical data model for the proposed solution. This section provides the details of the required tables, data elements and the relationships between the tables. It also describes the purpose of each data element, the range of values and the primary keys associated with each table. The provided database design will help to understand the data requirements for the proposed solutions based on the existing database management systems in OpenText Corporation.

The report also includes the different phases of the implementation approach that can be performed to implement “OpenText Integra” successfully. The implementation strategy discussed here includes various phases the project is expected to undergo and is discussed in detail using a flowchart. Followed by the implementation strategy, the test plan for testing the proposed solution has been discussed. This section provides an overview of the high-level test strategy and approach expected to be followed to implement the proposed solution successfully. Different stages of testing, defect management and release management plans also have been discussed in this section.

This beginning captures not just the main idea of the report but also the teamwork between CANINE Business Solutions and OpenText Corporation on this important project. By reading further, OpenText Corporation can get a better picture of the proposed project and its advantages. This is all based on a mix of understanding the market, predicting finances, and coming up with smart strategies.

The report wraps up with the risk mitigation strategies followed by a conclusion and call of action. After reviewing the report, OpenText Corporation can understand the significance of implementing the solution (“OpenText Integra”) proposed by CANINE Business Solutions. This report can provide a detailed understanding of the project and serve as a reference throughout the project life cycle.

**Note**: Along with the project report, attached is an Excel file describing the financial feasibility of the proposed project.

# **CANINE Business Solutions - Executive Summary**

CANINE Business Solutions is an established IT consulting company that provides strategic solutions to client organizations. The company helps client organizations achieve their financial objectives by closely working with them, understanding their challenges, and providing valuable insights to drive their revenue growth. The company has a proven record of delivering projects successfully and is a trusted partner for clients looking to promote their business.

**Vision:** *"To be the leader in the industry by providing strategic solutions to our customer's business needs."*

**Mission:** *"To provide value to our customers by delivering innovative software solutions and achieve customer satisfaction by helping them to reach their business objectives."*

**Values:**

* Lead the way by reinventing the future.
* Earning the trust of the clients by acting ethically and with integrity.
* Foster an inclusive environment that embraces diversity in all forms.
* Collaborate with global businesses to deliver tangible and measurable impact.

## **History**

Aiming to provide IT services, consulting and business solutions to clients, CANINE Business Solutions was established in 2015, with five operating locations in the Americas. Headquartered in Waterloo, Ontario, the organization currently has over 1,000 employees in the Waterloo branch office alone. CANINE Business Solutions is committed to providing end-to-end services to 5,500 clients globally.

## **Industry expertise**

With deep expertise in technology, CANINE Business Solutions helps clients to navigate complex challenges with practical solutions. By utilizing the latest technologies, CANINE Business Solutions helps businesses prosper by creating impactful solutions tailored to client's unique needs. The organization follows an integrated and adaptive approach to transform the business from the inside.

CANINE Business Solutions adheres to an independent agile delivery approach recognized as the benchmark in IT consulting services. The skilled workforce of the organization assists client organizations in harnessing technology to shape their technology visions, execute their digital transformation journeys, and reinvent their businesses to generate outstanding value from their technology investments.

## **Diversity & Inclusion**

CANINE Business Solutions fosters a diverse and inclusive environment where everyone feels valued. The organization’s 45% of the workforce comprises women and 32.5% of them in executive roles. The organization is committed to 50/50 gender parity by 2030, with 45% women in leadership positions.

The company has employees representing 25 countries and is focusing on creating an ethnically diverse workforce by 2030. By implementing new strategies in recruitment, CANINE Business Solutions continues to develop an inclusive culture within the organization.

## **Business Impacts**

CANINE Business Solutions has joined hands with various businesses globally to implement strategies that can bring their vision of the future to life. The organization consistently focuses on the future and imagines better ways to build something together. By doing so, the organization capitalizes on its primary assets, namely its ability to assemble brilliant teams to identify crucial issues, make relationships, utilize technology, and develop practical solutions to satisfy each client's demands.

**Building a better future**

CANINE Business Solutions collects executive perspectives on trends affecting their organizations, industries, business, and IT goals annually. The experts in the company will analyze these data and provide actionable insights by industry - to benchmark best practices. The organization provides critical benchmarking insights based on data from over 5,000 client discussions across numerous regions, reflecting most of the world's IT spending across all economic sectors. By utilizing these data points, the organization offers comparisons for benchmarking purposes, including a discussion of the client’s relevant position in the industry.

## **Range of services**

**CANINE Business Solutions always strives to provide innovative solutions and services to the clients. To stay competitive in the current world, the organization continuously upgrades its service portfolio by providing creative technological solutions. CANINE Business Solutions solves the client’s complex problems by delivering innovative and perfect solutions. The organization’s experienced employees (Business Analysts) work closely with clients to provide solutions like developing software applications, implementing cloud solutions, improving business processes, and optimizing IT infrastructure. By collaborating with the clients, the organization understands their strategic objectives and provides practical solutions to improve their business processes.**

**Continuous Learning and improvement**

**CANINE Business Solutions believes in a culture that fosters enhancing skills and learning. The organization provides training sessions to the employees at frequent intervals. The session may focus on developing technical skills, professional and personality development. This is achieved through training sessions, workshops and conferences that are conducted regularly.**

**As a part of encouraging employees to improve them, the company provides Education Allowance benefit to them annually.**

## **Strategic Partnerships**

**CANINE Business Solutions has formed valuable alliances with prominent technology innovators, influential industry groups, and respected educational establishments. These affiliations serve as a conduit for the organization to remain at the cutting edge of nascent technologies and evolving industry trends. Through active participation in initiatives involving the exchange of insights and research, CANINE Business Solutions actively plays a role in influencing the trajectory of technological advancements across sectors.**

**Community Engagement**

**Acknowledging the significance of contributing to society, CANINE Business Solutions is deeply engaged in initiatives focused on social responsibility. The organization champions educational initiatives, provides guidance to upcoming IT enthusiasts, and lends a helping hand to community-based charitable endeavours. This dedication to societal betterment underscores the organization's conviction in leveraging its know-how and assets to foster a positive influence beyond its commercial domain.**

**Looking Ahead to the Future**

**CANINE Business Solutions** stands firm in its dedication to innovation and exceptional performance. The organization's forward-thinking methodology, supported by its capacity to foresee industry trends and pre-empt client requirements, establishes it as a pioneer in IT consulting. By remaining faithful to its principles, welcoming inclusivity, and unyieldingly striving for innovation, CANINE Business Solutions is steadily progressing towards the actualization of its aspiration to assume industry leadership, one strategic resolution at a time.

## **Organizational Structure**

Built upon a solid foundation of technological proficiency, the structure of our company stands as the cornerstone of our achievements, guiding us through intricate challenges and ensuring remarkable client value delivery.

CANINE Business Solution’s organizational framework has been meticulously crafted to nourish cooperation, the exchange of expertise, and the streamlined execution of projects. Supported by a workforce spanning various competencies, the organization structure empowers us to address diverse business demands while maintaining adaptability in the face of ever-changing market dynamics.

This preliminary overview offers a sneak peek into how the structural framework at CANINE Business Solutions bolsters our dedication to innovation, excellence, and client contentment. As we delve into the intricate components of our structure, some of the insights into how the team members' functions and interactions contribute to the organization’s capability to forge impactful solutions that propel business expansion.

The structure in place at CANINE Business Solutions has been meticulously designed to amplify collaboration across all echelons of the organization. This intentional configuration facilitates seamless teamwork, information exchange, and effective cooperation, culminating in the overall triumph of the company. Here's how the organization’s structural framework nurtures and heightens collaborative efforts:

**Interdisciplinary Teams**

CANINE Business Solution’s setup unites individuals from varied backgrounds and spheres of expertise into interdisciplinary teams. These teams meld talents from diverse domains, ensuring a holistic approach to addressing challenges and formulating solutions. This amalgamation of differing viewpoints nurtures ingenuity and novelty, leading to all-encompassing solutions.

**Transparent Communication Routes**

The structure institutes lucid avenues of communication spanning team members, departments, and leadership tiers. Unobstructed communication paths obliterate barriers, permitting information to flow unhindered and enabling swift decision-making. This transparency magnifies collaboration by guaranteeing that everyone remains well-informed and in sync.

**Horizontal Hierarchy**

CANINE Business Solution’s structural design champions a relatively horizontal hierarchy, minimizing redundant tiers of management. This approach fosters direct interaction between team members and leaders, facilitating rapid communication by curtailing bureaucratic hindrances. As a result, delays caused by hierarchical bottlenecks are prevented, which accelerates collaboration.

A person with a mustache wearing a suit and tie

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**John Smith** *CEO & Vice Chairman*

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**Dharmi Patel** *Project Manager*

**Michele Carter** *Executive Vice President, CIO*



Radhiga Dharmaraja *Team Lead*

A person smiling for the camera

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Description automatically generatedA person with long black hair

Description automatically generatedA person standing on a bridge in front of a building

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**Nishant Kumar** *Business Analyst*

**Jagdishbhai Parmar** *Business Analyst*

**Nitish Rawal** *Business Analyst*

**Anurag Rai**  *Business Analyst*

**Aakriti Baral** *Business Analyst*

**John Smith – CEO:**

John Smith assumed the CEO role at CANINE Business Solutions in January 2019, and his influence extends to his membership on the organization's Board of Directors. By January 2016, John had also embraced the position of Chief Technology Officer, and his role was further elevated to Vice Chair in September 2017. Renowned for his unwavering commitment to pioneering innovation and tangible results, coupled with an unwavering dedication to fulfilling customer needs, John's astute guidance has successfully realigned the company's product offerings. John has garnered many accolades throughout his career, each a testament to his exceptional leadership.

With an MBA in Strategic Management from University of Toronto, John's leadership continue to propel CANINE Business Solutions toward a future brimming with innovation and client-centric success.

**Michele Carter – Executive Vice President, CIO:**

As the Executive Vice President and CIO, Michelle Carter assumes a crucial position in advocating for a culture that upholds diversity at CANINE Business Solutions. Through steadfast commitment, Michelle Carter leads efforts that engender an atmosphere where each team member experiences a sense of worth and empowerment. Her steadfast resolve to cultivate a workplace that embodies inclusiveness harmoniously merges with the company's principles, adding to the organization's vibrant and cohesive cultural fabric.

Michelle Carter holds a master’s degree in business administration and a bachelor’s degree in computer science from the University of Waterloo, Ontario, Canada.

A person with long hair smiling

Description automatically generated**Dharmi Patel – Project Manager**

Dharmi Patel, a skilled Project Manager, guarantees the smooth implementation of client projects within CANINE Business Solutions. The project manager consistently achieves project completion within designated timelines through careful planning, coordination, and efficient resource administration.

A person smiling at the camera

Description automatically generated**Radhiga Dharmaraja – Team Lead**

As the Team Lead, Radhiga Dharmaraja adeptly directs the Business Analyst team, leveraging expertise to ensure precision in their work. Possessing an innate ability to discern clients' requirements, the team lead devises strategies for solutions that harmonize seamlessly with their business objectives.

**A person with long black hair

Description automatically generatedAakriti Baral – Senior Business Analyst**

Aakriti, a dynamic member of the Business Analyst team, possesses a profound grasp of the intricate interplay between technology and business dynamics. Aakriti's unwavering commitment to innovation and client contentment establishes her as an indispensable asset within the team.

A person in a blue shirt

Description automatically generated**Anurag Rai – Senior Business Analyst**

Anurag, a proficient contributor to the Business Analyst team, can unearth latent opportunities amidst complex challenges. His meticulous approach and data-powered methodologies culminate in impactful recommendations that steer clients toward growth.

A person smiling at the camera

Description automatically generated**Nitish Rawal – Business Analyst**

Nitish, an experienced collaborator within the Business Analyst team, melds technical proficiency with a profound comprehension of diverse industries. Nitish's steadfast dedication to excellence stands as an exemplar for the team.

A person in a suit and sunglasses

Description automatically generated**Jagdishbhai Parmar – Business Analyst**

Jagdish, a forward-looking participant in the Business Analyst team, thrives on foreseeing upcoming industry shifts and technological advancements. Jagdish's fervour for exploration and invention resonates with CANINE Business Solution’s dedication to fostering innovation.

A person standing on a bridge in front of a building

Description automatically generated**Nishant Kumar – Business Analyst**

Nishant, a results-oriented contributor to the Business Analyst team, excels in translating intricate business requirements into actionable strategies. Bolstered by robust analytical skills and strategic thinking, he offers invaluable recommendations that propel clients toward success.

This adept and diverse team, under the guidance of John Smith, forms the bedrock of CANINE Business Solutions. The team is propelling its mission to provide strategic IT solutions and make positive strides in the business realm.

## **Key Clients & Successful Projects – CANINE Business Solutions**

CANINE Business Solutions has proven record of successfully providing IT solutions to its clients. Some of the key clients of CANINE Business Solutions are:

1. Stellar Tech Solutions
2. Ecosolutions Inc.
3. Healthsphere healthcare

### **StellarTech Solutions**

**Industry: Information Technology**

**Project Name: CloudLeap**

**Project Overview:**

CANINE Business Solutions collaborated with StellarTech Solutions to develop "CloudLeap," an innovative cloud-based enterprise resource planning (ERP) system. The objective was to streamline StellarTech's internal operations, optimize resource allocation, and enhance decision-making processes. The project included extensive requirement gathering, system design, agile development, and seamless integration with existing tools. CloudLeap's successful implementation resulted in increased operational efficiency, cost savings, and improved business agility for StellarTech Solutions.

**Operational Efficiency and Resource Optimization**

One of the primary objectives of the CloudLeap project was to streamline StellarTech's internal operations and optimize resource allocation. To assess the project's impact on operational efficiency, key operational metrics were analyzed before and after the project implementation.

**KPI 1: Inventory Turnover**

Before CloudLeap, StellarTech's inventory turnover ratio stood at 5.8, indicating that the company was turning over its inventory approximately 5.8 times per year. After the implementation of CloudLeap's inventory management module, the turnover ratio increased to 8.4. This improvement indicates that StellarTech's inventory was managed more efficiently, resulting in reduced holding costs and minimized stockouts.

**KPI 2: Order Fulfillment Cycle Time**

Prior to CloudLeap, StellarTech's average order fulfillment cycle time was 7 days. The implementation of the project led to a significant reduction in cycle time, with the average now at 4 days. The streamlined processes and real-time data access provided by CloudLeap enabled faster order processing. This results in increased customer satisfaction and repeat business.

**KPI 3: Employee Productivity**

Employee productivity was another crucial aspect evaluated in the analysis. Before CloudLeap, StellarTech's average employee productivity was measured at 40 units per employee per month. After the project's implementation, productivity increased to 65 units per employee per month. The user-friendly interface and automation capabilities of CloudLeap empowered employees to perform their tasks more efficiently, leading to higher output levels.

**Financial Metrics and Cost Savings**

The financial impact of the CloudLeap project was a key consideration for StellarTech Solutions. The analysis focused on financial metrics to assess the project's contribution to cost savings and profitability.

**Financial Metric 1: Cost of Goods Sold (COGS)**

Before CloudLeap, StellarTech's COGS as a percentage of revenue stood at 60%. With the project's successful implementation, COGS decreased to 52%. The optimization of resource allocation and inventory management facilitated by CloudLeap resulted in reduced production costs. This technique improved gross margins.

**Financial Metric 2: Return on Investment (ROI)**

The ROI of the CloudLeap project was calculated to determine its financial viability. The initial investment for the project was $500,000, and the project's net benefits were estimated at $1,000,000 over the first year of implementation. The ROI for CloudLeap was 100%, indicating that the project generated double the return on the investment made by StellarTech.

**Profit Analysis**

To assess the direct impact on StellarTech's profits, a detailed profit analysis was conducted, comparing pre- and post-CloudLeap financial data.

**Year 1 Pre-CloudLeap Profit:** $2,000,000

**Year 1 Post-CloudLeap Profit:** $3,500,000

The profit analysis demonstrated that CloudLeap's successful implementation contributed to a $1,500,000 increase in StellarTech's annual profit, showcasing the project's significant financial impact.

The implementation of the cloud-based ERP system led to substantial improvements in operational efficiency, resource optimization, and financial performance. StellarTech experienced cost savings, increased productivity, and higher profitability because of the project. The success of CloudLeap showcases CANINE Business Solutions' capability to deliver cutting-edge software solutions that drive tangible business outcomes for its clients.

### **HealthSphere Healthcare**

**Industry:** Healthcare

**Project Name:** MediConnect

**Project Overview:**

CANINE Business Solutions partnered with HealthSphere Healthcare to build "MediConnect," a state-of-the-art patient management and electronic health records (EHR) platform. The goal was to enable efficient patient data management, enhance care coordination, and improve patient outcomes. CANINE Business Solution’s team ensured stringent data security compliance, user-friendly interface design, and seamless interoperability with other healthcare systems. With MediConnect's deployment, HealthSphere experienced enhanced patient engagement, reduced administrative burden, and optimized healthcare service delivery.

**Analytical Report for HealthSphere Healthcare's MediConnect Project**

This analytical report provides a comprehensive analysis of the impact of CANINE Business Solutions' MediConnect project on HealthSphere Healthcare's patient management and healthcare service delivery. The report evaluates the project's outcomes, benefits, and contributions to HealthSphere's operational efficiency. Key performance indicators (KPIs), patient engagement metrics, and financial data were analyzed to assess the project's success.

**Efficient Patient Data Management and Care Coordination**

The primary objective of the MediConnect project was to enable HealthSphere Healthcare to efficiently manage patient data and enhance care coordination among healthcare providers. Key operational metrics were analyzed to assess the project's impact on patient data management and care coordination.

**KPI 1: Patient Data Access Time**

Before MediConnect, the average time for healthcare providers at HealthSphere to access patient records was 3 minutes. After the project's implementation, this time reduced to just 30 seconds. The seamless integration of patient data and the user-friendly interface of MediConnect allowed healthcare professionals to access critical patient information swiftly. This interface leads to improved care coordination and faster decision-making.

**KPI 2: Care Plan Compliance**

MediConnect's implementation introduced a comprehensive care planning module that enabled healthcare providers to create and monitor individualized care plans for patients. Before the project, care plan compliance at HealthSphere was approximately 60%. After MediConnect, compliance increased to 85%. The systematic approach to care planning facilitated by the platform ensured that patients received the right treatments and interventions promptly, resulting in better health outcomes.

**KPI 3: Patient Appointment Scheduling**

Before MediConnect, patient appointment scheduling required multiple manual interventions and led to scheduling errors. With the implementation of MediConnect's appointment scheduling module, scheduling accuracy improved significantly, with an error rate reduction from 15% to 3%. The platform's real-time availability and automated reminders enabled smoother appointment booking. Faster booking reduces patient no-shows and optimizes healthcare resource utilization.

**Enhanced Patient Engagement**

MediConnect aimed to enhance patient engagement and empower individuals to actively participate in their healthcare journey. Patient engagement metrics were analyzed to evaluate the success of the project in achieving this objective.

**Patient Engagement Metric 1: Patient Portal Adoption**

HealthSphere observed a significant increase in patient portal adoption after the implementation of MediConnect. Before the project, only 20% of patients actively used the patient portal. Post-implementation, patient portal adoption soared to 75%, indicating a substantial improvement in patient engagement and interest in managing their health information through the platform.

**Patient Engagement Metric 2: Patient Feedback and Satisfaction**

A patient satisfaction survey conducted after MediConnect's deployment revealed that 95% of patients reported a positive experience with the platform. Patients appreciated the ease of accessing their health records, scheduling appointments online, and receiving personalized care plans. The high satisfaction rate demonstrated the success of MediConnect in enhancing patient engagement and overall healthcare experience.

**Financial Impact and Operational Efficiency**

The financial impact of the MediConnect project was a crucial consideration for HealthSphere Healthcare. Financial metrics were analyzed to assess the project's contribution to operational efficiency and cost savings.

**Financial Metric 1: Administrative Cost Reduction**

Before the implementation of MediConnect, HealthSphere's administrative costs related to patient data management and appointment scheduling were estimated at $100,000 per year. With the automation and efficiency brought about by MediConnect, administrative costs reduced by 30%, resulting in $30,000 annual savings.

**Financial Metric 2: Revenue Increase**

MediConnect's improved patient engagement combined with streamlined care coordination contributed to increased patient retention and repeat visits. HealthSphere observed a 15% increase in patient visits within the first six months after the platform's deployment, leading to a $500,000 boost in annual revenue.

**Project Outcome:**

The implementation of the EHR platform resulted in efficient patient data management, enhanced care coordination, and improved patient outcomes. MediConnect successfully empowered patients to actively engage in their healthcare journey, leading to higher patient satisfaction rates and increased revenue for HealthSphere. The project's success exemplifies CANINE Business Solutions' expertise in delivering innovative solutions that drive positive transformations in the healthcare industry.

### **EcoSolutions Inc.**

**Industry:** Environmental Services

**Project Name:** EcoTrack

**Project Overview:** EcoSolutions Inc. engaged CANINE Business Solutions to create "EcoTrack," an environmental monitoring and compliance management software. The aim was to enable real-time tracking of environmental parameters, automate compliance reporting, and facilitate sustainable practices. CANINE's team employed cutting-edge IoT technology, data analytics, and machine learning algorithms to develop EcoTrack's robust architecture. The successful implementation of EcoTrack empowered EcoSolutions Inc. to optimize resource utilization, comply with environmental regulations, and reduce ecological footprint effectively.

**Analytical Report for EcoSolutions Inc.'s EcoTrack Project**

This analytical report provides a comprehensive analysis of the impact of CANINE Business Solutions' EcoTrack project on EcoSolutions Inc.'s environmental monitoring and compliance management efforts. The report evaluates the project's outcomes, benefits, and contributions to EcoSolutions' mission of promoting sustainable practices. These practices help the company in reducing the ecological footprint. Key performance indicators (KPIs), environmental impact metrics, and financial data were analyzed to assess the project's success.

**Real-Time Environmental Monitoring**

The primary objective of the EcoTrack project was to enable EcoSolutions Inc. to monitor critical environmental parameters in real time. Key environmental metrics were analyzed to evaluate the project's impact on real-time environmental monitoring.

**KPI 1: Data Collection Frequency**

Before the implementation of EcoTrack, data collection for environmental parameters was conducted manually monthly. With EcoTrack's deployment, data collection frequency improved to real-time, allowing EcoSolutions to access up-to-date information about air quality, water quality, and other environmental factors. This real-time data collection facilitated timely responses to environmental changes and potential hazards.

**KPI 2: Accuracy of Environmental Data**

EcoTrack's use of IoT technology and data analytics significantly improved the accuracy of environmental data. Before the project, the average margin of error in data collection was 10%. After EcoTrack's implementation, the margin of error reduced to less than 2%. This high accuracy ensured that EcoSolutions had precise environmental data to inform their decision-making processes and compliance reporting.

**Automated Compliance Reporting**

EcoTrack aimed to streamline compliance reporting processes and enable automated submission of regulatory requirements. Compliance metrics were analyzed to assess the success of the project in automating compliance reporting.

**KPI 1: Compliance Reporting Time**

Before EcoTrack, the process of compiling and submitting compliance reports to regulatory authorities took approximately two weeks. With the automation features of EcoTrack, compliance reporting time reduced to just a few hours. This automation not only saved valuable time but also reduced the risk of human errors in the reporting process.

**KPI 2: Regulatory Compliance Rate**

EcoSolutions Inc. faced challenges in achieving 100% compliance with environmental regulations due to manual reporting processes. After the implementation of EcoTrack, the regulatory compliance rate increased from 85% to 98%. The platform's automated reminders and notifications ensured that deadlines were met, resulting in improved compliance with environmental regulations.

**Facilitation of Sustainable Practices**

EcoTrack aimed to facilitate sustainable practices and help EcoSolutions Inc. reduce its ecological footprint. Environmental impact metrics were analyzed to evaluate the project's success in achieving this objective.

**Environmental Impact Metric 1: Resource Utilization**

EcoTrack's real-time monitoring allowed EcoSolutions to optimize resource utilization, such as water and energy. The analysis revealed a 15% reduction in water consumption and a 12% reduction in energy consumption within the first year of EcoTrack's implementation. These reductions contributed to EcoSolutions' commitment to sustainable practices and resource conservation.

**Environmental Impact Metric 2: Emission Reduction**

EcoTrack's continuous monitoring of emissions from industrial processes enabled EcoSolutions to identify and address emission hotspots. As a result, EcoSolutions achieved a 20% reduction in greenhouse gas emissions, positively impacting the environment and demonstrating their dedication to sustainable operations.

**Financial Impact and Operational Efficiency**

The financial impact of the EcoTrack project was a crucial consideration for EcoSolutions Inc. Financial metrics were analyzed to assess the project's contribution to operational efficiency and cost savings.

**Financial Metric 1: Cost Savings**

Before EcoTrack, EcoSolutions incurred significant costs in manual data collection and compliance reporting. With the implementation of EcoTrack, the company achieved cost savings of approximately $100,000 per year, attributed to reduced labor hours and streamlined operations.

**Financial Metric 2: Return on Investment (ROI)**

The analysis of financial data revealed that EcoTrack's ROI was achieved within 18 months of its implementation. The project's success in optimizing resource utilization, achieving compliance, and reducing operational costs contributed to a positive ROI, solidifying EcoSolutions' decision to invest in EcoTrack.

**Project Outcome:**

The analytical report highlights the significant impact of CANINE Business Solutions' EcoTrack project on EcoSolutions Inc.'s environmental monitoring and compliance management efforts. The real-time monitoring capabilities, automated compliance reporting, and facilitation of sustainable practices have positioned EcoSolutions as a leader in environmentally responsible operations. EcoTrack's success exemplifies CANINE Business Solutions' expertise in delivering innovative solutions that drive positive environmental impact and align with the mission of promoting sustainability.

The above projects are some of the examples of CANINE Business Solution’s notable achievements in the past few years. By implementing theses projects, we helped our clients to achieve their financial targets and increased their customer rates. CANINE Business Solution’s has provided a thorough support throughout the project execution, which helped the clients to attain their targets and proved them to be the leaders in the industry.

With a team of skilled professionals and unique talents, CANINE Business Solutions continues to provide client-specific solutions. CANINE Business Solutions has a proven record of success with the projects handled, which is described in the above section. The outcomes and success rate of the projects handled by CANINE Business Solutions proves the credibility of the organization.

**CANINE Business Solution Annual Statement FY22:**

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# **Overview of OpenText Corporation**

## **About OpenText Corporation**

OpenText Corporation is a renowned global leader in the software and cloud industries, offering exceptional information management solutions tailored to organizations worldwide. Founded by visionaries Timothy Bray, Frank Tompa, Gaston Gonnet, the company is headquartered in Waterloo, Ontario, Canada has become a significant player in the market (Wikipedia, 2023).

The core strength of OpenText Corporation lies in its comprehensive, seamlessly integrated information management platform, empowering businesses to efficiently organize, integrate, protect their data across internal and external processes. Its all-encompassing solution has made OpenText Corporation the preferred option for businesses seeking efficient management of their valuable information resources (OpenText Corporation, 2022).

As a publicly traded corporation, OpenText Corporation enjoys a global presence with over 16,000 skilled professionals contributing to its success worldwide. It is listed on two major stock exchanges, the NASDAQ (OTEX) and the Toronto Stock Exchange (OTEX), further enhancing its credibility in the market.

## **Mission & Purpose**

**Mission: “We Power and Protect Information”** (OpenText Corporation, 2022)

OpenText Corporation's key objective is empowering, and preserving information while creating an environment that allows for the effective use of data while maintaining its privacy. They deploy cutting-edge technology solutions to fuel the infinite possibilities of information, enabling efficient storage, processing, and retrieval. Significant funds are invested in advanced infrastructure, such as high-performance servers, data centers, networking equipment to facilitate harnessing data for information, decision-making, enhancing productivity by ensuring an effortless flow of information easy accessibility.

Their aim is to empower individual safeguard information using innovative technology, comprehensive security procedures. The company works 24/7 to ensure data is used effectively, ensuring its security, reliability, accessibility. In doing so, they foster a world in which knowledge is seen as a valuable, trusted asset, fueling growth, and encouraging innovation.

**Purpose: “To elevate every person and every organization to gain the information advantage”** (OpenText Corporation, 2022).

The company aspires to promote every individual, organization to gain the information edge by educating individuals, companies to exploit every aspect of information.

The organization genuinely believes that when people are given accurate, relevant knowledge, they can better make educated decisions, broaden their knowledge, and uncover new opportunities. Similarly, maintaining an information advantage converts into a competitive edge for organizations, helping them to make decisions based on data, spot market trends, respond to changing client needs.

The organization provides a wide range of specialized services products that respond to its clients' different demands to achieve its objective. These include cutting-edge analytical platforms, sophisticated search engines, user-friendly systems for managing data. Individuals and corporations can use these platforms to easily collect, process, analyze, visualize data, transforming raw data into actionable insights.

Understanding that having an information advantage goes beyond technology, the organization places a premium on extensive instruction and educational programs. These programs aim to provide individuals, organizations with the knowledge, skills to exploit information effectively. Workshops, conferences, online tools provide clients with knowledge, skills, allowing them to navigate the massive knowledge domain extract value effectively.

The company aspires to promote a society where individuals are educated, businesses stay adaptable, viable, innovation thrives by enabling all individuals and organizations to gain the information advantage. They believe that by democratizing access to knowledge, providing the necessary tools, sand kills, positive change can be accelerated, allowing individuals, organizations to prosper in the digital age.

## **OpenText 2030 Pledge**

**A). OpenText Zero-In Initiative**

OpenText Corporation has unveiled its vision for 2030, which centers around enhancing three crucial areas: Environmental, Social, and Governance (OpenText Blogs, 2023). The Zero-In Initiative has been established based on the following three categories:

**I. Zero Footprint:**

OpenText Corporation is dedicated to fostering a sustainable environment by achieving net-zero greenhouse gas emissions by 2040, eliminating operational waste by 2030, and undergoing a complete digital transformation.

**II. Zero Barriers:**

The organization aims to cultivate an ethnically diverse workforce by 2030 and have women occupy 40% of leadership positions.

**III. Zero Compromise:**

No compromise on quality, values, business conduct will exist. OpenText Corporation is committed to enhancing its employees and the organization by following the principles of openness, integrity.

## **OpenText Corporation Financial Overview**

The table below, Revenue Table (Fig 1.1), represents the financial data of OpenText Corporation annually from 2019 to 2022. The Total Revenue during 2022 was $3,493,844, whereas in 2021/2020, it was $3,386,115 and $3,109,736. The data shows that the Total Revenue consistently grows every year with a 3.2% increase compared to the previous year. The gross profit also increases each year along with the cost of revenue.

**Revenue by Product**

The OpenText corporation has four revenue streams: cloud services, subscriptions, customer support, License, professional service, and others. The following table, Revenue by Product (Fig 1.1), shows revenues by product type. The payment for cloud services, subscriptions increase each year. It shows that from 2020, the revenue increased by $249759 in 2021, from 2021, it increased by $127572 in 2022, along with the cost of payment for the cloud services, subscriptions. The revenue for customer support increased by $58476 from 2020 to 2021, but unfortunately, the revenue decreased by $3097 from 2021 to 2022, while the cost of revenue for customer support reduced each year. The payment for the License falls each year. The revenue for cloud/subscription services increases by nearly 3 to 4 percent annually. The revenue for customer support decreased by 1 percent each year. There is a decrement in payment of Licenses by almost 1 percent each year, the income for professional services is constant for 2021/2022.

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**Fig 1.1 Revenue by Product**

# **Competitive Analysis**

The following section describes the competitive analysis findings conducted by CANINE Business Solutions. CANINE Business Solutions have used three different tools such as SWOT, PESTEL and Balanced Scorecard to understand the standpoint of the OpenText Corporation among its competitors.

The three analysis methods have been conducted on OpenText Corporation and its competitors (which include Microsoft, IBM & CGI). The results of the findings would help OpenText Corporation to understand its strengths, weaknesses, Opportunities and Threats. Based on the findings the organization can further understand the current state, identify the gap between the current and future state. This would help OpenText Corporation to explore an opportunity to enhance its revenue and customer retention rate.

The following section illustrates the results of SWOT, PESTEL and Balanced Scorecard analysis findings for the OpenText Corporation.

## **OpenText Corporation**

**SWOT Analysis**

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| INTERNAL FACTORS |
| STRENGTHS + |
| OpenText Corporation has proved itself as a leader in the industry through its excellent content services platform. During the Omdia Universe 2023, vendor assessment the organization showcased its product and proved its prominence among the competitors.  OpenText Corporation provides technological solutions and proved its excellence in various technological areas. It includes content analytics and automation. The auto tag feature provided by the organization helps the client to integrate their business processes easily and efficiently.  The popular products offered by OpenText Corporation seamlessly integrates with other content platforms like Salesforce, SAP, and Microsoft. These products effectively collaborate with the existing applications and other widely used applications.  **Vertical-Specific Solutions**  OpenText offers vertical-specific solutions spanning industries from energy to life sciences and healthcare, demonstrating its ability to cater to diverse sectors with tailored offerings.  **OpenText Intelligent Capture**  Another popular feature provided by OpenText Corporation is called as OpenText’s Intelligent Capture. This product helps the clients to transform the paper-based content into electronic content. The transformed content will be integrated into the client’s content management systems by the Intelligent capture. Through this integration the clients can improve the business processes and seam the content automation. The products supports integrations with the applications such as SAP S/4HANA, Salesforce and Microsoft 365.  **OpenText Documentuum**  OpenText Documentuum is a popular product of OpenText Corporation. This application helps the clients to improve the integration and automation processes. Through this ,the clients can have efficient access to the structured and unstructured data.  **Business Network Cloud**  55% of companies agree that their overall value of B2B integration has increased after implementing OpenText™ Business Network Cloud Enterprise. The scalable B2B platform offered by OpenText™ connects 1 million global trading partners and handles 26 billion transactions per year. The BN Cloud Enterprise offers a Single unified platform known as the Trading Grid cloud platform, which can connect any integration endpoints irrespective of their location, be it SaaS, PaaS, IaaS, or on-premises environments.  **OpenText Magellan**  The OpenText™ Magellan™ platform has simplified AI-driven data decision-making for customers. It helps them gain operational efficiencies and better insights through interactive dashboards. It uses a wide range of data analytics tools, which include text mining, machine learning, interactive visualizations, and natural language processing. These tools helps to find patterns, links, hazards, and trends that may be used to automate prediction processes while speeding up decision-making.  **Robust B2B Integration**  OpenText's Business Network Cloud Enterprise has achieved significant success, connecting 1 million global trading partners and handling billions of transactions annually. Its Trading Grid cloud platform offers seamless integration across various environments, boosting automation and reducing errors.  **Personalized Customer Engagement**  The Digital Experience platform of OpenText enables personalized content and engagement based on customer interactions. Applications like TeamSite™, InfoArchive, Experience DXM, and Extended ECM Platform collaborate to deliver optimized experiences.  **Experience Cloud**  The OpenText Digital Experience platform gathers data from all customer interactions. It uses the collected data to deliver quality personalized content and engagement opportunities throughout the customer’s journey. The personalized experience is made possible through applications such as OpenText™ TeamSite™, OpenText™ InfoArchive, OpenText™ Experience DXM, and OpenText™ Extended ECM Platform. All these applications work together to provide an optimized and powerful experience to all its users (OpenText Corporation, 2023).  All the above-mentioned products/solutions showcase the competency of OpenText Corporation among its competitors. Through these products/services OpenText Corporation is providing innovative and quality solutions to its clients. This makes the organization to excel as a leader in the industry. |

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| WEAKNESSES – |
| Several utilities offered by OpenText are a direct result of acquisitions and most of the significant acquisitions took place within the last 5 years.  Zix, Bricata Inc., XMedius, Carbonite Inc. and Catalyst are some of the popular companies acquired by the OpenText Corporation in the last few years. Although these acquisitions support OpenText’s long-term growth strategy and help them firmly establish their competitive position, a few risks accompany these transactions (OPENTEXT CORPORATION, 2022). Some of the risks/weaknesses involved are as follows:   * Inability to efficiently integrate acquired companies within the anticipated timeframes, which can be detrimental to the financial situation, operational results, and future business prospects. * Losing key individuals during acquisitions can result in a drop in customers and revenue or have other negative effects on the operations. * Failure to realize the potential benefits of each acquisition may result in loss of opportunities or delays in the realization of expected benefits. * OpenText has received some backlash for their ineffective or costly customer support services. * Providing support service is an integral part of the Cloud content management industry and the company offering the product must be available for its customers from initial setup till the conclusion of business. However, OpenText Corporation has faced a few challenges in effectively managing its support services and quite often the following issues are highlighted (Katolyk, 2018).   A picture containing text, font, screenshot, circle  Description automatically generated |

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| EXTERNAL FACTORS |
| OPPORTUNITIES + |
| * A significant portion of OpenText Corporation’s revenue comes from a small number of large customers. This presents an opportunity for OpenText to reach out to customers who are still partnered with smaller companies and using their inferior products. This will also be a chance for OpenText Corporation to enter emerging markets and open new branches in developing countries. As a result, the organization has an opportunity to diversify its workforce and hire a huge number of skilled workers (OpenText Corporation, 2022). * OpenText Corporation has partnered with some of the most prominent players in the enterprise software, hardware, and public cloud field. The partnership with tech pioneers such as SAP, Google Cloud, Amazon Web Services, Microsoft Corporation, Salesforce, and Oracle Corporation gives technical credibility to the OpenText Corporation. This opportunity enables them to extend their market reach and build stronger relationships with potential customers. (OpenText Corporation, 2022). * The cloud platform is a rapidly growing technology and numerous startups are evolving every day. These startups can leverage advanced technologies such as Artificial Intelligence or Machine learning to develop more efficient and cheaper alternatives to existing products. * OpenText Corporation’s R&D has been able to keep up with these technological advancements. Also, they have proved their competency through several home-grown products and services. With more investments in R&D, OpenText Corporation can expect to be the frontrunner in developing and implementing products that meet customer needs while reducing the total cost of ownership. * OpenText Corporation is also known for making significant acquisitions in the recent past and they can use their resources to evaluate more opportunities. They can also acquire an AI-based startup which will give them a head start in the AI implementation race (OpenText Corporation, 2022). * OpenText has a diverse workforce spread across the globe, with 49% employees in the Americas, 18% in EMEA, and 33% in Asia Pacific. Having a multicultural workforce has a range of benefits for an organization, including enhanced creativity, innovation, increased cultural awareness, improved customer service, and expanded market reach (OpenText Corporation, 2022). |

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| THREATS – |
| * OpenText Corporation’s software services, upgrades, and products must continue to work with common platforms. To develop new goods or enhance the current ones, the company must frequently combine its proprietary software with software that has been purchased from third parties. * OpenText Corporation might not be effective in creating or promoting new software goods, services, and improvements if they are unable to successfully integrate with third-party software. Moreover, if the integrated or new products are below market standards, the operating results could be materially adversely affected (OpenText Corporation, 2022). * Claims of infringement are common in the software industry. As a result, OpenText Corporation could be accused of violating the intellectual property rights of other businesses, which would significantly raise the costs and impair their capacity to make money in the future. There are already a few contingencies applied on OpenText Corporation by CRA, Carbonite & Realtime Data LLC which created a negative impact on the operating results (OpenText Corporation, 2022). * OpenText Corporation’s software products or services are extremely complex and sophisticated. Also, they occasionally may have hard-to-find and fix design flaws, software mistakes, hardware problems, or other computer system malfunctions. After the clients receive the new software products or services to integrate with the existing systems some errors, flaws, and/or other problems may be discovered. These defects often harm their reputation, are costly to correct, and can expose them to litigation (OpenText Corporation, 2022). * Climate change, natural catastrophes, terrorist attacks, power outages, telecommunications, system malfunctions, computer infections, physical attacks, and cyber-attacks are just a few of the elements that might interrupt business operations. OpenText Corporation’s capacity to carry out regular business operations could be seriously impacted by a major catastrophe or other catastrophic events that result in the loss or disruption of any of the vital business and Information Technology systems, including cloud services. Although the disaster recovery strategy has redundancy capabilities built into it, there is no guarantee that the systems or the data centers will stay completely operational both during and right after a disaster or disruption (OpenText Corporation, 2022). * OpenText Corporation’s business is supported by agreements with the federal, state, local governments of the United States, Canada, and other countries as well as the agencies that work for them. Most of these agreements are subject to immediate, without-cause termination. Both domestically and globally, working for these government bodies exposes OpenText Corporation to business volatility. The risks includes government budgeting cycles, appropriations, early termination, audits, investigations, sanctions, and penalties (OpenText Corporation, 2022). * Geopolitical instability, political unrest, war, and other international conflicts may have a negative impact on macroeconomic conditions. These impacts include market volatility, trade policy changes that are unfavourable, inflation, higher interest rates, disruptions to the supply chains, an increase in cybersecurity risks, and fluctuations in foreign exchange rates. These occurrences can also influence OpenText Corporation’s choice or capacity to do business in particular regions or with the organizations (OpenText Corporation, 2022). |

**PESTEL analysis**

The PESTEL analysis provides a detailed understanding of external opportunities and threats that exists for the OpenText Corporation. It provides a comprehensive assessment of external factors encompassing political, economic, social, technological, environmental, and legal aspects, as well as a study of the competitors within the industry. This analysis explains the influence of three key competitors (CGI Inc, Microsoft Corporation & IBM) of OpenText Corporation highlighting their potential positive or negative impact on the company’s prospects.

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| |  | | --- | | **P** | | | **POLITICAL** | |
|  |
| **Government Regulations** | * New Policies for Investing in data security and digitization. (Opportunity) * Regulations on data privacy and security, as per PIPEDA compliance. (Opportunity &Threat) |  |
| **Global Political Stability** | * Instances of political instability, conflicts, pandemic, or wars, such as the Russia-Ukraine war, can have an impact on the company's global operations. (Threat) * Global Expansion by Competitors (Threat) |  |
| **Legislative Changes** | New Legislations in the Minimum Wage (Opportunity/Threat) |  |
| **Trading and Embargo Policies** | Relaxation in international trade regulations and tariffs. (Opportunity) |  |
| **Tax and Benefits** | Changes in Government Tax Policies may impact (Threat) |  |

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| |  | | --- | | **E** | | |  | | **ECONOMIC** | |
|
| **Economic Growth** | The economic stability of the countries where OpenText Corporation operates. (Opportunity & Threat) |
| **Inflation and Interest Rates** | Inflation in the countries where the company operates and increased interest rates on debts (Threat) |
| **Global Economy** | Strong Economies Emerging in developing countries (Opportunity) |
| **Stability of Financial Markets** | Fluctuations in currency rates and the stability of the Canadian dollar can impact the company's financial results. (Opportunity & Threat) |
| **Recession** | Global recession can have adverse effects on the company's finances and operations. (Thread) |

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| |  | | --- | | **S** | | | **SOCIAL** | |
|
| **Demand & Trends** | * The high demand for cloud services, data integration, and protection worldwide presents opportunities for the company. (Opportunity) * The demand for customer service operations creates further opportunities. (Opportunity) |
| **Customers & Employees** | * Customers are attracted more towards products/services offered by competitors (Threat) * The Flex-Office Program, allowing remote work for employees and customers, leads to greater satisfaction. (Opportunity) |
| **Education** | The availability of a skilled population is advantageous. (Opportunity). |
| **Competitors** | Mergers and acquisitions by competitors can impact the industry landscape. (Opportunity & Threat) |
| **Demographics** | The price of the products or services might be expensive in some countries. (Threat) |
| **Workforce** | A diverse workforce enables stronger customer service. (Opportunity) |

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| |  | | --- | | **T** | | | **TECHNOLOGICAL** | |
|
| **Innovations** | * Advancement in cloud & data protection technology. (Opportunity) * New products / solutions being released by competitors. (Threat) |
| **Infrastructure** | The stability of infrastructure software can impact the effectiveness of the company's products. (Opportunity & Threat) |
| **Patents/Licenses** | Possibilities of increase in licensing costs from third-party service vendors. (Threat) |
| **Communication and Information Tech Trends** | High Internet usage leads to the storage of large amounts of data. (Opportunity) |
| **Technological Developments** | Competitors offer less expensive and highly efficient products. (Threat) |

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| |  | | --- | | **E** | | | **ENVIRONMENTAL** | |
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| **Sustainable environment** | Creating a sustainable environment through the development of environmentally sound technologies. (Opportunity) |
| **Emissions** | Changes in environmental regulations, and standards aiming to reduce emissions (Opportunity & Threat) |
| **Global Warming** | Reducing paper usage by increasing digital transactions can control global warming. (Opportunity) |
| **Waste** | Leveraging technology to reduce operational waste is emphasized. (Opportunity) |

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| |  | | --- | | **L** | | | **LEGAL** | |
|
| **Intellectual Property Law** | Laws or regulations concerning cloud computing, AI, and intellectual property shape the company's operations. (Opportunity & Threat) |
| **Patents / Copyrights** | Improved patent and copyright laws by competitors can impact the company. (Opportunity & Threat) |
| **Taxation Laws/ Benefits** | The government of the country where the company operates has implemented improved taxation laws. |
| **Emission (Carbon) Tax Laws** | Modifications in Environmental laws and regulations pertaining to emissions |

**Balanced Scorecard**

The Balanced Scorecard (BSC) is a business system that offers information to identify, enhance or control a company’s numerous internal business functions and external outcomes. This strategy works wonders for monitoring your progress toward your objectives and determining if the organization is headed in the right direction.

The balanced scorecard encompasses four business perspectives, which are Financial, Customer, Internal processes, learning and growth. For each of these perspectives, specific Key Performance Indicators (KPIs) have been identified to facilitate further evaluation.

**Financial Perspective:**

1. Revenue growth - This KPI is used to assess the year-on-year increase in the company’s total revenue, indicating its ability to expand and generate more revenue.
2. Profit Margin – Indicates the percentage of profit the company makes from its total revenue.
3. Return on Investment – This metric is the most essential indicator of a company’s financial performance; the value is calculated by comparing the net income against the total cost of investment.
4. Earnings per Share (EPS) - Earnings per Share calculates the company's net earnings divided by the total number of outstanding shares, providing a measure of profitability on a per-share basis.

