

FACULTY OF COMPUTING

ASSIGNMENT COVER SHEET

This form is to be completed by students submitting assignments of level 4 and level 5. Students are required to complete all sections and attach to your assignment.

STUDENT DETAILS	
STUDENT NAME	Krishna Prasad Bajgai
STUDENT ID	208067

UNIT AND ASSIGNMENT DETAILS			
UNIT TITLE	Unit 6: Planning a Computing Project (Pearson-set)		
UNIT NUMBER	T/615/1625		
ASSIGNMENT TITLE	Planning a Computing Project		
ISSUE DATE	08/12/2023	DUE DATE	28/01/2024
ASSESSOR NAME	Roshan Chapagain		

SUBMISSION	
HAND IN DATE	28/01/2024

DECLARATION AND ACKNOWLEDGEMENT

When submitting assignments, each student must sign a declaration confirming that the work is their own.

Plagiarism and Collusion

Plagiarism: to use or pass off as one's own, the writings or ideas of another without acknowledging or crediting the source from which the ideas are taken.

Collusion: submitting an assignment, project or report completed by another person and passing it off as one's.

In accordance with the Academic Integrity and Plagiarism Policy.

1. I declare that:

- a) this assignment is entirely my own work, except where I have included fully-documented references to the work of others,
- b) the material contained in this assignment has not previously been submitted for any other subject at the University or any other educational institution, except as otherwise permitted,
- c) no part of this assignment or product has been submitted by me in another (previous or current) assessment, except where appropriately referenced, and with prior permission from the Lecturer / Tutor / Unit Coordinator for this unit.

1. I acknowledge that:

- a) if required to do so, I will provide an electronic copy of this assignment to the assessor;
- b) the assessor of this assignment may, for the purpose of assessing this assignment:
 - I. reproduce this assignment and provide a copy to another member of academic staff;
 - II. communicate a copy of this assignment to a plagiarism checking service such as Plagiarism Check (which may then retain a copy of this assignment on its database for the purpose of future plagiarism checking).

I am aware of and understand that any breaches to the Academic Code of Conduct will be investigated and sanctioned in accordance with the College Policy.

SIGNATURE	Krishna	DATE	28/01/2024
-----------	---------	------	------------

Table of Contents

Introduction	4
Activity 1	4
Research Aims :	4
Research Objective :	5
Research methods and its types :	5
Qualitative research method	5
Quantitative research method	9
Examine secondary sources to collect relevant secondary data and information for an identified theme.	10
Challenges to the Success of Inside-X IT Solutions in the Big Data Sector	12
Analyzing Data from Primary and Secondary Sources	13
Features of Inside-X IT Solutions:	16
Operational Areas:	16
Role of Stakeholders and Their Impact on the Success of a Business	17
Interpret findings of your research to generate knowledge on how the research theme supports the business requirements in the identified sector.	21
Activity 3	23
Scope of the project	23
WBS of the Project	24
Gantt chart for the project	27
Resource Plan for Inside-X Website Development	28

Budget plan / Costing for Inside-X IT Solutions Website Development -----	29
Risk Management Plan for Inside-X Website Development -----	29
Communication Plan for Inside-X IT Solutions Website Development -----	31
Project Recommendations for Technical Audiences: -----	33
Project Recommendations for Non-Technical Audiences: -----	33
Key Planning Decisions Made : -----	34
Accuracy and Reliability of Different Research Methods -----	35
Project Logbook -----	36
References -----	38

Introduction

In this project, I have explored the planning and execution of a computing project, focusing on the importance of both primary and secondary research methods to inform decision-making and project development. The project encompasses the establishment of clear aims and objectives, the application of various research sources, and the creation of a comprehensive project management plan that includes essential components such as a Gantt chart, budget plan, and risk management strategies. Through this process, I aim to demonstrate my understanding of the research skills necessary for successful project implementation and the ability to communicate findings effectively to both technical and non-technical audiences.

Activity 1

Research Aims :

The research aims to explore big data in healthcare & banking through qualitative interviews and secondary research, providing valuable insights for Inside-X IT Solutions' strategic decisions.

Research Objective :

- Examine the existing uses of big data in healthcare and banking.
- Gather in-depth perspectives from stakeholders through qualitative interviews.
- Review secondary sources to identify trends and challenges related to big data in these sectors.
- Combine qualitative insights and trends from secondary research to inform strategic decision-making.
- Provide valuable insights to guide Inside-X IT Solutions in expanding their services into healthcare and banking.

Research methods and its types :

Research methods are the strategies, processes or techniques utilized in the collection of data or evidence for analysis in order to uncover new information or create better understanding of a topic. ^(Newcastle.edu.au, 2024)

There are different types of research methods :

Qualitative research method

Qualitative research is defined as a market research method that focuses on obtaining data through open-ended and conversational communication. This method is about “what” people think and “why” they think so. For example, consider a convenience store looking to improve its patronage. A systematic observation concludes that more men are visiting this store. One good method to determine why women were not visiting the store is conducting an in-depth interview method with potential customers. For example, after successfully interviewing female customers and visiting nearby stores and malls, the researchers selected participants through random sampling. As a result, it was discovered that the store didn’t have enough items for women. So fewer women were visiting the store, which was understood only by personally interacting with them and understanding why they didn’t visit the store because there were more

male products than female ones. Qualitative research methods originated in the social and behavioral research sciences. Today, our world is more complicated, and it is difficult to understand what people think and perceive. Online research methods make it easier to understand that as it is a more communicative and descriptive analysis. (Bhat, 2018)

Most common qualitative research approaches are:



1. One-on-one interview : Conducting in-depth interviews is one of the most common qualitative research methods. It is a personal interview that is carried out with one respondent at a time. This is purely a conversational method and invites opportunities to get details in depth from the respondent.

2. Focus groups : A focus group is also a commonly used qualitative research method used in data collection. A focus group usually includes a limited number of respondents (6-10) from within your target market.

3. Ethnographic research : Ethnographic research is the most in-depth observational research method that studies people in their naturally occurring environment.

4. Case study research : The case study method has evolved over the past few years and developed into a valuable quality research method. As the name suggests, it is used for explaining an organization or an entity.