**Customer Perspective:**

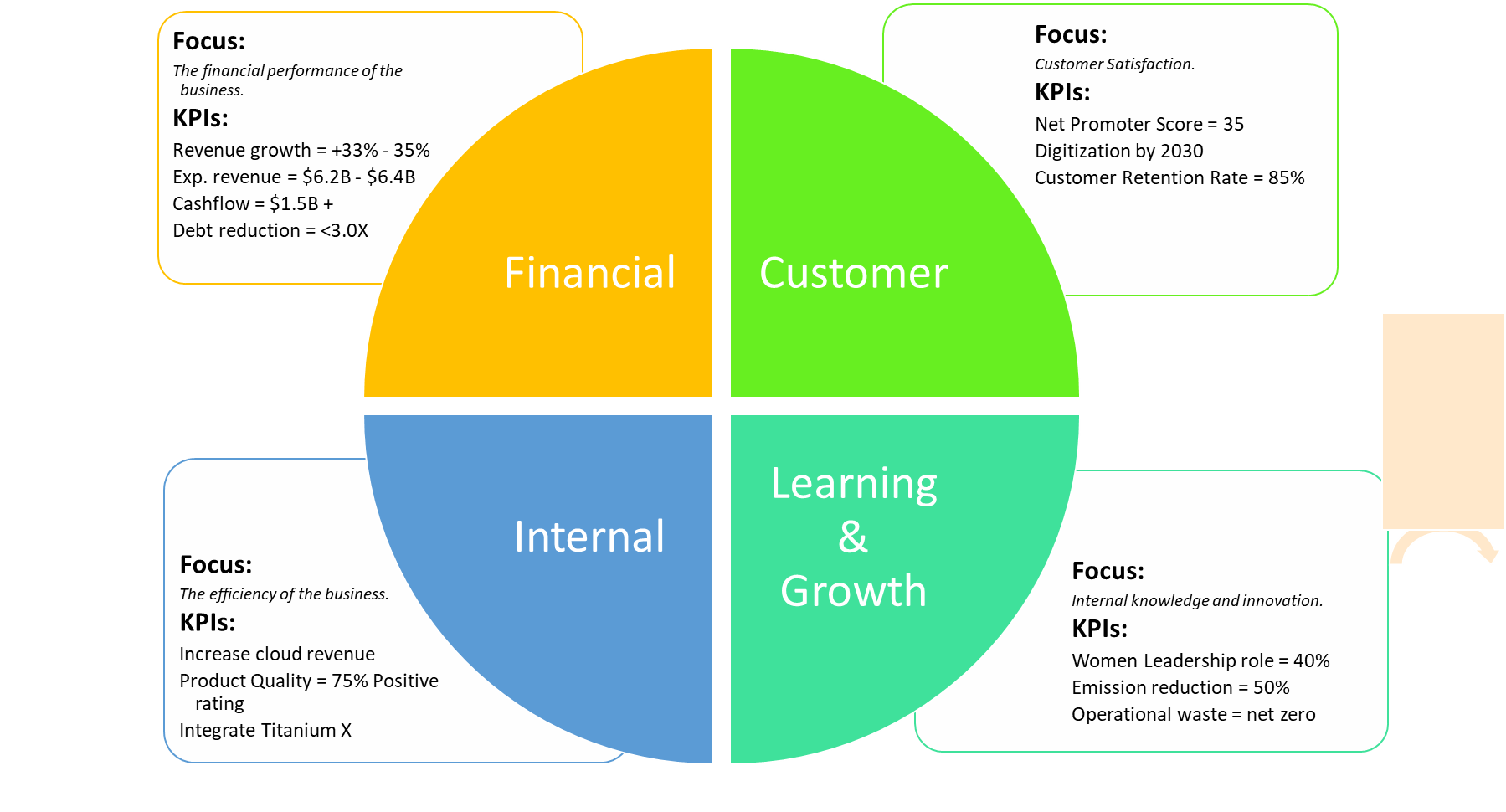
1. Net Promoter Score – This metric is used to gauge the satisfaction of a firm’s customer relationships and is calculated using the customer’s response to the question: "On a scale of 0 to 10, how likely are you to recommend the product to a friend?". Responders with a score of 9 to 10 are called promoters, ones with scores of 7 to 8 are called passives, while those with a score range of 0 to 6 are called Detractors.
2. Market Share – The percentage of total sales or revenue that a company holds within its relevant market is called its market share.
3. Customer Retention Rate – The customer retention rate is calculated by identifying the percentage of customers that continue to do business with a company year on year.

**Internal Processes Perspective:**

1. Research & Development – The percentage of revenue spent by a company on its R&D denotes its inclination towards innovation and adaptability.
2. Product Quality – This metric assesses the level of excellence and conformance to customer requirements in the company's offerings, influencing customer satisfaction.

**Learning & Growth Perspective:**

1. Employee Satisfaction – This metric is calculated using employee reviews on various factors such as work life balance, growth opportunities and work culture. The scores can be used to evaluate contentment and commitment of employees to their work.
2. Innovation Rate – Innovation rate quantifies the number of patents introduced by a company.



**Balanced Scorecard Explained**

**Financial Objectives:**

1. Increase revenues
2. Favourable Return on Investment Capital (ROIC)
3. Increase profitability.
4. Reduce Debts

**Metrics:**

1. Revenue growth
2. A-EBITDA margin
3. Free cash flow %

**Targets:**

1. Total revenue growth rate + 33% to 35%
2. Expected Revenue $6.2B to $6.4B by 2026.
3. Targeted A-EBITDA Margin 38% - 40% by 2026
4. Free cash flow targeted to reach $1.5B+ by 2026.
5. Debt reduction up to <3.0X within 8 full quarters.

**Customers:**

**Objectives:**

1. Build Trust and satisfaction.
2. L.O.V.E model (Land, Operate, value, Expand)
3. Customer retention.
4. Fast Delivery and Customer services.

**Measures:**

1. Customer satisfaction.
2. Annual Sales & revenue.
3. Customer retention.
4. Number of new customers.

**Target:**

1. Total Enterprise Reinvention & Digitization by 2030.

**Learning and Growth:**

**Objectives:**

1. Promote a Multicultural & diverse workforce.
2. Encourage women to assume leadership roles.
3. Promote Employee wellness.
4. Zero Footprint

**Measures:**

1. Employee satisfaction & retention.
2. Operational & emission waste.

**Target:**

1. 50% Reduction in Emission by 2030; net zero by 2040
2. Zero operational waste by 2030
3. Women contributing 40% of leadership positions by 2030.
4. Diverse Workforce by 2030.

**Internal Business Objective:**

1. Cloud-based digital transformation (Project Titanium).
2. Integrate AI & Selected Cyber Security Applications to products.
3. Human-centric Workplaces.
4. Modernize Apps

**Measures:**

1. Schedule & Release
2. Revenue & Growth
3. Annual Report

**Target:**

1. Complete Integration of Titanium X with Micro Focus by 2026
2. By 2026, Cloud Returns will contribute the majority of the revenue.

## **Microsoft**

Microsoft excels remarkably across all four business perspectives as one of the world's leading organizations. With a notable financial growth rate of 8.34% and a substantial profit margin of 22%, Microsoft ranks among the top earners globally. Furthermore, boasting an impressive return on investment of 57% and an EPS of $2.1, the company stands as a favourite among its investors.

The other perspectives also reveal a similar picture, as Microsoft holds a staggering market share of 23% and boasts a remarkable net promoter score of 40, indicating the strong affinity customers have for the brand. Moreover, Microsoft's commitment to innovation shines through its substantial investment in research and development, creating high-quality products that receive an average of 82% positive reviews.

Thanks to this dedication to R&D and the unwavering commitment of its employees, Microsoft has garnered over 35,000 approved patents to date, further cementing its status as a trailblazer in the industry. Overall, Microsoft's outstanding performance across all four perspectives underscores its position as a global leader, beloved by both customers and investors alike.

**SWOT Analysis**

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| INTERNAL FACTORS |
| STRENGTHS + |
| Microsoft enjoys strong brand recognition and trust in the technology industry. It has a significant presence across the globe, well-known for the high quality of the software products and services it offers.  The corporation is proud of its diverse product portfolio, which allows it to provide customers with a wide variety of goods and services. Some examples of these goods and services include operating systems (Windows), productivity software (Microsoft Office), cloud services (Azure), along with gaming (Xbox). This diversity reduces Microsoft's reliance on any single product or market.  Microsoft holds a leading position in the cloud computing market, primarily due to its Azure platform. Its focus on cloud services has enabled effective competition with major players like Amazon Web Services (AWS) and Google Cloud Platform  The company consistently demonstrates strong financial performance, generating significant revenue and profit. This financial stability allows Microsoft to invest in research, development, and acquisitions to further its growth. |

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| WEAKNESSES – |
| Despite its diversified product portfolio, Microsoft heavily depends on its Windows operating system. Changes in the PC market or the adoption of alternative operating systems could impact the company's revenue.  Microsoft faces intense competition from various companies, including Google, Apple, and Amazon, across multiple markets. In areas like mobile devices, the company has struggled to gain significant market share.  Microsoft's efforts with Windows Mobile as well as acquisitions like Nokia's mobile division, have not resulted in a substantial presence for the company in the market for mobile devices, which is still dominated by Android and iOS. Windows Mobile and Nokia's mobile division were both acquired by Microsoft. |

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| EXTERNAL FACTORS |
| OPPORTUNITIES + |
| The cloud market continues to grow rapidly, presenting Microsoft with opportunities to expand its Azure platform and other cloud services. The increasing adoption of cloud solutions by businesses and governments offers Microsoft a chance to capitalize on this trend.  Microsoft's ability to enhance user experiences while developing new revenue streams by incorporating AI into its products is made possible by its investment in artificial intelligence (AI) technology, including its Azure AI platform and AI-driven applications.  The expansion of the Internet of Things (IoT) presents opportunities for Microsoft to offer solutions for managing linked devices as well as information by capitalizing on the company's strengths in cloud computing and artificial intelligence.  The expanding gaming industry provides Microsoft's Xbox platform and gaming services with the potential to be a significant revenue driver. Its entertainment offerings, such as streaming services, can further diversify its revenue streams. |

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| THREATS – |
| Microsoft confronts competition from well-established competitors and startups in a variety of different areas due to the intense level of competition in the technology business.  Microsoft is susceptible to potential privacy breaches and cybersecurity attacks due to the large number of users it serves with the cloud services it provides. Any data breaches or mishandling could harm the company's reputation and lead to legal consequences.  Microsoft is susceptible to a variety of rules and antitrust scrutiny in different countries because it is a global firm. This could have an effect on the company's operations and business practices.  Microsoft is required to continually innovate to embrace new trends and technologies to maintain its competitive edge to continue to develop in order to keep up with the quickly evolving technological landscape.  Microsoft's strong brand, diverse product portfolio, and cloud leadership position it well for future growth. However, addressing challenges related to competition, mobile market presence, and cybersecurity is crucial to sustaining its success. |

**PESTEL Analysis**

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| --- | --- |
| **COMPONENTS** | **RELEVANT ISSUES AND EFFECTS** |
| POLITICAL FACTORS  Elections, change of government leadership, potential policy changes, the rule of law, etc. | * Microsoft operates globally, so changes in international trade policies can impact its supply chain and market access. * Political tensions can also affect the above-mentioned factors. * Regulatory actions may affect Microsoft's market dominance and business practices. |
| ECONOMIC FACTORS  Economic growth or stagnation, interest rates, exchange rates, inflation, unemployment, etc. | * Economic downturns can impact consumer and business spending on software services. * Currency fluctuations can influence Microsoft's revenue from international sales. |
| SOCIAL FACTORS  Population and demographic changes, health conditions, level of education, social mobility, social attitudes, religious beliefs, socio-cultural changes, etc. | * Shifts in consumer preferences may impact demand for Microsoft's products and services. * Digital inclusion and accessibility concerns may influence product development. This may result in impacting marketing strategies. |
| TECHNOLOGICAL FACTORS  Changes in the availability or price of new technologies, technological infrastructure, potential changes in technological standards, etc. | * Rapid technological advancements create both opportunities and threats for Microsoft's product portfolio. * Cybersecurity threats require continuous investment in robust solutions. |
| LEGAL FACTORS  Labour laws, relevant court cases, employment regulations, etc. | * + Compliance with data privacy regulations like GDPR is crucial for Microsoft's global operations.   + Intellectual property protection is essential to safeguard Microsoft's innovations. |
| ENVIRONMENTAL FACTORS  Climate, weather, energy consumption regulations, etc. | * + Microsoft has made sustainability commitments so that environmental concerns may influence its operations and investments.   + Energy consumption and carbon emissions from data centers are essential factors to address. |

**Balanced Scorecard**

A diagram of a company

Description automatically generated

Microsoft's strong brand, diverse product portfolio, and cloud leadership position it well for future growth. However, addressing challenges related to competition, mobile market presence, and cybersecurity is crucial to sustaining its success.

## **CGI**

CGI, a renowned Canadian multinational organization, is highly regarded for its loyal customer base and exceptional service record, propelling its rapid growth in the IT industry. With a steady revenue growth rate of 6.1% and a profit margin of 9.2%, CGI is poised to join the ranks of major players in the industry in the upcoming years.

Impressively, CGI's return on investment stands at 14%, and its earnings per share amount to $6.04, making it a top choice in investment portfolios for discerning investors.

Although relatively new to the cloud industry, CGI is steadily making strides. While its market share is yet to be established, CGI's customer retention rate of 83% speaks volumes about the trust it has earned from its clientele, despite an average net promoter score (NPS) of 26.

The products and services offered by CGI have earned high praise, with an impressive 84% positive review rate. Furthermore, the company’s employees express satisfaction with the work culture and growth opportunities, as evidenced by an 80% satisfaction rating.

To date, CGI has acquired 109 patents, showcasing its commitment to innovation and advancement in the industry.

**SWOT Analysis**

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| INTERNAL FACTORS |
| STRENGTHS + |
| CGI has a strong global footprint, with operations in several countries and the ability to serve customers all over the world with IT consulting, outsourcing, including system integration services.  The company serves a diverse clientele spanning various industries, including government, healthcare, financial services, utilities, and more. This diversity mitigates its reliance on any particular sector, spreading risk effectively.  CGI has a wealth of industry experience and expertise because of the fact that it has provided information technology solutions as well as services to a variety of different sectors.  This proficiency enables them to offer tailored solutions that meet the specific needs of their clients.  The organization has built a solid name for itself by consistently providing services that are of high quality also reliability, by cultivating long-term partnerships, and by encouraging customers to return for additional business. |

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| WEAKNESSES – |
| A significant portion of CGI's revenue is derived from government contracts, making it dependent on government clients. This exposes the company to fluctuations in government spending and budget constraints.  CGI's growth through acquisitions poses challenges in integrating new entities and technologies smoothly.  While CGI is well-regarded within the IT industry, its brand recognition might not be as strong compared to some other major global IT services providers. |

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| EXTERNAL FACTORS |
| OPPORTUNITIES + |
| CGI's information technology consulting including systems integration services are poised to capitalize on enormous growth prospects made available by the increased reliance on technology and digital transformation across all industries.  With the increasing demand for cloud-based solutions, CGI can capitalize on this trend by expanding its offerings in cloud services and assisting clients in their transition to the cloud.  Given the rising frequency of cyber threats and data breaches, CGI can leverage its expertise in cybersecurity to provide robust security solutions to its clients.  CGI can play a crucial role in assisting organizations with their digital transformation journeys, optimizing processes, enhancing customer experiences, and maintaining competitiveness in the digital age. |

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| THREATS – |
| CGI operates in a fiercely competitive market, facing numerous global and regional IT services providers. Competing for contracts and retaining clients can prove to be challenging.  The company's business is susceptible to economic volatility, as companies and governments may reduce IT spending during economic downturns.  The IT industry faces difficulties in recruiting and retaining top talent due to the high demand for skilled professionals.  Rapid technological advancements pose a threat if CGI fails to keep pace with emerging trends and innovative solutions. |

**PESTEL analysis**

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| **COMPONENTS** | **RELEVANT ISSUES AND EFFECTS** |
| POLITICAL FACTORS  Elections, change of government leadership, potential policy changes, the rule of law, etc. | * CGI operates in multiple countries, so changes in government policies, trade agreements, and regulations in those regions can impact its operations. * Political stability in key markets can affect business continuity and long-term planning. |
| ECONOMIC FACTORS  Economic growth or stagnation, interest rates, exchange rates, inflation, unemployment, etc. | * Economic fluctuations in various regions may impact CGI's revenue and profitability. * Currency exchange rates can influence costs and pricing for CGI's global operations. |
| SOCIAL FACTORS  Population and demographic changes, health conditions, level of education, social mobility, social attitudes, religious beliefs, socio-cultural changes, etc. | * Demographic trends including cultural differences can affect CGI's marketing strategies and product offerings. * Technological literacy and adoption rates can influence CGI's IT services demand. |
| TECHNOLOGICAL FACTORS  Changes in the availability or price of new technologies, technological infrastructure, potential changes in technological standards, etc. | * Rapid technological advancements may require CGI to continually invest in research and development to remain competitive. * Embracing new technologies like AI, cloud computing, and cybersecurity can provide growth opportunities. |
| LEGAL FACTORS  Labour laws, relevant court cases, employment regulations, etc. | * + Compliance with data protection and privacy laws is essential due to the sensitive nature of CGI's IT services.   + Contractual agreements with partners and legal disputes with clients can influence CGI's reputation. |
| ENVIRONMENTAL FACTORS  Climate, weather, energy consumption regulations, etc. | * + CGI may face increasing pressure to adopt sustainable practices and reduce its environmental impact.   + Compliance with environmental regulations in various countries can affect its operations. |

**Balanced Scorecard**

A diagram of a company's company

Description automatically generated

In conclusion, CGI's strengths lie in its global presence, diverse client base, and industry experience. CGI should focus on reducing its reliance on government contracts, streamlining the integration of acquisitions, as well as capitalizing on opportunities in the growing IT services market, cloud services, cybersecurity, along with digital transformation in order to strengthen its position in the competitive IT services industry. These are the three main areas in which CGI can improve its standing in the industry. It will be essential for CGI to address these problems, in addition, capitalize on these opportunities if the company is to maintain and improve its place in the market.

## **IBM**

IBM, a pioneer and a prominent technology giant in the IT industry, has a long-standing reputation as an early innovator. While its revenue growth has stabilized in recent years without significant increases, the company remains a secure investment choice for its investors, owing to its steady ROI of 12% and a respectable EPS of $2.13.

IBM's products and services garner a decent net promoter score of 26, reflecting a satisfactory level of customer satisfaction. Moreover, the company boasts an impressive 83% customer retention rate, indicating a loyal and devoted customer base.

In the competitive cloud computing industry, IBM holds a market share of 1.88%. Despite being one of the oldest IT companies globally, IBM's relevance endures, thanks to its unwavering commitment to research and development, with a significant 12% investment of its revenue dedicated to this endeavor annually.

One of IBM's most significant achievements is its vast portfolio of over 150,000 active patents, highlighting the company's continuous pursuit of innovation. The quality of IBM's products and services is commendable, with 79% of reviews being positive. Additionally, the company maintains a high level of employee satisfaction, with an impressive rating of 81%.

**SWOT Analysis**

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| INTERNAL FACTORS |
| STRENGTHS + |
| IBM is regarded with esteemed as one of the most recognizable brands in the technology business. The company has a lengthy track record of innovation and leadership, which contributes to its high level of prestige.  The company provides a wide variety of goods and services, which include hardware, software, cloud solutions, artificial intelligence, consultancy, as well as technology services. These are only some of the offerings.  This wide-ranging portfolio allows IBM to cater to the varying needs of different industries and customers.  IBM has clients across several nations as well as continents thanks to its strong worldwide presence, which offers the corporation access to a diverse range of markets and a number of different revenue sources.  IBM focuses a considerable emphasis on research as well as development, which means that as a result, the company makes significant investments in innovative technology and solutions.  This unwavering commitment to R&D enables IBM to stay at the forefront of technological advancements. |

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| WEAKNESSES – |
| IBM has encountered a decline in revenue in recent years, primarily due to the slowdown in its legacy hardware and software businesses.  The company has faced challenges in transitioning its traditional software and services to the cloud, lagging behind some of its competitors in this rapidly growing market.  The huge and complicated organizational structure of IBM might at times result in sluggish decision-making that therefore impairs the company's ability to be agile. |

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| EXTERNAL FACTORS |
| OPPORTUNITIES + |
| IBM has the opportunity to seize the growing demand for cloud services by expanding its cloud offerings and leveraging its acquisition of Red Hat to fortify its cloud portfolio.  IBM is able to explore major prospects in a variety of areas, including healthcare, finance, and cybersecurity, thanks to its strength in artificial intelligence as well as information analytics.  As the Internet of Things (IoT) adoption increases, IBM can provide solutions for managing and analyzing the vast amounts of data generated by connected devices.  The ongoing investigation and implementation of blockchain solutions by IBM presents the possibility of applications in a variety of domains, including the management of supply chains, the processing of financial transactions, as well as additional areas. |

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| THREATS – |
| IBM faces fierce competition from major technology companies like Microsoft, Amazon, Google, and Oracle across various segments.  The rapid pace of technological changes necessitates continuous innovation from IBM to maintain its relevance and stay ahead of the competition.  The increasing focus on data security and privacy poses challenges for IBM, as clients demand robust solutions to safeguard their sensitive information.  Economic volatility can impact IBM's business, as companies may reduce their IT spending during uncertain economic conditions. |

**PESTEL Analysis**

|  |  |
| --- | --- |
| **COMPONENTS** | **RELEVANT ISSUES AND EFFECTS** |
| POLITICAL FACTORS  Elections, change of government leadership, potential policy changes, the rule of law, etc. | * IBM operates in multiple countries, making it vulnerable to political changes and trade policies. * Government contracts and regulations can significantly impact IBM's revenue. |
| ECONOMIC FACTORS  Economic growth or stagnation, interest rates, exchange rates, inflation, unemployment, etc. | * Economic downturns can affect IT spending, like demand for IBM's products and services. * Currency fluctuations can influence IBM's financial results in international markets. |
| SOCIAL FACTORS  Population and demographic changes, health conditions, level of education, social mobility, social attitudes, religious beliefs, socio-cultural changes, etc. | * Social trends and customer preferences can affect IBM's product development, which in turn might affect marketing strategies. * An aging workforce and talent shortages in the tech industry may impact recruitment. |
| TECHNOLOGICAL FACTORS  Changes in the availability or price of new technologies, technological infrastructure, potential changes in technological standards, etc. | * Rapid advancements in AI, cloud computing, and quantum computing offer both opportunities for IBM. Sometime, it can bring challenges to the organization, too. * Competition from emerging startups can disrupt traditional business lines. |
| LEGAL FACTORS  Labour laws, relevant court cases, employment regulations, etc. | * + Data privacy and security regulations impact IBM's offerings. This could adversely affect the cloud and AI domains.   + Intellectual property protection is essential for safeguarding IBM's research and innovations. |
| ENVIRONMENTAL FACTORS  Climate, weather, energy consumption regulations, etc. | * + IBM's sustainability efforts and energy-efficient solutions are crucial in addressing environmental concerns.   + Compliance with environmental regulations in various regions can impact its operations. |

**Balanced Scorecard**

A diagram of a company

Description automatically generated

In conclusion, IBM's strengths include its well-established brand awareness, wide product range, global reach, and concentration on advances in technology. All of these factors contribute to the company's overall success. However, the company must address challenges in adapting to the cloud era, declining revenue in certain segments, and intense competition. In order for IBM to capitalize on prospects, the company needs to expand its cloud products, make use of its expertise in AI and data analytics, like investigating future technologies such as the Internet of Things including blockchain. In order for IBM to keep its position as a top technology supplier in the extremely competitive global market, it will be essential for the company to address its shortcomings and successfully navigate potential challenges.

## **Weights and Ratings**

The weights assigned to each criterion in the table below are derived from market standards and the significance OpenText Corporation attributes to each perspective. Individual scores are calculated based on the average performance of each organization across the various KPIs.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Criteria | Weight | OpenText | Microsoft | IBM | CGI |
| Financial | 40% | 78 | 90 | 75 | 84 |
| Customer | 30% | 70 | 90 | 70 | 68 |
| Internal | 15% | 82 | 85 | 80 | 84 |
| Learning & Growth | 15% | 80 | 80 | 85 | 75 |

Calculation:

Utilizing the assigned weights and ratings, the following table calculates a final score to quantify the overall performance of each company. This final score provides a comprehensive and standardized evaluation of the companies based on their performance across different criteria.

|  |  |  |
| --- | --- | --- |
| Company | Calculation | Weighed Score |
| OpenText | 40% \* 78 + 30% \* 70 + 15% \* 82 + 15% \* 80 | 76.5 |
| Microsoft | 40% \* 90 + 30% \* 90 + 15% \* 85 + 15% \* 80 | 87.75 |
| IBM | 40% \* 75 + 30% \* 70 + 15% \* 80 + 15% \* 85 | 75.75 |
| CGI | 40% \* 85 + 30% \* 68 + 15% \* 84 + 15% \* 75 | 77.85 |

# **Summary of OpenText Corporation’s existing functionality**

## **Current Position**

OpenText Corporation provides clients with information management solutions and cloud-based products/ subscriptions. The organization primarily focuses on increasing its revenue from cloud-based products/solutions. The current revenue derived from cloud-based products is only about 43.9 %. OpenText Corporation is looking for solutions to increase its revenue and promote brand visibility.

## **Existing functionality**

Some of the products offered by OpenText Corporation are as follows:

1. OpenText Content suite

2. OpenText Magellan

3. OpenText Extended ECM

4. OpenText Documentuum

5. OpenText TradingGrid

OpenText Corporation’s current process involves analyzing the client organization’s functionality needs and providing software solutions /services based on their requirements. The OpenText content suite will efficiently store, manage, and distribute the content across the organization if the client is looking for a content management solution. OpenText Documentuum is a cloud-based content management platform that can facilitate content management. OpenText Magellan is the best fit if the client expects business intelligence solutions. OpenText Magellan is an AI-powered analytics tool that can facilitate data analytics, prediction, and generate reports. All the above products cover a broad area to support the organization’s content and information management. Despite the organization providing various products for B2B integration, OpenText Corporation does not offer standalone project management software to handle project-related tasks. OpenText Corporation is integrating its existing products with third-party software to provide project management services to its client organizations. This provides an overall view of the existing functionalities of OpenText Corporation.

## **Background**

OpenText Corporation is a prominent provider of Information Management Products, with a significant portion of its revenue derived from Cloud-based products and subscriptions. However, the financial report for the third quarter of the fiscal year indicates that the revenue generated from these cloud-based products accounts for less than half—precisely 43.9%. Additionally, the organization is trying to expand its market worldwide by increasing customer satisfaction and retention rates. This indicates a gap that OpenText Corporation must address to expand its market presence and strengthen its position in the industry.

OpenText Corporation is currently focusing on enhancing its market presence and meeting the evolving needs of its clients. By the end of 2024, the organization expects significant growth in its cloud-based revenue, targeting an increase of up to 35%. However, if we look at the financial report for the Third Quarter Fiscal Year, the revenue made by these cloud-based products and subscriptions accounts for only 43.9% (less than 50%) of the total revenue (OpenText Corporation,2023). Additionally, the report reveals that the revenue derived from the Asia-Pacific region (despite being a huge market) comprises only 8% of the overall revenue. Currently, the organization focuses on providing more cloud-based products like its competitors.

OpenText Corporation can further capitalize on the growing demand for cloud-based solutions by offering a more comprehensive range of products and solutions in this domain to address this gap. Introducing a cloud-based project management Software is an ideal opportunity for OpenText Corporation to address the increasing demand for cloud-based products/ solutions. By integrating the proposed software with the existing Enterprise Information Management (EIM) suite, the company can boost the overall customer experience and provide client organizations with an efficient means to simplify their project management processes.

The proposed software aligns perfectly with OpenText Corporation's goal of delivering cloud-based solutions to its clients. By providing an EIM suite, the company can promote customer satisfaction and retention while solidifying its position among its competitors. Before implementing the proposed product, OpenText Corporation should conduct thorough market research, analyze competitors that provide similar products, and develop the software based on the customers' requirements. This approach will help OpenText Corporation to bridge the identified gap and establish itself as an industry leader among its competitors.

By addressing the market demand and leveraging its expertise in Information Management Products, OpenText Corporation can seize the opportunity to thrive in the cloud-based project management software space. By implementing the proposed solution, OpenText Corporation can fortify its market position and boost its overall revenue.

**Business Demands and Hurdles Faced by OpenText Corporation**

Amid its notable achievements, OpenText Corporation confronts distinct obstacles within its project management processes that call for inventive remedies. The intricacy of overseeing a diverse spectrum of projects across its expansive product array and the necessity to guarantee seamless teamwork introduces significant challenges to the enterprise.

**1.** **Dispersed Tools for Project Management:**

OpenText Corporation presently relies on various tools and systems for its project management endeavours. This results in isolated pockets of data and restricted collaboration amongst teams. This disarray obstructs effective project synchronization, leading to inefficiencies and the potential for time setbacks.

**2. Absence of Integration:**

The absence of seamless integration between current OpenText Corporation’s products and project management tools poses a formidable predicament. This disparity erects barriers to fluid data transfer, hampers the immediate exchange of information, and could lead to redundant efforts in project management.

**3. Restricted Insight and Reporting:**

OpenText Corporation’s current project management methods may be deficient in all-encompassing insights and real-time reporting capabilities. This deficiency makes it arduous for project managers to promptly access critical project status updates and vital performance indicators.

**4. Struggles with Resource Allocation:**

Deftly allocating resources is an intricate endeavor for a corporation like OpenText Corporation, navigating an array of simultaneous projects. The challenge lies in effectively distributing resources across projects to forestall bottlenecks and lateness. This necessitates sophisticated planning and vigilant monitoring mechanisms.

**5. Preoccupations with Data Security:**

Being a custodian of sensitive customer data mandates an unyielding focus on data security and confidentiality at OpenText Corporation. Fortifying data integrity and implementing safeguards against data breaches are critical imperatives to uphold clients' trust.

**6. Contentment of Clients and Brand Recognition:**

Upholding elevated levels of customer satisfaction and augmenting the recognition of its brand comprise pivotal facets of OpenText Corporation’s strategic ambitions. Delivering solutions that pivot around customer preferences and needs is integral to nurturing enduring customer relationships.

## **Preliminary Results**

OpenText Corporation prioritizes revenue growth by providing enhanced cloud-based solutions to its clients. However, compared to the competitors, OpenText Corporation’s earnings from its cloud-based products and solutions are significantly lower than its competitors, who generate higher profits from similar products. This is illustrated in Fig 1. Total Revenue comparison with current direct competitors, which presents a comparison of revenue between OpenText Corporation and its competitors.

A red line on a white background

Description automatically generated with low confidence

Fig 1. Total Revenue comparison with current direct competitors

A picture containing text, screenshot, diagram, software

Description automatically generatedMoreover, despite the organization's primary source of income being cloud-based subscriptions and products, the revenue derived from these products accounts for less than 50% of the overall revenue. This information is depicted in the provided graph (Fig 2: Revenue by Product type), which presents a breakdown of the revenue for each product category.

Fig 2. Revenue by product type at OpenText Corporation in 2022

The Net Promoter Score\* (NPS) of the company falls within the range of 20-22, indicating an average level of customer satisfaction. The graphs (Fig 3. NPS trend for OpenText Corporations) represent the trend of OpenText Corporation’s NPS over the last year and compare it with competitors. While the organization strongly focuses on increasing cloud-based revenue, improving customer satisfaction and retention, there is room for growth as well as improvement.

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Fig 3. NPS trend for OpenText Corporation over last year and NPS comparison with direct competitors

In comparison to leading cloud-based service providers, OpenText Corporation exhibits a lower customer retention rate. This is clearly indicated by the accompanying tree map (Fig 4. Customer Retention rate), where OpenText Corporation's customer retention rate is depicted at 88%. In contrast, Monday.com, a prominent player in the cloud service provider industry, boasts a customer retention rate of 130%.

A screenshot of a graph

Description automatically generated

Fig 4. Comparison of Customer Retention Rate

When examining OpenText Corporation's revenue distribution across regions (Americas, Asia Pacific, and EMEA), it becomes apparent that the revenue generated from the Asia Pacific region is significantly lower at $104,275K, which is far less than the revenue generated from the Americas, which amounts to $1,155,918K. This difference is evident in Figure 5, which presents OpenText Corporation's Cloud revenue breakdown by region for the year 2022. Despite the huge market potential, the organization struggles in establishing a strong presence in the Asia-Pacific region.



Fig 5. OpenText Corporation’s Cloud revenue by region

**Desired Position:**

The main objective of the OpenText Corporation is to increase the revenue of its cloud-based products, strengthen its position in the market and promote brand awareness worldwide. The proposed solution includes implementing a cloud-based project management software that seamlessly integrates with the existing Enterprise Information Management (EIM) suite. This strategic move aligns with the company's objective of delivering cloud-based solutions. Additionally, it aims to elevate customer satisfaction and retention rates.

**The Gap:**

The gap is caused by the fact that less than fifty percent of overall revenue originates from cloud-based products/solutions. Additionally, the NPS shows that clients’ retention and satisfaction rate is below average, which means there is an opportunity for growth. The primary goal of the company is to address that gap by introducing a new cloud-based product that can improve the organization’s revenue and increases customer satisfaction. By doing this, OpenText Corporation will be able to increase its revenue by about 60% and raise the NPS to nearly 35 which can aid in the organization’s growth.

In summary, the preliminary results reveal that OpenText Corporation currently generates less than 50% of its revenue from cloud-based products, and the NPS indicates an average level of customer satisfaction. The objective is to close this gap by implementing a cloud-based project management software integrated with the EIM suite, to increase the revenue share from cloud-based products to around 60% and achieve an NPS of approximately 35. This idea will establish OpenText Corporation as a leader in the market, driving revenue growth. Revenue growth will result in boosting customer satisfaction and retention.

\*\*Net Promoter Score: A customer loyalty metric measures the customer’s willingness to repurchase from the organization and their likelihood to recommend the product to their friends or family.

**Description of the problem to be solved:**

OpenText Corporation is encountering a notable hurdle as it strives for increased revenue and market prominence in cloud-based solutions. While the company is committed to improving its cloud-based services, its current profits from these goods are noticeably lower than those of its main rivals. This problem is shown by Figure 1 Total revenue comparison, which shows OpenText Corporation to be less profitable than other providers of comparable cloud-based products.

Further analysis shows that even if cloud-based products and subscriptions are the company's primary source of revenue, less than half of it comes from these services. Figure 2 illustrates this by decomposing the revenue distribution by product type. Additionally, OpenText Corporation's Net Promoter Score (NPS) ranges from 20 to 22, which indicates a moderate level of client satisfaction. Figure 3 highlights the potential for growth and improvement in customer satisfaction by displaying the NPS trend over the last year. The trend contrasts with the competitors, who have more customer satisfaction than the OpenText Corporation.

Compared to industry leaders, OpenText Corporation's customer retention rate lags them, revealing a difference. This disparity is shown in Figure 4, where OpenText Corporation's retention rate is 88%, but Monday.com's rate is 130% higher.

Significantly, the revenue distribution across regions unveils a substantial contrast between the Asia Pacific and the Americas, with the latter outpacing the former. This divergence becomes evident in Figure 5, which meticulously delineates the Cloud revenue distribution across regions for 2022. The Asia-Pacific region's struggle to carve a significant niche despite its market potential is unmistakable.

Hence, the focal challenges encompass augmenting revenue generation from cloud-based solutions which in turn elevating client retention, satisfaction, and market visibility. The current revenue landscape is characterized by cloud-based products contributing less than half of the total revenue, thereby pinpointing a gap. Concurrently, the Net Promoter Score (NPS) portrays a moderate level of customer contentment, signalling an avenue for further expansion. To address these dynamics, the proposed remedy entails a synergistic integration between the prevailing Enterprise Information Management (EIM) system and "OpenText Integra," a cloud-based project management software. This strategic amalgamation aspires to bridge the chasm between revenue and customer satisfaction by ameliorating customer retention rates. By achieving this, OpenText Corporation envisages asserting its position as a pioneering industry figurehead, fostering both client retention and revenue proliferation.

**Opportunity:**

The Opportunity to increase the yearly revenue of OpenText Corporation can be achieved by introducing a Cloud-based project management software – “OpenText Integra” to the customers. The proposed software can provide a complete EIM suite to the client organizations, thus providing a comprehensive solution. This may result in increased customer satisfaction and retention rate. OpenText Corporation can promote revenue growth, market visibility, and brand awareness by providing a complete solution for customer needs. This will help the organization to solidify its position in the industry.

Unlocking avenues for enhanced annual revenue is a compelling prospect on the horizon for OpenText Corporation. This vision materializes by introducing a groundbreaking solution – the cloud-based project management software known as "OpenText Integra." A strategic initiative of this magnitude promises to exert substantial influence over the company's financial performance and standing within the market. By seamlessly assimilating this innovative software, OpenText Corporation aspires to offer clients a comprehensive Enterprise Information Management (EIM) suite that is thoughtfully tailored to address their intricate and multifaceted requirements.

The essence of the proposed "OpenText Integra" software exudes a transformative potential, poised to redefine how organizations engage with their operational challenges. This strategic maneuver resonates with OpenText Corporation's broader objective of heightening customer satisfaction and cultivating enduring client relationships. Pioneering the realm of project management with a suite of robust collaboration tools, the software ushers in a new era of operational efficiency and heightened project outcomes for organizations. This paradigm shift sets the stage for cultivating deeper client loyalty and nurturing longstanding partnerships that thrive on shared successes.

Against the backdrop of a rapidly evolving technological landscape, the integration of "OpenText Integra" emerges as OpenText Corporation's masterstroke in the realm of innovation. The holistic EIM suite that this software encapsulates can catalyze exponential revenue growth. However, the implications of this strategic move transcend the financial domain. This endeavour carries the potential to amplify OpenText Corporation’s resonance within the market, etching its brand identity indelibly. By orchestrating the assimilation of cutting-edge technology and a steadfast commitment to addressing clients' intricate demands, OpenText Corporation stands tall as a beacon of industry leadership, signalling its unwavering dedication to not just meeting, but exceeding client expectations.

This transcendent impact of "OpenText Integra" isn't confined to immediate financial upturns. It's rooted in the core belief of OpenText Corporation that transformative solutions drive positive change within organizations. The software's remarkable capacity to streamline project management, foster seamless collaboration, and optimize resource allocation can tangibly uplift clients' operational efficiency, thus elevating the bar for project success rates. This metamorphosis, driven by the innovative prowess of OpenText Corporation, bridges the chasm between revenue aspirations and real-world value creation. As the company pioneers the art of enhancing client satisfaction, "OpenText Integra" takes on the mantle of a pivotal leap towards a future characterized by unyielding innovation, resilience, and the enduring creation of value.

In sum, the introduction of "OpenText Integra" stands as a testament to OpenText Corporation's commitment to revitalizing its annual revenue streams. The organization's aspiration to provide clients with an integrated EIM suite, channelled through this visionary cloud-based project management software, serves as a cornerstone of fostering content clients and devoted brand advocates. This strategic stride, poised at the intersection of technological innovation, holds the transformative power to spur revenue expansion, elevate market dominance, and fortify OpenText's stature as a resolute trailblazer in the industry.

## **As-Is Diagram**

An as-is diagram, also called a current state diagram, provides a clear picture of the existing business processes in an organization. It shows the order of activities, decision points, inputs, outputs, and how various individuals in a business process are connected.

The as-is diagram gives an understanding of how the process works. It helps the organization to identify the areas of strengths, weaknesses, and processes that require improvement. It also gives a starting point for analysis and growth by showing where things can be optimized.

The as-is diagram doesn't just depict the flow of processes; it offers an insightful snapshot of the organization's operations. By mapping out each step, decision, and connection, the diagram provides a visual narrative of how things currently operate.

Understanding the as-is diagram allows OpenText Corporation to critically evaluate its processes. This evaluation extends beyond mere efficiency to encompass the effectiveness of each step. It helps in identifying redundant steps, bottlenecks, and areas where improvements are direly needed.

The diagram presents a holistic view of how different departments and teams interact. It illuminates collaboration points, demonstrating how different units contribute to the overall process. This understanding fosters a sense of unity and collaboration across the organization.

Armed with the as-is diagram, the management team can make informed decisions backed by data. It enables them to spot patterns, trends, and discrepancies that might have gone unnoticed in the absence of a visual representation.

Beyond identifying weaknesses, the as-is diagram highlights strengths. Recognizing where processes are already effective empowers OpenText Corporation to leverage these strengths when optimizing other areas.

The diagram acts as a catalyst for a culture of continuous improvement. It's a starting point for discussions, brainstorming, and innovative thinking. OpenText Corporation can engage its teams in identifying ways to optimize processes and enhance overall efficiency.

In complex organizations, communication gaps can hinder seamless operations. The as-is diagram bridges these gaps by creating a shared understanding of processes across different teams and hierarchies.

By visualizing the existing processes, OpenText Corporation can standardize operations. Standardization enhances consistency, reduces errors, and facilitates a smoother workflow.

The as-is diagram isn't just a static representation; it's a tool for aligning processes with organizational goals. OpenText Corporation can ensure that every step in the diagram contributes directly or indirectly to its overarching objectives.

For new employees or those in roles requiring cross-functional knowledge, the as-is diagram serves as a valuable training tool. It provides a quick grasp of the organization's processes and their interconnections.

Root Cause Analysis: When issues arise, the as-is diagram aids in root cause analysis. It allows OpenText Corporation to trace problems back to their origins and comprehensively address underlying concerns.

**Detailed description of the AS-IS process flow (current state) - OpenText Corporation**

* In the following As-Is diagram, the client approaches OpenText Corporation, requesting a product or solution to improve their existing business processes.
* The BA/ consulting team will receive the request from the client by gathering all the requirements through elicitation and collaboration.
* The BA team will assess the client’s environment and understand the business requirements.
* The proposal for the project will be submitted to the OpenText Corporation’s management team.
* The management team will receive the report and analyze whether the proposed project is feasible.
* If the management finds the project feasible, it will be approved and continue to the following stages.
* In the next step, the BA will convert the documented business requirements into technical requirements and forward them to the development team.
* The IT team will start developing the product based on the received request.
* The product will undergo multiple testing stages to ensure quality.
* The testing team will perform the QA by running the product through multiple testing environments.
* In case of defects, the testing team will log the defects, which the development team will review, and the required changes to eliminate the bugs will be conducted.
* Once the product (defect-free) is developed, the development team will begin transitioning the developed product to the client’s cloud environment.
* During the transition phase, the developer will deploy advanced cloud capture solutions if the client wants to optimize their paper-based processes.
* The developer cloud will be deployed if the client wants to develop custom applications.
* The final stage includes deploying the experience cloud to optimize the client's experience.
* The as-is diagram below explains the current business processes followed by OpenText Corporation.

A picture containing text, screenshot, software, display

Description automatically generated

# **Potential Solution Options**

The following section, which is all about considering different solutions, plays a very important role in the larger process of creating and carrying out a solution. This part details how the solution will work, including its design and structure, giving a complete guide on how to make the idea real. This is where the results of careful studies on what's possibly come into play. It shows how different results could happen; how ready the company is. Additionally, it addresses what problems and limits could come up while putting the solution into action.

With this background, CANINE Business Solutions has looked at various possible solutions for OpenText Corporation. One particularly interesting is about not changing anything and sticking to what's already being done. This section carefully weighs the pros and cons of each solution, using a unique way to compare them. This helps the organization to make fair and well-considered decisions.

By looking at the results of this careful consideration, OpenText Corporation can get a clear idea of what could work best for the organization. This guides a bright light, showing the right direction among many choices. By profoundly studying each solution's potential and how they could affect things, we gain the insight to pick the best one. This section is like a foundation that guides the whole project journey, giving a strong sense of the organization’s objectives.

Solution Option #1 – Introducing a cloud-based project management software.

Solution Option #2 - Develop a console-based project management software.

Solution Option #3 – Improvising the UI for existing systems.

Solution Option #4 - Expand the market in Asia Pacific to promote brand awareness.

Solution #5 - Data Governance and Compliance Platform

Solution Option #6 AI-Powered Content Recommendation System

Solution Option #7 - Integrate Collaboration Tools

Solution Option #8– Integrate Blockchain for Document Authentication

Solution Option #9 - Natural Language Processing (NLP) for Data Interpretation

Solution Option #10 - Data Privacy and Compliance Management

Solution Option #11 - Intelligent Document Management System

Solution Option #12 - Improving the Customer Experience with AI-Enhanced Chatbots

Solution option# 13 - Virtual Knowledge Assistant for Employee Onboarding

Solution option# 14 - AI-Powered Sales and Customer Relationship Management (CRM) System

Solution Option #15 - Creating a Hardware Division

Solution Option #16 - Free Basic Software Version

**Overview of possible solutions:**

The following section provides an overview of possible opportunities for the OpenText Corporation. After a detailed analysis, CANINE Business Solutions has come up with different ideas to promote OpenText Corporation’s revenue and customer base. This section outlines the features of the solutions proposed by CANINE Business Solutions, its benefits, and drawbacks. Based on the above criteria, CANINE Business Solutions will pick three potential solution options for the OpenText Corporation and explain them in detail. The details include, High-level design, low level design, ROI and benefits of the potential solutions. Based on the above criteria, CANINE Business Solutions will select a feasible and profitable solution for the OpenText Corporation, which will be discussed further in the following sections.

## **Solution #1 – Introducing a cloud-based project management software.**

**Overview**

The solution #1 proposes the opportunity of implementing a cloud-based project management software by the OpenText Corporation. By analysing the existing functionalities of the OpenText Corporation, CANINE Business Solutions has identified that the organization does not provide project management solutions to its clients. Also, since the organization is currently focusing on increasing its cloud revenue, CANINE Business Solutions finds this solution as a better opportunity.

**Features of the proposed solution #1**

* Task Management: Track tasks, timesheets, and deadlines remotely.
* Project Planning & Scheduling: Create Project plans, and timelines. This feature can help schedule milestones.
* Collaboration & Productivity: Efficient collaboration between team members promotes easy file sharing and access, which in turn increases productivity.
* Resource Management: Managing resources and allocating resources to tasks based on availability. Track overallocation and resolve workload.
* Integration with OpenText Products & other tools: Seamless integration with OpenText products and third-party tools.
* Prebuilt Templates: Predesigned templates for project planning, task management, budgeting, and communication plan

**Benefits of the proposed solution #1:**

1. The proposed solution is expected to increase the cloud-based revenue of the OpenText Corporation.
2. By leveraging its expertise in Cloud technology, OpenText Corporation can again prove itself to be a leader in the industry.
3. The new product can enhance customer satisfaction and brand visibility.
4. The revenue gap between the OpenText Corporation and its competitors can be bridged easily.

**Non–Benefits of the proposed solution #1:**

1. The cost of implementing solution #1 is a bit expensive.
2. Integrating the proposed solution #1 with other products of OpenText Corporation is quite complicated.

## **Solution Option #2 - Develop a console-based project management software.**

**Overview**

Solution #2 proposes the development of a console-based project management application by OpenText Corporation. This strategic move entails creating an application that caters to project management needs through a command-line interface. However, a deeper examination reveals certain considerations that warrant evaluation before implementation.

**Features of the Proposed Solution #2:**

• Task Monitoring: Track project tasks, timelines, and progress through command-line inputs.

• Project Planning: Create project plans, milestones, and manage schedules.

• Resource Allocation: Allocate resources to tasks based on availability and manage overallocation.

• Task Prioritization: Assign priority levels to tasks and manage them efficiently.

• Data Visualization: Generate basic reports and visualizations through text-based outputs.

**Benefits of the Proposed Solution #2:**

1. **Simplicity:** A console-based application offers a lightweight and straightforward approach to project management.
2. **Ease of Use:** Users comfortable with command-line interfaces can navigate the application seamlessly.
3. **Minimal Training:** Users with familiarity in console interfaces may require minimal training.
4. **Low Resource Consumption:** The application's lightweight nature consumes fewer system resources.

**Non-Benefits of the Proposed Solution #2:**

1. **Limited User Base:** Console-based applications might exclude users unfamiliar or uncomfortable with command-line interfaces.
2. **Reduced Functionality:** Console-based applications might lack the comprehensive features of graphical alternatives.
3. **Modernization Challenges:** The solution might not align with current user expectations for user interfaces.
4. **User Resistance:** Transitioning users to a command-line application might face resistance due to unfamiliarity.

## **Solution Option #3 – Improvising the UI for existing systems.**

**Overview**

Solution #3 – Improvising the UI for existing systems, suggests enhancing the User Interface (UI) of OpenText Corporation's existing systems. This strategic initiative aims to revolutionize user experiences, ultimately leading to heightened productivity, customer satisfaction, and operational efficiency.

**Features of the Proposed Solution #3:**

• Enhanced User Experience: Redesigning the UI to streamline user interactions. Make systems more intuitive and user-friendly.

• Visual Aesthetics: A modern design for a visually appealing and engaging interface.

• Streamlined Navigation: Simplified menu structures and navigation paths for smoother user journeys.

• Responsive Design: Ensuring compatibility across various devices and screen sizes, enhancing accessibility.

**Benefits of the Proposed Solution #3:**

1. **Improved User Satisfaction:** A refined UI leads to seamless interactions, increasing user satisfaction and engagement.
2. **Enhanced Productivity:** A user-friendly interface reduces the learning curve, boosting user efficiency.
3. **Operational Efficiency:** A more intuitive UI can result in fewer errors and smoother workflows.

**Non-Benefits of the Proposed Solution #3:**

1. **Resource and Time Investment:** Redesigning and implementing UI improvements demands significant time.
2. **Operational Disruption:** Transitioning to the new UI might cause temporary disruptions as users adapt to changes.
3. **Initial Financial Outlay:** The initial investment for design, development, and testing can strain financial resources.
4. **Customization Challenges:** Balancing standardization and user customization can pose challenges.
5. **User Resistance:** Some users might resist change, leading to potential resistance during the transition.

## **Solution Option #4 – Expand the market in Asia Pacific region to promote brand awareness.**

**Overview:**

Solution #4 – Expand the market in Asia Pacific Region, suggests venturing into the Asia Pacific market to amplify OpenText Corporation's brand awareness. This strategic endeavour aims to extend the organization's market reach and bolster its recognition in the region.

**Features of the Proposed Solution #4:**

• Market Research: Thorough research to understand the Asia Pacific market's preferences, trends, and consumer behaviours.

• Localized Strategies: Tailoring marketing and sales strategies to align with cultural nuances while considering the regional preferences.

• Regional Partnerships: Forging partnerships with local entities for enhanced market entry and understanding.

**Benefits of the Proposed Solution #4:**

1. **Extended Market Reach:** Entering the Asia Pacific market broadens OpenText Corporation’s geographical presence and potential customer base.
2. **Cultural Connection:** Localized strategies resonate better with the target audience, fostering a stronger emotional connection.
3. **Brand Visibility:** A presence in Asia Pacific enhances OpenText Corporation’s global brand visibility and recognition.

**Non-Benefits of the Proposed Solution #4:**

1. **Market Entry Challenges:** Entering a new market requires overcoming regulatory hurdles, cultural differences, and operational challenges.
2. **Resource Allocation:** Expanding into Asia Pacific demands significant resources, potentially diverting focus from other strategic initiatives.
3. **Initial Investment:** The upfront costs of market research, local partnerships, and marketing campaigns can strain financial resources.
4. **Cultural Misalignment:** Misinterpreting cultural nuances could lead to brand misalignment and reputational damage.
5. **Localized Competition:** Navigating local competitors with established market presence might pose challenges.

## **Solution #5 - Data Governance and Compliance Platform**

**Overview**

This solution suggestion revolves around the concept of introducing a platform specifically designed to address the compliance and data governance requirements faced by organizations. Given the rapid evolution of technology and the exponential growth of data generation, there is an increasingly urgent demand for more stringent data regulations. In this landscape, businesses across the board are mandated to operate in alignment with diverse regulations and industry benchmarks like GDPR, HIPAA, CCPA, etc. Consequently, the emergence of a resilient data governance platform that facilitates meticulous compliance monitoring is poised to become a fundamental necessity for all enterprises in the foreseeable future.

**Features of the proposed solution #5**

* Classification of sensitive data: Categorize data based on sensitivity to apply proper access controls and appropriate handling measures.
* Policy management: Define data policies, retention periods, and discarding procedures to stay aligned with the data governance regulation.
* Periodic auditing and monitoring: Generate scheduled audit reports to keep track of data access, modification, and transfer records.
* Automated Compliance reporting: Compliance reports will be generated automatically to ensure adherence to various regulations and standards.

**Benefits of the proposed solution #5**

1. The proposed solution will stay relevant to industry needs for the foreseeable future and continue to create revenue for OpenText Corporation.
2. OpenText Corporation can leverage its existing customer base to promote the new solution. Organizations already using OpenText’s applications will be inclined to accept the new platform, leading to increased revenue and trust.

**Non-Benefits of the Proposed Solution #5**

1. While the platform will always be in demand it will never be a major revenue contributor as companies prefer to have their compliance and data regulations audited periodically through cheap third-party vendors.
2. Building such a solution will be an enormous task. The intricate technical challenges such as data integration, security protocols and data regulations will make it prone to technical shortcomings.
3. The compliance and regulatory laws are subject to constant modifications, which means OpenText Corporation will need to continuously update the platform to keep up with the changes.
4. Most organizations are not aware of their compliance needs and they entrust these tasks to third party vendors, an investment on educating such clients will add to the financial burden.

## **Solution #6 AI-Powered Content Recommendation System**

**Overview**

This solution intends to capitalize on OpenText Corporation's proficiency in content management systems by developing a novel system that employs AI. This system will analyze individual users' document usage patterns, interactions, and preferences. The goal is to provide personalized recommendations for their subsequent actions, thereby streamlining their daily work processes. The system's objective is to enable users to concentrate on innovation and productivity by automating mundane tasks. For instance, it will simplify activities like searching for resources and articles within the company's repository. This proposed solution will function as a backend application, working inconspicuously to elevate clients' productivity and foster innovation.

**Features of the proposed solution #6**

* Real-time support: The solution will recommend relevant articles to users engaged with documents and resources, giving them real-time insights on the topic.
* Create user profiles: The system will create user profiles based on roles, responsibilities, previous interactions, and content utilization behaviour.
* Intelligent Recommendations: AI will create customized recommendations to individual users based on their profiles.
* Enhanced Collaboration: The backend system will keep track of all changes made to a document and notify all people who have either interacted with that resource before or have a vested interest.
* Smart suggestions: The system will keep track of all the interactions and modifications done by users to create smart suggestions for related tasks in the future.

**Benefits of the proposed solution #6**

1. It will be easy to integrate this AI system with existing applications developed by OpenText Corporation. This will provide an opportunity to gain technical superiority in the content management industry and gain new clients.
2. OpenText’s clients will become more satisfied when they experience enhanced productivity and innovation throughout their business processes after using the AI powered automation system.

**Non - Benefits of the proposed solution #6**

1. Building a cutting-edge solution reinforces OpenText's reputation as an industry leader, fostering positive perceptions among clients, partners, and industry stakeholders.
2. The initial investment for building an AI system is very high and it will a take a long time to turn these costs into profit.
3. Convincing prominent clients to adopt an AI system for accessing their sensitive files and documents will pose challenges, thereby restricting the application's reach.

## **Solution #7 - Integrate Collaboration Tools**

With the integration of innovative collaboration tools, CANINE Business Solutions proposes to improve communication and streamline workflows. The technology we use makes it possible for teams to collaborate in real-time while working remotely by enabling shared document editing and video conferencing. While there are many advantages to increased productivity and communication, companies are aware that user training as well as careful planning may be necessary when implementing various connected products.

**Features of the proposed solution:**

* **Real-Time Chat**: An integrated chat platform gives members of a team the ability to contact one another in an instant, talk about their responsibilities, and exchange ideas in real-time.
* **Video Conferencing**: Tools for seamless video conferencing make it possible to have face-to-face conversations, which improves the efficiency of remote cooperation and reduces the need for in-person meetings.
* **Shared Document Editing**: Collaborative document editing features allow many people to work on the same document simultaneously, with real-time updates. These features are referred to as "shared document editing."
* **Task Management**: The solution contains tools to assign tasks, set deadlines, as well as track progress; this ensures that activities are assigned and carried out in an effective manner.

**Benefits of the proposed solution:**

* Improved Communication: Team members' ability to communicate can be improved by integrating collaboration technologies like real-time chat, video conferencing, and shared document editing.
* Workflows that are streamlined as a result of seamless tool integration can avoid bottlenecks and delays.

**Non- Benefits of the proposed solution**

* Integration Challenges Ensuring that all of the different communication technologies operate together without an issue can be a difficult task from a technological perspective.
* Adoption by Users: Teams may be reluctant to use new tools if they are not familiar with them, which necessitates training and change management strategies.
* Performing maintenance, such as managing and updating various linked tools, might require a significant amount of resources.

## **Solution #8– Integrate Blockchain for Document Authentication**

With the blockchain integration solution provided by CANINE Business Solutions, businesses will enjoy increased levels of security and authenticity. The implementation of the strategy we have developed will result in secure document records as well as digital authentication, hence promoting trust and openness. We recognize that using blockchain technology is technically difficult and that there are regulatory considerations involving digital signatures that need to be navigated. Despite the fact that blockchain technology provides substantial benefits, we accept these challenges.

**Features of the proposed solution:**

* **Immutable Records**: The documents are saved on a blockchain ledger, which creates an unchangeable record of all of the transactions and modifications that have taken place.
* **Digital Signatures**: Each document is digitally signed utilizing cryptographic techniques, which guarantees the document's genuineness and where it originated.
* **Timestamps**: The timestamps that are generated by blockchains provide an exact record of when each document was created or modified. This improves the chain's ability to track changes.
* **Decentralization:** In order to reduce the likelihood of there being a single point of failure, documents are kept in a distributed fashion over a network of servers.

**Benefits of the proposed solution:**

* Records That Cannot Be Changed Blockchain technology has the potential to produce immutable records of document transactions as well as changes, which will improve both transparency and traceability.
* Authentication of papers: With the use of blockchain technology, papers may be digitally signed and timestamped, which guarantees both their legitimacy along with their integrity.

**Non- Benefits of the proposed solution:**

* Technical Difficulty: Putting blockchain solutions into action need for specialized knowledge and considerable work in the development sector.
* Integration Challenges It is possible that existing workflows and procedures may need to be modified in order to successfully integrate blockchain technology with existing systems.

## **Solution #9 - Natural Language Processing (NLP) for Data Interpretation**

**Overview**

The Natural Language Processing (NLP) solution can make OpenText Corporation smarter. It helps to find important information in messy text by using advanced AI. NLP looks at the words, understands their meanings, and even figures out how people feel in the text. This helps the system analyze content better and find valuable information. It's like having a super-smart helper that reads and understands messy text to give useful insights.

**Features**

**1. Contextual understanding:** NLP sees how words fit together and catches small hints, helping understand what the text is about.

**2. Sentiment analysis**: It figures out if the text is happy, sad, or neutral, like understanding people's feelings.

**3. Entity recognition**: NLP spots names, places, and dates in the text, making it easier to find specific info.

**4. Semantic search**: Content gets special tags to show up better when people search, like using labels to find what they want.

**5. Language support**: This solution works with different languages, understanding text from all over the world, even if it's said in different ways.

**Benefits**

* **Better understanding of content**: NLP digs into text data to find hidden insights into what customers like and how they act.
* **Improved customer engagement**: NLP enables relevant engagement strategies by analyzing customer feedback and interactions. This enhances customer satisfaction and loyalty.
* **Efficient information retrieval**: NLP simplifies document searching by incorporating smart labels and organizing content systematically, resulting in easier retrieval.

**Non – benefits**

* **High resource needs:** OpenText's clients want fast and strong solutions. NLP needs lots of computer power, possibly slowing down systems. This could make clients unhappy if things aren't smooth. Clients might leave.
* **Complexity of implementation**: Adding NLP needs special skills and resources, which might take way too much time. Additionally, the setup cost can be more.
* **Possibility of mistakes**: Sometimes NLP might misunderstand the situation, causing errors in understanding feelings or recognizing things, which could affect the insights' accuracy.
* **Needs a lot of power**: NLP software uses lots of computer power, which might slow down the system, especially when lots of people use it at once.
* **Languages and culture matter**: NLP works differently for different languages and ways of speaking, so it might not work well everywhere.

## **Solution #10 - Data Privacy and Compliance Management**

**Overview**

The data privacy management provides OpenText Corporation with a comprehensive range of tools designed to handle, store, and manage sensitive data securely. Through the implementation of advanced privacy measures and strict compliance controls, this solution empowers organizations to effectively navigate intricate regulatory frameworks. Also, this solution helps OpenText Corporation to safeguard customer information.

**Features**

**Data encryption:** The solution employs robust encryption methods to keep data safe both when stored and when transmitted, ensuring that sensitive information remains private.

**Access controls:** Granular access controls are established and enforced, granting authorized users access to specific data while blocking unauthorized entry.

**Audit trails:** Comprehensive logs of data interactions are maintained, ensuring transparency and accountability for compliance audits.

**Automated compliance checks:** Automated checks are integrated to ensure that data adheres to industry regulations, preventing non-compliant information from being stored or processed.

**Benefits:**

* **Enhanced data security:** The solution employs robust data encryption and access controls to safeguard sensitive information. This approach minimizes the risk of data breaches and unauthorized access.
* **Customer trust**: By showcasing a dedicated commitment to data privacy, organizations foster trust and loyalty among customers, leading to stronger relationships.
* **Streamlined compliance audits:** Detailed audit trials simplify the compliance audit process, enabling easier reporting and validation of regulatory adherence.
* **Global market access:** Organizations that adhere to regional data privacy laws can confidently expand their services to international markets, tapping into new opportunities.

**Non – benefits**

* **Complex implementation:** The process of implementing data privacy and compliance measures can be intricate. It may demand substantial resources for both integration and ongoing maintenance.
* **Operational overhead:** Enforcing rigorous data privacy controls could introduce additional operational demands. This might affect system performance and responsiveness.
* **User experience impact:** Strict access controls have the potential to hinder user productivity. This situation requires careful management to strike a balance between security and user-friendliness.
* **Interoperability challenges**: Integrating with existing systems and workflows to ensure consistent compliance across processes might pose interoperability challenges.
* **Changing regulations:** With evolving data protection regulations, the need for continuous monitoring and adjustment of compliance measures becomes essential.

## **Solution #11 - Intelligent Document Management System**

**Overview:**

OpenText Corporation needs help organizing and managing its sizable document repository properly. This causes issues with information retrieval, teamwork, and regulatory compliance. A recommended strategy for resolving these problems is an automated document management system.

**Features of the proposed solution**

* + - 1. Automated Document Classification: Use machine learning techniques to classify and order documents according to their content. This will make it easier to organize and find information.
      2. Contextual Search: Use natural language processing to implement sophisticated search features that enable users to quickly find relevant content by understanding the context of their questions.
      3. Collaborative tools were available in real time and should be integrated with version control features for tracking document changes to ensure efficient teamwork on documents.

1. Workflow Automation: Use automation for workflows to streamline document authorization procedures, reducing manual participation and increasing productivity.
2. Document Security Enhancement: To guarantee adherence to data protection standards, strengthen document security with access restrictions determined by roles, encryption, and audit trails.

**Benefits of the proposed solution**

* Increased Productivity: Users may quickly identify and collaborate on documents, decreasing time wasted on searches and fostering quick decision-making.
* Augmented Compliance: The solution supports maintaining document retention regulations and audit trails, ensuring regulatory compliance.
* Efficient Communication: Real-time collaboration features encourage teamwork by allowing different stakeholders to contribute to documents simultaneously.
* Error Reduction: Automated processes reduce the number of human mistakes associated with conventional document handling operations.
* Cost Efficiency: Time savings in document management and improved operational efficiency can result in significant cost savings.

**Non-Benefits of the Proposed Solution**

* Initial Implementation Costs: Setting up the Intelligence Systems for Document Management may require software licenses and training expenditures.
* Employees may require an adjusted time to become acquainted know the freshly implemented system and its operations, which may result in a temporary loss in production during the transition.

## **Solution #12 - Improving the Customer Experience with AI-Enhanced Chatbots**

**Overview:**

OpenText Corporation recognizes the need to improve its client assistance and contact operations. A recommended technique for achieving this aim is to design and deploy an AI-powered chatbot. This chatbot must be capable of connecting with consumers in a personalized and efficient manner.

**Features of the proposed solution**:

* + - 1. Natural Language Understanding: Use the processing of natural languages to comprehend client inquiries, allowing the chatbot to deliver pertinent replies and solutions.
      2. Personalization: Make use of consumer data to provide personalized recommendations, services, and replies, so improving the entire customer experience.
      3. 24/7 Availability: The chatbot is available 24 hours a day, seven days a week, giving fast solutions to consumer concerns and issues even when conventional business hours are not in effect.
      4. Integrate the conversational assistant across many communication channels, like websites, mobile applications, and platforms, to ensure a consistent consumer experience.

1. Implement a smooth escalation mechanism to pass complicated or sensitive inquiries to human beings when necessary while maintaining excellent service quality.

**Benefits of the proposed solution**

* Consistent Support: Regardless of the time or channel, consumers receive consistent and accurate replies, which improves brand impression.
* Insights from Data: Analyze consumer interactions to gain insights into common issues, pain areas, and opportunities to improve services.
* Reduced dependence on employees for regular inquiries can result in cost reductions in customer service operations.

**Non-Benefits of the Proposed Solution**

* Limitations due to complexity: The chatbot may need help with particularly complicated or nuanced inquiries requiring substantial topic understanding or emotional intelligence.
* Creating or teaching the chatbot requires a start in technology, data, and skill.
* Customer Reluctance: Some customers prefer human connections and may be reluctant to communicate with the chatbot.

## **Solution option# 13 - Virtual Knowledge Assistant for Employee Onboarding**

**Overview:**

This solution revolves around developing a Virtual Knowledge Assistant tailored to enhance the employee onboarding process. Leveraging OpenText Corporation’s content management expertise, this assistant will streamline and personalize the onboarding experience for new employees.

**Features:**

* **Personalized Onboarding Plan:** The assistant creates a customized onboarding plan for each new employee, considering their role, skills, and learning preferences.
* **Self-Paced Learning Modules:** Offer a library of interactive tutorials, videos, and resources to help new employees learn at their own pace.
* **Automated Administrative Tasks:** The assistant handles administrative tasks like account setup, permissions, and required training.
* **Real-time Guidance:** Provide real-time assistance to new employees, answering their questions and offering guidance.
* **Feedback and Progress Tracking:** The assistant tracks progress, gathers feedback, and adjusts the onboarding plan as needed.

**Benefits:**

1. **Enhanced Onboarding Experience:** New employees receive a personalized and guided introduction to the organization, leading to quicker integration.
2. **Efficiency Gains:** HR and management teams save time by automating administrative onboarding tasks.
3. **Consistent Learning:** The platform ensures that all new employees receive consistent and comprehensive information.
4. **Employee Empowerment:** Self-paced learning empowers new hires to take ownership of their onboarding journey.
5. **Scalability:** The assistant can scale to accommodate a growing number of new employees with minimal additional effort.

**Non-Benefits:**

1. **Development Complexity:** Creating a Virtual Knowledge Assistant requires a significant investment in technology, resources, and content development.
2. **Integration Challenges:** Integrating the assistant with existing HR systems and workflows may require coordination.
3. **Learning Curve:** New employees and HR personnel may need time to adapt to the new onboarding process.
4. **Privacy Concerns:** Handling personal employee data requires robust privacy and security measures.
5. **Customization Balance:** Striking the right balance between personalized content and standardized information might pose challenges.

## **Solution option# 14 - AI-Powered Sales and Customer Relationship Management (CRM) System**

**Overview:**

This solution leverages OpenText Corporation’s expertise to develop an AI-enhanced Sales and Customer Relationship Management system. The system will use AI to analyze customer interactions, purchase history, and behaviour. The collected data will provide sales teams with actionable insights to personalize their approach and improve customer relationships.

**Features:**

* **Predictive Analytics:** AI analyze historical data to predict customer behaviour and identify potential sales opportunities.
* **Lead Scoring:** The system assigns scores to leads based on their likelihood to convert, enabling sales teams to prioritize efforts.
* **Personalized Recommendations:** AI suggests products or services based on customer preferences and buying patterns.
* **Automated Follow-ups:** The system sends automated follow-up emails or messages at optimal times to nurture customer relationships.
* **Sentiment Analysis:** AI analyze customer sentiment from interactions to help sales teams tailor their communication style.

**Benefits:**

1. **Improved Sales Efficiency:** Sales teams focus on high-potential leads and tailor their approach, leading to increased conversion rates.
2. **Enhanced Customer Experience:** Personalized recommendations and timely follow-ups enhance customer satisfaction.
3. **Data-Driven Insights:** AI-driven insights guide strategic decisions and help teams understand customer preferences.
4. **Time Savings:** Automated follow-ups and lead scoring free up sales teams' time from manual tasks.
5. **Proactive Customer Management:** Early identification of customer issues or concerns allows for proactive resolution.

**Non-Benefits:**

1. **Complex Implementation:** Developing AI models for predictive analytics and sentiment analysis requires technical expertise.
2. **Data Privacy Concerns:** Handling customer data requires robust privacy safeguards and compliance with regulations.
3. **Initial Learning Curve:** Sales teams need to familiarize themselves with the AI system's recommendations and processes.
4. **False Positives:** Predictive analytics may occasionally produce false positive leads, leading to resource waste.
5. **Integration Challenges:** Integrating the AI system with existing CRM software and workflows may pose challenges.

## **Solution #15 - Creating a Hardware Division**

**Benefits:**

* **Diversification:** Establishing a hardware division could diversify OpenText Corporation's product portfolio, reducing dependence on software-only revenue streams.
* **Vertical Integration:** Developing proprietary hardware could enhance control over the technology stack, potentially leading to optimized performance and better user experiences.

**Non-Benefits:**

* **Lack of Expertise:** OpenText Corporation's core competency lies in software and information management. Venturing into hardware could stretch resources and expertise thin, leading to suboptimal product development.
* **High Costs:** Entering the hardware market demands substantial investments in research, manufacturing, and supply chain management. These costs might not be justified if the company's expertise lies elsewhere.

## **Solution #16 - Free Basic Software Version**

**Benefits:**

* **User Acquisition:** Offering a free basic version of its software could attract a larger user base, increasing brand visibility and potentially leading to a wider customer pool.
* **Upselling Opportunities:** The free version can serve as a gateway to premium features, encouraging users to upgrade for enhanced functionality.

**Non-Benefits:**

* **Monetization Challenges:** Providing a free version might hinder revenue generation from users who are content with the basic features and do not upgrade.
* **Resource Allocation:** Developing, maintaining, and supporting a free version requires resources. The investment might not yield sufficient returns, considering the potential challenges in converting free users into paying customers.

The solutions discussed above have different features and has different opportunities to bring to OpenText Corporation. The benefits and non-benefits of all the potential solutions has also been discussed in the above section. By analyzing the benefits and non benefits of all the solution options CANINE Business Solutions has identified three solutions as the potential solution options. These options have been discussed in detail in the following section, through which CANINE Business Solutions will identify and propose the best solution for the OpenText Corporation.

# **Potential Solution #1- Introducing a cloud-based project management software- “OpenText Integra.”**

Effective project management stands as a cornerstone for success in the dynamic realm of enterprise operations. Recognizing the need to streamline and enhance project management processes, CANINE Business Solutions has proposed an innovative solution, “OpenText Integra.” This cloud-based project management software is designed exclusively for OpenText Corporation to revolutionize project execution while fostering substantial revenue growth and elevated customer satisfaction.

## **Overview**

The comprehensive Enterprise Information Management (EIM) Suite called "OpenText Integra" has been created to simplify and enhance project management. In a world where things can get complicated, “OpenText Integra” offers a single platform for planning, doing, and watching over projects. This might lead to organizations working better together and being more efficient.

## **Goals**

OpenText Integra aims to achieve the following goals:

1. Provide a complete Enterprise Information Management (EIM) Suite to the clients that simplifies their project management processes.
2. Increase the cloud-based revenue of OpenText Corporation by more than 50%.
3. Achieve an NPS of approximately 35 by enhancing customer satisfaction.
4. Promote market visibility and brand awareness of OpenText Corporation.

**EIM Excellence**

OpenText Integra is designed to give OpenText Corporation's clients a complete EIM Suite, making project management more effortless.

**Cloud Revenue Surge**

OpenText Integra aims to help OpenText Corporation make over 50% more money from cloud-based things for steady growth.

**Enhanced NPS**

Making customers happy is a big deal for “OpenText Integra.” It aims for a good Net Promoter Score (NPS) of around 35 so that customers are happy and stay with the organization.

**Market Visibility and Brand Enhancement**

"OpenText Integra" doesn’t only focuses on increasing cloud revenue, it also helps OpenText Corporation be more recognized and respected. This makes them a leader in their field.

## **Scope**

The proposed project “OpenText Integra” focuses on:

**In Scope**

1. Developing and implementing a cloud-based project management software for OpenText Corporation.
2. Integrating the software with existing products of OpenText Corporation.
3. Better UI experience and secure platform for the users.
4. Maintain data confidentiality.
5. Provide training and support for the users.

## **Developing and Implementing a Cloud-Based Project Management Software for OpenText Corporation**

OpenText Corporation is committed to creating and launching cutting-edge project management software that works in the cloud. The focus is to come up with a creative solution that perfectly matches how the organization’s goals and objectives. This idea revolves around making a solid tool named "OpenText Integra," which is all about effectively managing projects in the cloud. The goal is to go through a complete process of developing the software, ending up with a user-friendly project management platform that fits exactly what OpenText Corporation needs.

**Integrating the Software with Existing Products of OpenText Corporation**

OpenText Corporation's visionary plan includes smoothly connecting the innovative "OpenText Integra" with all the software the organization already uses. This isn't just about putting things side by side – it's a carefully planned strategy to blend the strengths of different software. This planned mix envisions a situation where "OpenText Integra" works well with other solutions, creating a connected system that uses everyone's abilities to manage projects better. This combination is thoughtful, detailed, and ready to make a new way of working efficiently.

**Enhanced User Experience and Ensured Platform Security**

OpenText Corporation's dedicated efforts are channelled towards optimizing user experience. Their commitment to refining the "OpenText Integra" experience emphasizes its utility as an intuitive tool and user-centric platform, streamlining project management. Safety is a paramount concern for OpenText Corporation in its software endeavors. By bolstering platform security, they underscore their unwavering dedication to safeguarding critical project information against potential threats, reflecting their earnest commitment to information security.

**Preserving Data Confidentiality**

Data confidentiality is important for OpenText Corporation in the context of "OpenText Integra." Ensuring the privacy of project-related information is of utmost value to them. Vigilant efforts are made to prevent unauthorized access to sensitive data, a testament to OpenText Corporation's aim to foster trust and reliability.

**Empowering through Training and Support**

The endeavour transcends software creation for OpenText Corporation; their focus extends to equipping users with proficiency in utilizing "OpenText Integra." They acknowledge that software efficacy thrives with user competence and provides comprehensive training. This commitment encompasses software usage and empowering users with the skills to harness its potential optimally.

**Customized Software Development**

OpenText Integra focuses on crafting, developing, and seamlessly launching a cloud-based project management software. This software is meticulously tailored to align precisely with the unique operational requirements of OpenText Corporation.

**Integration for Cohesion**

OpenText Integra transcends mere software in isolation; it's about orchestrating flawless integration with all of OpenText Corporation's existing products. This harmonious synergy ensures seamless collaboration and heightened efficiency across the board.

**User-Centric Ease**

The standout feature of "OpenText Integra" lies in its user-friendly nature. It's designed for simplicity, ensuring a straightforward experience for users while prioritizing the security of information.

**Safeguarding Data Integrity**

With OpenText Integra, safeguarding information integrity takes center stage. It employs robust measures to maintain the confidentiality of critical project data, ensuring its protection.

**Empowerment through Skill-Building**

Beyond providing software, OpenText Integra goes the extra mile by offering comprehensive training and unwavering support. This empowers users to maximize the software's potential, extracting the utmost value from its capabilities.

**Out of Scope:**

1. Developing additional software or products that complement the proposed software unless there is direct integration with the product.

**Explanation**: OpenText Corporation primarily concentrates on developing and supporting “OpenText Integra” implementation rather than venturing into additional software or product development.

1. Incorporating functionalities or features other than the mentioned core requirements.

**Explanation**: OpenText Corporation prioritizes the development of features that align with the fundamental needs of its software. The solution does not focus on adding other functionalities.

1. Customizing the product or its features to meet specific client requirements.

**Explanation**: OpenText Corporation only focuses on developing the proposed product. Product customization based on client requirements is not included in the scope.

1. Installing hardware or network infrastructure required for the proposed product setup.

**Explanation**: OpenText Corporation’s primary focus is the proposed solution (software) development. The responsibility for installing necessary hardware or network infrastructure falls outside the scope of their services.

1. Performing data migration from current process management systems to the new software.

**Explanation**: The proposed solution only facilitates software (OpenText Integra) development and implementation. The implementation part does not include data migration services.

**Focused Development:**

OpenText Integra's development exclusively centers on the project management software itself, excluding the creation of any additional products or software.

**Feature Rationality:**

OpenText Integra diligently adheres to core requirements, ensuring its functionalities and features are intentionally designed to match project management needs without straying into unrelated attributes.

**Tailoring Limitations:**

Despite Integra's versatility, it doesn't encompass tailoring the product or its features based on specific client requests, guaranteeing a consistent user experience.

**Hardware Installation:**

OpenText Integra doesn't encompass the task of setting up hardware or network infrastructure, which simplifies the software's implementation process.

**Data Migration:**

OpenText Integra adopts a practical approach by bypassing data migration from existing process management systems to its platform, prioritizing smooth functionality.

OpenText Integra emerges as a strategic shift, ready to enhance OpenText Corporation's project management landscape. With a steadfast commitment to simplicity, collaboration, and innovation, it holds the potential to influence various aspects. OpenText Integra's significant impact ranges from improving operational efficiency to driving revenue growth, boosting customer satisfaction, and enhancing the brand's standing. As a guiding light of transformation, “OpenText Integra” introduces a fresh era of project management excellence.

## **High-level design**

The high-level design of the proposed solution #1 provides an overview of the components involved in the product. It unveils a comprehensive panorama of the intricate components that harmonize within the product's construct. It elucidates the intricate web of interactions and collaborations among these components, underpinning the seamless functionality of the product.

Visualized through the lens of an architecture diagram, the high-level design of proposed solution #1 adopts a coherent 4-layer architecture. Each layer holds a distinct purpose, contributing to the overarching functionality of the product. It explains how different components of the product communicate and work together.

The high-level design of proposed solution #1 is represented by an architecture diagram. The design uses a 4-layer system, which is described below.

**Presentation layer** – This layer includes the user interface and dashboards. The user communicates with the software through this layer. Positioned at the pinnacle of the architectural framework, the presentation layer serves as the gateway to the software's user interface and dynamic dashboards. It constitutes the interface through which users interact with the software, facilitating engagement and information exchange.

**Business layer** – This layer includes all the required features and functionalities of the proposed solution. Positioned at the pinnacle of the architectural framework, the presentation layer serves as the gateway to the software's user interface and dynamic dashboards. It constitutes the interface through which users interact with the software, facilitating engagement and information exchange.

**Data access layer**- This layer acts as an interface between the database and business layer. All the configurations related to the software are maintained in this layer. Situated strategically between the business and database layers, the data access layer assumes the pivotal role of an intermediary. It bridges the gap between the core functionalities of the software and the underlying database. Moreover, this layer also houses the intricate configurations that define the software's behaviour, thus providing a streamlined interface for managing software settings.

**Database layer**- The database layer for this system is OpenText Cloud storage. This layer acts as the data hub for the software. At the bedrock of the architectural structure lies the database layer, a central repository of data hosted within the OpenText Cloud storage. This layer assumes the role of a data hub, storing and managing the information that underpins the software's operations. It provides a resilient and scalable foundation upon which the software's functionalities rely.

All the layers except the presentation layer will be simultaneously integrated with the existing EIM suite. It's noteworthy that, except for the presentation layer, all other layers are poised for seamless integration into the existing EIM (Enterprise Information Management) suite. This strategic integration leverages the strengths of the EIM ecosystem to complement and enhance the proposed solution. The culmination of these layers forms a harmonious symphony of functionality, converging to realize the promise of the proposed solution.

A diagram of a software project

Description automatically generatedThe high-level design offers an insightful blueprint of the proposed solution's intricate architecture. Through its systematic delineation of layers and functionalities, the design encapsulates the essence of how the product comes together as a cohesive whole, ready to usher in enhanced project management capabilities for OpenText Corporation.

## **Low-level design**

The low-level design for solution #1 provides a detailed view of the proposed product's components. The following low-level design refers to the HLD above and is represented as a use case diagram. The low-level design can help identify the impacted business processes and risks in implementing the solution. It can also help the technical team to get a clear understanding of the requirements and develop the solution based on those functionalities. The following use case diagram illustrates how the proposed solution will work, who is involved in the process and the features in scope.

A diagram of a diagram

Description automatically generated

## **Impact Analysis**

Impact Analysis assesses the impacts/changes brought by the proposed solution – OpenText Integra, on the existing operations, stakeholders, culture, and infrastructure in OpenText Corporation. The impact assessment below is based on the organization's identified current (as-is) and future (to-be) process flow. The level of impact is prioritized under three levels: High, medium, and low.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.no | Departments/Processes | Level of impact | As-Is | To-be |
| 1. | Business Processes | High | The current business processes in OpenText Corporation include developing and implementing products in a third-party cloud. The organization collaborates with third-party vendors to handle project management practices. | The proposed “OpenText Integra” solution will be implemented in the OpenText cloud infrastructure. The proposed solution will handle project management tasks. |
| 2. | Financial | High | The existing budget considers only current products/ solutions developed by OpenText Corporation. | The Finance team must work on the budget needs for the proposed solution. They must analyze whether the budget proposed for the solution is absorbed within the current operating budget. |
| 3. | Human Resources | Medium | The HR department is currently involved in managing existing talents, payroll, training and development. | Implementing OpenText Integra may or may not require a new job role. The impact of the proposed solution is expected to be medium. |
| 4. | Technical / IT | High | OpenText Corporation’s IT team is responsible for developing, integrating, and implementing new products. They are also responsible for performing upgrades and maintenance. | The proposed solution may impact the IT team more as they may need to upgrade themselves to facilitate the solution implementation. They must also analyze whether the current skills and technologies can support the solution implementation. |
| 5. | Existing products/solutions | High | All the existing products/solutions of OpenText corporation are integrated. | The proposed solution may have a higher impact on the current products based on the level of integration. OpenText Integra will be integrated with the existing EIM suite. |
| 6. | Marketing/Sales | High | The sales team at OpenText Corporation is currently responsible for processing purchase orders and assisting clients with their inquiries. The marketing team is engaged in promoting brand awareness and customer experience. | The proposed solution is a new product which may require the sales team to undergo training sessions to understand and promote the product. |
| 7. | Customers/Clients | Medium | OpenText Corporation’s existing clients already use one or all the products/solutions the company offers. | The impact of the proposed solution on clients is solely based on their interest in the product. |
| 8. | Infrastructure | High | The existing cloud infrastructure only supports information management products and other services. | OpenText Corporation needs to upgrade its existing cloud infrastructure to facilitate the implementation of the solution (OpenText Integra). |

**Impact 1:**

**Departments/Processes:** Business Processes

**Level of Impact:** High

**AS – IS:** OpenText Corporation presently engages in creating and deploying products within a third-party cloud environment. Collaborative efforts with external vendors are employed to manage project-related activities.

**TO-BE:** The envisioned "OpenText Integra" system will find integration within OpenText's internal cloud framework. This proposed system will oversee the management of project-related responsibilities.

**Impact 2:**

**Departments/Processes:** Financial

**Level of Impact:** High

**AS – IS:** The current budget exclusively encompasses products and solutions generated by OpenText Corporation.

**TO-BE:** The Finance division is tasked with addressing the financial requisites associated with the suggested solution. A comprehensive assessment is warranted to ascertain the alignment of the proposed solution's budget within the confines of the existing operational budget.

**Impact 3:**

**Departments/Processes:** Human Resources

**Level of Impact:** Medium

**AS – IS:** The Human Resources department presently undertakes responsibilities encompassing talent management, payroll administration, as well as training and developmental initiatives.

**TO – BE:** The introduction of OpenText Integra may or may not necessitate the creation of a novel job position. The envisaged influence of the proposed solution is anticipated to be of moderate significance.

**Impact 4:**

**Departments/Processes:** Technical / IT

**Level of Impact:** High

**AS – IS:** OpenText Corporation's IT unit is tasked with the creation, integration, and execution of novel products. Additionally, they bear the responsibility of executing upgrades and ensuring maintenance.

**TO – BE:** The forthcoming solution's effects on the IT team could be more pronounced, necessitating potential skill enhancements to facilitate adoption. A thorough evaluation is essential to determine if the existing competencies and technological infrastructure are adequate to support the successful implementation of the proposed solution.

**Impact 5:**

**Departments/Processes:** Existing products/solutions

**Level of Impact:** High

**AS – IS:** All the existing products/solutions of OpenText corporation are integrated.

**TO – BE:** The proposed solution may have a higher impact on the current products based on the level of integration. OpenText Integra will be integrated with the existing EIM suite.

**Impact 6:**

**Department/Processes:** Marketing/Sales

**Level of Impact:** High

**AS – IS:** Within OpenText Corporation, the sales unit manages purchase order processing and provides client support. The marketing team focuses on fostering brand recognition and enhancing customer engagement.

**TO – BE:** The forthcoming solution, being a fresh addition, could potentially necessitate training sessions for the sales team to comprehensively grasp and effectively promote the new product.

**Impact 7:**

**Department/Processes:** Customers/Clients

**Level of Impact:** Medium

**AS – IS:** OpenText Corporation's present clientele already leverages either one or the entirety of the company's product/solution offerings.

**TO – BE:** The potential effects of the suggested solution on clients are contingent upon their individual level of interest in the product.

**Impact 8:**

**Department/Processes:** Infrastructure

**Level of Impact:** High

**AS – IS:** The existing cloud infrastructure only supports information management products and other services.

**TO – BE:** OpenText Corporation needs to upgrade its existing cloud infrastructure to facilitate the implementation of the solution (OpenText Integra).

**Note:**

**High** – Very likely that the event will occur during the solution implementation.

**Medium** – There is a 50-50 chance that the event will occur during the solution implementation.

**Low** – Very unlikely that the event will occur.

## **Risks**

Based on the identified constraints and other feasibility results, the following section describes the risks of implementing solution 1 – “OpenText Integra.” The risks are identified and categorized based on technical, financial and resource factors. The identified risks are then prioritized based on the probability of their occurrence. The following table identifies the potential risks and strategies to mitigate those risks. The detailed risks analysis and mitigation strategies are described in the following “Risks Analysis section.”

|  |  |  |  |
| --- | --- | --- | --- |
| S.no | Risks | Probability | Mitigation |
| 1. | Delay in procuring third-party tools (including software & hardware) | High | Planning the procurement process well in advance. Establish a proper communication plan with vendors to mitigate the associated risks. |
| 2. | Limited resources to develop the required infrastructure | Low | Analyze and assess the capability of existing infrastructure. Make required changes in advance to improve efficiency. |
| 3. | Risk in integrating the proposed solution with existing products | Medium | Develop a proper integration plan early to facilitate seamless integration with existing products. |
| 4. | Customers/Client’s resistance to change | Medium | Provide support, training, and workshops to support customers in adapting to the change. Highlight the significance of the proposed solution. |
| 5. | Employees’ resistance to change | Low | Educate the employees about the importance of the solution. Involving them in planning and decision-making will help mitigate the risk. |
| 6. | Inadequate training or lack of knowledge of the IT team | Low | Conduct training and skill development programs before commencing the project. Identify key skills and allocate resources accordingly. Continuous improvement and support will enhance team skills. |
| 7. | Budget and schedule overruns | High | Developing a proper and accurate budget will mitigate the chances of budget overruns. Prepare a detailed schedule and always have a contingency plan. Monitoring the budget and schedule will help reduce the risk of overruns. |

**Note**: **High** – Very likely that the event will occur during the solution implementation.

**Medium** – There is a 50-50 chance that the event will occur during the solution implementation.

**Low** – Very unlikely that the event will occur.

Benefits of the solution #1 – “OpenText Integra”

Cloud revenue

OpenText Integra is projected to increase cloud subscription revenues to approximately 60%, surpassing the current mark of 43.9%.

Increase in NPS

With an innovative and high-quality product, the Net Promoter Score\* (NPS) can be elevated from the average rating range of 20-22 to 35+ in alignment with the leading players in the industry.

Revenue growth

An end-to-end independent project management solution has the potential to bridge the revenue gap between OpenText corporation and its direct competitors.

# **Possible Solution #2- Console based project management application.**

Possible solution #2 discusses developing and releasing stand-alone software (.exe file). The proposed solution #2 does not require a cloud environment; users can install the application in the desktop environment and perform desired tasks. This approach has the advantage of not needing a continuous internet connection, which can be helpful in situations where internet access might be limited. The following section describes the high-level and low-level design of the application. It also discusses the impacts and risks associated with the implementation.

While this solution brings many benefits, it also has its own set of impacts and potential risks. One positive aspect is its flexibility – users can work without relying on the cloud. Installing the software is easy, even for those who might not be tech-savvy.

However, there are some challenges to consider. Since updates may need manual installations, there's a chance that different users could be using different versions of the software. Also, not having cloud synchronization might limit real-time collaboration among multiple users.

In summary, Solution #2 proposes creating and distributing standalone software that can be installed as an executable file. This method offers users the convenience of a desktop environment without needing constant internet access. The detailed design ensures the software functions well, while the potential impacts and risks provide a balanced perspective on its implementation.

## **High-level design**

The high-level design of the proposed console-based project management application, known as solution #2, offers a comprehensive overview of its overall structure. This design encompasses various essential layers for the application's functioning and success. It provides a holistic perspective on how these layers interact and work together harmoniously to deliver the intended project management capabilities.

The high-level design of the software outlines its main structure and features, giving an overview of how everything works together. On the other hand, the low-level design delves into the finer details, like specific components and how they interact. These details make sure the software is user-friendly and functions smoothly.

**Presentation Layer**

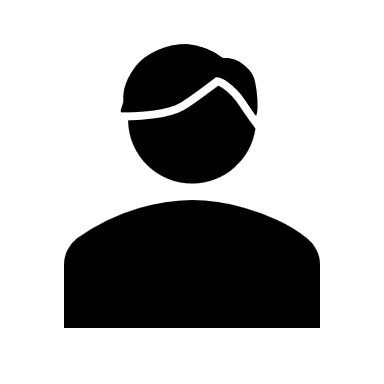
**User Inputs:**

This refers to the actions that users take within the software:

**Define tasks:** Users can input and describe the tasks required to complete the project. This information serves as the foundation for project planning and scheduling.

**Assign resources:** Users allocate resources, such as personnel, equipment, and materials, to specific tasks. This helps ensure that the necessary resources are properly utilized.

**Set dependencies:** Users establish relationships and dependencies between tasks. This guides the sequential flow of tasks and helps in determining critical paths and potential bottlenecks.



Graphical User Interface

User Inputs:

* Define tasks.
* Assign resources.
* Set dependencies.
* Track progress.

**Graphical User Interface (GUI):**

The graphical user interface is the visual bridge between users and the software. It presents information, options, and functionalities in a user-friendly manner. GUI design focuses on making the software intuitive, ensuring that users can navigate, interact with, and control the software effortlessly. A well-designed GUI enhances the user experience by simplifying complex processes.

**Gantt Charts:**

Gantt charts are visual representations that showcase the timeline of tasks and activities within a project. They illustrate the start and end dates of each task. This helps users understand the project's progress and dependencies. Gantt charts provide a clear overview of the project's schedule and allow for effective management of tasks in relation to one another.

**Task Lists:**

Task lists are concise outlines that itemize the various activities and assignments required to complete a project. They serve as a comprehensive checklist, ensuring that all necessary tasks are identified and accounted for. Task lists contribute to organized project management, enabling teams to monitor their progress and accomplish tasks systematically.

**Reports:**

Reports provide detailed summaries, analysis of project data, progress, and outcomes. They offer insights into key performance indicators, milestones, and potential issues. By presenting information in a structured format, reports aid decision-making and facilitate communication among team members as well as stakeholders.

**Resource Views:**

Resource views offer a comprehensive look at the allocation and availability of resources within the project. This component ensures that resources, such as personnel and materials, are optimally utilized. By visualizing resource allocation, project managers can make informed decisions to prevent overallocation or underutilization of critical assets.

**Business Layer**

The business logic layer handles the core functionality of the console-based project management application. The primary contents of the business logic layer are the key modules and components. They manage project-related operations and calculations. The main features include:

**Task Scheduling:**

Task scheduling involves arranging and sequencing project tasks to achieve maximal efficiency as well as timely completion. This functionality empowers users to define task initiation, culmination dates, allocate necessary resources, and define inter-task dependencies. This systematic approach ensures a well-structured project progression, mitigating the chances of hindrances or delays.

**Resource Allocation:**

Resource allocation pertains to effectively distributing available resources, such as manpower, equipment, and materials, to various project tasks. This feature helps prevent resource overuse or underutilization, optimize productivity, and avoid potential conflicts. Users can allocate resources based on task requirements and availability, enhancing overall project efficiency.

**Dependency Management:**

Dependency management involves defining the relationships between different tasks within a project. This feature allows users to specify task dependencies, indicating which tasks must be completed before others can begin. Dependency management ensures that the project flows smoothly and that tasks are executed in the correct sequence, minimizing project disruptions.

**Critical Path Analysis:**

Critical path analysis identifies the sequence of tasks that collectively determine the project's shortest completion time. This feature pinpoints tasks that, if delayed, could impact the project's overall timeline. By highlighting the critical path, users can focus their efforts on these tasks to ensure timely project delivery. Critical path analysis is crucial for efficient resource allocation and scheduling adjustments.

**Progress Tracking:**

Progress tracking involves monitoring the advancement of individual tasks and measuring the overall project. This feature provides real-time insights into task completion, resource utilization, and project milestones. Progress tracking assists project managers in identifying potential delays or deviations from the original plan, allowing for timely corrective actions.

**Data Access Layer**

A data access layer will be designed to facilitate the interaction between the application and the underlying data storage. The major components in the data access layer for the project management application will include the following:

**Data Access Objects:** These are specialized modules that provide a bridge between the application and the data storage. This enables seamless retrieval and manipulation of data with efficiency.

**Database Connections:** This component establishes the link between the application and the database. It also manages the link by facilitating data transmission and interaction while ensuring secure communication.

**Data Models:** These are the representations of data structures and relationships . They enable consistent organization and interpretation of information within the application's operations.

**Data Mapping:** It is the process of aligning data between the application and the database. The mapping also ensures accurate translation and synchronization of information.

**Data Validation:** Checks accuracy, integrity, and adherence to predefined rules of data before it is stored or utilized within the application.

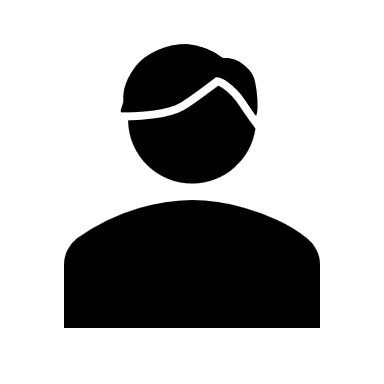
**Database Layer**

The database layer is responsible for storing and managing all project-related data. In the console version of the project management application, the database will typically be represented by a local file or a file stored on a network drive. This database file will contain crucial project information, including task details, resource assignments, project schedules, dependencies, and custom fields. The file format of the database will be specific to the operating system utilized by the customer, ensuring compatibility and seamless integration with their environment.

The database layer plays a pivotal role in the storage and management of all project-related data. Within the console version of the project management application, the database is most commonly represented by either a localized file or a file residing on a network drive. Contained within this database file are essential project particulars, encompassing comprehensive task information, meticulous resource allocations, meticulously planned project schedules, intricate task dependencies, and personalized fields tailored to project nuances. It's noteworthy that the database's file format is tailored to the specific operating system employed by the user. This emphasis on compatibility ensures that the application seamlessly integrates within the user's existing technological environment, promoting a streamlined and harmonious user experience.

## **Low-level Design**

The low-level design of solution #2 provides a detailed breakdown of the application's functionality into discrete components. It establishes clear connections between these components, illustrating how they collaborate to create a cohesive and functional application. By delving into the low-level design, it becomes possible to identify the affected business processes and potential risks associated with the implementation. The low-level design will ensure a thorough understanding of the requirements. This design is a valuable guide for the technical team, enabling them to develop the solution based on the specified functionalities and deliver a robust solution.



Data Storage

**Data Storage Component:** This element of the low-level design pertains to the precise arrangement and management of project-related data within the application. It defines how data is structured, stored, and accessed. This component is responsible for ensuring efficient data handling and retrieval.

**User Interface Component:** The user interface component outlines the detailed layout and interactions within the application. It determines how users navigate, interact, and engage with the software. This component emphasizes a user-friendly and intuitive experience.

**Task Management Component:** This component focuses on the granular management of project tasks. It outlines how tasks are created, assigned, updated, and tracked throughout their lifecycle, The task management component ensures accurate task monitoring and progress.

**Resource Management Component:** The resource management component delves into allocating and utilizing project resources. It specifies how resources like manpower, materials, and equipment are assigned to tasks. It also indicates how to optimize their use and prevent overallocation.

**Scheduling Component:** This component governs the scheduling of tasks and activities within the application. It defines how tasks are sequenced, manage dependencies, and set project timelines, ensuring efficient project progression.

**Reporting Component:** The reporting component addresses how project information is compiled and presented to stakeholders. It outlines the generation of reports, charts, and visual representations. These visual representations enables users to monitor project performance and make informed decisions.

## **Impact Analysis**

Impact analysis is critical when developing a computer program for project management because it evaluates the possible consequences of altering or updating the program in various areas of the overall system. This may be accomplished by examining how the program interfaces with the rest of the system. This analysis aims to learn how modifications to the application's sections, parts, or features may affect its overall efficiency and its simplicity of use, data processing, connecting abilities, and security, among other interrelated factors.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S.no | Departments | Level of Impact | Description | As-Is | To-Be |
| 1 | Operations | High | Functionality changes may affect the management tasks and resource allocation. These changes may impact the execution and progress of a project. | Resource allocation and task management are impacted by current functionality. | Planned modifications in functionality optimize task management and resource distribution. |
| 2 | IT | High | Infrastructure upgrades may be necessary to address technical compatibility issues, affecting the IT department's obligations to maintain the application's performance and integration capabilities. | Infrastructure updates are necessary due to current technical compatibility concerns. | Technical compatibility issues will be resolved through infrastructure upgrades. |
| 3. | Security | High | Security lapses can seriously affect data protection, necessitating the implementation or improvement of security measures by the security team to safeguard important project data. | Current security measures are susceptible to breaches. | Strengthened security measures to protect against potential breaches. |
| 4. | Design | Medium | Changes to the user interface will need advice and help from the design department to ensure a better user experience. | The current user interface design may require enhancements. | User interface modifications collaborate with the design department to ensure an enhanced visual and intuitive user experience. |

**Description of each Impact**

**Impact 1**

**Department:** Operations

**Description:** Modifications in functionality have the potential to impact management tasks and the allocation of resources. These changes may have consequences on the advancement and course of a project.

**AS – IS:** The present functionality affects the distribution of resources and the management of tasks.

**TO -BE:** Deliberate alterations in functionality are in the pipeline to enhance the administration of tasks and the allocation of resources.

**Impact 2**

**Department:** IT

**Level of Impact:** High

**Description:** Addressing technical compatibility concerns might necessitate updates to the infrastructure. This could influence the IT department's responsibilities related to the maintenance of the application's performance and its integration capabilities.

**AS – IS:** Current technical compatibility issues necessitate updates to the infrastructure.

**TO – BE:** Infrastructure upgrades are on the horizon to tackle technical compatibility challenges to ensure optimal performance and integration.

**Impact 3**

**Department:** Security

**Level of Impact:** High

**Description:** Security vulnerabilities could significantly impact data protection, requiring the security team to implement or enhance security measures. This step is vital to safeguard vital project data from potential breaches.

**AS – IS:** Current security measures are susceptible to breaches.

**TO – BE:** Security measures will be bolstered to fortify defences against potential breaches and enhance data protection.

**Impact 4**

**Department:** Design

**Level of Impact:** Medium

**Description:** Changes to the user interface will need advice and help from the design department to ensure a better user experience.

**AS – IS:** The current user interface design may require enhancements.

**TO – BE:** User interface adjustments will be made in partnership with the design department to enhance the visual appeal and user-friendliness, elevating the overall user experience.

**Note**:

**High** – Very likely that the event will occur during the solution implementation.

**Medium** – There is a 50-50 chance that the event will occur during the solution implementation.

**Low** – Very unlikely that the event will occur.

## **Out of scope**

To be "out of scope" means that a requested feature or a function need not be included in the desktop program for managing projects. It is a tool for setting reasonable expectations and defining the limits of the app's functionality.

The following are examples of tasks that could be beyond the scope of the project management desktop software (solution #2):

1. Mobile application development
2. The requirements will not cover integration with certain third-party tools or services.
3. Advanced analytics and reporting capabilities beyond the most basic project measures.
4. Connection to defunct computer networks or obsolete technical platforms.
5. Incorporating direct integration with various social media platforms for project updates and notifications may be beyond the software's intended scope.

## **Risks & Mitigation:**

|  |  |  |  |
| --- | --- | --- | --- |
| S.no | Risks | Probability | Mitigation |
| 1 | Technical compatibility issues | High | Ensure interoperability among the project management desktop application with the in-use systems operation, hardware, and software. Do a thorough analysis of the current technical framework. |
| 2 | Breach of Security or Unauthorized Access | High | Safeguard account information and sensitive project data.  Utilize robust methods for authentication, like multi-factor authentication and strong encryption methods. |
| 3 | Low Adoption Rates or User Resistance | Medium | Ensure the program satisfies their needs by involving consumers early in the creation process to obtain requirements and feedback. Build an instinctive, user-friendly, and aesthetically pleasing program, prioritizing user experience (UX) design. |
| 4 | Loss of Data | High | To ensure data redundancy and reduce the risk of data loss, adopt regular data backup procedures. Using trustworthy storage facilities and backup protocols to restore data in a failure. |
| 5 | Schedule slippage and resource limitations | High | Deploy resources efficiently and conduct extensive project planning to discover possible bottlenecks. Use project management techniques like Agile or Scrum to be flexible and responsive to shifting project needs. |
| 6 | Expanding Scope | Low | Precisely outline the project's goals and scope.  Ensure solid change management measures are in place to evaluate and handle scope changes successfully. |

## **ROI**

|  |  |
| --- | --- |
| **Expenditure** | **Cost/year** |
| **Personnel.** | **$ 1,350,000** |
| **Software Tools and Licenses.** | **$ 200,000** |
| **Development.** | **$ 300,000** |
| **Consultation fees.** | **$ 200,000** |
| **Hardware Infrastructure.** | **$ 500,000** |
| **Licensing and Compliance.** | **$ 20,000** |
| **Marketing and Advertising.** | **$ 20,000** |
| **Security Measures.** | **$ 50,000** |

By analyzing the expenses and revenue for Year 1, the Return on Investment (ROI) can be computed as:

ROI = (Total Revenue - Total Expense)/Total Expense

= (850,000-1,940,000)/1,940,000

= ~-56%

The organization would face a substantial setback with a projected ROI of -56% in the first year. Additionally, transforming this project into a profitable proposition becomes exceedingly challenging considering the current high demand for cloud-based technology and the expected slow year-on-year growth for console-based applications.

**Expenditures**

The costs associated with developing, deploying, and supporting a console-based application are comparable to those of its cloud-based counterpart. These expenses can be categorized into the following components:

It is essential to highlight that the initial investment for Solution #2 will be notably lower, given that the application will be directly deployed on the client's system, eliminating the need for OpenText Corporation to invest in server hardware and infrastructure costs. However, it should be noted that cloud application licensing costs are generally higher in the market. Despite the higher implementation cost, OpenText Integra is a much more profitable solution, thanks to its greater potential for generating revenue.

## **Revenue**

According to market standards, the console-based project management application is expected to generate revenue from three main streams. The primary source of revenue will come from licensing or subscription fees paid by users to access and use the application. Additionally, revenue will be generated from support services provided to clients who require assistance with the application's implementation or ongoing usage. Lastly, indirect income may be earned through various means, such as partnerships, integrations, or other value-added services associated with the application. These three revenue streams collectively contribute to the overall financial success of the project management application.

|  |  |
| --- | --- |
| **Source of Revenue** | **Total/Year** |
| **Subscriptions/Licenses** | **$ 600,000** |
| **Customer Support** | **$ 150,000** |
| **Indirect Income** | **$ 100,000** |

*\*The following assumptions are made to predict the yearly revenue.*

*Cost of subscription = 600$/year*

*Number of customers acquired = 40 (25 employees on average)*

**Benefits of the proposed solution #2:**

**Reduced Initial investment:** Solution #2 presents a more cost-effective initial investment by deploying directly onto clients' systems, removing the necessity for server hardware and infrastructure expenses.

**Direct Access Control:** The direct deployment of the application onto clients' systems empowers OpenText Corporation with improved control over updates, functionalities, and security measures, ultimately enhancing the user experience.

**Diverse Revenue streams:** The console-based application introduces a range of revenue streams, encompassing licensing charges, customer assistance services, and indirect earnings through partnerships. This diversification bolsters the income foundation.

**Non – Benefits of the proposed solution #2:**

**Negative ROI:** The console-based application predicts an initial negative ROI of approximately -56%, constituting an immediate financial setback.

**Limited Scalability:** Console-based applications could encounter constraints in scalability compared to their cloud-based counterparts, potentially hampering long-term growth possibilities.

**Higher Implementation Costs:** Despite Solution #2's improved profitability, its upfront implementation costs might dissuade potential clients, particularly those seeking budget-conscious alternatives.

**Market Competition:** Given the prevailing emphasis on cloud-based technology, the gradual year-to-year expansion for console-based applications might pose hurdles in attracting clients and securing a foothold in the market.

# **Possible Solution #3- Do Nothing**

The “do nothing” solution discusses the existing functionalities of OpenText Corporation. This section answers the following questions:

* + 1. What if OpenText Corporation does not implement the proposed solution?
    2. What are the risks and impacts of doing nothing?
    3. What is the design of the current processes/functionalities?

## **High-level design**

The high-level design provides an overview of the existing software architecture in OpenText Corporation. It discusses the different levels of OpenText Corporation’s process suite platform. A key objective of the process platform is to simplify the development process with a low-code development option. Business users can participate in model-driven application development with an approach that is more intuitive for them. We call this approach “information-driven design,” an alternative way of thinking about the process. Business users can start with the information they want to manage vs. the process flow. This is a different approach to traditional process-centric development, where platforms enable businesspeople to participate by contributing models that programmers take as input. Process Platform takes a radically different approach – the model is the application, not merely information to a programmer.

A diagram of a process suite platform

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Process Platform provides the following basic features:

**High availability. Mission-critical** applications must always be available. Process Platform can be deployed on a network of systems, ensuring there is no single point of failure.

**Scalability.** Enterprises handle thousands of business processes a day. The Process Platform scales vertically (scale up) and horizontally (scale out). Horizontal scalability is accomplished with just commodity hardware.

**Multitenancy.** Cloud computing scenarios demand multiple organizations, called tenants, to share the same infrastructure. Multitenancy is an essential feature of the Process Platform that can also be useful in some on-premises scenarios.

**Security.** With cybercrime being prevalent, it is crucial to harness the system appropriately. Process Platform has advanced security measures, including access control lists, auditing, encryption, and sandboxing.

**Service orientation.** Service-oriented architecture 2 is the predominant design principle for modern enterprise systems. Service orientation belongs to the very core of the platform. All interactions are done through services. (White Paper, OpenText Open Source)

**NOTE: This outlines the key components, interactions, and workflows that would remain unchanged if no action is taken.**

## **Low-level design**

The low-level design is the detailed documentation of the existing components, data structures and interfaces within OpenText Corporation’s infrastructure. It discusses the communication between each element in the process suite platform and the run time architecture.

**Team development scenario**

A diagram of a software development process

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The development team typically utilizes Software Configuration Management (SCM) tools to manage revisions of models and code. CWS (name of the system) has been designed to allow the integration of SCM products to accommodate various SCM tools and leverage the best options available.

CWS provides a plug-in architecture that seamlessly integrates different SCM tools. Out of the box, CWS includes a plug-in that supports Subversion, which is a popular SCM tool. This integration is facilitated through a file synchronizer component within CWS. The file synchronizer ensures a file system directory and the CWS workspace are in sync. This allows efficient management of code and models.

The CWS browser interface offers standard SCM features, including check-in and check-out, accessible to all users. Team members can perform these SCM actions directly within the CWS browser interface, streamlining the development process.

For team members who are programmers and prefer to use file-based Integrated Development Environments (IDEs) like EclipseTM or Microsoft Visual Studio®, CWS supports these IDEs through its file synchronizer. This means developers can continue using their preferred IDEs while ensuring synchronization with the CWS workspace.

**Run-Time Architecture**

At runtime, the Process Platform comprises a set of web service containers connected through an SOA grid. This section looks at the logical view, followed by the deployment view, an explanation of Process Platform multitenancy and an overview of the runtime services.

A diagram of a process

Description automatically generated

## **Impact/ change Analysis**

The following section analyzes the current process flow in OpenText Corporation and the impacts of doing nothing (the organization continues to follow the same processes) as the possible solution.

|  |  |  |  |
| --- | --- | --- | --- |
| S.no | Departments/Processes | Level of impact | As-Is |
| 1. | Business Processes | Low | The existing business processes in OpenText Corporation remain unchanged. |
| 2. | Financial | High | The current operational costs for cloud products/services will be the same. There is a chance of increased expenses in procuring third-party tools/services.  Revenue from existing cloud-based products will remain less than 50% of the total revenue. |
| 3. | Technical/IT | Medium | The existing IT team will continue to develop products that integrate with third-party tools (project management). This may result in a lack of innovation and collaboration. |
| 4. | Maintenance | Low | Less maintenance is required as the system has already been successfully implemented. |

## 

**Description of the Impact:**

**Impact 1**

**Department:** Business Processes

**Level of Impact:** Low

**AS – IS:** Regarding the existing state, the impact on the Business Processes department is minimal, as the current business operations within OpenText Corporation remain unaffected.

**Impact 2**

**Department:** Financial

**Level of Impact:** High

**AS – IS:** The current operational costs for cloud products/services will be the same. There is a chance of increased expenses in procuring third-party tools/services. Revenue from existing cloud-based products will remain less than 50% of the total revenue.

**Impact 3**

**Department:** Technical/IT

**Level of Impact:** Medium

**AS – IS:** The existing IT team will continue to develop products that integrate with third-party tools (project management). This may result in a lack of innovation and collaboration.

**Impact 4**

**Department:** Maintenance

**Level of Impact:** Low

**AS – IS:** Less maintenance is required as the system has already been successfully implemented.

**Out of Scope**

The following requirements are out of scope for the do-nothing solution:

1. Implementing a new product/ solution.
2. Upgrading the existing IT infrastructure.
3. Improvements in the existing business processes.
4. Skill development and training for the existing human resources.

## **Risks & Mitigation**

If OpenText Corporation continues with the existing functionalities and no new solution is implemented, the risks associated with the decision are as follows. The methods for mitigating the identified risks have also been discussed in this section.

|  |  |  |  |
| --- | --- | --- | --- |
| S.no | Risks | Probability | Mitigation |
| 1. | Limited revenue from cloud-based products/ services. | High | Continuous improvement:  Developing and implementing new products to identify customer needs. |
| 2. | Missed opportunities and loss of key clients/customers. | High | Assess the customer demands and market regularly.  Provide solutions that can increase customer satisfaction and retention. |
| 3. | Dependency on third-party project management software and other products. | Medium | Identify frequently required third-party tools and develop an alternative solution to decrease dependency. |
| 4. | Unexpected expenses, which may include an increase in third-party subscriptions | High | Review the expenses regularly and identify potential options for cost-saving opportunities. |
| 5. | Limited brand awareness and market visibility. | High | Attract more customers by providing solutions tailored to their requirements. |

## **ROI**

The weighing score model suggests that the "Do Nothing" solution seems to be the simplest and least resource-intensive choice in the short term. Nevertheless, the initial study conducted by CANINE Business Solutions reveals that selecting the "do nothing" approach would lead to missed revenue opportunities, an inability to adapt to changing customer needs, and challenges in remaining competitive in the dynamic business landscape.

A blue and white striped background

Description automatically generated

The table above showcases the existing revenue streams of OpenText Corporation, indicating its current financial well-being. However, despite the favourable financial position, implementing the "do nothing" solution would prove detrimental in addressing the gaps identified by CANINE Business Solutions during its initial study of OpenText Corporation's business and financial insights. The organization must consider proactive measures to address these gaps and capitalize on growth opportunities for sustained success.

**Benefits of the Do-Nothing Solution:**

1. **Minimal disruption:** The current revenue streams reflect a stable financial standing for OpenText Corporation, indicating its ability to sustain operations without immediate changes.
2. **Operational continuity:** Maintaining the existing revenue streams ensures operational stability and avoids potential disruptions that could arise from implementing new solutions.
3. **Financial Health:** The organization's favourable financial position is a testament to its current strategies and revenue streams, suggesting a level of financial well-being.

**Non-Benefits of the Do-Nothing Solution:**

1. **Missed Improvement Opportunities:** Adhering to the status quo may lead to missed opportunities for addressing identified gaps and improving business practices for long-term success.
2. **Stagnation in Growth:** Failing to take proactive measures to address gaps could hinder the organization's potential for growth, preventing it from reaching higher levels of success.
3. **Outdated Technologies:** Relying solely on existing revenue streams might limit the organization's ability to adapt to evolving market dynamics and seize emerging opportunities.

# **Solution Recommendation**

CANINE Business Solutions has evaluated three possible solutions using the weighted scoring model approach and identified the feasible solution option. The three possible solutions are provided as follows:

1. Solution #1 - Introducing a cloud-based project management software – “OpenText Integra.”
2. Solution #2 - Console-based project management application.
3. Solution #3 - Do Nothing

Following a thorough review process utilizing the weighted score model, CANINE Business Solutions exhaustively assessed three viable options. Among these possibilities, one has emerged as the most viable answer, considering various crucial decision-making aspects. These solutions have been rigorously evaluated against a variety of criteria to ensure their suitability for meeting the indicated business needs. The following are the three potential options under consideration:

**Solution #1 - Introduction of Cloud-Based Project Management Software - "OpenText Integra":**

This choice involves embracing advanced cloud-based project management software named "OpenText Integra." This software promises to transform organizational project management by capitalizing on cloud technology. Its goal is to streamline operations, enhance collaboration, and provide a robust platform for overseeing projects efficiently, staying in tune with industry trends.

**Solution #2 - Implementation of Console-Based Project Management Application:**

This solution centers on deploying a console-based project management application tailored to organizational needs. Rather than relying on cloud solutions, this application offers a localized approach to project management, tailored to specific requirements. The application's functionalities align with the organization's existing workflows and infrastructure.

**Solution #3 - Do Nothing**

This option suggests retaining current project management systems without introducing new approaches. While it may seem conservative, its implications warrant careful consideration. Opting for the status quo acknowledges existing practices and revenue streams, aiming to sustain the current business trajectory.

**Assumptions and Prerequisites:** A thorough assessment of the foundational assumptions and prerequisites each solution entails. This gauges their compatibility with the organization's present state and future ambitions.

**Organizational Preparedness:** An evaluation of the organization's readiness to adopt and integrate the recommended solution. The evaluation accounts for employee competencies, change management, and cultural fit.

**Feasibility Studies:** A comprehensive exploration of technical, operational, financial, and legal feasibility to gain insights into the practicality of implementing each solution.

**Constraints:** An examination of potential limitations such as budgetary restrictions, time constraints, and available resources, gauging the extent to which each solution can be realistically executed.

**Solution Evaluation:** An impartial evaluation of overall impact, advantages, risks, and potential returns associated with each solution, enabling an informed decision that maximizes organizational value.

The ultimate solution recommendation will emerge as a product of this rigorous evaluation process, reflecting a strategic choice aligned with the organization's vision, objectives, and unique circumstances.

## **Assumptions & Prerequisites**

**Assumptions**

Typical assumptions for implementing the proposed solution may include the following:

**1. The existing infrastructure will support the solution implementation.**

It is anticipated that the prevailing IT infrastructure of OpenText Corporation aligns effectively with the requisites of implementing the “OpenText Integra” solution.

**2. Required resources and technology are available.**

The assumption rests on the availability of necessary resources and technological elements that are pivotal for the successful execution of the proposed solution.

**3. The requirements remain unchanged until the implementation.**

It is assumed that the outlined requirements for the solution will remain unchanged throughout the implementation phase, allowing for consistent development progress.

**4. Change management strategy supports the transition and is effective.**

An assumption takes shape that the devised change management strategy is robust and capable of facilitating a seamless transition to the “OpenText Integra” solution.

**5. Technical team has the required skills to support development.**

The technical team is expected to possess the requisite skills and competencies. It is essential to facilitate the solution's development and implementation stages.

**6. OpenText Corporation’s existing products can integrate with the proposed solution.**

An assumption is made that OpenText Corporation's existing suite of products is capable of seamlessly integrating with the proposed “OpenText Integra” solution.

**Prerequisites**

Prerequisites refer to the conditions that must be met before project implementation. It discusses the organizational readiness, results of the feasibility studies and constraints involved in the implementation.

The prerequisites encompass the mandatory conditions that warrant fulfillment before embarking on the implementation of the “OpenText Integra solution.” These prerequisites embody:

**1. Organizational Readiness:**

Ensuring that the organization is well-prepared to accommodate the changes brought about by the solution, encompassing operational workflows, employee adaptability, and managerial support.

**2. Feasibility Findings:**

Prerequisites involve assimilating insights from comprehensive feasibility studies that span technical, financial, and operational aspects, thus empowering informed decision-making.

**3. Constraint Acknowledgment:**

Addressing the constraints inherent in the implementation journey, be it budgetary limitations, resource constraints, or technological hurdles, prior to initiation.

**4. Solution Evaluation:**

The prerequisites mandate an evaluative analysis of the proposed “OpenText Integra” solution to ascertain its alignment with organizational objectives, its potential value addition, and its fit with the business landscape.

## **Organizational Readiness**

Organizational readiness assessment provides a strategy to prepare the organization for implementing the proposed solution. The following table clearly shows OpenText Corporation’s readiness to implement the proposed solution. Organizational readiness can be determined based on different criteria. These criteria include capability, capacity, commitment, and culture. The following assessment considers the above criteria to assess the OpenText Corporation’s readiness for implementing the proposed solution.

The assessment of organizational readiness serves as a pivotal strategic maneuver, designed to ensure that OpenText Corporation is effectively poised for the seamless implementation of the proposed solution. This essential preparatory approach can be encapsulated in a comprehensive evaluation, as evidenced by the detailed depiction in the ensuing table, which meticulously outlines the company's preparedness levels to implement the proposed solution.

The determination of organizational readiness emerges from a multifaceted analysis that encompasses a spectrum of crucial criteria. These criteria, namely capability, capacity, commitment, and culture, collectively orchestrate the readiness assessment, which holds paramount importance in gauging the organizational landscape for the proposed solution's successful assimilation.

**Criteria 1: Can OpenText Corporation’s existing infrastructure (IT support) adapt to implementing the proposed solution?**

**Level 1:** OpenText Corporation's existing infrastructure (IT) can fully support and adapt the implementation of the proposed solution. No significant changes or adaptations are required.

**Level 2:** OpenText Corporation's existing infrastructure (IT) can support and adapt the implementation of the proposed solution with minimal changes in existing infrastructure.

**Level 3:** OpenText Corporation's existing infrastructure (IT) cannot support or adapt to the implementation of the proposed solution without significant changes or upgrades.

**Score: 2**

**Criteria 2: Does the organization have well-defined change management processes to adopt the transition?**

**Level 1:** The organization has well-defined change management processes ready to adopt the proposed transition smoothly.

**Level 2:** The organization has some change management processes requiring further development to effectively adopt the proposed transition.

**Level 3:** The organization lacks well-defined change management processes requiring significant improvements to adopt the proposed transition.

**Score: 3**

**Criteria 3: Can the organization's existing resources facilitate the implementation of the proposed solution?**

**Level 1:** The organization's existing resources can fully facilitate the implementation of the proposed solution.

**Level 2:** The organization has some resources that can contribute to implementing the proposed solution, but additional resources or improvements may be necessary to support the implementation fully.

**Level 3:** The organization's existing resources are insufficient to facilitate the implementation of the proposed solution, so they need more resources to support the implementation.

**Score: 3**

**Criteria 4: Did the organization successfully implement similar solutions or changes in the past?**

**Level 1:** The organization has successfully implemented similar solutions or changes in the past.

**Level 2:** The organization has some experience and has successfully implemented similar solutions or changes.

**Level 3:** The organization has no experience implementing similar solutions or changes in the past.

**Score: 3**

**Criteria 5: Does the organization's human resources have the required skills and knowledge to support the change?**

**Level 1:** The organization's human resources have the required skills and knowledge to support the change.

**Level 2:** The organization's human resources have some required skills and knowledge to support the change but may require further development or training in specific areas.

**Level 3:** The organization's human resources lack the necessary skills and knowledge to support the change.

**Score: 2**

**Criteria 6: Does the organization's culture embrace innovation and change in business processes?**

**Level 1:** The organization's culture strongly embraces innovation and change in business processes.

**Level 2:** The organization's culture moderately embraces innovation and change in business processes.

**Level 3:** The organization's culture is not ready for innovation and change in business processes. More effort is required to embrace innovation and change.

**Score: 3**

**Criteria 7: Are stakeholders aware of and actively involved in the proposed change?**

**Level 1:** Stakeholders are highly aware of the proposed change. They actively show strong involvement and engagement.

**Level 2:** Stakeholders have a moderate awareness and involvement in the proposed change.

**Level 3:** Stakeholders have limited awareness or involvement in the proposed change, so they must meet with stakeholders to be aware and involve them in this new solution.

**Score: 3**

**Criteria 8: Do communication management strategies in the organization provide a supportive environment for solution implementation?**

**Level 1:** The communication channels and processes are well-established. They provide a highly supportive environment for solution implementation.

**Level 2:** The organization's communication management strategies provide a moderately supportive environment for solution implementation.

**Level 3:** The organization's communication management strategies do not adequately support solution implementation.

**Score: 3**

**Criteria 9: Does the organization have the financial capability to implement the proposed solution?**

**Level 1:** The organization has the strong financial capacity to implement the proposed solution fully.

**Level 2:** The organization has moderate financial capability to implement the proposed solution. The financial resources are available, but they must be careful while estimating the budget.

**Level 3:** The organization has poor financial capability to implement the proposed solution. The organization needs to seek external funding.

**Score: 3**

**Criteria 10: Does the organization have strategies to monitor and measure the changes brought by the proposed solution?**

**Level 1:** The organization has well-defined strategies to monitor and measure the changes brought by the proposed solution.

**Level 2:** The organization has some strategies to monitor and measure the changes brought by the proposed solution.

**Level 3:** The organization lacks comprehensive strategies to monitor and measure the changes brought by the proposed solution.

**Score: 2**

**Legend**

**Level 1** = The organization is ready to implement the solution, requiring minimal change management activities.

**Level 2** = The organization needs more readiness for change, and intermediate change management activities are required.

**Level 3** = The organization is not ready for change, and significant change management activities are required.

The assessment scores reveal OpenText Corporation's readiness for the proposed solution implementation.

# **Feasibility Analysis**

The provided feasibility report will be helpful for OpenText Corporation to determine whether the proposed solution is feasible or not. While conducting feasibility analysis, factors such as technical feasibility, financial/economic feasibility (refer to Excel spreadsheet: INFO 8685 CANINE Business Solutions Financial Feasibility Report), and operational feasibility have been considered.

The assessment of technical feasibility delves into the intricacies of the proposed solution's alignment with OpenText Corporation's existing technological landscape. It navigates through the realm of compatibility, assessing whether the organization's infrastructure and systems are primed to seamlessly accommodate the solution. This examination not only gauges the readiness of the technological backbone but also the potential for a harmonious integration that enhances the overall efficiency and efficacy of the organization's operations.

The financial and economic feasibility, as illuminated through the accompanying Excel spreadsheet (INFO 8685 CANINE Business Solutions Financial Feasibility Report), provides a quantitative lens through which the proposed solution's fiscal viability is illuminated. The financial feasibility analysis delves into matters of cost-effectiveness, examining the projected financial outlays and potential returns. This discerning analysis is an indispensable tool in painting a vivid picture of the economic landscape, enabling OpenText Corporation to make informed decisions based on tangible financial insights.

Operational feasibility, the third pillar of analysis, ventures into practicality. It delves into the potential of seamless integration into the organization's existing operational structure. This facet evaluates the solution's alignment with the workforce, processes, and culture, probing whether the proposed solution can catalyze enhanced operational excellence.

Against this backdrop of meticulous feasibility analysis, the resulting findings culminate in an invaluable trove of insights. These insights, akin to precious gems, lay bare the organization's strengths and weaknesses, spotlighting the pathways that lead towards success. This holistic appraisal aids OpenText Corporation in charting a strategic course of action, enabling it to capitalize on the identified strengths while proactively mitigating potential vulnerabilities.

The findings will help OpenText Corporation to identify the strengths, weaknesses and risks involved in the implementation. After thorough organizational research, the following findings have been identified.

## **Technical Feasibility**

OpenText Corporation has the essential hardware and software facilities to implement solution #1. Building an infrastructure for the proposed solution is feasible as the organization has developed and implemented similar projects. Additionally, the solution may require acquiring third-party tools from vendors. As OpenText Corporation has previous experience procuring products/technologies from vendors, this can be feasible for the organization.

OpenText Corporation stands equipped with the foundational hardware and software infrastructure required for the successful implementation of solution #1. The organization's proven track record in developing and executing analogous projects lends credence to the feasibility of erecting the necessary technological framework. Moreover, the potential inclusion of third-party tools from external vendors, though a requirement, aligns harmoniously with OpenText Corporation's past procurement experiences. This history of effectively engaging with vendors bolsters the feasibility of this facet within the organization's operational landscape.

## **Economic/Financial Feasibility**

The financial feasibility evaluation conducted for the "OpenText Integra" solution provides a comprehensive outlook on its economic viability. This analysis delves into the financial aspects of implementing the solution, shedding light on its potential to yield positive returns for OpenText Corporation.

One of the noteworthy insights from the evaluation is the anticipated trajectory of Return on Investment (ROI). The projected ROI demonstrates a promising trend, starting from a modest baseline and showing consistent growth over time. This suggests that the solution has the potential to generate favourable financial outcomes for the organization.

The analysis also considers the expenditure associated with implementing the solution. It outlines a prudent approach to managing costs, ensuring that the implementation expenses align with the organization's financial capacity. This cost management strategy contributes to the overall feasibility of the solution.

In terms of revenue, the evaluation highlights an encouraging projection. The expected revenue trend underscores the solution's potential to generate income for OpenText Corporation. The revenue growth over the projected timeline reflects the solution's ability to generate substantial financial gains for the organization.

The financial feasibility assessment paints a positive picture of the "OpenText Integra" solution. The analysis underscores its potential to be economically advantageous for OpenText Corporation, making it a viable proposition in terms of its financial outcomes.

The financial feasibility studies (refer to Excel spreadsheet: INFO 8685 CANINE Business Solutions Financial Feasibility Report) show that the proposed solution can be implemented within the allocated budget and can return expected revenue to the organization. The results prove that the solution can be financially feasible.

## **Organizational Feasibility**

The operational feasibility identifies whether human resources can effectively handle and implement solution #1. Based on the previous data, OpenText Corporation has implemented similar products in the past with the existing technical team. The organization’s current resources have the necessary skills. They are open to training and changes.

Drawing from historical data, it is evident that OpenText Corporation has successfully developed and deployed similar products in the past. This highlights the organization's competence and expertise in managing projects of this nature. Moreover, the existing technical team possesses the requisite skills and competencies that align with the demands of the proposed solution. This existing skill set positions the organization favourably to handle the intricacies of "OpenText Integra."

Adaptability and openness to change play a crucial role in operational feasibility. OpenText Corporation's current resources exhibit a willingness to embrace change and innovation. This positive attitude towards transformation reflects their commitment to ensuring the success of the solution. Additionally, the team's openness to training further reinforces their readiness to adapt to the solution's implementation and any evolving requirements.

Considering these factors, the operational feasibility assessment indicates that OpenText Corporation's human resources are well-equipped to navigate the challenges and complexities associated with implementing "OpenText Integra." Their proficiency, experience, and willingness to adapt collectively contribute to the favourable operational feasibility of the proposed solution.

All the above findings summarize the feasibility of the proposed solution #1.

The feasibility analysis results prove the significance of implementing a new solution. Based on the findings and the functional requirements, possible solution #1 (Introducing a cloud-based project management software- “OpenText Integra”) has been proposed. The following section outlines the design and impacts of the proposed solution #1. It includes high-level design, low-level design, impact analysis, risks, and mitigation strategies. All the factors are determined based on the findings of the feasibility analysis. These factors will shed light on the successful implementation of the solution.

# **Evaluation Criteria**

The process of solution evaluation involves a meticulous analysis and comparison of various possible solutions to determine the most suitable course of action for a given situation. In the context of OpenText Corporation, CANINE Business Solutions undertook a thorough solution evaluation by employing a weighted scoring model. This model served as a structured framework to assess and contrast the three potential solutions at hand.

CANINE Business Solutions used the weighted scoring model to compare and evaluate the three possible solutions. The three solutions have been evaluated based on different criteria and scored out of 100. The solution with the highest score will be considered the best possible solution for OpenText Corporation.



Three possible solutions are weighted under different factors like increase in revenue, customer satisfaction, low risk, technical and financial feasibility. The scores range from 40 to 90, with 40 being the lowest score under specific criteria and 90 being the highest for some. The following table illustrates the weightage gained by each solution. The solution with the highest score out of three will be the feasible solution for OpenText Corporation.

The weighted scoring model, being an amalgamation of these scores and weights, offered a comprehensive view of the solutions' overall viability. In the context of OpenText Corporation's evaluation, Solution #1 emerged as the frontrunner, garnering a score of 86.75. The meticulous evaluation of various criteria, particularly revenue and customer satisfaction, propelled Solution #1 to the forefront.

Regarding revenue (which holds more weightage than other criteria), solution #1 scores the highest, 90, whereas solution #3 scores the lowest with only 40. Solution #1 gained 90 under customer satisfaction (another essential factor), while solutions #2 and #3 scored only 65 and 70. Technical and financial feasibility criteria have also been considered while calculating the weighted scoring model. The financial feasibility criteria are evaluated considering the lack of economic advantages brought by the proposed solutions. Since solution #1 is supposed to be calculated to make more profit and ROI (refer to the section: ROI), it has scored more weight than the other possible solutions.

Based on the weighted scoring model, solution #1, which CANINE Business Solutions proposes, scores at 86.75. On the other hand, solution #2 has scored 64.75 and solution #3 has scored 50 respectively. The scores show that solution #1 best fits OpenText Corporation's business requirements. CANINE Business Solutions recommends OpenText Corporation to proceed with solution #1.

In examining why Solution #1 was recommended for OpenText Corporation, it's evident that it demonstrated exceptional potential for addressing the organization's business needs. The model underscored Solution #1's superior performance in critical areas such as revenue generation and customer satisfaction. Additionally, considering that Solution #1 exhibited promising financial feasibility, including a positive ROI, it naturally garnered a higher weight in the evaluation process.

Calculation

For solution 1

Weighted score = 25% \* 90 + 15% \* 90 + 15% \* 90 + 10% \* 85 + 15% \* 90 + 10% \* 80 + 10% \*80

= 87.5

For solution 2

Weighted score = 25% \* 80 + 15% \* 65 + 15% \* 70 + 10% \* 50 + 15% \* 50 + 10% \* 60 + 10% \* 60

= 64.75

For solution 3

Weighted score = 25% \* 40 + 15% \* 70 + 15% \* 60 + 10% \* 90 + 15% \* 45 + 10% \* 85 + 10% \* 90

= 54.25

By meticulously weighing these factors and assessing each solution's alignment with OpenText Corporation's objectives, the weighted scoring model concluded that Solution #1 was the optimal choice. CANINE Business Solutions' recommendation to proceed with Solution #1 is a result of this thorough evaluation, emphasizing its ability to cater to the organization's multifaceted requirements and position it for successful outcomes.

# **Constraints**

Before proceeding with the solution implementation, OpenText Corporation must identify the constraints that can limit the solution options. Constraints can fall under economic, social, resource and technical categories. OpenText Corporation must schedule a timeline, allocate budget and resources based on the identified constraints.

The successful execution of the recommended solution, "OpenText Integra," is contingent upon navigating several key constraints, which stem from the assumptions, prerequisites, organizational readiness, and feasibility studies conducted. These constraints shape the landscape in which the solution will be implemented, requiring careful consideration and strategic planning. The following elaboration outlines each constraint.

**Technical constraints**

The implementation of "OpenText Integra" hinges on ensuring that the existing infrastructure is fully compatible with the solution's technical requirements. This involves assessing the organization's current technology stack, including hardware and software, to identify any gaps or potential limitations that may impede the smooth integration of the proposed cloud-based project management software.

The following are the technical constraints involved in the solution implementation:

1. Developing and implementing software in OpenText Cloud is a major constraint. A well-built infrastructure will be required.
2. Integrating the proposed solution #1 with existing products is complicated. The existing products may not be compatible with the OpenText cloud.

**Economic constraints**

Implementing cloud-based project management software may require additional costs but will not be a major constraint. As the organization has implemented similar products, OpenText Corporation can plan to implement a phased approach to manage this constraint.

The financial feasibility of the solution is influenced by various factors, including initial investment costs, operational expenses, and expected returns. Addressing this constraint requires a comprehensive analysis of the organization's financial health and its ability to allocate resources for the implementation of "OpenText Integra."

**Resource Constraints**

There are no resource constraints identified in the proposed solution implementation. Since OpenText Corporation has a strong technical team which has developed and implemented similar projects before, implementing the proposed software (solution #1) will not be a constraint.

To effectively execute the solution, OpenText Corporation must ensure the availability of necessary resources, both in terms of technology and personnel. This constraint involves assessing the readiness of the technical team to handle the implementation, ensuring they possess the required skills and expertise to deploy the new software effectively.

**Change Management Constraint:**

The transition to "OpenText Integra" necessitates a comprehensive change management strategy to mitigate resistance and ensure a seamless adoption process. Addressing this constraint involves assessing the organization's willingness to adapt to new processes, software, and workflows. Effective communication and training plans are imperative to overcome potential resistance which in turn must ensure a successful transition.

**Vendor Collaboration Constraint:**

The solution may entail acquiring third-party tools from vendors to complement the cloud-based project management software. As such, effective collaboration and alignment with vendors become crucial. This constraint involves evaluating OpenText Corporation's history of vendor interactions, including procurement and integration experiences, to anticipate any potential challenges.

**Human Resource Readiness Constraint:**

The successful implementation of the solution #1 – “OpenText Integra” relies on the readiness of the existing human resources to adapt to the changes introduced by "OpenText Integra." This constraint entails evaluating the organization's willingness to invest in training and skill development, ensuring that personnel possess the capabilities to effectively utilize the new software.

**Data Security and Privacy Constraint:**

The migration to a cloud-based solution brings forth concerns related to data security and privacy. This constraint involves assessing the organization's ability to adhere to regulatory requirements and safeguard sensitive data while transitioning to a cloud environment.

**Integration Complexity Constraint:**

Integrating "OpenText Integra" with existing systems and processes may present challenges. This constraint entails evaluating the complexity of integration, potential disruptions, and the organization's capacity to manage the integration process without compromising ongoing operations.

Navigating these constraints demands a comprehensive approach that aligns with OpenText Corporation's goals, capabilities, and operational landscape. Adhering to these considerations is crucial for a successful implementation that maximizes the benefits of "OpenText Integra" while mitigating potential challenges.

**Recommended Solution**

Upon thoroughly examining several critical factors, including the organization's level of preparedness, the practicality of the solution, the underlying assumptions, requirements, and any potential limitations, it becomes evident that the most suitable choice for OpenText Corporation is undoubtedly "OpenText Integra." This solution holds the promise of not only addressing the existing gaps and challenges faced by the company but also aligning perfectly with its overarching objectives.

By delving into these various factors, we can discern that "OpenText Integra" possesses the unique potential to streamline operations, seamlessly integrate with the prevailing technological landscape, and significantly bolster the company's revenue streams. This comprehensive solution has been meticulously tailored to suit the company's distinct needs and aspirations. Additionally, it emerges as a compelling option that can facilitate a smoother and more prosperous trajectory.

With a comprehensive consideration of organizational readiness, feasibility analysis, initial assumptions, essential prerequisites, and potential limitations, the decision to recommend "OpenText Integra" is well-founded. This recommendation is rooted in a deep understanding of the company's circumstances, coupled with a strategic vision for enhancing performance and achieving sustainable growth.

In conclusion, "OpenText Integra" emerges as the ideal response to the multifaceted challenges and opportunities encountered by OpenText Corporation. It aligns seamlessly with the company's existing capabilities, offers the potential for improved operational efficiency, and holds the promise of substantial financial returns. This solution, carefully considered, holds the potential to propel OpenText Corporation towards a future marked by resilience, innovation, and success.

# **Requirements Criteria**

Based on the recommended solution, the following section explains the business, functional and nonfunctional requirements of implementing the proposed solution #1 – “OpenText Integra”. It provides a comprehensive exploration of the essential elements, encompassing business, functional, and non-functional aspects. These requirements serve as the blueprint for shaping the solution's design, development, and eventual implementation, ensuring that it aligns seamlessly with OpenText Corporation's unique needs.

Within the business requirements, we uncover the specific outcomes and goals that "OpenText Integra" must achieve to drive the organization towards success. These encompass a strategic array of aspirations, ranging from optimizing resource allocation to enhancing client engagement. Each requirement has been meticulously defined to encapsulate the desired impacts that the solution should bring to the organization's operational landscape.

Functional requirements come to the forefront, outlining the various features and capabilities that "OpenText Integra" must possess. These specifications span a spectrum of functionalities, from seamless task scheduling and resource allocation to robust security measures. These detailed requirements offer a roadmap for the technical teams to develop a solution that seamlessly integrates into the existing framework while delivering enhanced operational efficiency.

In parallel, non-functional requirements shine a light on the attributes that shape the solution's performance and user experience. These encompass aspects like scalability, responsiveness, and security measures, ensuring that the solution is not only functional but also performs optimally under varying conditions. These requirements act as a compass, guiding the solution's design to embody a holistic and reliable user experience.

The requirements section isn't merely a list of checkboxes; it's a meticulous orchestration of OpenText Corporation's aspirations, technical capabilities, and operational realities. This granular detailing, presented in a language carefully crafted for clarity and comprehension, sets the foundation for a solution that is not only recommended but tailored to elevate OpenText Corporation's growth trajectory.

## **Functional Requirements**

A functional requirement in software development outlines the specific tasks and features that a software needs to perform. It's like a detailed roadmap that helps designers and developers create the software users want. Functional requirements are important because they make sure everyone understands what the software should do, they help keep the project focused, guide the design and coding process. It also ensures proper testing, makes sure the software meets the user’s needs, and guarantees that the final product matches the business goals.

OpenText Integra's functional requirements are carefully designed to ensure seamless project management, efficient resource allocation, robust data security, and strict adherence to legal standards. These requirements span various critical areas, including authorization levels, business operations, reporting mechanisms, data handling, technical capabilities, and legal compliance.

Some of the functional requirements are:

1. Authorization Levels
2. Business requirements
3. Reporting requirements
4. Data requirements
5. Technical requirements
6. Legal requirements

These functional requirements encompass key aspects such as defining user authorization levels, streamlining business processes, enabling comprehensive reporting, data management, ensuring compatibility with technical systems, and upholding legal obligations. Every requirement is crucial in developing OpenText Integra. These requirements ensure that the software fulfills the company's specific needs, providing a strong, easy-to-use, and legally sound project management solution.

**Authorization Levels**

In today's work environment, it is essential to establish a strong foundation of user access control. OpenText Integra will incorporate comprehensive authorization levels, allowing users to register using unique credentials and strong passwords. This registration interface serves as the initial step towards creating a secure and personalized environment for each user. Moreover, user authentication mechanisms will ensure that only authorized personnel gain access to the software, safeguarding sensitive project data and ensuring the integrity of the entire system.

**User Interface (UI) Requirements:**

Develop a user interface for OpenText Integra that is clean, uncomplicated, as well as easy to comprehend, while making it so that users can navigate the software's features in a manner that is relatively simple and straightforward. Specify that the user interface must include a dashboard that provides critical information alongside functionality, as well as buttons, menus, and icons that are simple to read.

**Integration Requirements:**

Demonstrate how OpenText Integra will be able to connect easily with a wide variety of enterprise systems, such as CRM and ERP platforms, by making use of common application programming interfaces (APIs), such as REST or SOAP. Indicate that the synchronization of data should take place in real-time to ensure that information can be depended upon to be accurate and up to date across all of the systems.

**Performance Requirements:**

It should be a requirement that OpenText Integra should load within three seconds, and it should continue to deliver rapid actions even during periods of peak demand. Define that the program should be able to handle several users at the same time as well as big data sets without negatively impacting performance.

**Data Validation and Business Logic Requirements:**

Define that OpenText Integra should include strong data validation checks to prevent incorrect data entering and ensure that processing is done accurately. Specify that the business logic should be flexible so that administrators have the ability to customize workflows and procedures to meet the needs of their own organizations.

**Usability Requirements:**

Specify that OpenText Integra must deliver understandable error messages as well as assistance prompts to users to direct them through any problems they may experience. Specify that the software should come with both tooltips and user instructions so that first-time users may rapidly become familiar with how to make use of the program's features.

**Scalability and Growth Requirements:**

Specify that OpenText Integra should be created with a modular architecture, which will allow it to scale both vertically and horizontally to handle increased user activity as well as information volume as the user base grows. This will be done by defining that OpenText Integra should be designed with a modular architecture.

**Task Management**

Efficient task management is at the core of successful project execution. OpenText Integra will empower users to seamlessly create, track, and assign tasks to team members. Each task will be equipped with essential details, including the task name, assigned personnel, status, and dates. This feature streamlines communication and accountability within the team, fostering a collaborative atmosphere that promotes productivity.

**Resource Allocation**

Resource allocation is a critical aspect of project management. The OpenText Integra shall allow users to allocate resources to tasks. With the workload feature, users can effortlessly allocate resources to tasks while monitoring availability and preventing over-allocation. This functionality not only optimizes resource utilization but also contributes to effective workload distribution, leading to improved project outcomes and a balanced workload among team members.

**Project Planning and Scheduling**

The ability to plan, track, and schedule projects is central to successful project management. OpenText Integra will offer an intuitive project planning and scheduling feature that empowers users to create comprehensive project plans. Visual tools like Gantt Charts will enable users to set deadlines, track progress, and manage dependencies effectively. The visualization enhances project transparency and assists in identifying potential bottlenecks or delays. This helps the users to adjust the time and make the best decision.

**Reporting**

OpenText Integra's reporting capabilities go beyond basic data analysis. OpenText will analyze project status like how many tasks have been completed. After that generates insightful project progress and budget reports using advanced reporting tools. Reports will be presented through interactive charts and Kanban boards, providing stakeholders with a clear overview of project performance. These reports facilitate data-driven decision-making and promote a holistic understanding of project dynamics.

**File Sharing**

OpenText Integra recognizes the significance of streamlined communication and collaboration. To facilitate this, the OpenText Integra will offer a centralized platform for sharing project files, documents, and fostering communication. The specialized files section within the project board will give users the ability to effortlessly upload, retrieve, and exchange resources. This will reduce isolated information and promote a unified project atmosphere.

**Data Repository**

A centralized data repository is fundamental to data integrity and security. OpenText Integra will feature a robust data repository that enables users to store and safeguard project-related data. This repository guarantees that data remains consistent, accessible, and secure. It aids in structured data administration and reduces the potential for data loss.

**Data Integration**

The OpenText Integra needs to synchronize and merge with current OpenText products to facilitate data transfers. OpenText Integra's synchronization and integration with existing OpenText products guarantees smooth data movement throughout the software network. This effortless data transfer function improves teamwork and data uniformity. This in turn allows users to make the most of familiar tools and processes while optimizing the benefits of integrated data.

**Data Backup and Recovery**

In the event of data loss incidents, OpenText Integra will provide a reliable data backup and recovery mechanism. This feature minimizes the effects of unexpected interruptions, guaranteeing data durability and uninterrupted business operations. The software's robust backup and recovery solution contributes to data reliability in users’ data management practices.

**Database Compatibility**

The software shall be able to interact with designated database systems like Gupta SQL Base, MySQL, and Oracle. OpenText Integra's compatibility with designated database systems, including Gupta SQL Base, MySQL, Oracle, reflects its commitment to adaptability and integration. This compatibility enhances data interaction and manipulation, enabling users to leverage their preferred database platforms while seamlessly managing project-related information.

**Cloud Infrastructure**

The software shall be deployed and compatible with the OpenText cloud. OpenText Integra's deployment within the OpenText cloud infrastructure offers scalability, accessibility, and resource optimization. This compatibility with the OpenText cloud environment empowers users to harness the benefits of cloud technology, ensuring a flexible and responsive software ecosystem that aligns with modern business needs.

**Compliance with Canadian Law**

OpenText Integra will prioritizes legal compliance, particularly in adherence to Canadian law. By meeting the criteria outlined in Canadian regulations, the OpenText Integra ensures that users can confidently utilize the platform while adhering to legal standards and safeguarding sensitive data.

**Intellectual Property**

OpenText will be safeguarded under copyright policies. This highlights OpenText Integra's significance as a valuable intellectual asset. This safeguarding guarantees that the software's distinct features, design, and capabilities remain the sole domain of its creators, maintaining the software's value.

The fundamental functional requirements for OpenText Integra are displayed in a well-structured table format, providing a clear outline of the specific functions and features that the software must incorporate. These requirements cover various areas, like user registration, authentication, task management, resource allocation, project planning, reporting, file sharing, data storage, integration, backup, recovery, compatibility with specific databases, deployment in the OpenText cloud, adherence to Canadian legal standards, and copyright protection. Each requirement has a unique number, a brief description, a priority level, traceability information, and additional notes when necessary. This structured presentation helps to understand the OpenText Integra's planned features and how they align with the identified business needs.

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| **Section** | **Requirement Identifying Number** | **Requirement Description** | **Requirement prioritization (H, M, L)** | **Traceability** | **Requirement Notes** |
| User Registration | FREQ\_001 | The software shall provide a user registration interface that allows users to register using a unique name and strong password. | H |  |  |
| User authentication | FREQ\_002 | The software shall ensure access only to authorized users. | H | REQ\_001 | The software should verify credentials and grant access only to authorized users. |
| Task management | FREQ\_003 | The software shall allow users to create, track and assign tasks for the team members. | H | FR-101 | Each task shall include the following details:   1. Task Name 2. Name of the person assigned. 3. Status 4. Date |
| Resource allocation | FREQ\_004 | The software shall allow users to allocate resources to tasks, track resource availability and over-allocation. | H | FR-102 | The workload feature shall allow the user to view and assign resources to tasks. |
| Project planning & scheduling | FREQ\_005 | The software shall allow the user to create a project plan, track schedules and set deadlines using visual tools like Gantt Charts. | H | FR-103 | The project board includes the following:   1. Task name 2. Assigned Resources 3. Deadlines 4. Dependency 5. Gantt view |
| Reporting | FREQ\_006 | The software shall analyze the project status, generate project progress and budget reports using reporting tools. | H | FR-105 | The reports shall be generated using charts and Kanban boards in the project dashboards. |
| File sharing | FREQ\_007 | The software shall allow the users to share project files, documents and communicate in a centralized platform. | H | FR-106 | The project board shall have a files section to upload and share the files with team members. |
| **Data Requirements** | | | | | |
| Data repository | FREQ\_008 | The software shall have a centralized data repository for users to store and protect project-related data. | H | SR-101 |  |
| Data integration | FREQ\_009 | The software shall be able to synchronize and integrate with existing OpenText products for data transfers. | H | SR-104 |  |
| Data backup and recovery | FREQ\_010 | The software will have a data backup and recovery mechanism available in case of data loss incidents. | H |  |  |
| **Technical Requirements** | | | | | |
| Database compatibility | FREQ\_011 | The software shall be able to interact with designated database systems like Gupta SQLBase, MySQL and Oracle. | H | TR-102 |  |
| Cloud infrastructure | FREQ\_012 | The software shall be deployed and compatible with the OpenText cloud. | H | TR-104 |  |
| **Legal Requirements** | | | | | |
| Compliance with Canadian law | FREQ\_013 | The software shall follow compliance law, which guarantees that all criteria under Canadian law are completed. | H | LR-104 |  |
| Intellectual property | FREQ\_014 | The software shall be protected under the copyright policy. | M | LR102 |  |

## **Non-Functional Requirements**

Non-functional requirements are vital attributes that describe how a software system performs rather than what it does. These attributes underpin the software's overall functionality and user experience. It also ensures that OpenText Integra meets performance expectations and quality standards. OpenText Integra's non-functional requirements encompass various critical dimensions, each contributing to a seamless, secure, and efficient user experience.

Some of the non-functional requirements mentioned in the table are:

1. Performance requirements
2. Reliability requirements
3. Security requirements
4. Usability requirements
5. Compatibility requirements
6. Availability requirements
7. Compliance requirements
8. Maintainability requirements
9. Localization requirements

**Performance Requirements**

Efficiency is crucial for OpenText Integra, which must adeptly manage large datasets and intricate calculations. It enables multiple users to access it concurrently, maintaining rapid response times and minimal latency. The software shall consistently respond in less than 80 milliseconds. Additionally, it shall exhibit high throughput, effectively handling 1000 responses within an average of 100 milliseconds. Accommodating multiple users simultaneously is crucial, ensuring optimal performance even under heavy loads.

**Reliability Requirements**

Reliability is at the core of OpenText Integra's performance. OpenText’s primary aim will be to achieve an uptime of 99.9%, ensuring that users can consistently access and use it without any interruptions. This commitment to reliability is not just a goal; it's a promise to users who rely on the software for their essential tasks and operations.

To further emphasize its dependability, OpenText Integra will go the extra mile by minimizing downtime to only five minutes per year. This impressive capability not only highlights the software's strong technical foundation but also gives users the assurance that they can count on it, even during occasional short periods of maintenance.

**Security Requirements**

Security is important in safeguarding the confidentiality and integrity of sensitive data within OpenText Integra. To ensure this, the software is equipped with robust security measures that prevent unauthorized access, modifications, and potential data breaches. This stringent security protocol serves as a solid foundation, instilling trust and confidence among users that their valuable project information is well-protected. By implementing multi-layered security mechanisms, from stringent user authentication to advanced data encryption, the software creates a secure environment where users can seamlessly collaborate, manage, and exchange crucial project data. This commitment not only enhances the overall user experience but also empowers organizations to confidently utilize OpenText Integra as a reliable and secure solution for their project management needs.

**Usability Requirements**

OpenText Integra shall place a strong emphasis on user-friendly design, incorporating an intuitive interface, clear navigation, and well-organized menus to ensure an efficient user experience. Furthermore, the software's commitment to inclusivity is evident through its adherence to accessibility standards, guaranteeing that individuals with disabilities can fully engage with its features which contribute to collaborative projects, fostering a sense of empowerment and diversity.

**Compatibility Requirements**

The software's compatibility extends across platforms, including web browsers, mobile devices, and multiple operating systems. It should seamlessly integrate with third-party applications, expanding its collaborative capabilities and interoperability.

**Availability Requirements**

OpenText Integra's availability is paramount. It shall remain accessible 24/7 to cater to users' needs, and its exceptional uptime of 99.999% ensures minimal service interruptions, contributing to a consistent user experience.

**Compliance Requirements**

OpenText Integra shall have ethical practices by following industry standards and regulations. This encompasses compliance with GDPR and ISO/IEC 27001, shows the software's commitment to maintaining robust data handling measures.

**Maintainability Requirements**

OpenText Integra shall have Mean Time to Restore Service (MTTRS) of less than 10 minutes. This ensures prompt resolution of any potential disruptions, minimizing operational downtime.

**Localization Requirements**

OpenText Integra shall enhance its global usability by providing support for 20 internationally recognized languages, each shall adhere to specific date and time formats to cater to diverse user needs.

These non-functional requirements collectively define the performance, reliability, security, usability, compatibility, availability, compliance, maintainability, and localization facets of OpenText Integra. Each requirement contributes to creating a software solution that not only meets business needs but also ensures a top-tier user experience while upholding the highest standards of performance and security.

The essential non-functional requirements for OpenText Integra are presented in a well-organized table format. This layout provides a clear breakdown of the software's specific performance expectations and characteristics. These requirements cover important aspects such as performance, reliability, security, usability, compatibility, availability, compliance, maintainability, and localization. Just like the functional requirements, each non-functional requirement is assigned a unique identification number, a brief description, a prioritization level, traceability references, and any additional notes deemed necessary. This structured presentation offers a straightforward understanding of what OpenText Integra aims to achieve in terms of efficient data handling, system reliability, user security, ease of use, interoperability, operational availability, regulatory adherence, ease of maintenance, and language support. The goal is to provide a comprehensive view of how the software's intended features align with the identified business needs and industry standards.

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| **Section** | **Requirement Identifying Number** | **Requirement Description** | **Requirement prioritization (H, M, L)** | **Traceability** | **Requirement Notes** |
| Performance | NF\_001 | The software shall handle large project datasets and complex calculations efficiently. It shall support concurrent access by multiple users with fast response times and low latency. | H | PR-101 | The software shall have a response time of less than 80 milliseconds. |
| NF\_002 | The software shall have a high throughput response of handling 1000 responses with an average time of 100 milliseconds. | H | PR-102 | The software shall be able to handle multiple users at a time and perform efficiently. |
| NF\_003 | The software shall have a response time of less than 80 milliseconds. | M | PR-101 |  |
| Reliability | NF\_004 | The software shall be reliable with a standard uptime of 99.9%. | L | PR- 104, AR- 101 | Downtime of about 5 minutes/year |
| Security | NF\_005 | The software shall employ robust security measures to prevent unauthorized access, modification, or disclosure of project data. | H | AR-102 |  |
| Usability | NF\_006 | The system shall have an intuitive, user-friendly interface, clear navigation, and well-organized menus. | M |  | The software should be accessible to users with disabilities, complying with accessibility standards (e.g., WCAG 2.0). |
| Compatibility | NF\_007 | The software shall be compatible with multiple platforms, including web browsers, mobile devices, and operating systems (Windows, macOS, iOS, Android). | L | PR-103 |  |
| NF\_008 | The software shall integrate effectively with third-party applications. It shall support other project management tools like document management, issue tracking and other collaborative tools. | H | PR-103,  TR-103 | The software shall integrate effectively with existing applications in client organizations. |
| Availability | NF\_09 | The software shall be available 24\* 7 for the users. | M | AR-101 |  |
| NF\_010 | The software shall have 99.999% uptime. | L | AR-101 | Downtime of about 5 minutes/year |
| Compliance | NF\_011 | The software should comply with relevant industry standards and regulations, such as GDPR, or ISO/IEC 27001. | L | LR-104 |  |
| Maintainability | NF\_012 | The software shall have an MTTRS of less than 10 minutes. | M | AR-103 |  |
| Localization | NF\_013 | The system shall support 20 globally recognized languages with a specified date/time format. | L |  | The date format must be month/date/year. |

# **Business requirements**

**User authentication**

**Registration Page**

* OpenText Integra shall provide a user-friendly registration page.
* OpenText Integra should have a clear functioning button for new users to begin the registration process.

**Required Registration Information**

* First Name: Alphanumeric, maximum 50 characters.
* Last Name: Alphanumeric, maximum 50 characters.
* Email Address: Valid email format, maximum 100 characters.
* Date of Birth (DOB): Valid date format, age must meet minimum requirements.
* Username: Alphanumeric, maximum 50 characters.
* Password: Strong password with defined complex rules.

**Confirmation email**

* Upon successful registration, OpenText Integra shall send the confirmation to the user’s email address.
* Provide activation link in the email to activate their account.

**Login Page**

* OpenText Integra should provide a user-friendly and secure login page.
* OpenText Integra should have a clear functioning button for users to login.

**Required login information.**

* Username: Valid username used during registration.
* Password: valid password

**Password reset:**

* Informative error messages should be displayed if the user enters an invalid username or password.
* A "Forgot Password" link shall be available on the login page to enable users to reset their password if needed.
* Password reset link shall be sent to the user’s verified email address.

**Successful login:**

* Upon successful login, users shall be redirected to the main dashboard of OpenText Integra.
* User-friendly and shall be displayed in cases of unsuccessful login attempts or locked accounts.

**Terms and Conditions**

* A link to the terms and conditions of OpenText Integra shall be provided on the login page.

**Task Management**

* OpenText Integra shall provide an efficient task management interface that helps users easily organize and keep track of their tasks.
* OpenText Integra shall have the “Add or Create Task” button to allow the user to create new tasks.

**Task Creation:**

* + Task name: Alphanumeric, maximum 100 characters
  + Task description: Alphanumeric, maximum 100 characters
  + OpenText Integra shall have a date picker function which allows user to assign the due date for each task.
  + OpenText Integra shall have the priority setting (High, Low, Medium) to help users to categorize the tasks.

**Task List View:**

* + OpenText Integra shall display tasks in a clear and structured list format.
  + Each task shall be displayed with its associated task name, due dates, priority, and status.

**Task status**

* + OpenText Integra shall allow the user to mark the status of the task (completed, in-progress or on-hold).
  + The task status should be visualized by other team members who work on the same project.

**Task modifications**

* + OpenText Integra shall have the option to edit or update the task.

**Task Notifications**

* + OpenText Integra shall support automated notifications and reminders for upcoming or overdue tasks.
  + Users shall receive email or notifications inside the OpenText Integra.

**Task Assignment and Collaboration**

* + OpenText Integra should allow the user to assign tasks to other registered users.
  + OpenText Integra shall have collaborative features such as comments or notes to tasks, fostering communication and teamwork.

**Deleting and archiving the task**

* + OpenText Integra shall allow the user to delete or archive tasks that are no longer required.

**Data Security and Privacy**

* + Task data shall be securely stored in accordance with OpenText Integra's data privacy and security policies.

**Resource Allocation**

OpenText Integra shall provide an allocation feature, enabling users to effectively allocate resources for various tasks and projects.

**Resource Assignment**

* Users shall be able to assign available resources to specific tasks or projects.
* Users shall be able to specify the quantity or amount of each allocated resource.

**Real-time Availability**

* The OpenText Integra shall display the real-time availability of resources to prevent overallocation.
* Users shall receive notifications or warnings if attempting to allocate more resources than are currently available.

**Project planning and scheduling**

OpenText Integra shall provide project planning and scheduling features to facilitate effective project management.

**Project Plans**

* OpenText Integra shall allow the user to create detailed project plans, outline tasks, timeline, and dependencies.
* OpenText Integra shall have the intuitive interface for defining project details, such as name, description, start date and end date of the project.
* OpenText Integra should allow the user to visualize project timelines using Gantt charts.
* OpenText shall allow users to adjust the task duration and dependencies directly on Gantt charts.

**Reporting**

* OpenText integra should have the feature for report creation which allow user to create customizable reports based on the project data.
* OpenText Integra shall analyze the project status and generate automated reports for the user.
* OpenText Integra shall allow user to generate visual reports, including charts, graphs, or diagrams, to present data in clear format.
* OpenText shall allow users to export reports in multiple formats such as PDF, document, or CSV.
* OpenText shall allow users to share reports among team members and stakeholders.

**File sharing**

OpenText Integra shall have file sharing capabilities which allows the user to efficiently collaborate and exchange files within the project environment.

**Uploading files**

* OpenText Integra shall have the “Upload” button to allow user to upload any files from their local storage.
* OpenText Integra shall follow format like documents, excel, ppt, image and more.

**Organized File Storage**

* OpenText Integra shall allow users to create folders, subfolders, and directories to manage files based on projects.

**Sharing**

* OpenText Integra shall allow users to share files with specific project members, teams, or stakeholders.
* OpenText Integra shall allow to set access permissions to control who can view, edit, or delete shared files.

**Real-time editing**

* OpenText Integra shall allow users to edit shared files in real time using integrated editing tools.

**Data Repository**

OpenText Integra shall provide a centralized data repository, serving as a comprehensive storage solution for project-related information and assets.

**Centralized Storage**

* OpenText Integra shall allow users to store and organize various types of project-related data in a centralized repository.

**Robust Search and Retrieval**

* OpenText Integra shall allow users to perform advance searches to quickly locate required data within a repository.
* OpenText Integra shall have the search button and input area to search by the name of the data.

**Data backup and recovery**

OpenText Integra shall offer strong data backup and recovery features to safeguard critical information. Additionally, data backup and recovery help to ensure business continuity in the event of data loss or system failures.

**Automated Backup**

* OpenText Integra shall provide automated and scheduled data backup for regular backup of important data.

**Data Encryption**

* The backed-up data should be encrypted to ensure its confidentiality.

**Disaster Recovery**

* In case of system failure or data loss event, OpenText integra shall allow user to recover and restore the data.

# **Transition Requirements**

The activities and plans essential to properly implement the project management software designed by CANINE Business Solutions within OpenText Corporation are included in the Transition Requirements document. A comprehensive explanation of each component is as follows:

1. **Training and Documentation:** Training and Documentation include providing OpenText Corporation staff with in-depth training on efficiently using the newly implemented project management software. End-users, project managers, administrators, and support personnel are all potential participants in training sessions that could be held. In addition, comprehensive material, such as user manuals and tutorials, should be made available for research.
2. **Data Migration:** The process of transferring project data from OpenText Corporation’s existing project management system to the new software is called Data Migration. It is required to carry out exhaustive planning, data analysis, alongside validation procedures to establish beyond a reasonable doubt that the data contained in the new system is accurate and have not been altered in any way.
3. **Integration with Pre-Existing Systems:** The Integration component focuses on combining OpenText Corporation’s already-in-place technologies, such as their document management systems along with communication tools, with the new project management software in a way that is both simple and effective for the company. The sharing of data and the organization of workflows need to be made easier by this integration.
4. **Stakeholder Communication:** Stakeholder Communication entails informing all stakeholders about the transition process. Stakeholders include project managers, team members, and senior management. Communication must contain specifics regarding the deployment plan, any downtimes, and any possible workflow modifications.
5. **User Acceptance Testing (UAT):** Before the software is fully deployed, OpenText Corporation employees can participate in User Acceptance Testing (UAT) to test it and provide feedback. End-users and key stakeholders must participate in UAT sessions to ensure the software satisfies their requirements or expectations.
6. **Rollout Plan:** The Rollout Plan describes how the software will be applied all over OpenText Corporation step-by-step. This may require a staggered approach, in which the software is rolled out to departments or teams in phases to minimize the impact on projects already in progress.
7. **Support and Maintenance:** The mechanisms for Support and Maintenance are put into place to resolve any post-transition difficulties. Users should have timely access to help from a staff who can assist them with software-related issues and find solutions. A maintenance plan not only ensures that the software will continue to operate at its peak performance but also that it will receive updates or enhancements when they are necessary.
8. **Change Management Plan:** Develop a strategy for managing change and incorporate it into your organization to provide a seamless transition for OpenText Corporation staff. This plan will ensure that users feel supported while retaining confidence during the transition by including communication tactics, training programs, and user engagement efforts.
9. **Data Archival and Retention:** Outline an all-encompassing plan for the archiving and storage of data to guarantee that OpenText Corporation's historical project data will be safely kept in accordance with the standards of regulatory bodies. Specify the process by which data can be retrieved from archives when it is required.
10. **User Training Feedback Loop:** During the training sessions, an outline of a mechanism should be provided for receiving feedback from OpenText Corporation staff. Make use of this input to continuously improve the training materials, provide answers to problems that are frequently asked, and increase the efficiency of the training programme.

# **Design/Solution**

During the Design/Solution phase, you will be tasked with developing a customized software solution for managing projects catering to OpenText Corporation's particular requirements. An in-depth explanation of the most important parts is as follows:

**A. Functional Requirements Analysis:** Conduct in-depth conversations with OpenText Corporation's stakeholders to learn about as well as gain an understanding of their one-of-a-kind requirements for project management. These requirements may include supporting the collaboration of several teams, managing complex project hierarchies, or integrating with the communication tools that OpenText Corporation has chosen.

**B. User Interface (UI) and User Experience (UX) Design**: Create an easy-to-navigate, aesthetically pleasing user interface consistent with OpenText Corporation’s branding and providing fluid user experience. Consider including components that allow interaction, make navigation simple, and create customizable dashboards.

**C. Architecture and Technology Stack:** To ensure compatibility, scalability, plus maintainability, choose an architecture and technology stack that is compatible with the systems that OpenText Corporation already has in place.

**D. Scalability and Performance Considerations:** Make sure that the project management software can scale as OpenText Corporation's project portfolio grows and can perform effectively despite the different workloads it will be subjected to.

**E. Security Features and Measures:** Put in place stringent security measures to protect sensitive project data. Ensure compliance with OpenText Corporation’s security policies and industry standards.

**F. Integration with OpenText Corporation Systems:** Create the software in such a way that it can easily integrate with the document management systems with any other essential tools. This will make the process of exchanging data simpler and will improve the efficiency of the processes.

**G. Accessibility on Mobile Devices and Responsive Design:** If you want OpenText Corporation’s users to be able to access and manage projects on their preferred devices, you should think about designing mobile applications or responsive design.

**H. Analytics and Reporting Capabilities:** Include extensive analytics and reporting features that provide helpful insights into how they are doing on the project. This will assist the management of OpenText Corporation in making decisions based on the data rather than their gut instincts.

**I. Customization:** Give OpenText Corporation the ability to adjust some elements so that they correspond with the specific workflows of their project management processes.

**J. Testing and Quality Assurance:** Carry out extensive testing on the software to locate and fix any errors or problems, thereby guaranteeing that OpenText Corporation will receive a high-quality product.

**K. Multilingual Support:** The program will be developed to support several languages, which will enable users from various locations to communicate with the software in the language that is most natural to them. This was done in consideration of the global presence of OpenText Corporation.

**L) Cloud Integration Options:** OpenText Corporation users would be able to import and export project-related data without any hassle if the connection with cloud services like Dropbox, Google Drive, or OneDrive can be explored. This will improve both collaboration and document management.

**M) Advanced Reporting Filters:** The incorporation of advanced filtering options inside the reporting module will make it possible for the project managers of OpenText Corporation to develop reports that are extremely customizable based on a variety of parameters and criteria.

**N) Custom Workflow Automation:** OpenText Corporation will be able to custom design workflow automation with the help of the software, such as automated task assignments based on predetermined triggers. This will result in increased productivity and a decreased need for manual intervention.

**O) Third-Party Integrations:** Expand on your intentions to integrate the project management software with OpenText Corporation's existing tools as well as systems, such as their document management systems and communication platforms, in a way that is both seamless as well as transparent to the end user. Ensure the sharing of data, increase workflow efficiency, and provide a better experience for users.

**P) Performance Optimization:** Provide details regarding the optimization of software performance to guarantee that OpenText Corporation's activities for project management will proceed without any problems. When trying to maintain ideal speed during periods of high usage, it is important to take into consideration database optimization, caching methods, and code upgrades.

**Q) Backup and Disaster Recovery:** Create a comprehensive backup and disaster recovery strategy, including how the data for OpenText Corporation's projects will be backed up on a regular basis as well as how the software will recover from any data loss or system failures to reduce the amount of downtime experienced.

**R) Change Control and Versioning:** Outline the process that will be used to manage changes and upgrades to the programme. This should include version control, release notes, and a specific plan for rolling back to earlier versions if that becomes necessary.

**S) Data Migration Validation:** Describe the process that will be used to validate the data migration, including the checks for data integrity and reconciliation, as well as the procedures that will be used to rectify any data discrepancies that may occur throughout the migration.

**T) Performance Monitoring and Tuning:** Establish a detailed plan for continuous monitoring including optimizing system performance, with a particular emphasis on the real-time monitoring of system resources, user experience, and performance indicators. Adjustments should be implemented based on real-world usage patterns as well as input from users.

**U) User Feedback Channels:** Offer OpenText Corporation employees a variety of different channels via which they may submit feedback regarding the user experience and the functionality of the product. This could consist of in-app feedback forms, user surveys, and dedicated communication channels that are specifically adapted to OpenText Corporation's preferred methods of internal communication.

**V) Long-Term Scalability Plan:** Provide a plan for OpenText Corporation's long-term scalability that addresses the company's anticipated future growth in project management requirements. To ensure that the programme can meet rising demands over time, it is important to take into consideration the scalability choices offered by cloud computing, scaling solutions for databases, and architectural alterations.

# **Database Design**

The database design document outlines the logical data model for the proposed solution – “OpenText Integra.” The following database design has been developed based on the identified requirements, High-Level Design and Low-Level Design. This document provides the details of the required tables, data elements and the relationships between the tables. It also describes the purpose of each data element, the range of values and the primary keys associated with each table. The provided database design will help to understand the data requirements for the proposed solutions based on the existing database management systems in OpenText Corporation.

**Objective:**

The database design is essential for building the future database of the online cloud-based management application because it provides a structured blueprint that ensures efficient data storage, retrieval, and manipulation. This leads to improved system performance, scalability, and data integrity. By carefully planning the database schema, relationships, and constraints, the design ensures that the application can effectively handle the growing volume of data. It must adapt to changing business needs, facilitating seamless user experiences, and enabling successful long-term application development.

**Logical Hierarchy:**

High level overview of the database using only table names showing the logical groupings (parent-child relationship) that exists.

|  |  |  |
| --- | --- | --- |
| **Core Layer:** | **Aggregate Layer:** | **Data Layer.** |
| Project Table | Workspace Table | Resource Table |
|  | Tasks Table | Employee Table |
|  | Milestones Table | Files Table |
|  | User Table | Comment Table |
|  | Team Member Table | Role Table |

## **Schemas**

**1. User Schema:**

The User Schema forms a crucial foundation for the online cloud-based management application as it establishes a connection between users and employees within the organization. The User table contains essential user details, such as login credentials, contact information, and access permissions. This enables secure authentication and personalized access to the application. The Employee table complements the User table by storing pertinent employee information, such as employee ID, job title, and department. This can facilitate the association with their respective projects and tasks. This schema ensures that users can seamlessly log in, collaborate, and perform project management tasks.

A diagram of a project scheme

Description automatically generated

**2. Project Schema:**

The Project Schema serves as a vital component of the database design, encapsulating all essential elements related to project management. The Project table captures crucial project-specific information, including project ID, name, description, and start/end dates, providing a centralized repository for project-related data. Supporting tables such as Workspace, Milestones, and Tasks provide a hierarchical structure to organize project-related entities effectively. The Workspace table acts as a container for grouping related projects together, allowing users to manage multiple projects efficiently. The Milestones table helps track significant project achievements and deadlines. The Tasks table enables granular task management, specifying task details, assignees, due dates, and completion status. This schema ensures seamless project planning, tracking, and collaboration. The schema empowers users to manage projects effectively and achieve project milestones on time.

**3. Resource Schema:**

The Resource Schema plays a crucial role in facilitating resource management and project team assignments within the application. The Employee Team table establishes a relationship between employees and teams, storing information about which employees belong to specific teams in the organization. Additionally, the Project Team table links projects with their corresponding teams, providing insights into team allocations for different projects. The Team Member Role table further refines the relationship, specifying the roles of individual team members on a particular project. This schema enables efficient allocation of team members to projects, ensuring the right expertise is leveraged for project success. It also allows for easy identification of team members' roles, streamlining communication and coordination within project teams. Overall, the Resource Schema enhances the application's ability to optimize resource utilization, improve team collaboration, and deliver projects effectively within the organization.

The following Entity relationship diagram (refer to the Visio File: INFO 8685 CANINE BUSINESS SOLUTIONS DATABASE DESIGN) illustrates the database design of the proposed system. It includes the tables, the relationship between them and the interrelated data elements of the table. This diagram will provide a better picture of the proposed system design.

**A diagram of a project

Description automatically generatedPurpose of the Database Design**

The database design offers a systematic method for storing information on projects, users, tasks, personnel, teams, and workplaces. A brief description of how this architecture can facilitate project implementation is provided below:

* **Effective Data Management:** The database layout divides various data kinds into pertinent tables, enabling effective storage and retrieval. Each table represents a distinct object or idea, such as a project, user, task, employee, team, or job. This allows for better project-related data organization and management.
* Primary and foreign keys are used in the design to ensure data integrity. While foreign keys create connections between tables, ensuring that data references are accurate and consistent, primary keys guarantee that every entry in a table is distinct.
* **User authentication and authorization:** Names, passwords, and email addresses associated with user accounts are stored in the USER table. The project management system's access control, user privilege and authorization levels can be determined using this data, which can also be utilized for user authentication upon login.
* **Project and task tracking:** This is possible via the Task table, which keeps track of task names, due dates, status, assigned personnel, and related roles. This makes it possible for project managers to efficiently allocate duties, set deadlines, and monitor work progress.
* **Employee and Team Management:** The Team Member Table connects employees, teams, and roles. The EMPLOYEE table keeps employee data, such as names and departments. This makes managing the team effectively, giving tasks, and collaborating on the project easier.

**Purpose of the elements as a part of the solution design**

**USERS**

The purpose of the USER table is to store customer account data for registration, authentication, and authorization.

**PROJECT**

The PROJECT table consists of project-related data like project name, project id, description, start date, end date, and status.

**TASKS**

The objective of a TASK table is to store and manage information about tasks. The task table consists of the task name, task id, and task description.

**TEAM MEMBER**

A team MEMBER table is used in software to hold and handle information about individual members of a team or project.

**ROLE**

A ROLE table is used to identify the role assigned to each team member. It consists of a primary key called Role Id.

**RESOURCE**

A RESOURCE table is used for maintaining and storing data about different resources in software. It acts as a central database for information about resources, including description, categories, availability, cost, and any other essential aspects.

**MILESTONES**

A MILESTONE table is used in software to store and manage milestone information. It is a central repository for milestone information, including milestone id, descriptions, due dates, completion status, and other relevant characteristics.

**COMMENTS**

A COMMENTS table's function is to store and handle remarks made by the team members.

**EMPLOYEE DETAILS**

The purpose of the EMPLOYEE DETAILS table is to store all the information about the employees, such as employee id, first name, last name, and role id.

**WORKSPACE**

The purpose of the WORKSPACE table is to store information about workspaces, including their unique identifiers, board names, team members and more information related to the workspace.

**FILES**

The purpose of the FILES table is to store information related to files, such as file name, upload date, file size and other relevant data.

## **Table and data elements**

**USERS**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Element** | **Type** | **Key** | **Description** |
| User Id | Varchar | Primary key | User Id is the primary key that uniquely identifies the user. |
| Password | Varchar | Atomic value | Password for authentication and access security. |
| Employee Id | Varchar | Foreign key | Employee Id is a foreign key of the Users table and is the primary key of the Employee details table. |
| FirstName | Varchar | Atomic value | User’s first name. |
| LastName | Varchar | Atomic value | User’s last name. |
| Email Id | Varchar | Atomic value | User’s email address to verify their identity. |
| Products | Varchar | Atomic value | Products contain information about the product associated with the user. |
| Date Joined | DateTime | Atomic value | Date Joined refers to the date and time when the user joined or registered the account. |
| Last Active Date | DateTime | Atomic value | The last Active Date refers to the date and time when the user is active. |

**EMPLOYEE DETAILS**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Elements** | **Type** | **Key** | **Description** |
| Employee Id | Varchar | Primary key | It is a primary key that uniquely identifies the employees. |
| First Name | Char | Atomic value | Employee’s first name. |
| Last Name | Char | Atomic value | Employee’s last name. |
| Department | Char | Atomic value | Name of department. |

**TEAM MEMBER**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Elements** | **Type** | **Key** | **Description** |
| Member Id | int | Primary Key | Member Id uniquely identifies the team member. |
| Team Name | Varchar | Atomic value | First name of the team member. |
| Employee Id | Varchar | Foreign key | Employee Id from the employee table. |
| Role Id | Varchar | Foreign key | Role Id from role table. |

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Elements** | **Type** | **Key** | **Description** |
| Role Id | Varchar | Primary key | Role Id uniquely identifies the role. |
| Role Description | Varchar | Atomic value | Description or summary of the role. |

**ROLE**

**PROJECT**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Elements** | **Type** | **Key** | **Description** |
| Project Id | Varchar | Primary key | Project Id refers to the unique id for the project. |
| Project Name | Varchar | Atomic value | Name or title of the project. |
| Description | Varchar | Atomic value | Description or overview of the project. |
| Start Date | DateTime | Atomic value | Initial date of the project. |
| End Date | DateTime | Atomic value | Completion date of the project. |
| Status | Varchar | Atomic value | Status of the project, such as in progress or completed. |
| Owner/lead | int | Atomic value | The Member Id of the member assigned as a leader. |
| Members Assigned | int | Atomic value | The Member Id of the member assigned for the project. |

**TASKS**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Elements** | **Type** | **Key** | **Description** |
| Task Id | Varchar | Primary key | Represent the unique id of the task within a project. |
| Task Name | Varchar | Atomic value | Name of the task. |
| Project Id | Varchar | Foreign key | Project Id from the project table |
| Resource Id | Varchar | Atomic value | Resource Id from a resource table |
| Priority | Char | Atomic value | Priority levels such as “high,” “low,” and “medium.” |
| Task Due On | DateTime | Atomic value | Submission date of the task. |
| Task Status | Varchar | Atomic value | Status of the task, such as “in progress,” “completion,” or “pending.” |

**FILES**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Elements** | **Type** | **Key** | **Description** |
| File Id | int | Primary key | File Id is a unique identifier assigned to each file. |
| Project Id | Varchar | Foreign key | Project Id from a project table. |
| Task Id | Varchar | Foreign key | Task Id from Task table. |
| File Name | Varchar | Atomic value | The name or title of the file. |
| File Size | int | Atomic value | The size of the file. |
| Upload Date | DateTime | Atomic value | The date and time of file upload. |
| File Description | Varchar | Atomic value | Description of the file. |

**RESOURCE**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Elements** | **Type** | **Key** | **Description** |
| Resource Id | Varchar | Primary key | Resource Id is the unique identifier assigned to each resource. |
| Project Id | Varchar | Foreign key | Project Id from the Project |
| Resource Name | Char | Atomic value | Name of the resources. |
| Description | Varchar | Atomic value | Description or summary of the resources. |
| Availability | Char | Atomic value | Availability refers to whether the resource is available or not. |
| Member Id | Varchar | Foreign key | The number of resources available. |

**MILESTONES**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Elements** | **Type** | **Key** | **Description** |
| Milestone Id | Varchar | Primary key | A unique identifier is assigned to each milestone within the project. |
| Project Id | Varchar | Foreign key | Project Id from the Project table. |
| Milestone Name | Varchar | Atomic value | Name or title of the milestone. |
| Task Name | Varchar | Atomic value | Description or summary of the milestone. |
| Due Date | datetime | Atomic value | The deadline for the milestone. |

**COMMENTS**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Elements** | **Type** | **Key** | **Description** |
| Comment Id | int | Primary Key | A unique identifier is assigned to each comment. |
| Project Id | Varchar | Foreign Key | The Project Id from the Project table. |
| Task Id | Varchar | Foreign Key | The Task Id from the Task table. |
| Resource Id | Varchar | Foreign Key | The Resource Id from the Resource table. |
| Comment | Varchar | Atomic value | The description of comments made by a user. |
| Added On | DateTime | Atomic value | The date and time when the comment is made. |

**WORKSPACE**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Elements** | **Type** | **Key** | **Description** |
| Workspace Name | int | Primary Key | A unique identifier is assigned to the workspace. |
| Board Name | Varchar | Atomic value | Name of the board. |
| Team Members | int | Atomic value | The Member Id of the member assigned in a particular workspace. |
| Project Id | Varchar | Foreign Key | Project Id from the Project table. |
| Project Name | Varchar | Atomic value | Name of the project. |

## **Range of values associated with data elements.**

|  |  |
| --- | --- |
| Data elements | Range of values |
| Project Id | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |
| Project Name | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |
| Project Description | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |
| Start Date | Valid dates  DateTime = YYYY-MM-DD HH:MM: SS |
| End Date | Valid dates  DateTime = YYYY-MM-DD HH:MM: SS |
| Status | Predefined status values such as "Not Started," "In Progress," "Completed," "On Hold,"  Varchar = 1 to 255 |
| Owner / Lead | Positive integers starting from 1.  Int = 1 to 2147483647 |
| Assigned Member | Positive integers starting from 1.  Int = 1 to 2147483647 |
| User Id | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |
| Password | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |
| Task Id | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |
| Task Name | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |
| Task Due On | Valid dates  DateTime = YYYY-MM-DD HH:MM: SS |
| Priority | Values with a maximum length of 25 characters.  char = 1 to 25 |
| Employee Id | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |
| Task Status | Predefined status values such as "Not Started," "In Progress," "Completed," "On Hold,"  Varchar = 1 to 25 |
| FirstName | Values with a maximum length of 25 characters.  char = 1 to 25 |
| Department | Alphanumeric values with a maximum length of 25 characters.  char = 1 to 25 |
| Member Id | Positive integers starting from 1.  Int = 1 to 2147483647 |
| Employee Id | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |
| Role Id | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |
| Role Description | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |
| Last Name | values with a maximum length of 25 characters.  char = 1 to 25 |
| Date Joined | Valid dates  DateTime = YYYY-MM-DD HH:MM: SS |
| Last Active Date | Valid dates  DateTime = YYYY-MM-DD HH:MM: SS |
| Resource Id | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |
| Resource Name | Alphanumeric values with a maximum length of 50 characters.  Varchar = 1 to 50 |
| Description | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |
| Availability | Values with a maximum length of 25 characters.  char = 1 to 25 |
| Quantity | Positive integers starting from 1.  Int = 1 to 2147483647 |
| Project Id | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |
| Milestone Id | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |
| Milestone Name | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |
| Task Name | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |
| Due Date | Valid dates  DateTime = YYYY-MM-DD HH:MM: SS |
| Email Id | Values with a maximum length of 25 characters.  char = 1 to 25 |
| Status | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |
| Comment Id | Positive integers starting from 1.  Int = 1 to 2147483647 |
| Comment | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |
| Added On | Valid dates  DateTime = YYYY-MM-DD HH:MM: SS |
| Product | Values with a maximum length of 25 characters.  char = 1 to 25 |
| File Id | Positive integers starting from 1.  Int = 1 to 2147483647 |
| File Size | Positive integers starting from 1.  Int = 1 to 2147483647 |
| File Name | values with a maximum length of 50 characters.  char = 1 to 25 |
| Upload Date | Valid dates  DateTime = YYYY-MM-DD HH:MM: SS |
| File Description | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |
| Workspace Name | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |
| Board Name | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |
| Team Members | Alphanumeric values with a maximum length of 255 characters.  Varchar = 1 to 255 |

## **Primary Keys associated with each table.**

A primary key refers to a column in the database that acts as a unique identifier of that relation. It can be used as a foreign key in other tables to represent relationships between those tables. The primary key enforces entity integrity by uniquely identifying entity instances in a database. This section describes the primary keys associated with each table in the proposed database design.

|  |  |  |  |
| --- | --- | --- | --- |
| S. No | Table Name | Primary Key | Description |
|  | USER | User Id | In the USER table, the User Id is used as a primary key to uniquely identify each user, which helps to access user information easily without duplicates. |
|  | EMPLOYEE DETAILS | Employee Id | In the EMPLOYEE DETAILS table, the Employee Id is used as a primary key to distinguish between employees, ensuring uniqueness even if multiple employees have the same name. |
|  | TEAM MEMBER | Member Id | The primary key in the TEAM MEMBER table is the Member Id that uniquely identifies each company member. |
|  | ROLE | Role Id | The primary key for the ROLE table is the ROLE Id that uniquely identifies the role. |
|  | PROJECT | Project Id | The Project Id uniquely identifies each project in the PROJECT table, allowing for efficient management, tracking, and linking project-related data. |
|  | TASK | Task Id | The Task Id in the TASK table uniquely identifies each task within a project. |
|  | RESOURCE | Resource Id | The Resource Id in the RESOURCE table uniquely identifies each resource and makes it easier to allocate the resource for the project. |
|  | FILE | File Id | The FILE table uses the File Id as the primary key, ensuring the unique identification of each file or document for easy retrieval without confusion. |
|  | MILESTONE | Milestone Id | The Milestone Id in the MILESTONE table uniquely identifies each project milestone. |
|  | WORKPLACE | Workplace Id | The WORKPLACE table uses the Workplace Id as the primary key, which uniquely identifies each workplace or location for a project. |
|  | COMMENT | Comment Id | The Comment Id in the COMMENT table uniquely identifies each comment made within the system. |

## **Normalization rules in each table.**

The term Normalization refers to the method of eliminating data redundancy, anomalies, and data integrity in a database structure. By implementing normalization rules, larger tables in the database design are divided into smaller tables and linked to each other using relationships. This technique has been implemented while designing the data model of the proposed solution – “OpenText Integra.” The following section describes how each table has been normalized to ensure data integrity and avoid data redundancy. Three commonly used normal forms (1NF,2NF,3NF) have been applied and discussed for each table of the database design.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. No | Table Name | First Normal Form (1NF) | Second Normal Form (2NF) | Third Normal Form (3NF) |
| 1 | Users | * The Users table has a primary key – User Id, which holds a unique value and identifies each user. * All the other columns in the table hold values that cannot be divided. This ensures that the Users table satisfies First Normal Form. | * All the other attributes of the Users table are fully dependent on the primary key User Id. * This represents that the partial dependency has been eliminated, thus ensuring that the table satisfies the second normal form. | * All the non-key attributes of the Users table directly depend on the primary key User ID. * No transitive dependency is identified in the table. |
| 2 | Employee Details | * Employee Id in the Employee Details table acts as the unique identifier for each employee. * All the other attributes of the table are atomic values indicating that the table is normalized and is in 1NF. | * The Employee Details table does not have a foreign key indicating the absence of composite primary keys or partial dependencies. * This shows that the table satisfies 2NF. | * All the Employee details table's non-key attributes functionally depend on the Employee Id (Primary key). |
| 3 | Role | * The Role table has only two columns, out of which one is a primary key (Role Id). * The other column (Role description) is an atomic value determined by the primary key satisfying the 1NF. | * Since only two columns are in the role table, no composite primary keys have been identified, and the non-key attribute depends on the primary key avoiding partial dependency. | * The Role table does not have a transitive dependency and satisfies 3NF. |
| 4 | Team Member | * The Team Member table has one primary key – Member ID- uniquely identifying each team member.   All the other attributes are indivisible, showing that the table is in 1 normal form. | * There are two other foreign keys in the Team Member table, but those are not composite primary keys. * Since all the table’s attributes depend on the primary key, partial dependency has been eliminated. | * The non-key attributes of the table are solely dependent on the primary key, ensuring the absence of transitive dependency and are in 3NF. |
| 5 | Resource | * The resource table has Resource Id as its primary key, and all the other attributes consist of atomic values, which shows that the table is in 1NF. | * The foreign keys in the table are not associated with the primary key, ensuring the absence of composite primary keys in the resource table. * This shows that the table has no partial dependencies between the attributes. | * The table is in the second normal form and has no transitive dependencies. |
| 6 | Milestones | * Each attribute in the Milestones table has an indivisible value, and the table's primary key (Milestone Id) uniquely identifies each milestone. | * The table does not consist of composite primary keys. The foreign key (Project Id) has additional attributes in the Project table. * This ensures that there are no partial dependencies between the attributes of the Milestones table. | * The table is in third normal form as there are no transitive dependencies identified in the table. |
| 7 | Project | * The Project table has only the primary key (Project Id), and all the other non-key attributes hold atomic values. * The primary key Project Id uniquely identifies each project in the workspace. | * The non-key attributes, such as Project Name, Date and status, depend on the primary key Project Id. * No composite keys are present in the table, which shows that the table is in 2NF. | * Transitive dependency in the Project table has been eliminated, meaning all the non-key attributes are only dependent on the primary key (Project Id) |
| 8 | Workspace | * All the attributes (except the foreign key) in the table hold atomic values, and the primary key (Workspace Name) holds a unique identifier. * This avoids multivalued dependency and ensures the table is in 1NF. | * Since the attributes depend on the Workspace Name (primary key) and no composite primary keys are identified, the table is in 2NF. | * All the attributes (except the foreign key) solely depend on the primary key. This avoids transitive dependency and ensures that the table is in 3NF. |
| 9 | Files | * The Files table has File Id as the primary key, uniquely identifying each value. * The table's other attributes (except foreign keys) hold indivisible values, which shows that the table is in 1NF. | * The table has one primary key and two foreign keys, but no composite primary keys are identified. * This shows that there is no partial dependency existing in the table. | * All the non-key attributes depend only on the File Id (primary key), thus avoiding transitive dependency among the attributes. |
| 10 | Tasks | * The Task Id in the Tasks table uniquely identifies each attribute. All the other non-key attributes hold atomic values showing that the table is in 1NF. | * The foreign keys in the tasks table have no relationship with the non-key attributes of the table. * There are no composite primary keys in the table, avoiding partial dependency. | * The non-key attributes such as Task name, Status and Priority show no transitive dependency with other keys. |
| 11 | Comments | * The Comments table has Comment Id as the primary key with a unique identifier for each value. * The other attributes in the Comments table hold atomic values, which shows that the table satisfies the 1NF rule. | * The table has only two non-key attributes, dependent on the primary key Comment Id. * No partial dependency between the non-key attributes and the foreign keys ensures the table is in 2NF. | * The comments table non-key attributes are solely dependent on the primary key. * No transitive dependency exists on the table. This shows that the table satisfies 3NF. |

## **Interrelationship between the data elements**

The following table describes the relationship between each data element in the proposed database design. It explains the association between entities/tables and provides an understanding of the relationships between each entity. The relationship between the entities has been described under three types: One-to-one, One-to-many & Many-to-one. This method of identifying relationships is termed Cardinality.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Table Name | Primary Key | Foreign Key | Relationship Description | Cardinality | Association |
| USER | User Id | Employee Id | Multiple user IDs can be associated with one employee. | Many-to-one  N:1 | Employee Id of EMPLOYEE DETAILS table. |
| TEAM MEMBER | Member Id | Employee Id | One team member can have one employee Id. | One-to-one  1:1 | Employee Id of EMPLOYEE DETAILS table. |
| Role Id | One team member can have one or multiple roles. | One-to-many  1: N | Role Id of ROLE table. |
| PROJECT | Project Id | Owner/Lead | One project can have one owner or leader. | One-to-one  1:1 | The Member Id of the member assigned as a leader. |
| Member Assigned | One project can have one or more members assigned. | One-to-many  1: N | The Member Id of the member assigned for the project. |
| TASK | Task Id | Project Id | Multiple tasks can be assigned to each project. | Many-to-one  N:1 | Project Id of PROJECT table. |
| Resource Id | Each task can have multiple resources.  Each resource can be assigned to multiple tasks. | Many-to-many  N: M | Resource Id of RESOURCE table. |
| FILE | File Id | Project Id | Multiple files can belong to one project. | Many-to-one  N:1 | Project Id of PROJECT table. |
| Task Id | Multiple files can belong to one task. | Many-to-one  N:1 | Task Id of TASK table. |
| RESOURCE | Resource Id | Project Id | Multiple resources can be assigned to each project. | Many-to-one  N:1 | Project Id of PROJECT table. |
| MILESTONE | Milestone Id | Project Id | Multiple milestones belong to one project. | Many-to-one  N:1 | Project Id of PROJECT table. |
| COMMENT | Comment Id | Project Id | Innumerable comments can belong to one project. | Many-to-one  N:1 | Project Id of PROJECT table. |
| Resource Id | Multiple comments can be on each resource. | Many-to-one  N:1 | Resource Id of RESOURCE table |
| Task Id | Each comment belongs to precisely one or multiple tasks.  Each task can have multiple comments. | Many-to-many  N: M | Task Id of TASK table. |
| WORKPLACE | Workplace Id | Project Id | One workplace is associated with multiple projects. | One-to-many  1: N | Project Id of PROJECT table. |

**List of tables and data elements**

The following table lists the tables and their data elements expected to be part of the proposed database design. This provides a quick overview of the data model of the proposed solution – “OpenText Integra.” It simplifies the data requirements gathering process and facilitates developing the proposed solutions' database design.

|  |  |  |
| --- | --- | --- |
| **S. No** | **Table Name** | **Data Elements** |
| 1 | User | 1. User Id (PK) 2. Password 3. Employee Id (FK) 4. FirstName 5. LastName 6. Email Id |
| 2 | Employee Details | 1. Employee Id (PK) 2. First Name 3. Last Name 4. Department |
| 3 | Role | 1. Role Id (PK) 2. Role Description |
| 4 | Team Member | 1. Member Id (PK) 2. Team Name 3. Employee Id (FK) 4. Role Id (FK) |
| 5 | Resource | 1. Resource Id 2. Project Id 3. Resource Name 4. Description 5. Availability 6. Member Id (FK) 7. Project Id (FK) |
| 6 | Milestones | 1. Milestone Id (PK) 2. Project Id (FK) 3. Milestone Name 4. Task Name 5. Due Date |
| 7 | Project | 1. Project Id (PK) 2. Project Name 3. Description 4. Start Date 5. End Date 6. Status 7. Owner/lead 8. Member Assigned |
| 8 | Workspace | 1. Workspace Name (PK) 2. Board Name 3. Team Members 4. Project Id (FK) 5. Project Name |
| 9 | Files | 1. File Id (PK) 2. Project Id (FK) 3. Task Id (FK) 4. File Name 5. File Size 6. Upload Date 7. File Description |
| 10 | Tasks | 1. Task Id (PK) 2. Task Name 3. Project Id (FK) 4. Resource Id (FK) 5. Priority 6. Task Due On 7. Task Status |
| 11 | Comments | 1. Comment Id (PK) 2. Project Id (FK) 3. Task Id (FK) 4. Resource Id (FK) 5. Comment 6. Added On |

# **Implementation strategy**

The implementation strategy plays a vital role as a roadmap, guiding the complex process of deploying and integrating projects or solutions within dynamic live environments. Its significance lies in its ability not only to steer the transition from the current state to the desired future state but also to effectively manage potential risks along the way. By carefully orchestrating this transition, the implementation strategy considers a wide range of crucial factors that can greatly impact the overall success of the endeavor. It goes beyond being just a logistical plan; it encompasses a comprehensive approach that helps streamline processes, allocate resources optimally, and ensure the smooth adoption of the proposed solution. The implementation strategy acts as a guiding force, directing actions toward a successful execution that aligns with organizational goals and anticipates challenges.

In the process of implementing OpenText Integra, CANINE Business Solutions conducted a detailed exploration of various implementation approaches, each presenting its own set of advantages and challenges. These include Pull, Push, Automated, Manual, Big Bang, and Phased approaches, each distinguished by its unique characteristics. The primary focus of this analysis has centered around a comprehensive comparison between the Big Bang and Phased approaches.

The Big Bang approach, marked by simultaneous deployment to all users, initially appears appealing due to its potential for quick implementation. However, upon closer examination, potential drawbacks become evident. These include heightened risks, insufficient incremental testing, difficulties in user adaptation, and undue strain on the IT department. In contrast, the Phased approach has emerged as the preferred choice. This method advocates for a gradual implementation, providing greater control, targeted testing, and opportunities for iterative enhancements. By introducing the software incrementally to specific business units, gathering user feedback, ensuring optimal performance, the Phased approach promises a more seamless and adaptable integration.

After careful evaluation, CANINE Business Solutions has chosen the Phased approach as the most suitable strategy. This decision is driven by the approach's ability to mitigate risks, improve the user experience, and ensure the successful rollout of OpenText Integra.

A diagram of a strategy

Description automatically generated

**Big Bang approachA diagram of software

Description automatically generated**

In the context of the Big Bang approach, the software takes a grand stage by being rolled out to all users at once. This encompassing method envisions a majestic instance where the cloud-based project management software spreads throughout OpenText Corporation's client base. However, upon a thorough examination, this approach raises concerns that make it less suitable for introducing OpenText Integra. The significant risk associated with simultaneous implementation across diverse ongoing projects, the lack of incremental testing opportunities, potential challenges in user adaptation, and the strain placed on the IT department collectively suggest that alternative approaches, such as the Phased approach, offers a more manageable path for ensuring the successful adoption of the new software solution. Some of the risk associated with Big Bang approach are explained below:

**High Risk**

Implementing the Big Bang approach comes with a significant risk due to the vast scope of OpenText Corporation's operations. With numerous ongoing projects involving diverse teams and clients, simultaneous deployment of OpenText Integra across the board presents a challenge. This approach raises concerns about the potential consequences if the software encounters critical issues or experiences downtime. Such scenarios could disrupt the progress of multiple projects, leading to delays and impacting overall project management efficiency.

**Lack of Incremental Testing**

One of the limitations of the Big Bang approach is the lack of incremental testing before full-scale deployment. Incremental testing, which involves step-by-step validation with a smaller group of users, is essential for identifying and addressing potential issues early in the process. The Big Bang approach exhibits a limitation in terms of incremental testing. Unlike other implementation methods that allow for step-by-step validation with a smaller user group, this approach offers limited testing opportunities before the full-scale rollout. The absence of this testing phase makes it harder to detect and rectify problems, as they might only surface once the software is fully operational. This can lead to extended downtime and operational disruptions as issues are addressed reactively.

**Challenges in User Adaptation**

Another notable challenge arises from the process of user adaptation. Introducing new software to all employees simultaneously can pose challenges in user adaptation. The learning curve associated with navigating unfamiliar software interfaces and functionalities can lead to a temporary decrease in overall efficiency. Employees might initially struggle to adapt to the changes, affecting their productivity and potentially causing resistance to the new system. This sudden adjustment can impact the overall user experience and hinder the software's successful adoption.

**Pressure on IT Department:**

The Big Bang approach places a significant burden on the IT department. Simultaneously rolling out the software to all users requires extensive resources for providing timely support, training, and assistance. The IT team may become overwhelmed with the volume of requests, leading to potential delays in issue resolution and user support. This pressure on the IT department can hinder the overall implementation process and affect the user experience.

Considering these considerations, an alternative implementation strategy, such as the Phased approach, emerges as a more controlled and effective method for introducing OpenText Integra. This approach allows for structured implementation, enabling comprehensive user training, systematic issue resolution, and a smoother transition. It also helps to ultimately minimize operational disruptions and ensure a successful introduction of the software.

**Phased approach**

**A diagram of a flowchart

Description automatically generated**

The phased approach is a method of implementing a project or software in distinct stages, gradually progressing from one phase to the next. It involves breaking down the implementation process into smaller, manageable steps, with each phase building upon the previous one. This approach ensures that the project is rolled out in a controlled and organized manner. In a phased approach, each phase focuses on specific tasks, goals, or functionalities. The implementation team works on completing one phase before moving on to the next. This allows for thorough testing, validation, and adjustments to be made at each stage. It also provides opportunities to gather user feedback and address any issues before proceeding further. The phased approach is effective for managing complexity, reducing risks, and ensuring a smoother transition from the current state to the desired end goal.

The chosen strategy for implementing OpenText Integra is the phased approach, which involves rolling out the software to smaller user groups in distinct stages. This method offers enhanced, manageable execution, addressing potential issues and gathering user feedback in a controlled setting. By adopting this approach, risks are minimized, and the implementation process becomes more efficient.

Under the phased approach, the implementation of OpenText Integra is divided into multiple phases, each undergoing thorough testing and validation before moving to the next. This gradual transition allows project managers to effectively manage resources, timelines, and expectations. It also provides valuable opportunities for testing, validation, and learning. Additionally, this strategy enables a comprehensive review of the software deployment, facilitating the identification and resolution of problems. This will optimize the subsequent phases. Furthermore, the phased approach simplifies budgeting and financial planning by spreading out implementation costs over time. This method ensures a well-structured and controlled integration of OpenText Integra, promoting a smoother adoption process.

**Figure 1: Phases of OpenText Integra Implementation**

**Key components:**

* **Communications**

Keeping stakeholders informed is crucial. Regularly sharing updates on how the project is doing, discussing any challenges faced, and highlighting the achievements so far to the stakeholders which helps to run project smoothly. The communication will increase the satisfaction of stakeholders. This can be done through emails, progress reports, or even face-to-face meetings, ensuring everyone is on the same page and understands the project's status.

* **Resource Allocation**

Properly distributing resources is vital. Assigning the necessary people, tools, and funds to each phase of the project. It ensures that the right resources are available at the right time, preventing bottlenecks and keeping the project moving smoothly.

* **Milestones**

Setting milestones helps in tracking progress of the project. Each implementation phase should have clear milestones specific goals or checkpoints that need to be reached. These milestones act as markers to gauge how well the project is advancing and whether it's on track to meet its deadlines.

* **Dependencies**

Identifying dependencies is about recognizing what needs to happen before moving forward. Certain tasks or activities may rely on others being completed first. By understanding these dependencies, the project team can ensure that everything is done in the right order, minimizing delays.

* **Deliverables**

Deliverables are the outcomes or products of each phase. This includes not only the result but also any documentation, training materials, or guidelines needed. Properly preparing these deliverables ensures that each phase is completed successfully and that the project stays well organized. Preparing the deliverables for each phase, including training materials and guidelines for the OpenText Integra.

# **Testing Strategy**

CANINE Business Solutions will use the Test Strategy, which is a detailed strategy, to test the project management software that was built for OpenText Corporation. The plan specifies how CANINE Business Solutions will test the program. It provides a roadmap for the testing process, ensuring that all elements of the software are properly validated and ensuring that all aspects of the program are thoroughly validated. An explanation of the most important aspects is as follows:

1. **Test Objectives**: These are the fundamental aims and reasons for doing tests, as defined by the Test Objectives. Validating the functionality of core aspects of the project management software, such as task management, resource allocation, and reporting, could be one of these aims. Assessing the software's performance to ensure that it can manage several projects in parallel in a secure and efficient manner is another possible purpose.
2. **Scope:** The Scope of the Test Strategy describes what components of the project management software will be examined and what will not be included in the coverage of the tests. It delimits the scope of testing and the limitations within which it takes place. Within the scope of this discussion, specific modules, features, integrations with other systems, as well as compatibility with a wide range of browsers and devices may be included.
3. **Test Levels**: The Test Levels segment explains the various levels of testing that will be performed on the product. Unit testing, also known as "testing individual components or functions in isolation," integration testing, also known as "verifying seamless data flow between modules," system testing, also known as "validating end-to-end functionality," and user acceptance testing, also known as "UAT," is where actual OpenText Corporation users evaluate the usability of the software.
4. **Test Types:** The Test Types outline the different kinds of testing that will be carried out to ensure complete coverage. Testing may include the following: functional testing (determining whether the software satisfies functional requirements), usability testing (determining whether the software is user-friendly), performance testing (determining whether the software is responsive under varying loads), security testing (ensuring that data is protected), along with compatibility testing (determining whether or not the software is compatible with various platforms and browsers).
5. **Test Environment:** The Test Environment is where you will specify the environments in which you will conduct your tests. This may comprise a development environment used for preliminary testing, a testing environment designed to be as similar as possible to the production environment, and a staging environment used for final validation before the application is deployed.
6. **Test Data:** The data sets utilized for testing are called Test Data. In the context of software for managing projects, this may involve constructing realistic project scenarios, each with a different level of complexity, to evaluate how the software deals with various use cases and data sets.
7. **Test Tools:** The Test Tools section defines the testing frameworks and tools that will be used during the testing process. Test management software, automation frameworks, performance testing tools, and security testing tools are all examples of the tools that fall under this category.
8. **Entry and depart Criteria:** The Entry as well as Exit Criteria are the conditions that need to be met before beginning a particular testing phase (known as the "entry criteria"), while the criteria to depart that phase and move on to the next (known as the "exit criteria"). The Entry and Exit Criteria specify these conditions. As an illustration, one of the requirements for participation in UAT could be the successful conclusion of system testing, whereas one of the requirements for departure could be a minimum acceptance rate of 95% for test cases.
9. **Risk Analysis:** Risk Analysis is the process of identifying potential risks that have the potential to affect the testing process as well as the performance of the program. Defects in the software, restrictions on available resources, or time limits can all be considered risks. To successfully handle these risks, mitigation plans should be developed and implemented.
10. **Test Schedule:** The Test Schedule is an in-depth timeline for the tasks associated with testing. It comprises a timeline with milestones, times of test execution, and the length of each testing phase. The timeframe of the project should be synced with the schedule to guarantee that the total project will proceed without any hiccups.
11. **Test Communication:** The Test Communication plan describes the routes as well as the techniques of communication that will be used among the testing team, CANINE Business Solutions, and OpenText Corporation. Effective communication makes it easier to make decisions, keep people informed of progress, or issue regular updates and reports on that progress.
12. **Regression Testing Approach:** A thorough approach to regression testing will be used to guarantee that the implementation of any new software updates or changes will not have a negative impact on the functionality that has already been tested. This strategy entails re-testing previously validated components in conjunction with newly added features to discover and address the possibility of regression faults.
13. **Test Automation Framework:** CANINE Business Solutions will create an automated testing framework that is specifically designed for OpenText Corporation. It is planned to develop automated test scripts for test cases that are both repetitive and crucial. This will make it possible to conduct regression testing more effectively and validate software changes more rapidly.
14. **Performance Testing Scenarios:** It is essential to conduct performance testing to guarantee that the project management software runs at an optimum level in a variety of environments and can cope with the anticipated user load. The following are some specific scenarios of performance testing:
    * 1. **Scenario: Concurrent User Load during Project Updates:**

* Create a scenario in which multiple project managers along with team members from OpenText Corporation simultaneously use the program to make changes to the task dependencies, resource allocation, and project information.
* Determine how long it takes for the program to respond and how much of a resource it uses so that you can ensure that real-time project updates can be managed effectively even during times of high demand.
  + 1. **Scenario: Large Project Data Import and Export:**
* Develop a performance testing scenario in which OpenText Corporation users import and export big project including files, documents, and as well as task lists.
* Conduct an analysis of the software's performance about the speeds of data uploads particularly downloads, the processing of databases, and especially the responsiveness of the system during these data-intensive tasks.
  + 1. **Scenario: Load Testing for Project Creation and Duplication:**
* Perform performance tests on the program by having many OpenText Corporation users simultaneously start new projects or duplicate old ones to manage project scalability.
* Assess any effects on the performance of the central processing unit, memory, and the database by monitoring the software's capacity to deal with several requests to create new projects at the same time.
  + 1. **Scenario: Resource Allocation for Multiple Projects:**
* Create a situation in which OpenText Corporation project managers are tasked with allocating resources across numerous projects at the same time, each of which requires a unique combination of responsibilities and skill sets.
* Assess the software's ability to handle the intricacies of resource allocation, and then measure the response time for making changes to resource assignments.
  + 1. **Scenario: Real-time Collaboration and Communication Load:**
* Perform performance tests on the software under conditions of intense collaboration and communication, such as when users of OpenText Corporation are having real-time conversations, sharing files, or creating updates within the software.
* Determine how much of an effect the various communication-related activities have on the overall responsiveness of the system and the number of resources it uses.
  + 1. **Scenario: Dashboard and Reporting under Heavy Load:**
* Execute tests of performance to determine how users of OpenText Corporation experience the dashboard and reporting functions of the software during times of significant user load.
* Conduct an analysis to determine whether the software can generate project analytics, charts, and reports without slowing down response times.
  + 1. **Scenario: Mobile Access and Remote Usage:**
* Create hypothetical situations in which OpenText Corporation staff members use the project management software from a variety of mobile devices and virtual private networks.
* Conduct tests to see how well the program responds to input, how adaptable the user interface is, and how well it can synchronize data under varying network conditions.
  + 1. **Scenario: Integration with Document Management Systems:**
* Carry out performance testing to ensure seamless interaction between the document management systems used by OpenText Corporation and the project management software being used.
* Determine the speeds at which data can be transferred. Additionally, determine the software's capacity to simultaneously process document uploads, downloads, and changes.

**O) Cross-Browser and Cross-Device Testing:** It is planned to perform exhaustive testing on the project management software across a variety of browsers (such as Chrome, Firefox, and Edge) as well as devices (such as desktop computers, tablets, or smartphones) that are utilized by OpenText Corporation personnel. Performing these tests will ensure the functionality and look are consistent across all contexts.

P) **Test Reporting and Metrics:** CANINE Business Solutions will build extensive test reporting tools so that they may provide stakeholders with insights into the process and outcomes of testing. CANINE Business Solutions will analyze detailed metrics such as test case pass rates, defect density, and response time standards. These indicators will make it possible to make educated decisions and will aid in continual improvement. Reports on the status of the tests will be sent on a regular basis, and these reports will highlight any significant problems or patterns.

**Q) Continuous Monitoring and Feedback Loop:** CANINE Business Solutions will create methods for continual monitoring and feedback to accommodate the iterative nature of the testing process. Monitoring critical performance indicators in real-time, such as response time and server utilization, would make it possible to identify irregularities at an earlier stage. This strategy, which is driven by data, makes certain that any deviations from the performance that was predicted are swiftly addressed, which enables timely modifications and optimizations to be made.

**R) Compatibility Testing:** Include comprehensive compatibility testing to guarantee that the project management software performs faultlessly on OpenText Corporation's standard operating systems (such as Windows or macOS), devices, and preferred web browsers. These tests should be carried out to ensure that the programme is compatible. Check to see that the user experience is not altered in any significant way by the varied environments.

**S) Localization Testing:** Tests of localization should be planned of time to guarantee that the software will serve OpenText Corporation's global workforce. Test scenarios that involve the languages used within the company, paying attention to right-to-left languages, date formats, and currency symbols that are specific to the locations in which OpenText Corporation is active.

**T) Accessibility Testing:** Describe the methodology that will be used to test accessibility to ensure OpenText Corporation's compliance with its commitment to inclusiveness. Verify that the programme can be operated by people who have disabilities, such as those who rely on screen readers, keyboard navigation, and other forms of assistive technology.

**U) Load Balancing and Failover Testing:** Create a plan for load balancing as well as testing the failover procedures to verify that your software can manage large user loads even during peak periods and will continue to be available even if server failures occur. Examine how the programme maintains a continuous level of service by switching over to backup servers in a seamless manner.

**V) Data Privacy and Compliance Testing:** Implement comprehensive data privacy and compliance testing to guarantee that the software complies with the high data protection standards set out by OpenText Corporation as well as any other regulations that may be applicable. Conduct tests on data encryption, processes for user permission, and features that enable users to manage their data in a manner that complies with regulations such as GDPR.

# **Transition planning**

* **Determining Key Stakeholders**

It's important to identify the main people who will play a role in making the implementation successful. These could be representatives from various parts of the company, such as different departments, managers, IT teams, end-users of both OpenText Corporation and CANINE Business Solutions. By involving the right people, everyone's needs and perspectives are considered.

* **Developing a Communication Plan**

Communication is key. A well-thought-out plan for keeping everyone informed about each step of the implementation is crucial. This can involve sharing updates, challenges, and progress with stakeholders. This way, everyone knows what's happening and can provide input or support when needed.

* **Creating Training Materials**

When introducing OpenText Integra, making sure everyone knows how to use it is essential. This means creating training materials that explain how the software works, providing training sessions for both current and new employees. This helps everyone feel comfortable and confident using OpenText Integra.

* **Setting Up a Support Team**

Challenges may arise during and after implementation. Having a dedicated support team ready to help users with any issues that come up ensures a smoother transition. This team can help resolve problems and offer ongoing support to make sure the software is being used effectively.

## **Implementation planning**

* **Gathering Feedback**

It's crucial to listen to the people who will be using the software. By gathering feedback from both stakeholders and users, any worries or problems can be identified. The identified problems can be addressed before they become major issues. This helps ensure that the implementation goes smoothly and meets everyone's needs.

* **Providing Additional Support**

Sometimes, during the actual implementation, unexpected challenges might arise. It's important to be prepared with extra help and resources if they're needed. This way, hurdles can be overcome quickly, and the process can continue without major disruptions.

* **Equipping the Support Team**

The team responsible for assisting users’ needs to be well-prepared. They should have all the necessary information about the software, including how it works, how to train others, and where to find documentation. This ensures that users get accurate and helpful guidance.

* **Monitoring Changes and Performance**

As the implementation progresses, it's important to keep a close eye on the changes being made. This involves tracking how well the new software is performing and understanding its impact on the organization. Regular reports help to assess whether the implementation is on track and delivering the desired results.

## **Backout Plan**

* **Defining Reversion Conditions:**

It's important to outline the circumstances that would trigger a switch back to the previous project management system. These conditions could include situations where the OpenText Integra doesn't perform as expected or if critical issues arise that can't be resolved easily.

* **Documenting Backout Process**

In case unexpected challenges emerge, having a well-documented backout process is essential. This includes detailing the responsibilities and tasks that each team member or department would need to undertake to smoothly transition back to the old system if necessary.

* **Identifying Critical Scenarios**

Certain scenarios, like major system failures or data corruption, might demand a return to the old system. Identifying these specific situations ensures that there's a clear understanding of when a backout might be required.

* **Communication Strategy**

Establishing a communication plan is key. All stakeholders need to be informed about the potential for reverting to the old system. This plan should outline the steps to take and who to notify. Furthermore, it should provide a comprehensive explanation of the methods to guarantee a well-coordinated and thorough understanding of any required transitions among all relevant stakeholders.

## **Phases of OpenText Integra implementation**

**Phase 1: Initial phase**

In the first phase of implementing the cloud-based project management software, the project team, comprising project managers, IT specialists, and critical stakeholders, initiate the project. The project teams from OpenText Corporation and CANINE Business Solutions assemble to begin the implementation. The requirements will be gathered in this phase to pave the way for a successful implementation. The team collaboratively defines clear project objectives, success criteria, timeframes, and resource needs. Efficient communication channels are also established during this stage to ensure smooth information exchange and effective problem-solving throughout the implementation process. They are divided into releases to manage the requirements effectively, which will be deployed in the Dev, staging, and production (live) environments for user acceptance testing.

The resources involved and success criteria for the initial phase:

Resources: All stakeholders, Communication channels for effective collaboration

Success criteria: All the requirements and objectives for the implementation are properly documented.

A diagram of a company

Description automatically generated**Figure 2: Release planning**

The release planning process for OpenText Integra, a cloud-based project management software, follows a well-structured sequence of steps to ensure a smooth and efficient implementation. The initial phase marks the project's start, involving the creation of a project charter that outlines its scope and goals. This is followed by a kickoff meeting to engage stakeholders. Then establish a comprehensive product backlog, detailing the software's features and requirements. Moving into the release phase, a careful and detailed planning process unfolds, outlining the upcoming stages. This phase encompasses several key components, including the creation of a sprint backlog that outlines specific tasks, the planning of individual sprints, and the initiation of iterative development cycles. Each iteration involves multiple steps, beginning with the identification of user stories or bugs, followed by coding, thorough testing, and evaluations for user acceptance. If no issues arise, a sprint review and retrospective meeting follow, leading to the eventual release of the product within a closely monitored development environment.

Subsequently, the implementation journey expands to encompass selected business units within OpenText. Here, any identified bugs are diligently addressed prior to further progression. Integration with the Enterprise Information Management (EIM) system is executed, enhancing overall operational efficiency. Further implementation then extends to selected client systems, undergoing meticulous testing, and incorporating user feedback. Finally, the software reaches the public through the Direct-to-Consumer (D2C) channel, marking the pinnacle of a meticulously orchestrated release plan. This comprehensive approach ensures a methodical, well-controlled, and risk-mitigated deployment of OpenText Integra, thus ensuring the successful integration of the software.

**Phase 2: Implementation in Dev Environment**

During Phase 2 of the implementation process, crucial steps will be taken to set up the development environment and carefully customize the cloud-based project management software based on the requirements identified in the initial phase. The primary focus is to build and test the software features. This can ensure that the software works well and meets the requirements. The team will collaborate closely, ensuring everything fits smoothly and works reliably.

This phase is crucial because it's the foundation of the whole project. The software is tested rigorously to check its effectiveness and ability to meet the requirements. Teamwork plays a big role as experts from different fields work together to make all the parts work well together. Phase 2 is like a bridge between planning and making things happen. It shows how carefully a team prepares and works together. This process contributes to the development of OpenText Integra, ensuring that it not only fulfills its current functions effectively but also lays the foundation for potential future enhancements.

The resources involved and success criteria for phase 2:

Resources: IT specialist, Software developers, QA, Testing tools, software, hardware.

Success criteria: A fully functional software in the Dev environment with all features tested.

**Phase 3: Implementation in selected business units**

Once the OpenText Integra successfully undergoes testing and validation in the Dev environment, the software proceeds to implementation in selected business units or departments. This phase involves strategically deploying the software in specific areas, closely monitoring performance, and gathering valuable user feedback. Any encountered bugs or errors are promptly resolved before advancing to subsequent stages. The significance of user feedback cannot be overstated. It acts as a guiding compass for essential enhancements, ultimately leading to improved software performance and a more enriching user experience. After successful implementation in initial business units, the software's scope expands to include other sectors. These subsequent rollouts come with comprehensive training and robust support systems, designed to seamlessly integrate the software. To familiarize OpenText Corporation members with OpenText Integra, a structured training program is meticulously crafted. This program acts as an introduction to the innovative cloud-based project management software, equipping members with the essential knowledge and skills to effectively utilize its capabilities. Through these efforts, the transition to using OpenText Integra is streamlined, fostering a culture of proficiency and productivity within the organization.

The resources involved and success criteria for phase 3:

Resources: IT specialists, deployment team, user support team, integration tools, software license, hardware.

Success criteria: Successful implementation in selected business units with positive user feedback.

Top of Form

**Phase 4: Integration with EIM**

In phase 4, the OpenText Integra will be integrated with the EIM system, which helps to enhance OpenText Corporation's overall efficiency and productivity in managing projects. OpenText Corporation doesn’t need to rely on third-party tools. If any issues arise during the integration, the team will work actively to address and solve the problem. Throughout this integration process, the team remains vigilant to address any potential challenges that may arise. If hiccups occur during the merging of these systems, the team springs into action, swiftly identifying and resolving issues. This determination stems from a collective commitment to ensuring the seamless cohesion of OpenText Integra and the EIM system. The team's dedicated problem-solving approach underscores their shared objective of successful integration.

The resources involved and success criteria for phase 4:

Resources: IT specialists, integration team, integration tools, software, hardware.

Success criteria: Integration of OpenText Integra with EIM of OpenText Corporation without issue.

**Phase 5: Implementation in selected key client’s existing system:**

The phase 5 signifies an important step where CANINE Business Solutions chooses a significant client of OpenText Corporation to take part in the software implementation process. The OpenText Integra is then introduced into the selected clients' existing systems, serving as an opportunity to collect essential feedback, assess performance, and pinpoint areas for enhancement. This real-world testing provides valuable insights and allows for adjustments based on received feedback, setting the stage for a more refined version before extending it to a wider client base. Including these critical clients plays a pivotal role in ensuring a smoother and more effective software launch to a larger audience.

Throughout this phase, the selected clients undergo thorough training and receive strong support. This ensures a successful transition and effective adaptation to the new software. This structured approach guarantees that the clients have the necessary tools and knowledge to maximize the software's benefits. By following this meticulous steps, CANINE Business Solutions and OpenText Corporation gain invaluable insights from their key clients. This process also cultivates a culture of collaboration and responsiveness, laying the foundation for a successful software launch.

The resources involved and success criteria for phase 5:

Resources: Deployment resources, user support team, training materials.

Success criteria: Positive feedback from key clients and best performance in real-world situations.

**Phase 6: Product release to the public (D2C)**

In this phase, the software undergoes a widespread rollout, reaching out to all the remaining clients, customers, and the public. This marks a significant milestone as the cloud-based project management software "OpenText Integra," becomes accessible to a broader spectrum of users. This expansion ensures that a larger audience can now benefit from and utilize the software's capabilities. The final phase encapsulates the fruition of efforts invested in the software's development, culminating in its availability for a diverse range of individuals and entities. As it extends its reach to encompass a broader user base, OpenText Integra solidifies its role as a versatile and inclusive solution, poised to enhance project management for a multitude of users.

The resources involved and success criteria for phase 6:

Resources: Deployment resources, user support team, IT team, training materials, communication, and collaboration tools.

Success criteria: Successful software launch and positive user response from all users.

**Change management and training**

* The training program will be provided to members of the OpenText Corporation.
* CANINE Business Solutions will offer training materials, online resources, and hands-on workshops to familiarize users with the software.
* Change management techniques such as change campaigns, training sessions, and ongoing communication for more successful implementation with higher user satisfaction.

Change management and training play pivotal roles in ensuring a smooth transition. It also ensures an effective utilization of the software. Members of OpenText Corporation will undergo a comprehensive training program, equipping them with the necessary skills and knowledge. CANINE Business Solutions will contribute by providing an array of training materials, online resources, and immersive hands-on workshops. These initiatives collectively work to acquaint users with the OpenText Integra's functionalities and operation.

Change management, a crucial component, is fostered through diverse techniques. Change campaigns engage stakeholders in embracing the transition, while training sessions empower users to navigate the OpenText Integra confidently. Ongoing communication maintains a steady flow of information, ensuring a deeper understanding and promoting user satisfaction. These change management strategies are pivotal in steering the implementation towards success, enhancing the OpenText Integra's impact, and fostering a higher level of user contentment.

# **Business Analysis Approach**

**Planning approach:**

Implementing the proposed project “OpenText Integra” (Cloud-based Project Management Software) will go through many phases. This involves design, development, marketing, and customer acquisition. As this application will be a new addition to OpenText Corporation’s existing cloud platform it needs to be defined, designed, and built from the ground up. Adaptive (Agile) planning approaches will be followed throughout the project's life cycle. As this project will be implemented on an enterprise level, following the adaptive (Agile) approach will help divide this large project into smaller and more manageable tasks while allowing the organization to incorporate unplanned changes during the implementation of each task. The agile methodology is an exploratory approach where the final solution is built in small iterations and each iteration is focused on building a small component of the actual application. The main advantage of agile methodology is its flexibility towards sudden or unplanned changes, which helps mitigate project risks. The lessons learned in every iteration will be formally documented and reviewed during retrospective meetings conducted at the end of each iteration. If the team runs into any problems during an iteration, the root cause of the problem will be identified and documented, which can be used during subsequent iterations to prevent the team from repeating the same mistake.

**Formality and level of detail:**

Once the planning approach has been selected, the next important step is to finalize the deliverables that will be prepared for the analysis work. In an adaptive approach, producing the final list of deliverables at the beginning of the project is not required since there is a provision to revisit the business analysis approach and make the necessary changes later in the project lifecycle. A requirement plan will be developed at the beginning of the project, which will be used to compare and track the actual progress of the project after each iteration. The deliverables for the project include:

**Project Overview and Background Report:** This document will explain how and why the idea to develop a cloud-based project management application originated. Why does OpenText Corporation need to have its own project management software and how will it integrate with the existing applications? The BA team will also include information about the competitive forces, the implications of both the success and failure of this project for the company. Additionally, they will include the key business points or projects that need to be integrated with this application. This section will serve as “lessons learned” to all the company’s future projects, it will also be a good tool to train new people joining the project.

**Scope and Deliverables:** This report will be an extension of the previous document and focus specifically on areas that are of significant interest to the business analysis tasks. The project scope will be developed as part of the project charter, other typical deliverables will include a business requirements document, work breakdown structure, requirements plan, and a user acceptance plan.

**Competitive Analysis Report:** Competitive Analysis report includes results from different techniques like SWOT, PESTEL, and Balanced Scorecard. Among those, SWOT analysis is the popular method for conducting competitive analysis. It is one of the most extensively utilized business analysis tools. SWOT analysis helps to understand the internal (Strengths & Weaknesses) and external (Opportunity & Threats) factors affecting the organization. Using the SWOT analysis report, the company can understand how the proposed product will help the organization to expand and stand among its competitors.

**Business Analysis Performance Assessment:** This report consists of the results obtained from the business analysis activities conducted in the previous projects. It may help the organization to understand the risks and plan the current project accordingly.

**Project Activities:** In this deliverable, the scope of the project will be broken down into smaller parts using a work breakdown structure (WBS). The creativity and diversity of all team members will be utilized. This will help in creating an accurate and complete WBS. Progressive elaboration will be used as a guideline to develop the plans, which will allow the BAs to plan the well-understood areas on a detailed level at the beginning of the project. In contrast, the unknown areas will be planned at a high level with room for adjustments down the road.

**Roles & Responsibilities:** This section will identify the people responsible for completing specific business analysis tasks in the project. In the beginning, the roles and responsibilities will be assigned on a high level to the whole BA team. But as progressive elaboration kicks in and we move forward with the project, the plan will go into more detailed tasks. Eventually, it will get an actual name assigned to each task.

**Resource Plan:** The project activities and responsibilities will be fulfilled by skilled resources. The resource plan will show how and when the project will be completed. A resource plan will be developed early in the project to identify people, tools such as hardware and software. It also describes the facilities which will be needed throughout the project. The plan will be communicated with organizations responsible for providing the resources. Common resources which will be needed during the analysis phase are data architects, quality assurance specialists, testing groups, business process owners, facilitators, and support staff.

**Requirements Risk Plan:** This document identifies the functional and non-functional requirements of the product along with the risks involved in the process. Developing a new application is a large and risky endeavour. There are two main areas of risk management for business analysts, 1) risks related to the requirement-gathering process, 2) risks related to the product development process. The business analyst will be responsible for using different techniques to perform requirements gathering such as conducting surveys, brainstorming, interviews, etc. to overcome knowledge gaps between the customer’s understanding of the product and the BA’s knowledge of business during the analysis phase.

**Manage changes to requirements:** A business requirements document (BRD) will be developed at the end of the analysis phase. The BRD will be the final definition of the scope of the product. It will be controlled throughout the project by evaluating the impact of all changes on the project and product objectives. Responsibilities to evaluate and control the change will be established upfront. It will follow the following process:

* Change request submission.
* Assign for analysis.
* Impact of change evaluation.
* Forward the request with a recommendation to change the control board.
* Approve or reject the request.
* Track changes.

**Plan and Integrate Business Analysis Activities:**

The process to follow for planning the project’s business analysis activities will be finalized in liaison with the project manager. It is important to integrate the business analysis work plan into the higher-level work plan of the project to maintain consistency and keep track of the overall effort. The following structured approach will be used to plan the analysis activities:

1. Initiate the project by determining its purpose, scope, and initial parameters.
2. Determine who has a stake in the project and what their roles will be.
3. Gather requirements by working together with the Client to discover what they need. Elicitate the requirements, write them down, and rank them. To fully grasp the client's requirements, it is necessary to conduct activities such as detailed discussions, seminars, surveys, brainstorming, and analysis of current records.
4. Create a plan thoroughly to meet the needs discovered. Construct a timetable, budget, and manpower division to complete the project.
5. Continuous improvement cycles should be used to put the idea into action.
6. Safety and specifications compliance will be assured via rigorous testing at the end of each sprint.
7. **Evaluation and comments:** Routine reviews will be done with the customer to gather feedback and make the required changes.
8. The final product will be tested in the client's environment to evaluate its effectiveness.
9. Conclude the work by summarizing the obtained results and learnings.

**Timing of Business Analysis Work:**

Determining the timing of business analysis tasks throughout the project is a critical task and it also includes identifying the business analysis resources that will perform each task. The requirements development phase requires most of the business analysis effort and time. Initially, the BA team will be conducting the project work in a sequential manner i.e., other project development tasks will begin once the business analysis’ requirement gathering phase is completed. Once the requirements are generated the remainder of the business analysis tasks will be completed in iterations, in alignment with the development and testing activities. Other factors which will be considered include:

**Project Constraints:** All deadlines, budget constraints, and resource availability will be kept in mind while planning business analysis activities.

**Stakeholder Availability:** All reviews and approvals of business analysis deliverables will be planned as per the availability of stakeholders.

**Rework and refinement tasks:** In the Agile methodology, the requirements are bound to change as the project progresses; hence it is important to allocate time for rework or refinements based on stakeholder input.

**Requirement prioritization:** In agile methodology, the requirements for each sprint or phase are often prioritized based on their value, and the analysis activities must adapt accordingly to support the project development.

# **Stakeholder Engagement Plan**

OpenText Integra - a cloud-based project management software, will be developed through the collaborative efforts of CANINE Business Solutions and OpenText Corporation. Additionally, suppliers, consultants, clients, and prospective customers will participate at various stages of the project life cycle. They will handle outsourced tasks, supply IT assets, provide feedback through surveys and questionnaires. They also perform user acceptance testing. This stakeholder engagement plan will serve as a reference throughout the project life cycle, assisting in the identification, prioritization, and engagement of relevant resources based on the product's development.

"This Stakeholder Engagement Plan (SEP) currently identifies the initial stakeholders and provides a high-level list of stakeholders. However, it will be continuously updated and refined by the business analysis team throughout the project life cycle. Through a collaborative approach, we strive to build trust, foster positive relationships, and cultivate a shared sense of ownership among stakeholders. The SEP serves as a facilitator for transparent and timely information sharing. This ensures that stakeholders remain informed and engaged at each stage of the project."

## **TEAM ROLES AND RESPONSIBILITIES**

|  |  |  |  |
| --- | --- | --- | --- |
| Team Members  Name | Roles | Responsibilities | Time spent by Members on each Task |
| Jagdish Parmar | Business Analyst | * Feedback and Continuous Improvement * Quality Assurance * Communication and Collaboration | 10 days |
| Aakriti Baral | Business Analyst | * Stakeholder Engagement * Requirements Gathering and Analysis * Task Execution * Requirement Documentation * Performance Analysis | 20 days |
| Dharmi Patel | Project Manager | * Project Planning and Strategy * Team Coordination and Communication * Resource Management * Stakeholder Engagement | 12 days |
| Anurag Rai | Business Analyst | * Prototyping and Mockups * User Acceptance Testing (UAT) * Requirement Traceability * Use Case Development * Risk Management | 25 days |
| Radhiga Dharmaraja | Team Leader | * Task Assignment and Coordination * Team Collaboration * Conflict Resolution * Support for Business Analysts * Quality control | 25 days |
| Nitish Rawal | Business Analyst | * Requirement Traceability * Process Mapping * Reporting and Status Updates * Change Management | 17 days |
| M Nishant Kumar | Business Analyst | * Training and Documentation * Business Process Improvement * Performance Analysis * Continuous Learning | 14 days |

**RACI**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Task** | **Aakriti (BA)** | **Nitish (TL)** | **Radhiga (TL)** | **Anurag (BA)** | **Dharmi (PM)** | **Jagdish (BA)** | **Nishant (BA)** |
| Client Background study | I | R | A | C | I | I | I |
| Competitive Analysis | R | I | A | C | I | R | I |
| Project overview | I | I | R | A | I | I | I |
| Project Charter | I | I | A | C | R | I | I |
| **RFI requirements process** |  |  |  |  |  |  |  |
| General Information | A | C | I | R | I | C | C |
| Organizational structure | A | C | I | R | I | C | C |
| Customer current practices and expectations | A | C | I | C | I | R | C |
| Feasibility Study | A | C | R | R | I | C | C |
| Technical availability | R | R | I | R | I | C | A |
| Resource availability | R | R | I | I | I | C | A |
| Solution Recommendation | I | I | R | R | I | C | A |
| Evaluation | I | I | I | I | R | C | A |
| **High level requirements** |  |  |  |  |  |  |  |
| Functional Requirements | R | I | I | I | A | I | C |
| Non Functional Requirements | R | R | I | I | A | I | C |
| To-Be process | I | A | R | I | C | I | I |
| Database design | I | A | R | R | C | I | I |
| Implementation strategy | A | R | I | I | C | I | I |
| Stakeholder Engagement | A | I | I | I | C | R | R |
| Testing Strategy | I | R | C | A | R | I | I |
| Risks & Mitigation | I | I | C | I | A | I | R |
| Documentation & Training | I | I | C | I | A | I | R |
| Conclusion | C | I | C | R | A | I | I |
| Call to action | C | I | R | I | A | I | I |
|  |  |  |  |  |  |  |  |
| R: Responsible |  |  |  |  |  |  |  |
| A: Accountable |  |  |  |  |  |  |  |
| C: Consulted |  |  |  |  |  |  |  |
| I: Informed |  |  |  |  |  |  |  |

**Responsibilities of a Project Manager:**

1. **Project Planning and Strategy:**
   * Define the scope, goals, and deliverables of the "OpenText Integra" project.
   * Develop a comprehensive project plan with detailed tasks, timelines, and resource allocation.
   * Create a strategy for managing project risks and potential issues.
2. **Team Coordination and Communication:**
   * Assign roles and responsibilities to team members, including the Team Leader and Business Analysts.
   * Foster clear communication channels among all team members, stakeholders, and clients.
   * Organize regular project status meetings to track progress and address challenges.
3. **Resource Management:**
   * Allocate budget and resources efficiently, ensuring optimal utilization.
   * Ensure that the project stays within the allocated budget and resource limits.
   * Monitor resource availability and adjust allocations as needed.
4. **Risk Management:**
   * Identify potential risks and challenges that could impact project success.
   * Develop mitigation strategies and contingency plans for identified risks.
   * Regularly assess and update the risk management plan as the project progresses.
5. **Stakeholder Engagement:**
   * Maintain strong relationships with key stakeholders, addressing their concerns and expectations.
   * Provide regular updates on project milestones, progress, and any changes in the plan.
   * Collaborate with stakeholders to gather feedback and incorporate it into the project.

**Responsibilities of a Team Leader:**

1. **Task Assignment and Coordination:**
   * Assist the Project Manager in creating a detailed task breakdown and assigning tasks to Business Analysts.
   * Ensure that each Business Analyst understands their responsibilities and deliverables.
   * Monitor task progress, offer guidance, and address any roadblocks.
2. **Team Collaboration:**
   * Foster a collaborative and supportive team environment among Business Analysts.
   * Facilitate discussions and knowledge sharing within the team.
   * Encourage open communication and information exchange.
3. **Reporting and Status Updates:**
   * Provide regular updates on the team's progress to the Project Manager.
   * Compile and communicate aggregated task status, potential issues, and achievements.
4. **Conflict Resolution:**
   * Address conflicts or disagreements within the team and work to find solutions.
   * Mediate any issues that arise between Business Analysts to maintain a positive team dynamic.
5. **Support for Business Analysts:**
   * Offer guidance and support to Business Analysts in addressing challenges. Clarify the requirements.
   * Ensure that Business Analysts have the necessary resources and information to fulfill their roles effectively.

**Responsibilities of a Business Analyst:**

1. **Requirements Gathering and Analysis:**
   * Collaborate with stakeholders to understand project requirements and objectives.
   * Document detailed user stories, use cases, and functional specifications.
2. **Task Execution:**
   * Execute tasks the Team Leader assign, such as creating documentation, analyzing requirements, or conducting testing.
   * Ensure that tasks are completed within the specified timelines and quality standards.
3. **Quality Assurance:**
   * Conduct thorough testing of software functionality to ensure alignment with requirements.
   * Report and document any defects or discrepancies discovered during testing.
4. **Communication and Collaboration:**
   * Maintain regular communication with the Team Leader and other Business Analysts.
   * Share insights, updates, and challenges during team meetings.
5. **Feedback and Continuous Improvement:**
   * Provide feedback on project processes, requirements, and overall project improvements.
   * Suggest enhancements or optimizations based on user needs and experiences.
6. **Stakeholder Engagement:**

* Actively engage with stakeholders to elicit and clarify project requirements. Consider their perspectives and needs.

1. **Requirement Documentation:**

* Create comprehensive and well-structured requirement documents.
* Ensure clarity and accuracy.

1. **Performance Analysis:**

* Assess system performance against requirements and identify areas for optimization.

1. **Prototyping and Mock-ups:**

* Create prototypes or mock-ups to visualize and validate user interface elements.

1. **User Acceptance Testing (UAT):**

* Coordinate and participate in UAT sessions to validate that the software meets user expectations.

1. **Requirement Traceability:**

* Establish traceability between requirements, design, development, and testing phases.

1. **Use Case Development:**

Develop detailed use cases that outline user interactions and system behaviour for different scenarios.

1. **Process Mapping:**

* Map out existing and proposed processes to identify areas for improvement.

1. **Training and Documentation:**

* Contribute to the creation of user manuals, training materials, and documentation.

1. **Change Management:**

* Assess the impact of requirement changes and facilitate change management processes.

1. **Business Process Improvement:**

* Suggest process improvements based on insights from requirement analysis.

1. **Performance Analysis:**

* Assess system performance against requirements and identify areas for optimization.

1. **Continuous Learning:**

* Stay updated with industry trends, best practices, and emerging technologies related to business analysis.

## **Stakeholder Identification**

The stakeholders involved in the project are:

1. CANINE Business Solutions:

|  |  |
| --- | --- |
| **Name** | **Role** |
| Dharmi Vijaykumar Patel | Project Manager |
| Radhiga Dharmaraja | Team Leader |
| Aakriti Baral | Senior Business Analyst |
| Nitish Rawal | Senior Business Analyst |
| Jagdishbhai Parmar | Business Analyst |
| Anurag Kumar Rai | Business Analyst |
| M Nishant Kumar | Business Analyst |

1. OpenText Corporation:

2.1 Board of Directors.

2.2 Product Development & Operations Heads.

2.3 Product Development & Operations Team.

2.4 HR

2.5 Financial Operations Team.

1. Suppliers
2. Clients
3. Consultants
4. Customers

## **Stakeholder Influence & Interest:**

|  |  |  |
| --- | --- | --- |
| **Stakeholder** | **Influence** | **Interest** |
| CANINE Business Solutions | Medium | Leading, Supporting |
| OpenText Corporation Board of Directors | Very High | Neutral |
| OpenText Corporation Product Development & Operations Heads | Very High | Neutral |
| OpenText Corporation Product Development & Operations Team | High | Neutral |
| OpenText Corporation HR | Medium | Neutral |
| OpenText Corporation Financial Operations Team | High | Neutral |
| Suppliers | Low | Unaware |
| Clients | Low | Unaware |
| Consultants | Low | Unaware |
| Customers | Low | Unaware |

## **Stakeholder Communication Plan:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Topic** | **Frequency** | **Mode** | **Stakeholders Involved** | **Collaborator** |
| Project – pitch and promotion | Once | Zoom Meeting | CANINE Business Solutions  OpenText Corporation Product Development & Operations Heads  OpenText Corporation Financial Operations Team | CANINE Business Solutions -  Project Manager |
| Requirements gathering | Biweekly | Zoom Meeting | CANINE Business Solutions  OpenText Corporation Product Development & Operations Team  Customer Representative | CANINE Business Solutions -  Project Manager |
| Sprint Planning | Biweekly – at the start of each sprint | Zoom Meeting | CANINE Business Solutions  OpenText Corporation Product Development & Operations Team | CANINE Business Solutions -  Project Manager |
| Status Updates | Daily | Zoom Meeting | CANINE Business Solutions  OpenText Corporation Product Development & Operations Team | CANINE Business Solutions -  Project Manager |
| Sprint Retrospective | Biweekly – at the end of each sprint | Zoom Meeting | CANINE Business Solutions  OpenText Corporation Product Development & Operations Team | CANINE Business Solutions -  Project Manager |
| Project progress review & Product Demo | Monthly | Zoom meeting | CANINE Business Solutions  OpenText Corporation Product Development & Operations Heads  OpenText Corporation Product Development & Operations Team | CANINE Business Solutions -  Project Manager |

# **To-Be Process**

A to-be diagram, or a future state diagram, shows an organization's expected state of a business process. It shows how the process will be impacted after changes, like adding new technology, implementing a new product, redefining roles, and duties, or making workflows more efficient.

It casts a gaze toward the future, envisioning the anticipated state of an organization's business processes. A to-be diagram shows the best way for tasks, relationships, and decisions. This can help improve stakeholder efficiency, effectiveness, and satisfaction.

This diagram is like a roadmap for making improvements. It shows how tasks, connections between people, and important choices will get better. While acting as a road map for redesigning and implementing the process, it helps partners understand the planned changes.

For OpenText Corporation, this To-Be diagram is like a guide for the exciting changes that will happen because of the "OpenText Integra" project. It's like a sneak peek into how different parts of the business will transform.

A "To-Be" diagram provides a clear visual representation of how a business process will look after changes are implemented. It helps stakeholders envision the future state, making it easier to understand complex modifications.

By depicting the ideal state of a process, a "To-Be" diagram guides the organization towards streamlined and efficient workflows. It highlights areas where improvements can be made.

The diagram ensures that process changes align with the organization's strategic goals. It acts as a guide to ensure that the desired outcomes are achieved.

Visualizing the future state engages stakeholders by giving them a tangible representation of how their roles and responsibilities might change. This can increase buy-in and collaboration.

For large-scale changes, the diagram aids in change management efforts. It helps employees adapt to new ways of working by providing a clear picture of the end goal.

By comparing the "As-Is" and "To-Be" diagrams, organizations can assess the effectiveness of the proposed changes through which they can measure their impact.

**To – Be Process – OpenText Corporation**

* The consultant (CANINE Business Solutions) will analyze the current market trends and financial status of the OpenText Corporation.
* Drawing insights from the analysis, the consulting team will pinpoint potential opportunities that align with OpenText's strengths and objectives.
* Based on the findings, the team will identify the potential opportunity for OpenText Corporation.
* After a thorough analysis (including elicitation), CANINE Business Solutions will propose a potential solution to the OpenText Corporation. Through a meticulous process that includes elicitation, the consulting team will craft a detailed proposal for a solution tailored to OpenText's needs.
* The Project Sponsor (OpenText Corporation’s Executive team) will review the project proposal and evaluate the project's feasibility.
* The Project Sponsor will evaluate the proposal's feasibility, considering factors such as financial investment, alignment with goals, and potential benefits.
* If the sponsor finds the project to be feasible, then the project will be approved and proceed to the next phase.
* The development team will receive the proposed project's requirements and start developing the proposed project – “OpenText Integra.” In the OpenText cloud environment.
* The proposed project, OpenText Integra, will be developed in an Agile environment where the QA team will perform testing in various phases.
* The QA team will have a defect management strategy to identify and report defects to the development team.
* The development team will resolve the defects before the project enters UAT. The final product, “OpenText Integra,” will be delivered to the client once the defects are completely fixed.
* The product will be transitioned to the client’s cloud infrastructure upon delivery. The team will verify if the client wants to upgrade their project management practices beginning the transition. If yes, the OpenText team will begin deploying the “OpenText Integra” in the client environment.
* The product will be integrated with the existing products or solutions in the client environment.
* After the “OpenText Integra” product is implemented successfully in the OpenText cloud environment, the sales and marketing team will deploy different strategies to market the product.
* The marketing techniques involve digital marketing, Free trials, email marketing, webinars, and conferences. These methods will promote the product sales in the market.
* Once the product is successfully deployed in the client’s environment, the customer support team in the OpenText Corporation will provide continuous IT support to the clients.
* The to-be diagram for OpenText corporation provided below outlines the business processes that will be impacted by implementing the proposed project (OpenText Integra).

A screenshot of a computer

Description automatically generated with medium confidence

# **Risk Log**

The risk log helps to identify potential issues that may impact the implementation of the cloud-based project management software (OpenText Integra). It helps to list the risk, prioritize the risk, and devise ways to deal with it. By having a clear understanding of potential risks and ways to handle them, seamless execution of OpenText Integra can be ensured. This minimizes the significant risks that could cause project delays and contributes to its overall success without any significant hurdles.

In the risk log below, various risks that could affect the implementation of OpenText Integra is identified. Each risk is categorized based on severity/impact and probability of occurrence. To address the risks effectively, specific mitigation strategies have been outlined for each.

|  |  |  |  |
| --- | --- | --- | --- |
| **Risk Description** | **Severity/Impact** | **Probability of Occurrence** | **Mitigation Strategy** |
| Technical Compatibility Risk | High | Medium | * Conduct comprehensive compatibility testing for "OpenText Integra" and existing IT infrastructure to identify potential conflicts or limitations. * Address compatibility issues through customizations or integrations, with input from IT experts and software developers. * Perform pilot testing with a select group of users to identify and resolve integration complexities before full deployment. |
| Delay in procuring third-party tools (including software & hardware) | High | Low | * Plan the procurement process well in advance. * Establish a proper communication plan with vendors to mitigate the associated risks. |
| Data Security Breach | Critical | Low | * Implement robust security measures, including encryption, access controls, and multi-factor authentication, to protect sensitive data. * Conduct regular security audits and vulnerability assessments to identify potential gaps. * Provide comprehensive employee training on data security best practices. |
| User (Customer) Resistance to Change | Moderate | High | * Develop a comprehensive change management plan involving all stakeholders, including senior management, project team, and end-users. * Clearly communicate the benefits of "OpenText Integra" to all users, highlighting how it will enhance productivity and streamline processes. * Conduct training and workshops to help users adapt to the new software. * Provide hands-on experience and support during the transition period. |
| Employees’ resistance to change | High | Low | * Educate the employees about the importance of the solution. * Involving them in planning and decision-making will help mitigate the risk. |
| Scope Creep | High | Medium | * Define a detailed project scope including requirements and deliverables, with sign-off from stakeholders. * Establish a formal change control process for evaluating and approving scope changes. * Engage stakeholders in prioritizing new features and enhancements. * Ensure alignment with project objectives and timeline. |
| Integration Challenges | High | Medium | * Assess integration requirements with existing systems to identify potential challenges and dependencies. * Engage experienced integration specialists or consultants to design and implement solutions. * Follow industry best practices and standards for seamless integration, ensuring data integrity. |
| Data Migration Complexity | High | Low | * Develop a detailed data migration plan with a focus on data cleansing, validation, and mapping. * Conduct regular backups and validation checks during data migration to ensure accuracy. * Engage data migration specialists to assist in the process and address any technical challenges. |
| Resource Constraints | Moderate | Medium | * Conduct a thorough resource assessment early in the project to identify and secure necessary resources. * Monitor resource allocation throughout the project, optimizing resource usage based on priorities and timelines. * Prioritize tasks and deliverables based on resource availability and skills. |
| Inadequate training or lack of knowledge of the IT team | High | Low | * Conduct training and skill development programs before commencing the project. * Identify key skills and allocate resources accordingly. * Continuous improvement and support will enhance team skills. |
| Vendor Reliability | High | Low | * Perform a detailed vendor evaluation, considering reputation, track record, and financial stability. * Establish legal contracts with clear service-level agreements and penalties for non-compliance. * Maintain open communication channels with the vendor, conducting regular status meetings. |
| User Acceptance Testing (UAT) Challenges | Moderate | Medium | * Engage key stakeholders and end-users throughout the UAT process for feedback. * Develop a well-structured UAT plan with clearly defined test cases and objectives. * Provide sufficient training to UAT participants to ensure effective testing and feedback. |

## **Risk Analysis for "OpenText Integra" Project:**

Risk analysis is a crucial step in any project's lifecycle, enabling proactive identification, assessment, and mitigation of potential challenges. The "OpenText Integra" project carries inherent risks that must be systematically addressed to ensure successful delivery and optimal outcomes. This section presents a comprehensive risk analysis, categorizing potential risks, evaluating their impact likelihood, and proposing mitigation strategies.

## **Risk Analysis**

**Technical Risks**

To mitigate technical risks during testing, the development team will conduct regular code reviews to identify and resolve any technical issues early in development. Pair programming can also be utilized to enhance code quality and knowledge sharing. Continuous integration and automated testing will be employed to detect integration issues promptly.

**Financial Risks**

To mitigate financial risks, proper estimation and budgeting will be done for testing activities to ensure sufficient resources are allocated. Regular project status and budget assessments will be done to detect any financial difficulties quickly.

**Resource Risks**

To mitigate resource risks, cross-training and knowledge sharing will be encouraged among team members to ensure that the absence of crucial resources does not significantly impact the project. Effective Collaboration between the development and testing teams will be required to align project objectives with company priorities.

**1. Technical Risks:**

1. **Integration Challenges:** Integrating "OpenText Integra" with existing OpenText products and external platforms may pose technical challenges. The complexity of data synchronization, compatibility issues, and the need for seamless interactions may lead to delays or functional discrepancies.
   * Mitigation Strategy: Conduct thorough compatibility testing, establish clear integration protocols, and maintain a dedicated integration team to address any technical roadblocks promptly.
2. **Scalability Concerns:** As the user base and project portfolio grow, scalability becomes a concern. The software's performance under increased load, resource utilization, and data management scalability must be carefully addressed.
   * Mitigation Strategy: Implement robust load testing, monitor system performance closely, and employ cloud-based resources to dynamically scale infrastructure as needed.
3. **Data Security and Privacy:** Ensuring data security and compliance with data privacy regulations is paramount. Data storage, transmission, and access control vulnerabilities could result in data breaches as well as regulatory non-compliance.
   * Mitigation Strategy: Implement stringent data encryption, access controls, and regular security audits. Adhere to industry best practices and regulatory guidelines to safeguard sensitive information.

**2. Organizational Risks:**

1. **Change Resistance:** The introduction of "OpenText Integra" may face resistance from employees accustomed to existing tools or processes. User reluctance to adopt the new software could hinder its successful implementation.
   * Mitigation Strategy: Develop a comprehensive change management plan, including user training, workshops, communication campaigns to promote software adoption and mitigate resistance.
2. **Insufficient User Training:** Inadequate training onboarding could lead to underutilization or misuse of the software's features, impacting overall project efficiency and outcomes.
   * Mitigation Strategy: Develop comprehensive user training materials, conduct interactive workshops, and provide ongoing support to ensure users are proficient in utilizing "OpenText Integra."
3. **Scope Creep:** Evolving user requirements or unclear project boundaries may lead to scope creep, potentially affecting project timelines and budgets.
   * Mitigation Strategy: Establish a robust change control process, clearly define project scope, maintain regular communication with stakeholders to manage and approve changes effectively.

**3. Financial and Resource Risks:**

1. **Budget Overruns:** Inaccurate estimation of project costs, unexpected expenses, or scope changes could lead to budget overruns.
   * Mitigation Strategy: Implement rigorous budget monitoring, conduct regular cost reviews, and allocate contingency funds to address unforeseen expenses.
2. **Resource Shortages:** Inadequate staffing, skill gaps, or resource constraints could impact project progress and quality.
   * Mitigation Strategy: Conduct thorough resource planning, allocate skilled teams, and establish a backup plan to address potential resource shortages.

**4. Market and Competitive Risks:**

1. **Changing Market Dynamics:** Rapid shifts in technology trends, user preferences, or market demands could impact the relevance and competitiveness of "OpenText Integra."
   * Mitigation Strategy: Regularly monitor market trends, engage in competitive analysis, and maintain a flexible development approach to adapt to changing market dynamics.
2. **Competitor Response:** Competitors may introduce similar products or features, intensifying competition and challenging "OpenText Integra's" market positioning.
   * Mitigation Strategy: Focus on unique value propositions, continuous innovation, and effective marketing strategies to differentiate "OpenText Integra" from other products in the market.

**5. Project Management and Execution Risks:**

1. **Communication Breakdown:** Ineffective communication among project stakeholders, teams, or management could lead to misunderstandings, delays, and misaligned expectations.
   * Mitigation Strategy: Establish clear communication channels, conduct regular status meetings, and utilize collaboration tools to ensure seamless information flow.
2. **Unrealistic Timelines:** Overambitious project timelines may lead to rushed development, compromised quality, and increased risk of errors.
   * Mitigation Strategy: Conduct thorough project planning, involve stakeholders in timeline discussions, and prioritize a realistic development pace to ensure high-quality results.
3. **Vendor Dependencies:** Reliance on third-party vendors for software components or services could introduce delays or vulnerabilities due to external factors beyond the project team's control.
   * Mitigation Strategy: Identify critical dependencies, establish contingency plans, and maintain close communication with vendors to mitigate potential risks.

**6. Legal and Compliance Risks:**

1. **Intellectual Property Disputes:** The development and deployment of "OpenText Integra" could potentially infringe upon existing patents, copyrights, or trademarks, leading to legal disputes.
   * Mitigation Strategy: Conduct a thorough intellectual property analysis, secure necessary licenses, and ensure the software's design adheres to legal standards to prevent potential conflicts.
2. **Regulatory Non-Compliance:** Failure to adhere to industry-specific regulations, data protection laws, or international compliance standards may result in legal penalties and reputational damage.
   * Mitigation Strategy: Collaborate with legal experts to ensure "OpenText Integra" complies with relevant regulations, conduct regular compliance audits, and maintain comprehensive documentation.

**7. Vendor and Technology Risks:**

1. **Vendor Reliability:** Dependence on third-party vendors for software components or technology platforms exposes the project to vendor-related risks, such as service interruptions or discontinuation.
   * Mitigation Strategy: Evaluate vendor reliability, establish contingency plans, and consider open-source alternatives for critical components to minimize vendor-related disruptions.
2. **Technology Obsolescence:** Rapid advancements in technology may lead to the obsolescence of certain software components or frameworks, affecting the long-term viability of "OpenText Integra."
   * Mitigation Strategy: Adopt modular architecture, stay updated with technological trends. Ensure software components are flexible and adaptable to future technological shifts.

**8. User Acceptance and Satisfaction Risks:**

1. **Usability Challenges:** If "OpenText Integra" fails to offer an intuitive and user-friendly interface, user satisfaction could suffer. This could lead to reduced productivity and resistance.
   * Mitigation Strategy: Conduct extensive user testing, gather user feedback, and iterate on the user interface. Ensure optimal usability and user satisfaction.
2. **Feature Misalignment:** Inaccurate understanding of user needs or misalignment with business requirements could lead to the development of features that do not add significant value.
   * Mitigation Strategy: Implement robust requirement gathering processes, involve end-users in feature prioritization. Maintain close collaboration between development teams and stakeholders.

**9. External Factors and Environmental Risks:**

1. **Natural Disasters:** Unforeseen natural disasters or environmental factors could disrupt project operations, affecting development timelines and deliverables.
   * Mitigation Strategy: Establish disaster recovery and business continuity plans, back up critical data. Implement measures to ensure project continuity during unforeseen events.
2. **Economic Instability:** Economic fluctuations or market uncertainties could impact project funding, resource availability, or customer demand for "OpenText Integra."
   * Mitigation Strategy: Maintain financial reserves, conduct regular risk assessments and adapt project plans to accommodate changes in economic conditions.

**10. Stakeholder Engagement Risks:**

1. **Misaligned Expectations:** Inadequate communication and alignment with project stakeholders could result in differing expectations. This could lead to dissatisfaction and project scope disputes.
   * Mitigation Strategy: Establish clear communication channels, conduct regular progress reviews, and maintain an ongoing dialogue with stakeholders to ensure their expectations are met.
2. **Lack of Involvement:** Insufficient engagement from key stakeholders, such as end-users or decision-makers, may hinder timely decision-making and lead to project delays.
   * Mitigation Strategy: Identify critical stakeholders, involve them in key project milestones. Ensure their input is sought and incorporated throughout the project lifecycle.

**Technical Risks: A Detailed Explanation**

Technical risks within the context of the "OpenText Integra" project refer to potential challenges or uncertainties associated with the software's development, integration, performance, and security. These risks, if not properly addressed, can lead to project delays, compromised functionality, and reduced user satisfaction. A comprehensive understanding of these risks and their mitigation strategies is essential to ensure the successful execution of the project.

**1. Integration Challenges:**

Integration challenges encompass the complexity of seamlessly incorporating "OpenText Integra" with existing OpenText products and other external platforms. These challenges arise due to differences in data formats, protocols, and underlying architectures. Without meticulous planning, integration issues can result in data inconsistencies, functional disparities, and user frustration.

**Mitigation Strategy:** To address integration challenges, the project team will adopt a phased integration approach. This involves comprehensive compatibility testing between "OpenText Integra" and existing systems, followed by incremental integration of components. A dedicated integration team will be responsible for identifying and resolving issues. This team will ensure data synchronization and establish standardized communication protocols.

**2. Scalability Concerns:**

Scalability concerns emerge from the software's ability to handle increasing user loads and project volumes over time. Without effective scalability measures, the software may experience performance degradation, slow response times, and potential service disruptions. This may impact user experience and overall project efficiency.

**Mitigation Strategy:** The project team will implement robust load testing using simulated user scenarios to assess the software's performance under varying workloads. Cloud-based resources will be leveraged to enable dynamic scalability, ensuring the software can handle increased demand without compromising performance. Automatic scaling mechanisms will be integrated to adjust resources based on usage patterns.

**3. Data Security and Privacy:**

Data security and privacy risks pertain to the protection of sensitive information stored by "OpenText Integra." Vulnerabilities in data storage, transmission, or access control could lead to unauthorized access, data breaches, and legal compliance issues. This can ultimately undermine user trust and tarnishing the project's reputation.

**Mitigation Strategy:** The project team will implement a comprehensive data security framework, encompassing encryption protocols, robust access controls, and regular security audits. User authentication and authorization mechanisms will be enforced to ensure only authorized personnel can access sensitive data. The software's design will adhere to industry standards and data protection regulations, with compliance measures regularly reviewed.

By proactively addressing these technical risks and implementing the outlined mitigation strategies, the "OpenText Integra" project can navigate potential challenges successfully. A well-executed approach will contribute to the development of a reliable, high-performance, and secure cloud-based project management software. The software aligns with OpenText Corporation's objectives and user expectations.

**4. Technology Compatibility:**

Technology compatibility risks revolve around the compatibility of "OpenText Integra" with various operating systems, browsers, and hardware configurations. Incompatibilities can lead to suboptimal user experiences, reduced accessibility, and limitations in the software's functionality.

**Mitigation Strategy:** The project team will conduct extensive cross-platform testing to ensure compatibility with popular operating systems, browsers, and devices. Compatibility issues will be identified and addressed during the development phase. Responsive design principles will be employed to optimize the software's usability across different screen sizes and devices.

**5. Performance Optimization:**

Performance optimization risks encompass challenges related to achieving optimal software performance, responsiveness, and efficient resource utilization. Poorly optimized code, inefficient algorithms, or inadequate resource allocation can result in slow execution, system crashes, and dissatisfaction among users.

**Mitigation Strategy:** The project team will prioritize performance optimization throughout the development lifecycle. Code reviews, profiling tools, and performance testing will be utilized to identify bottlenecks. Continuous monitoring of key performance indicators will allow for early detection of performance issues, enabling timely adjustments and enhancements.

**6. Third-Party Dependencies:**

Dependence on third-party libraries, frameworks, or services introduces the risk of changes or disruptions in these components. Third-party updates, discontinuations, or vulnerabilities could impact "OpenText Integra's" functionality, security, and overall stability.

**Mitigation Strategy:** The project team will carefully evaluate and select third-party components. They will opt for well-maintained and widely adopted solutions. Regular updates and patches for third-party dependencies will be monitored. All updates will be applied promptly. Whenever possible, the project will explore alternatives or develop in-house solutions for critical functionalities to reduce reliance on external factors.

**7. Evolving Technology Landscape:**

The ever-evolving technology landscape introduces the risk of selecting outdated or incompatible technologies during the software's development. Rapid changes in cloud infrastructure, programming languages, and development tools can affect the software's long-term sustainability.

**Mitigation Strategy:** The project team will conduct continuous technology assessments to stay abreast of emerging trends and best practices. Flexibility and modularity will be integrated into the software's architecture to facilitate future technology upgrades. Regular technology reviews will ensure that the chosen stack remains relevant and aligned with industry standards.

**8. Knowledge and Skill Gaps:**

Knowledge gaps among the development team can hinder the implementation of complex features and functionalities. Inadequate expertise in specific technologies or domains may lead to suboptimal design decisions and development challenges.

**Mitigation Strategy:** The project team will invest in training and upskilling to bridge knowledge gaps. This can enhance the development team's expertise. Collaboration with external experts or consultants will be considered for specialized areas. Knowledge sharing within the team will be encouraged to ensure a well-rounded skill set and collective problem-solving.

By addressing these technical risks with thoughtful mitigation strategies, the "OpenText Integra" project can ensure the successful delivery of a robust, secure, and high-performance cloud-based project management software. The proactive management of technology challenges will contribute to a seamless user experience, improved project efficiency, and the attainment of OpenText Corporation's business objectives.

Organizational Risks: A High-Level Overview

Organizational risks within the scope of the "OpenText Integra" project pertain to potential challenges stemming from the internal dynamics, resources, and processes of OpenText Corporation. These risks have the potential to impact project execution, stakeholder engagement, and overall project success. Understanding and addressing these risks is crucial to ensure effective project management. This can help the organization to achieve desired outcomes.’

**1. Change Management and Stakeholder Resistance:**

Change management risks involve the resistance to adopting new processes, technologies, or practices by employees and stakeholders. Resistance can stem from unfamiliarity, fear of job displacement, or reluctance to depart from existing methods.

**Mitigation Strategy:** OpenText Corporation should prioritize clear communication and stakeholder engagement from the project's inception. Regular communication about the project's purpose, benefits, and anticipated changes will help address concerns. Change champions and training programs can facilitate a smoother transition by promoting the advantages of "OpenText Integra."

**2. Resource Allocation and Availability:**

Resource allocation risks relate to the availability of personnel, time, and financial resources required for the project's successful execution. Inadequate resources or competing priorities may lead to project delays or compromised deliverables.

**Mitigation Strategy:** OpenText Corporation should conduct a comprehensive resource assessment before the project's initiation. This includes evaluating the availability of skilled personnel, budget allocation, and potential conflicts with ongoing initiatives. Establishing a dedicated project team, securing necessary funding, and optimizing resource allocation will contribute to a more seamless project timeline.

**3. Organizational Culture and Collaboration:**

Organizational culture risks emerge from misalignment between the project's goals and the prevailing company culture. Lack of collaboration, siloed departments, or resistance to cross-functional teamwork can hinder effective project execution.

**Mitigation Strategy:** OpenText Corporation should promote a culture of collaboration and cross-functional teamwork. Encouraging open communication, fostering a sense of shared ownership, and recognizing the collaboration efforts can break down silos and enhance overall project coordination.

**4. Decision-Making Hierarchy and Bottlenecks:**

Decision-making risks arise when project-related decisions require approval from multiple layers of management or encounter bottlenecks. Delays in decision-making can hinder project progress and responsiveness to changing requirements.

**Mitigation Strategy:** OpenText Corporation should establish a streamlined decision-making process specific to the project. Clearly defining decision-making authority, assigning decision owners, and implementing a timely review can expedite decision-making. This can help prevent bottlenecks.

**5. Resistance to Process Changes:**

Resistance to process changes involves challenges in implementing new workflows or procedures that "OpenText Integra" introduces. Existing processes may be deeply ingrained, making it challenging for employees to adapt to new ways of working.

**Mitigation Strategy:** OpenText Corporation should involve key stakeholders early in the project to identify potential process changes and solicit their input. A change management plan that includes training, support, and gradual process implementation can help employees transition smoothly to the new processes facilitated by the software.

**6. Vendor Management and External Dependencies:**

Vendor management risks arise when the project relies on external vendors, suppliers, or partners. Delays, non-compliance, or misaligned expectations from vendors can impact project timelines and deliverables.

**Mitigation Strategy:** OpenText Corporation should establish clear contractual agreements with vendors, defining roles, responsibilities, and expectations. Regular communication, performance monitoring, and contingency plans in case of vendor-related disruptions will help manage vendor-related risks effectively.

**7. Regulatory Compliance and Legal Risks:**

Regulatory compliance pertain to the adherence of "OpenText Integra" to industry-specific regulations, data privacy laws, and intellectual property rights. Failure to comply with relevant regulations could result in legal disputes, fines, or reputational damage.

**Mitigation Strategy:** OpenText Corporation should conduct a thorough legal and regulatory assessment to identify potential compliance requirements. The project team should work closely with legal experts to ensure that the software's design, data handling, and user interactions align with relevant laws. Regular audits and compliance checks will help mitigate legal risks.

**8. Project Scope Creep and Scope Management:**

Scope management risks involve the expansion of project scope beyond its original boundaries, leading to scope creep. Inadequate scope definition or constant changes to requirements can result in timeline extensions, budget overruns, and compromised quality.

**Mitigation Strategy:** OpenText Corporation should establish a robust scope management process. Clearly defining project scope, objectives, and implementing a formal change control mechanism will help prevent scope creep. Regular scope reviews and stakeholder signoffs are essential to maintain project focus.

**9. Communication and Stakeholder Engagement:**

Communication and stakeholder engagement risks arise when there is insufficient or ineffective communication between project teams, stakeholders, and management. Misunderstandings, lack of alignment, and inadequate information sharing can hinder project progress.

**Mitigation Strategy:** OpenText Corporation should prioritize transparent and timely communication throughout the project lifecycle. Establishing regular communication channels, providing status updates, and engaging stakeholders at key milestones will foster a shared understanding of project progress and facilitate timely feedback.

**10. Resistance to Training and Adoption:**

Resistance to training and adoption risks emerge when end-users are reluctant to adopt new technologies or processes introduced by "OpenText Integra." Inadequate training or unfamiliarity with the software's features can lead to underutilization and decreased user satisfaction.

**Mitigation Strategy:** OpenText Corporation should develop a comprehensive training and user adoption strategy. Tailored training programs, user-friendly documentation, and interactive workshops will empower users to effectively utilize the software. Continuous support and a feedback loop will address user concerns. This can drive successful adoption.

**11. Unrealistic Expectations and Success Metrics:**

Unrealistic expectations risks involve setting overly ambitious goals or success metrics for the project. Failure to meet these expectations can result in disillusionment among stakeholders and undermine confidence in the project's value.

**Mitigation Strategy:** OpenText Corporation should collaborate with stakeholders to set realistic and achievable success metrics. These metrics should align with the project's objectives and the organization's strategic goals. Regular progress tracking and transparent reporting will help manage expectations. As a result, the organization can showcase tangible results.

**12. Resource and Budget Constraints:**

Resource risks relate to challenges in securing necessary resources and funding for the project. Inadequate budget allocations or unexpected resource limitations can impact project scope, quality, and timelines.

**Mitigation Strategy:** OpenText Corporation should conduct a thorough financial analysis and secure appropriate budget allocation for the project. A well-defined budgeting process, ongoing financial monitoring. Effective resource allocation will ensure that the project remains on track and within budget.

**13. Resistance to Cultural Change:**

**Risk Description:** Resistance to cultural change refers to the challenges that may arise due to a misalignment between the of OpenText Corporation’s cultural norms, values or practices and the changes introduced by the "OpenText Integra" project. Organizational culture plays a significant role in shaping employee behaviour, attitudes, and interactions. When the new project requires shifts in behaviour or introduces unfamiliar practices, employees may resist these changes if they clash with the established culture.

**Potential Impact:** Resistance to cultural change can lead to slow adoption of the project, decreased employee morale, and compromised project outcomes. Employees may feel disconnected or disengaged from the project, leading to a lack of enthusiasm and cooperation. In some cases, cultural resistance can escalate into conflicts, further hindering project progress.

**Mitigation Strategy:** To mitigate the risk of resistance to cultural change, OpenText Corporation should consider the following strategies:

1. **Cultural Assessment:** Conduct a thorough assessment of the existing organizational culture. Identify the values, beliefs, and behaviours that may impact the project's implementation. Understanding the cultural landscape will help anticipate potential areas of resistance.
2. **Communication and Education:** Develop a clear communication plan that emphasizes the benefits of the "OpenText Integra" project and aligns them with the organization's cultural values. Communicate how the project's objectives are in harmony with the company's overarching mission and vision.
3. **Engagement and Involvement:** Involve employees in the project planning and decision-making processes. Solicit their input and feedback. This can make them feel valued and engaged. When employees have a sense of ownership and contribution, they are more likely to embrace cultural changes.
4. **Change Champions:** Identify and empower change champions within the organization. These individuals, ideally respected and influential employees, can advocate for the project. Address concerns and encourage their peers to embrace cultural shifts.
5. **Training and Support:** Provide comprehensive training to employees on the new practices and tools introduced by the project. Offer ongoing support to address any challenges or questions they may have during the transition. Training should focus not only on the technical aspects but also on the cultural alignment.
6. **Cultural Integration:** Ensure that the project's implementation plan considers cultural nuances. Adapt project milestones, communication styles, and engagement strategies to align with the existing culture.
7. **Leadership Role Modeling:** Leaders and managers should embody the desired cultural changes. Their actions, behaviours, and attitudes should reflect the values promoted by the project. When employees observe leadership alignment, they are more likely to follow suit.
8. **Recognition and Rewards:** Establish a rewards system that celebrates employees who embrace and contribute to the cultural changes brought about by the project. Positive reinforcement can motivate others to adopt the changes.

Addressing resistance to cultural change is essential for the successful adoption of the "OpenText Integra" project. By understanding the organization's cultural landscape, effectively communicating the project's alignment with cultural values, and engaging employees in the change process, OpenText Corporation can overcome this risk by creating a culture that embraces and supports the project's objectives.

**Financial and Resource Risks:**

**Risk Description:** The landscape of the "OpenText Integra" project is not without the inherent challenges of financial and resource risks. These multifaceted risks encompass intricate intricacies related to budgetary allocations, potential cost escalations, resource availability uncertainties, and the encompassing grip of financial constraints. The effective management of these intricate challenges is pivotal to safeguarding the project's scope, ensuring the delivery of quality outcomes, and adhering to stipulated timelines.

**Potential Impact:** Inadequate handling of financial and resource risks has the potential to reverberate across multiple dimensions. This includes potential budget overruns, derailment of project timelines, compromise in the quality of deliverables, and the emergence of tumultuous relationships with stakeholders. The absence of a meticulously structured resource allocation strategy can accentuate the risk of skill scarcities, resulting in the exhaustion of project team members. This will consequently lead to a decline in both productivity and overall project performance.

**Mitigation Strategy:** To navigate the intricate terrain of financial and resource risks, OpenText Corporation must meticulously execute the following comprehensive strategies:

1. **Comprehensive Budgetary Planning:** A meticulous dissection of potential costs is indispensable. Thoroughly estimating project expenditures, encompassing software development, infrastructure requisites, training expenditures, and a prudent contingency allocation, is integral. The development of an exhaustive budgetary blueprint that encapsulates both direct and indirect expenses is fundamental.
2. **Contingency Allocations:** In anticipation of the unforeseen, the establishment of a contingency fund is pivotal. This financial buffer functions as an effective bulwark, absorbing any unanticipated financial exigencies or alterations to the project's scope without precipitating disarray in the overarching budget.
3. **Vigilant Financial Oversight:** The implementation of a robust financial surveillance mechanism is imperative. Real-time tracking of project expenditures against budget projections, coupled with judicious adjustments in financial allocations, is indispensable to obviate potential budgetary overruns.
4. **Resource Echeloning and Allocation:** Thorough evaluation of requisite human resources, encompassing skill proficiencies and expertise, is critical. Prudent allocation of resources contingent on project phases and intricacies ensures an equitable distribution of workload. Precluding the overburdening of team members is paramount to circumvent potential burnout.
5. **Fostering Skill Augmentation:** Investment in the augmentation of team member proficiencies through rigorous training is pivotal. Nurturing a skilled workforce cultivates a heightened efficiency quotient, enabling effective contributions to project success.
6. **Resource Scalability Blueprint:** Blueprinting a robust resource scalability framework is essential. Contingency planning to address plausible skill scarcities or unforeseen personnel departures is advised. Cross-training of team members and the cultivation of an external network of expertise stands as a robust mitigation strategy.
7. **Stringent Supplier Contracts:** In instances of external engagements with vendors or suppliers, meticulous contractual stipulations are imperative. The codification of explicit deliverables, costs, and temporal commitments must be followed. Sustained vigilance over vendor compliance ensures adherence to contractual stipulations.
8. **Cost-Benefit Scrutiny:** Employing a cost-benefit analysis is prudent. Scrutinizing the projected return on investment vis-à-vis potential financial implications of the "OpenText Integra" project against anticipated benefits underscores strategic alignment.
9. **Resource Allocation Facilitation Tools:** The strategic employment of resource allocation tools and software augments resource management efficacy. Such tools facilitate the monitoring of resource availability, allocation, and workload distribution.
10. **Continual Monitoring and Holistic Appraisals:** Institution of a comprehensive governance framework, inclusive of regular financial and resource reviews, is pivotal. Engaging stakeholders in resource allocation decisions and dynamic budgetary adjustments enhances transparency. It fosters proactive course correction.

**Risk Log Structure:** The risk log embodies a structured repository that encapsulates multifaceted dimensions of project risk. Each risk logged is imbued with a constellation of attributes that render it a dynamic and actionable artifact:

1. **Risk Identifier:** A unique identifier assigned to each risk enables facile reference and traceability throughout the project lifecycle.
2. **Risk Title:** A succinct yet descriptive title encapsulates the essence of the risk, rendering it comprehensible briefly.
3. **Risk Description:** A narrative elucidation of the risk expounds upon its nature, triggers, and potential ramifications. This descriptive narrative serves as a contextual backdrop, empowering stakeholders to fathom the risk's intricacies.
4. **Risk Category:** Risks traverse diverse domains, from technical intricacies to resource constraints. Categorization grants each risk a distinct identity, facilitating strategic focus and targeted mitigation.
5. **Probability:** A quantitative estimation of the likelihood of risk occurrence lends a probabilistic dimension to the risk log, enabling stakeholders to gauge the risk's potential impact.
6. **Impact:** The magnitude of potential consequences upon risk realization is elegantly captured through an impact assessment. This dimension unveils the ripple effect that the risk may exert across project dimensions.
7. **Risk Owner:** The mantle of accountability is vested in a designated risk owner, who shoulders the responsibility of risk monitoring, mitigation, and communication.
8. **Mitigation Strategy:** The crux of the risk log lies in its strategic underpinning – the mitigation strategy. This blueprint outlines actionable steps to pre-empt, alleviate, or counteract the risk's impact.
9. **Contingency Plan:** A resilient project is fortified with a contingency plan that unfolds in the event of risk actualization. This strategic framework delineates response mechanisms that cushion the project against risk-induced turbulence.
10. **Status:** The dynamism of the risk log is perpetuated by its real-time status updates. Each risk's current disposition – be it active, mitigated, or realized – is meticulously tracked, empowering stakeholders with an up-to-the-minute risk landscape.

**Critical Risks in Focus:** The risk log for the "OpenText Integra" project extends a magnifying lens to scrutinize a selection of critical risks, unraveling their potential impact and prescriptive mitigation strategies:

1. **Scope Creep Conundrum:** The sprawling tapestry of project scope is susceptible to unwarranted expansions, a phenomenon known as scope creep. Its potential to erode project focus, extend timelines, and strain resources underscores the imperative of vigilant scope management. OpenText Corporation's mitigation strategy hinges upon robust scope definition, stakeholder alignment, and stringent change control mechanisms to preclude scope creep's insidious ingress.
2. **Resource Chasm:** The ebb and flow of resource availability can surge into a formidable risk, jeopardizing project execution. The risk log rallies against resource scarcity by advocating resource scalability paradigms, cross-training initiatives, and dynamic resource allocation tools. These mechanisms empower OpenText Corporation to nimbly navigate resource chasms and maintain project momentum.
3. **Technological Turbulence:** The technological landscape is replete with shifting currents that may precipitate technological obsolescence. The risk log confronts this peril by championing technology surveillance, proactive upgrades, and adaptive technology roadmaps. OpenText Corporation's tech-savvy stance ensures that technological turbulence is transmuted into technological triumph.
4. **Budgetary Vortex:** Financial turbulence is an omnipresent specter that demands prudent fiscal stewardship. The risk log embraces meticulous budgetary sculpting, diligent budget oversight, and strategic cost-benefit analysis. These measures shield OpenText Corporation from the budgetary vortex, fortifying the project against fiscal tempests.
5. **Vendor Vulnerability:** External vendors introduce an element of intricacy that may escalate into a risk vortex. The risk log champions a meticulous vendor due diligence process, comprehensive contractual frameworks, and performance benchmarking. These mechanisms shield the project from vendor vulnerabilities and cement vendor collaboration as a strategic asset.

**Granulating Risk Analysis:** Risk analysis is an orchestrated symphony, harmonizing diverse elements to orchestrate a melodic anticipation of challenges. It carves a comprehensive portrait of potential threats, from the nebulous to the palpable, while simultaneously illuminating avenues for strategic resilience:

1. **Risk Identification:** The primordial step in risk analysis involves casting a discerning gaze across the project landscape, unearthing latent threats and subtle vulnerabilities. OpenText Corporation casts a wide net, soliciting insights from multidisciplinary stakeholders and leveraging their collective expertise to decipher potential risk points. This panoramic assessment unfurls a tapestry of risks, spanning technical, operational, financial, and organizational dimensions.
2. **Risk Categorization:** The kaleidoscopic spectrum of risks necessitates a methodical taxonomy, fostering systematic comprehension and targeted action. OpenText Corporation adorns each risk with categorical attire, classifying them into technical, operational, financial, and organizational domains. This categorization not only lends a coherent structure to risk analysis but also unlocks focused mitigation strategies that cater to each domain's nuances.
3. **Risk Assessment:** The quantitative realm of risk assessment is a mélange of probability and impact, distilling uncertainty into measurable dimensions. OpenText Corporation assigns a probabilistic score to the likelihood of each risk materializing, while concurrently gauging its potential impact on project dimensions. This calculated calculus delineates high-impact, high-probability risks that warrant immediate attention, enabling judicious resource allocation.
4. **Risk Prioritization:** Risk analysis unfurls its strategic tapestry through the prism of prioritization, granting primacy to critical risks that bear the potential to punctuate project success. OpenText Corporation adorns each risk with a strategic weight, beckoning the spotlight upon high-consequence, high-probability risks that demand relentless vigilance. This priority-driven orchestration ensures that mitigation resources are channeled towards the vanguard of potential disruptions.
5. **Mitigation Strategy Formulation:** The heartbeat of risk analysis reverberates through the meticulous formulation of mitigation strategies. OpenText Corporation crafts bespoke blueprints that orchestrate pre-emption, mitigation, and response to each identified risk. These strategies transcend the theoretical realm, metamorphosing into actionable frameworks that empower stakeholders to traverse the risk terrain with deftness and poise.
6. **Contingency Planning:** While risk mitigation endeavors to forestall potential disruptions, contingency planning stands as the bastion against eventualities. OpenText Corporation forges contingency plans that unfurl in response to risk actualization, channeling strategic energy towards graceful recovery and resilient recalibration. This proactive response framework ensures that the project navigates turbulent waters with resilience and adaptability.

**Risk Cascade Across Project Domains:** The risk analysis mosaic extends across a spectrum of project dimensions, encompassing realms that harmonize to shape the "OpenText Integra" project's trajectory:

1. **Technical Domain:** The terrain of technological innovation is dotted with potential pitfalls that may impede project execution. OpenText Corporation delves into technical risk analysis, scrutinizing potential bottlenecks in software development, integration complexities, and technological obsolescence. By proactively identifying and addressing these risks, OpenText Corporation cultivates an environment where technological prowess serves as a strategic asset rather than an impending challenge.
2. **Operational Domain:** The operational symphony orchestrates project execution, rendering operational risks a pivotal focal point. OpenText Corporation navigates operational uncertainties, discerning potential resource bottlenecks, timeline deviations, and scope deviations. By intricately dissecting these risks, OpenText Corporation elevates operational agility, ensuring seamless project orchestration that transcends potential turbulence.
3. **Financial Domain:** Fiscal stewardship lies at the crux of project sustainability, underscoring the gravity of financial risk analysis. OpenText Corporation peers into the financial abyss, navigating budgetary constraints, cost overruns, and unforeseen financial exigencies. Through rigorous financial risk analysis, OpenText Corporation erects fiscal ramparts that shield the project against financial tempests, ensuring fiscal equilibrium in the face of potential disruptions.
4. **Organizational Domain:** The collaboration between human resources and organizational dynamics sets the foundation for project realization. It's like using a canvas and palette to create a work of art. OpenText Corporation sculpts organizational risk analysis, charting potential human resource bottlenecks, stakeholder misalignment, and communication breakdowns. This meticulous analysis of organizational dynamics catalyzes proactive strategies that engender harmonious synergy and navigational finesse.

**Consequences of Inadequate Risk Analysis:**

The absence of a comprehensive and meticulous risk analysis is akin to embarking on a perilous expedition without a map or compass. The repercussions reverberate across project dimensions, potentially culminating in a cascade of challenges that imperil the "OpenText Integra" project and OpenText Corporation's strategic aspirations. The consequences of neglecting proper risk analysis are dire and far-reaching:

1. **Project Delays and Disruptions:** Inadequate risk analysis renders the project vulnerable to unanticipated disruptions that can cascade into cascading delays. Technical glitches, unforeseen resource bottlenecks, and unmitigated scope deviations can conspire to derail project timelines. This can strain stakeholder patience and eroding market competitiveness. The absence of a proactive risk strategy leaves the project susceptible to an unpredictable terrain, where project execution becomes a precarious tightrope walk.
2. **Budget Overruns and Financial Strain:** Without rigorous financial risk analysis, the project sails into waters where budgetary constraints are vague and cost overruns loom as specters. Unforeseen financial exigencies can plunge the project into a quagmire of fiscal strain, siphoning resources from critical project domains and shackling OpenText Corporation's financial flexibility. The absence of a strategic fiscal compass endangers financial equilibrium, potentially limiting OpenText Corporation's ability to invest in future growth initiatives.
3. **Technological Quagmires:** Neglecting technical risk analysis exposes the project to a technological minefield where integration challenges, software malfunctions, and compatibility issues lie in ambush. The absence of a proactive technological risk strategy can curtail the project's ability to harness cutting-edge innovation, relegating it to a technological quagmire characterized by stagnant functionality and inhibited growth potential.
4. **Operational Stagnation:** The failure to conduct comprehensive operational risk analysis engenders an operational terrain marred by inefficiencies and resource bottlenecks. Operational hiccups, misaligned processes, and unanticipated procedural challenges can render the project enfeebled. It will compromise OpenText Corporation's ability to execute with precision and operational excellence. The absence of a well-orchestrated operational risk strategy dims the prospect of seamless project orchestration.
5. **Organizational Friction:** Inadequate organizational risk analysis exposes the project to the peril of human resource misalignments, communication breakdowns, and stakeholder conflicts. The project ecosystem morphs into an organizational labyrinth where mismanaged dynamics hinder collaboration, stifle innovation, and sow seeds of discord. The absence of a strategic organizational risk strategy augments the likelihood of organizational friction that can erode stakeholder harmony and jeopardize project unity.
6. **Reputation Erosion:** The consequences of inadequate risk analysis extend beyond the realm of project execution, permeating the domain of brand reputation. Project disruptions, delays, and failures are not relegated to the project's internal dynamics; they cast a shadow on OpenText Corporation's brand equity. An ill-fated project can morph into a public spectacle, eroding customer trust and market credibility, potentially denting OpenText Corporation's position as an industry leader.
7. **Missed Opportunities:** The failure to conduct proper risk analysis blinds OpenText Corporation to the realm of strategic opportunities concealed within challenges. Potential risks, when analyzed and mitigated proactively, often harbor strategic insights. Without risk analysis, these opportunities remain obscured, leaving OpenText Corporation bereft of the chance to leverage challenges as catalysts for growth, innovation, and differentiation.
8. **Unraveling the Domino Effect:**

The omission of thorough risk analysis is akin to removing a key domino from a meticulously arranged sequence, triggering a chain reaction of consequences that cascade through the project's landscape. As the intricacies of "OpenText Integra" unfold, the absence of a rigorous risk analysis can cast a shadow over multiple dimensions, potentially propelling the project towards an uncertain and treacherous path.

1. **Diminished Competitive Edge:** A lack of risk analysis leaves OpenText Corporation susceptible to competitors who possess a strategic edge honed through comprehensive risk assessment. Competitors armed with a well-defined risk strategy can capitalize on OpenText Corporation's vulnerabilities, effectively positioning themselves as more agile and responsive in a dynamic market landscape. The erosion of OpenText Corporation's competitive edge can thwart its ambitions to lead the industry and undermine its ability to captivate clientele.
2. **Stakeholder Mistrust and Disengagement:** Inadequate risk analysis can fracture stakeholder trust, precipitating a cycle of disengagement and disillusionment. Stakeholders expect transparency, certainty, and proactive management of potential dangers. Stakeholders include customers, investors, and employees. The absence of a robust risk analysis can breed skepticism, leading stakeholders to question OpenText Corporation's commitment to project success. Disengagement and withdrawal of support can follow suit, leaving the project beleaguered by a disenchanted ecosystem.
3. **Suboptimal Resource Allocation:** An incomplete risk analysis undermines the judicious allocation of resources, perpetuating inefficiencies and resource mismatches. The absence of risk-driven resource allocation can lead to suboptimal investment decisions, where critical areas remain underfunded while superfluous domains receive excessive attention. Misaligned resource allocation stifles innovation, obstructs progress, and compromises the project's ability to harness resources effectively to meet strategic objectives.
4. **Regulatory and Legal Quandaries:** Neglecting risk analysis exposes OpenText Corporation to regulatory and legal complexities that can ensnare the project in legal quandaries. Inadequate preparation for compliance can lead to unexpected litigations, penalties, and regulatory roadblocks. The project's trajectory can be disrupted by unforeseen legal impediments that divert attention from strategic imperatives and strain financial resources.
5. **Escalation of Mitigation Costs:** The lack of a proactive risk analysis strategy can amplify the costs of risk mitigation exponentially. Unaddressed risks when they materialize, demand immediate remediation, often entailing emergency measures and resource-intensive solutions.   
   When proactive risk mitigation is lacking, risks can grow into emergencies, leading to increased costs and resource depletion that could have been used for strategic progress. It's crucial to address risks early to prevent such outcomes.
6. **Erosion of Innovation and Creativity:** Risk analysis serves as a conduit for innovative thinking, enabling OpenText Corporation to transform challenges into opportunities. The omission of risk analysis stifles the cultivation of creative solutions, relegating the project to a reactionary stance that is ill-equipped to navigate the complexities of a dynamic business landscape. Innovation, sparked by astute risk analysis, is stifled, limiting OpenText Corporation's ability to pioneer novel approaches and revolutionary solutions.
7. **Negative Impact on OpenText Corporation's Image:** A project's trajectory is inexorably linked to OpenText Corporation's brand image and reputation. The absence of comprehensive risk analysis exposes the project to potential disruptions that can reverberate across market perceptions. Failed projects, mired in unforeseen challenges, can tarnish OpenText Corporation's reputation, casting shadows of doubt over its ability to deliver and execute with precision.
8. **Strategic Misalignment:** Risk analysis is a compass that guides project alignment with overarching strategic goals. Without it, the project can meander along a course that deviates from OpenText Corporation's strategic vision adequate risk analysis can lead to unplanned diversions, decisions that are less than ideal, and priorities that are not linked properly. This can cause the project to wander off course from its intended destination and impede the achievement of strategic goals.

The reverberations of neglecting thorough risk analysis are seismic, extending far beyond the confines of the project timeline. The project's voyage, intertwined with OpenText Corporation's strategic narrative, becomes susceptible to upheaval, turmoil, and setbacks. The far-reaching consequences encompass not only operational dimensions but also strategic positioning, stakeholder dynamics, and brand equity. By embracing comprehensive risk analysis, OpenText Corporation charts a course of resilience, strategic foresight, and agile adaptation. It unfurls a path where challenges become waypoints of growth, uncertainties are harnessed as catalysts, and success transforms from an aspiration to an intrinsic outcome.

1. **Eroded Employee Morale and Productivity:** Inadequate risk analysis can cast a shadow over OpenText Corporation's workforce, eroding morale, and sapping productivity. When unforeseen risks emerge, employees are forced into reactive mode, diverting their attention from strategic initiatives to firefighting. The tension and frustration that result can spread throughout the business, choking the creative energy that is necessary for innovation to flourish. In contrast, an effective risk analysis strategy empowers workers with confidence and resources to conquer obstacles. This cultivates proactive problem-solving and contributes to engaged workforce.
2. **Missed Market Opportunities:** The absence of a comprehensive risk analysis can blind OpenText Corporation to emerging market opportunities or shifting customer needs. Opportunities that remain latent within risks may be overlooked, denying the project the chance to pivot strategically and capitalize on new avenues for growth. The failure of OpenText Corporation to recognize and capitalize on these opportunities in a business environment that is always shifting might put the company in a position where it lags agile competitors who have the ability to relate to emerging trends.
3. **Undermined Long-term Viability:** An incomplete risk analysis jeopardizes the project's long-term viability by allowing latent risks to fester and intensify over time. Risks that are ignored or underestimated can snowball into formidable challenges that threaten the project's very existence. Over time, this accumulation of unchecked risks can undermine the project's resilience, erode its sustainability, and jeopardize its ability to deliver enduring value to OpenText Corporation.
4. **Strain on Stakeholder Relationships:** OpenText Corporation's relationships with its stakeholders, including clients, partners, investors, and regulators, are intrinsically linked to the project's success. Inadequate risk analysis strains these relationships, as stakeholders may perceive a lack of transparency, foresight, and commitment to their interests. Trust, a cornerstone of effective stakeholder engagement, is eroded, potentially leading to strained collaborations, disenchanted investors, and tarnished reputations.
5. **Lost Revenue and Diminished Market Standing:** The aftermath of a risk-materialization event can inflict significant financial repercussions on OpenText Corporation. Operational disruptions, extended timelines, or compromised deliverables can lead to revenue leakage and customer attrition. Beyond financial losses, the project's failure to meet expectations can reverberate across the market, tarnishing OpenText Corporation's market standing and diluting its market share.
6. **Wasted Efforts and Resources:** A project marred by inadequate risk analysis can consume substantial efforts and resources without yielding commensurate value. Misdirected efforts, inefficient resource allocation, or reactive problem-solving contribute to wasted human capital and financial resources. This inefficiency further exacerbates the project's challenges, perpetuating a cycle of inefficacy that hampers OpenText Corporation's ability to allocate resources optimally for strategic growth.
7. **Legacy of Failure:** A project that stumbles due to unanticipated risks leaves behind a legacy of failure that can linger in OpenText Corporation's collective memory. Subsequent projects may face skepticism, reluctance, and apprehension, as stakeholders remember the project that faltered due to inadequate risk analysis. The legacy of failure can impede OpenText Corporation's ability to foster innovation, secure investment, and galvanize stakeholders for future initiatives.
8. **Depletion of Opportunity Cost:** The cost of missed opportunities due to inadequate risk analysis is not only measured in immediate financial losses but also in opportunity cost. Each minute, resource, and effort expended on addressing unmitigated risks represents a missed opportunity to invest in strategic growth, innovation, and market leadership. The depletion of opportunity cost inhibits OpenText Corporation's ability to capitalize on favourable market conditions, seize new prospects, and position itself as a trailblazer in the industry.

# **Testing Strategy**

**Scope**

The test strategy plan outlines the testing strategy and approach for implementing the proposed solution “OpenText Integra.” The primary objective of the testing process is to ensure the software's quality, reliability, and functionality. This section will define the testing stages, the test approach, test environment requirements, testing tools, release control procedures, risk analysis, review, and approval process.

**Review and Approval**

The following stakeholders will be involved in reviewing the Testing strategy & approach document:

* Development Lead
* Testing Lead
* Project Manager
* Business Team Representatives
* Other Relevant Stakeholders

The final approval is given by the Project Manager or the designated authority responsible for overseeing the project's quality and success.

**Testing Activities with Timelines**

The testing activities will be performed in parallel with the development phases and will be carried out according to the following timelines:

* **Unit Testing**: Starts during the development of individual components and modules associated with the project – “OpenText Integra”. It continues until the completion of task development.
* **Integration Testing**: Begins once the components/modules of the proposed solution are integrated and will be performed throughout the integration process.
* **System Testing**: Post integration, system testing will validate all the system functionalities of the proposed software.
* **User Acceptance Testing (UAT):** Scheduled after system testing, UAT will be coordinated with end-users and stakeholders. UAT of OpenText Integra will be conducted in an environment where all the end users and stakeholders will be present.
* **Performance Testing:** The performance of the proposed software will be tested under various conditions. This includes load testing, stress testing and scalability testing.
* **Security Testing:** Since the project “OpenText Integra” is supposed to handle a large volume of confidential data and is more prone to security breaches, security testing will be conducted throughout the project life cycle.

## **Test Approach**

**Testing Stages**

The testing process will be divided into several stages to ensure comprehensive coverage of the software's features and functionalities. The critical testing stages are as follows:

**a) Unit Testing:**

During unit testing, each program module as well as a component will be individually tested. To ensure the code is valid, each unit functions as planned and satisfies the stated requirements, the development team will build test cases. Unit testing helps catch early defects and promotes code reliability.

**b) Integration Testing:**

Integration testing aims to verify the proper integration of various components and modules within the software. It also includes whether the proposed project management software perfectly aligns with the existing OpenText products/solutions. Test cases will be designed to test the interactions between these integrated parts. The goal is to identify any issues arising from the interconnections and data flow between different components. In case of any discrepancies, the testing team will notify the development team about the defect, which the development team can manage before proceeding to the next phase.

**c) System Testing:**

System testing evaluates the entire project management software system. It involves testing the software's end-to-end functionality and features in a controlled environment that simulates real-world usage scenarios. The focus is ensuring the software works cohesively and meets all the specified requirements.

**d) User Acceptance Testing (UAT):**

UAT involves end-users testing the software – “OpenText Integra” in a real-world setting. Users will perform tasks and scenarios relevant to their business needs. Their feedback will be gathered to assess how well the software aligns with their expectations and requirements. Based on user feedback, any necessary improvements or adjustments will be considered and performed.

**e) Performance Testing:**

Performance testing assesses the software's responsiveness, scalability, and stability under various load conditions. It includes load testing to determine the proposed solution performance under expected user loads and stress testing to identify its breaking point under extreme conditions. The software will undergo various stages to determine its ability to handle large volumes of data and users.

**f) Security Testing:**

Security testing is conducted to validate the software to secure critical data and prevent harmful access. To find possible safety loopholes, particularly vulnerabilities penetration testing is performed. Ensuring robust security is crucial, especially for cloud-based software that deals with sensitive information.

## **Test Environment**

Test environment refers to the software or hardware set up required for executing the test cases. Familiar test environments include Production test environment and staging test environment. The proposed project “OpenText Integra” is supposed to undergo staging followed by production environment. In the staging process, the final tests including coding, builds and updates will be performed before the deployment. Any required changes in code will be made in this environment. To set a test environment for testing “OpenText Integra” we may require the following:

* Test server set up.
* Test PC
* Network
* Test data
* Bug reporting tools

Different test environments include Development/Test Environment, System Test Environment, User Acceptance Testing (UAT) Environment, Performance Testing Environment, Security Testing Environment, and Regression Testing Environment. Each test environment should be isolated and represent the production environment to produce accurate test results.

Each test environment is set up with technological equipment that resembles or is similar to the production environment. The software will undergo testing under each environment to help the team understand the bugs or issues involved. Under the test environment the software and hardware elements of “OpenText Integra” will be tested. The integration capability of the software will also be tested in this stage.

A backup strategy will be employed to ensure the preservation of the test environment's integrity and minimize the risk of data loss. This method involves scheduling regular backups of data and configuration of the test environment, thereby enabling the recovery of data in the event of any failures or accidents.

## **Backup and Restore Strategy**

To mitigate the risk of data loss and uphold the integrity of the test environment, a backup strategy will be implemented during the testing process. This strategy encompasses several key components:

* Scheduling regular backups of the information along the configuration of the test environment.
* Securely storing these backups in a separate location to ensure redundancy.
* Periodically verifying the integrity and storability of the backups to ensure their reliability.
* Primarily documenting a well-defined and tested procedure for restoring the test environment from these backups in the case of data corruption or other critical issues.

## **Test Environment Setup**

* 1. **Hardware and Infrastructure:** An environment that closely matches the production environment will be created. The hardware specifications for each set will be like ensure a successful testing process.
  2. **Software Configuration:** The necessary operating systems, databases, web servers, and other essential software will be installed to replicate the production setup.
  3. **Test Data Preparation**: The test databases will be populated with realistic and representative data to facilitate accurate testing.
  4. **Testing Tools**

Automation and Test Management Tools Selection:

* **Identifying testing requirements:** To choose automation in addition to test management solutions, the testing process will be reviewed, considering various kinds of testing (e.g., functional, performance, security) and the scope of testing (e.g., online applications, mobile apps, desktop applications).
* **Research Testing Tools:** The market's various automation to evaluate management tools should be explored and linked with individual testing objectives.
* **Evaluate Tool Features:** Different tools' features, capabilities, and integration possibilities will be compared to ensure they meet the testing team's requirements.
* **Consider Budget and Licensing**: Budget and licensing costs involved in executing the testing process must be considered before selecting the testing tool. The following criteria will be considered to determine the costs associated with testing:

1. **The number of tools required:**
2. **Based on Diversity of Testing Needs:** Multiple testing tools may be necessary depending on the complexity and diversity of testing requirements. For instance, functional, performance, and security testing might demand different tools.
3. **Open-Source vs. Commercial:** Evaluate whether open-source or commercial tools are better suited for specific testing aspects and choose accordingly.
4. **Tool Integration:** Determine that the chosen tools can integrate with the existing research and evaluation environments, accelerating the testing process.
5. **The Number of Users and Planning:**
6. Determine the testing team's size and the count of users actively utilizing the testing tools.
7. Consider the number of users who need simultaneous access to the testing tools, as this can impact licensing and server needs.
8. Choose licensing options and hardware/software setups to accommodate the expected user count, ensuring scalability for future expansion.
9. Prepare sufficient training and support resources to enable users to utilize the testing tools effectively.

## **Release Control**

The release management plan provides an overview of the test execution and release management strategies involved in the implementation of “OpenText Integra”. The following are considered while creating the release management plan for the proposed document:

* + - 1. **Versioning and Naming Convention**: A clear, uniform framework for updating and describing software releases will be created.
      2. **Release Schedule:** A comprehensive release schedule that outlines planned release dates and intervals will be developed.
      3. **Change Management Process:** A robust process for change management will be implemented. The plan will capture each release's modifications, enhancements, and bug fixes.
      4. **Test Strategy:** A test strategy plan is essential for successful project implementation. A thorough test strategy for each release will be defined, specifying the scope of testing activities.
      5. **Test Scope**: Separate test environments replicating the production environment for testing each release will be developed and maintained throughout the testing cycle.
      6. **Test Execution Plan:** Opportunities for test automation to expedite testing efforts will be identified that can help enhance test coverage for repetitive tasks.
      7. **Test Automation:** A comprehensive release documentation containing release notes, details of modifications made, and information on known issues will be maintained.

# **Version History**

* **Changelogs:** A detailed changelog for each release, documenting all software changes, such as bug fixes, new features, and improvements, will be maintained.
* **Version Repository:** A version repository containing all the released software versions will be stored for easy access and reference.
* **Tagging and Branching:** Specialized version control systems will be utilized to tag and branch code for different releases. This can simplify the tracing of changes specific to each version.
* **Release Archive:** All previous releases and their documentation will be archived. This record can facilitate future audits or reviews involved in the proposed software.

# **ROI (Return on Investment**

The financial feasibility report (refer to the Excel file: INFO 8685 CANINE BUSINESS SOLUTIONS FINANCIAL FEASIBILITY REPORT) shows that the expected ROI for the possible solution #1 (“OpenText Integra”) during the third year is 5%. Achieving a positive ROI within the third year of implementation is a positive sign. As the project progresses, the ROI is projected to be at 15% during the fifth year. This trend continues to increase in the upcoming years, where the ROI is expected to reach 20% in year 7 and 25% in year 9, showing a consistent upward trend. It is evident from the report that the ROI for the proposed solution is projected to increase drastically from -26% in year 1 to an impressive growth of 25% in year nine. The ROI is expected to stay at 25% after year 12, showing consistency and stability over an extended period. A tremendous increase in ROI projection proves the profitable nature of the proposed project.

A screenshot of a computer

Description automatically generated

## **Expenditures**

The total cost of implementing solution #1 is expected to be $2,000,000(this includes Cloud infrastructure costs, development, and customization) in year 1(refer to the Excel file: INFO 8685 CANINE BUSINESS SOLUTIONS FINANCIAL FEASIBILITY REPORT- CCA sheet) and year 9 sees an additional investment of $400,000 equivalent to 20% of the initial investment. This cost is calculated considering the CCA at 30% (refer to Canada Revenue Agency). Considering the depreciated capital cost and other factors, the total expense for implementing the proposed solution#1 in year one will be $2,290,000 approximately. This expense is calculated to be less than year one in the following years until year 7. Year 10 is projected to see a slight expense spike due to the added investment in year nine. Additionally, staff and consultation costs expected to increase annually at a certain percentage. The total expenses at the end of year 20 are projected to be $3,969,000, which is not a big concern compared with the profit and ROI the solution should bring. The expenses incurred in the development and maintenance of the cloud-based project management application OpenText Integra, can be categorized into two main groups:

**1. Capital Cost:**

The capital cost is further divided into two categories:

**Cloud Infrastructure:**

The initial investment for cloud infrastructure amounts to 1.7 million dollars, covering expenses for Network H/W & S/W, Server H/W & S/W, and third-party software licenses.

**Development & Customization:**

$ 300,000 is allocated for development & customization, including Initial Development, Integration, Security & Compliance, and Training & Documentation.

The total capital cost investment for both categories comes to 2 million dollars. However, as per Canadian revenue agency guidelines, depreciable property like network and server (h/w and s/w falling under class 10) can be deducted over several years at a CCA rate of 30%. Therefore, 30% of the overall capital cost is treated as an expense for the current year, with the remainder carried forward for subsequent years' deductions. Additionally, an extra investment of $400,000 is planned in year 10 to accommodate technology growth and equipment replacement.

A screenshot of a computer

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**2. Operational Expenses:**

Operational expenses encompass costs related to the development or maintenance phase of OpenText Integra, excluding equipment and licenses. These expenses are further categorized as follows:

**Consultant Fees:** This covers the amount charged by CANINE Business Solutions for acting as a business consultant for OpenText Corporation.

**Maintenance & Support:** These expenditures include keeping all of the gear and software programs that you use up to date as well as maintained.

**Personnel:** This includes salaries or benefits provided to IT and support staff.

**Utilities & Infrastructure:** These expenses are for maintaining basic facilities like Internet, electricity, and building supplies.

**Licensing & Compliance:** This accounts for the amount spent on ensuring the application complies with all relevant guidelines and compliance requirements.

**Marketing & Advertising**: In order to spread awareness and attract more customers, the new product will be marketed until year 5.

A pie chart with numbers and text

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The pie chart above depicts the expense breakdown for year 1. For the subsequent years, all expenses, except for capital costs, will increase at specific rates. The depreciation of capital costs will follow the numbers provided in the previous image.

Expenditure on Personnel & Consultation fees will experience an annual increase of 5%. This means that the amount spent on personnel salaries and benefits, as well as the fees charged by CANINE Business Solutions as consultants, will rise by 5% each year.

Similarly, Expenditure on maintenance and compliance will see an annual increase of 2%. This encompasses costs linked to updating the software applications and hardware equipment. It also involves expenses tied to ensuring the application's compliance with relevant guidelines and regulations.

By taking these inflation-adjusted expense projections into account, OpenText Corporation can plan for the future financial requirements of the OpenText Integra project effectively. It gives the organization the ability to make decisions based on accurate information along with properly distribute resources so that it can continue the development and operations of the project over the long term.

## **Income tax**

The income tax rate utilized for calculating the ROI in the feasibility report is 25.13%. This rate is derived from the average of income tax rates paid by OpenText Corporation over the past 5 years, ensuring an accurate representation of the company's tax obligations.

|  |  |
| --- | --- |
| Year | Tax Rate |
| 2022 | 11.68% |
| 2021 | 20.03% |
| 2020 | 27.38% |
| 2019 | 32.20% |
| 2018 | 34.36% |

## **A screenshot of a computer Description automatically generatedRevenue**

The revenue breakdown (refer to the Excel file: INFO 8685 CANINE BUSINESS SOLUTIONS FINANCIAL FEASIBILITY - Revenue sheet) of the proposed solution #1 shows that the expected revenue by implementing the project will be $1,700,000 in year one. This number is expected to increase to $2,510,000 by the end of the fifth year; by the year 20, the revenue is expected to be $5,280,000. Based on the report, the revenue increase percentage is projected to reach 147.64% in the year 5 and 210% in year 20. This percentage shows the significance of proceeding with implementing the solution #1.

In the new cloud-based project management solution for OpenText Corporation, the revenue will be derived from three sources: Subscriptions/licenses, Customer support, and Indirect revenues.

1. Subscriptions/licenses: The projected revenue for year 1 is $1,500,000. It will experience a gradual increase of 7% per year until year 10. From year 10 to year 20, the revenue will have a yearly increase of 5%.

2. Customer support: The revenue from customer support will be $0 for year 1 as it will be offered as a free service. Starting from year 2, the revenue will be $300,000 and will increase by 2.5% each year until year 20.

3. Indirect revenues: The projected income for year 1 from indirect revenues is $200,000. This revenue source will also see a gradual increase of 2.5% per year until year 20.

Overall, the cloud-based project solution for OpenText is expected to generate revenue from diverse sources, with steady growth projections for the next 20 years.

A graph of growth in a bar

Description automatically generated with medium confidence

Pricing:

Based on extensive market research, revenue projections for the new application are formulated. The pricing model is structured to offer flexibility and cater to different user requirements. For a license covering 25 users, the subscription fee is set at $100 per user per year, and customer support is priced at $3000 annually. As the user base expands, the pricing becomes more competitive to accommodate larger organizations. For a license covering 100 users, the subscription fee decreases to $90 per user per year, and customer support costs $4800 per year. Similarly, for a license encompassing 1000 users, the subscription fee further reduces to $80 per user per year, with customer support priced at $6000 yearly. To cater to clients with more extensive user requirements, such as those with 1000 or more users, the subscription fee is set at $60 per user per year, and customer support costs $8000 annually.



The calculation of indirect revenue draws upon data from OpenText Corporation's existing products and services. The primary drivers of this indirect revenue comprise three key factors:

* Customization and consulting services.
* Advertising opportunities.
* White-labeling arrangements.

Customer acquisition:

Considering OpenText's current customer base, the projected number of potential clients that can be acquired is estimated. The application is expected to attract 15 clients with 1000 employees, 25 clients with 100 employees, and 30 clients with 25 employees. These projections are based on the application's features, competitive pricing, and OpenText's brand reputation. As the application offers flexible licensing options and competitive pricing. It is well-positioned to address a diverse range of user needs and capture a significant share of the market.



**Note:** All values mentioned above are in thousands of Canadian dollars

## **Cost benefit analysis**

The proposed project “OpenText Integra” is expected to bring more benefits to the OpenText Corporation. Even though the product is more focused on increasing the cloud-based revenue of the organization, “OpenText Integra” can bring some indirect revenues as well. The direct revenue through subscriptions/ licensing makes a major part of the total revenue. Through subscriptions/licensing the product is projected to make $1,500,000 in year 1 itself which shows the profitable nature of the product. In year 3, the revenue is projected to reach $1,717,350 whereas in year 5 it may reach up to $1,966,194. In the following years, “OpenText Integra” is expected to reach more customers and can bring up more revenues. The revenue through subscriptions/licensing in year 10 is expected to be $2,757,689 whereas in year 20 it is projected to reach $4,491,984.

The expected revenue breakdown (refer to the Excel file: INFO 8685 CANINE BUSINESS SOLUTIONS FINANCIAL FEASIBILITY - Revenue sheet) of the proposed solution shows that the product can bring in some revenues through customer support. Even though, year 1 doesn’t have any revenue through customer support services, in year 3 the revenue through customer support services is projected to be $307,500 and $323,067 in year 5. In year 10 the revenue expected to increase to $365,521 whereas in year 20, it will be $467,898.

Additionally, the product is supposed to bring some indirect revenues, which means customer ending up buying other products/ solutions from OpenText Corporation. The indirect revenues made up from the proposed solution in year 1 itself $200,000 which shows the competency of the solution “OpenText Integra”. In year 5, its expected to be $220,763 and in year 10 it can increase up to $249,773. By the year 20, more customers will end up buying more OpenText Corporation’s products to facilitate integration with “OpenText Integra”. As a result, the indirect revenue at the year 20 will be $319,730.

The cost-benefit analysis shows the significance of implementing “OpenText Integra. “From the above numbers, it is evident that the proposed solution #1 is supposed to bring more benefits to the OpenText Organization.

## **Return on Investment**:

The return on investment (ROI) for OpenText Integra appears highly promising. As with any new product, the initial years are expected to yield a negative ROI. However, starting from year 3, the product is projected to become profitable, and the ROI will exhibit a consistent positive trend thereafter. By year 9, the ROI is anticipated to reach the impressive 25% mark, validating the project's significant benefits and long-term profitability.

A graph of green bars

Description automatically generated

**Note:**

Refer to the Excel file INFO 8685 CANINE BUSINESS SOLUTIONS FINANCIAL FEASIBILITY REPORT for a detailed cost-benefit analysis report.

# **Conclusion**

In summary, CANINE Business Solutions, an established IT powerhouse renowned for strategic excellence, extends its impressive portfolio to conceive a transformative project poised to elevate OpenText Corporation's prominence within the competitive cloud sector. This endeavour, underpinned by a legacy of pioneering accomplishments and profit generation, underscores the enterprise's commitment to innovation. Leveraging its expertise and research acumen, CANINE Business Solutions applies a meticulous approach to shape an idea that promises OpenText Corporation a definitive edge in the cloud landscape. This process involves an in-depth exploration of OpenText Corporation's market positioning relative to competitors, facilitated by industry-standard tools, including SWOT, PESTEL, and Balanced Scorecard analysis. The resultant insights illuminate OpenText Corporation's core competencies and vulnerabilities. This unveils a roadmap for leveraging technical expertise to secure supremacy in the cloud domain.

A comprehensive assessment of its financial landscape highlights OpenText Corporation's triumphs in cloud-based applications and the trust garnered from clients. However, a discrepancy emerges beneath this success—applications predominantly working in the backend rely on third-party infrastructure, resulting in a revenue gap with cloud-derived income below 50%. Notably, despite OpenText Corporation's reputation for innovation, metrics like a Net Promoter Score of 22 and an 88% customer retention rate challenge this image. These factors collectively propel the decision to develop a sought-after application that addresses industry demands and rectifies existing gaps. The caveat—a unique solution, unmatched by competitors, poised to instantly position OpenText Corporation at the forefront upon deployment. This strategic step signifies OpenText Corporation's adaptability, innovation, and competitive edge within the ever-evolving IT landscape.

From these insights, CANINE Business Solutions ingeniously generated multiple project ideas that held the potential to address the identified gaps. Subsequently, a meticulous organizational readiness and feasibility evaluation ensued to identify the optimal solution. This comprehensive assessment, incorporating OpenText Corporation's financial capacity, infrastructure prerequisites, stakeholder engagement dynamics, technical proficiency, organizational viability, and the inherent revenue potential of each option, culminating in selecting a transformative solution—a cloud-based project management software named “**OpenText Integra**.”

In its strategic consulting role, CANINE Business Solutions performed an in-depth feasibility evaluation and crafted a comprehensive development roadmap for the project. The project's scope was meticulously defined, encompassing essential components such as application development, seamless integration with existing systems, a secure UI ensuring data confidentiality, and user training provisions, with out-of-scope elements, also clarified. An impactful analysis pinpointed eight departments poised to be affected, spanning business processes, finance, technical/IT aspects, existing products, marketing/sales, and infrastructure. Moreover, a rigorous risk assessment unveiled potential budget overruns and delays, with proactive mitigation strategies outlined. This meticulous approach underscores CANINE Business Solution's commitment to effective project management, aligning foresight with opportunities to ensure success.

The application's high-level and low-level designs were meticulously crafted to illuminate its pivotal components—the presentation, business, data access, and database layers. Upon formulating this design, an exhaustive exploration identified business, functional, and nonfunctional requirements integral to the proposed solution's implementation. Functional requirements delineated the anticipated features, including task management, resource allocation, reporting, and file sharing. Meanwhile, nonfunctional requirements emerged as a cornerstone, encapsulating critical attributes dictating the software system's performance—efficiency, reliability, security, and user-friendliness.

Additionally, the report encompasses pivotal components, including transition requirements—comprising indispensable activities and strategic plans crucial for the seamless implementation of the project management software. A notable feature within the report is the incorporation of AS-IS and TO-BE diagrams. This proved instrumental in visualizing the current business processes at OpenText Corporation and envisaging the transformed state following project implementation. These graphical representations serve as invaluable tools, facilitating a comprehensive grasp of the precise alterations that will be introduced to OpenText Corporation's existing processes.

CANINE Business Solutions' database design forges a comprehensive portrayal of the logical data model underpinning the proposed solution, "OpenText Integra." This design is a pivotal cornerstone in application development, furnishing a structured blueprint that guarantees streamlined data storage, retrieval, and manipulation. This strategic foundation culminates in heightened system performance, scalability, and data integrity, solidifying its indispensability in ensuring the project's success.

Following the database design, the report offers an exhaustive insight into the implementation strategy, delving into both the Big Bang and phased approaches. A meticulous evaluation of the pros and cons of each approach culminates in the endorsement of the phased approach by CANINE Business Solutions for the proposed solution. The plan encompasses all project phases, proving indispensable during actual implementation. In tandem, a comprehensive business analysis approach aligns with the development plan, augmenting business analysis activities. A stakeholder engagement plan, a cornerstone for project success, is meticulously outlined. Furthermore, risk mitigation finds prominence, including a risk log and testing strategy to ensure a flawless, thoroughly tested application resilient against potential pitfalls.

Ultimately, a comprehensive financial feasibility study takes center stage, culminating in the projection of OpenText Integra's revenue over the next two decades. Rooted in meticulous market research and grounded in pragmatic assumptions, these figures herald a remarkably positive trajectory for the project. Remarkably, these insights forecast a substantial return on investment, with the 25% threshold projected to be achieved by the ninth year of project implementation. This financial analysis crystallizes the project's potential, aligning strategic vision with fiscal prudence and underscoring the promise of OpenText Integra's enduring success.

# **Call of action**

CANINE Business Solutions expects OpenText Corporation to review the final report thoroughly and take necessary actions. The final report provides a detailed picture of opportunities to improve OpenText Corporation’s profit and enhance customer experience. OpenText Corporation must understand the gap (in terms of revenue) between the existing state and the organization’s desired position by reviewing the existing functionality section of the document. The existing functionality section illustrates what OpenText Corporation lacks in achieving the expected financial status. It also provides a detailed view of the customer satisfaction and retention rate of the OpenText Corporation. OpenText Corporation must investigate this section keenly to understand what the organization requires to maintain its leadership position in the market.

**Need for Opportunity:**

Based on the preliminary results, CANINE Business Solutions has identified various possible solutions to address the gap in the OpenText Corporation. This section describes the OpenText Corporation's need to identify an opportunity to reach its desired goals. The possible solution options section describes each opportunity/ solution identified by CANINE Business Solutions. OpenText Corporation must review this section to understand the different solution options, their features, benefits, and non-benefits of the proposed opportunities. **By reviewing this section, OpenText Corporation can understand why CANINE Business Solutions strongly believes “OpenText Integra” is viable.**

**Why “OpenText Integra”?**

By analyzing various available opportunities, CANINE Business Solutions has identified potential solutions for the OpenText Corporation. CANINE Business Solutions expects OpenText Corporation to carefully review this section to understand the potential solution options for the organization clearly.

Keeping Doing Nothing as the baseline option, CANINE Business Solutions has identified two other opportunities as potential solutions from the list of options. CANINE Business Solutions has conducted a detailed analysis to understand the feasibility of all three potential solutions. To conduct this analysis, CANINE Business Solutions has performed an analysis to understand the Organizational readiness, risks, and constraints in implementing or proceeding with the potential solutions. While performing this study, **CANINE Business Solutions has identified that solution #1 – Implementing the “OpenText Integra” perfectly satisfies all the above criteria, proving that it is a prominent choice among all other solutions.**

**What did Feasibility studies imply?**

To get a better understanding, CANINE Business Solutions continued to conduct a feasibility analysis for the identified potential solutions. To perform feasibility studies, CANINE Business Solutions has considered different standards like design, impact, risks, benefits, and ROI. A step-by-step comparison has been performed between the three solutions. CANINE Business Solutions has mainly focused on understanding each solution's risks, benefits and expected ROI (will be discussed later). Along with these, different technical, organizational, and economic feasibility studies have also been considered. **The results of these feasibility studies implied that the opportunity – Implementing the “OpenText Integra” proposed by CANINE Business Solutions is a feasible option for the OpenText Corporation.**

**Which solution scored highest in Solution evaluation?**

To better understand, CANINE Business Solutions further evaluated the potential solution options using the weighted scoring model. The weighted scoring model evaluated different aspects of the three solutions. **Out of all the aspects, Solution #1 – Implementing the “OpenText Integra” got higher scores (90/100) in the three most important areas: revenue increase, customer satisfaction and financial feasibility. Surprisingly, OpenText Corporation expects to enhance the above three areas, proving that solution #1 is a better opportunity than the others.** CANINE Business Solutions expects OpenText Corporation to review the results of the weighted scoring model (refer to section 12 Solution Evaluation) to better understand the highest-scoring potential solution. Reviewing this section, OpenText can understand why CANINE Business Solutions strongly agrees with solution #1 – “OpenText Integra.”

**The most crucial part – ROI:**

CANINE Business Solutions strongly proposes that OpenText Corporation review the ROI section (Section 28: ROI) to get detailed insights about the project selection. The projected ROI for solution #1 in year 5 is 15%, whereas the expected ROI for solution #2 is only 2% in year 5. Also, suppose OpenText Corporation decides to proceed with the “Do Nothing” option. In that case, the organization may face high competition and loss of revenue due to the higher demand for cloud-based products/services. **Comparing the expected ROI and other benefits, CANINE Business Solutions has identified that implementing solution#1 - “OpenText Integra” is the best option for the OpenText Corporation.** To further understand the benefits of the opted solution, CANINE Business Solutions calls OpenText Corporation to review the ROI section in detail. OpenText Corporation is expected to review the ROI section thoroughly and approve the profitable solution for the organization. The cost-benefit analysis section demonstrates the expected benefits of the product to the OpenText Corporation. The proposed product, “OpenText Integra,” generates more revenues and is expected to bring more clients to the organization. Since “OpenText Integra” is supposed to integrate with all other OpenText products/ solutions, the clients may buy more products/ services from the organization to facilitate easy and seamless integration. As a result, the proposed project can generate income through licensing/subscriptions and indirect revenues. Additionally, the proposed project is a cloud-based solution, which OpenText Corporation has been more interested in recently. Implementing the “OpenText Integra” will help OpenText Corporation to tap and establish itself in the cloud market.

The ROI section discusses that the solution proposed by CANINE Business Solutions - Introducing a cloud-based project management software – "OpenText Integra"- is projected to bring a positive ROI of 5% in the third year. In contrast, all the other solutions are failing to do the same. Also, the revenue for Solution#1 (proposed by CANINE Business Solutions) is expected to be $1.7 million in year one. In contrast, Solution #2's revenue is $850,000 (refer to ROI Section & Excel Sheet: INFO 8685 CANINE BUSINESS SOLUTIONS FINANCIAL FEASIBILITY REPORT). **The difference in revenue generated by the two solutions is much higher, proving the significance of approving the project proposed by CANINE Business Solutions.**

**Final Call:**

**According to the OpenText Corporation’s latest Press release (Aug 03, 2023), OpenText Corporation has entered a new venture by introducing OpenText Aviator (a private cloud as an extension to the existing cloud infrastructure) along with releasing the updated OpenText Cloud Editions 23.3. CANINE Business Solutions finds this as a better opportunity to implement the proposed project “OpenText Integra.” As the proposed solution is prominently based on a cloud-based infrastructure, CANINE Business Solutions firmly believes that the proposed project “OpenText Integra” will bring more benefits and success to the OpenText Corporation. Considering all the discussed advantages, CANINE Business Solutions calls on OpenText Corporation to make a favourable decision by approving the proposed project “OpenText Integra**

# **Glossary**

|  |  |  |
| --- | --- | --- |
| **S. No** | **Acronyms** | **Definition** |
| 1. | EHR | Electronic Health Records |
| 2. | KPIs | Key Performance Indicators |
| 3. | IoT | Internet of Things |
| 4. | B2B | Business-to-Business |
| 5. | SaaS, | Software-as-a-service |
| 6. | PaaS | Platform-as-a-service |
|  | IaaS | Infrastructure-as-a-service |
|  | ECM | Enterprise content management |
|  | SAP | System Applications and Products |
|  | R&D | Research and Development |
|  | LLC | Limited liability company |
|  | AI | Artificial Intelligence |
|  | BSC | Balanced Scorecard |
|  | EPS | Earnings per Share |
|  | NPS | Net Promoter Score |
|  | ROIC | Return on Investment Capital |
|  | EBITDA | Earnings Before Interest, Taxes, Depreciation, and Amortization |
|  | L.O.V. E model | Land, Operate, value, Expand |
|  | AWS | Amazon Web Services |
|  | EIM | Enterprise Information Management |
|  | NLP | Natural Language Processing |
|  | UI | User Interface |
|  | CRM | Customer Relationship Management |
|  | ROI | Return on Investment |
|  | solution #1 | Introducing cloud-based project management software. |
|  | GDPR | General Data Protection Regulation |
|  | HIPAA | Health Insurance Portability and Accountability Act |
|  | CCPA | California Consumer Privacy Act |
|  | HR | Human resources |
|  | HLD | High Level Design |
|  | LLD | Low Level Design |
|  | GUI | Graphical User Interface |
|  | SCM | Software Configuration Management |
|  | IDEs | Integrated Development Environments IDEs |
|  | SOA | Service-oriented architecture |
|  | UI | User Interface |
|  | APIs | Application Programming Interfaces |
|  | REST | Representational state transfer |
|  | SOAP | Simple object access protocol |
|  | MTTRS | Mean Time to Restore Service |
|  | UAT | User Acceptance Testing |
|  | UX | User Experience |
|  | BA | Business Analyst |
|  | QA | Quality Assurance |
|  | 1NF | First Normal Form |
|  | 2NF | Second Normal Form |
|  | 3NF | Third Normal Form |
|  | PK | Primary Key |
|  | FK | Foreign Key |
|  | Dev | Development |
|  | D2C | Direct-to-Consumer |
|  | WBS | Work Breakdown Structure |
|  | BRD | Business Requirements Document |
|  | SEP | Stakeholder Engagement Plan |
|  | RACI | Responsible, Accountable, Consulted, and Informed |
|  | CCA | Capital Cost Allowance |
|  | AWS | Amazon Web Services |
|  | SWOT | Strengths, Weaknesses, Opportunities, and Threats |
|  | PESTEL | Political, Economic, Social, Technological, Legal, and Environmental |

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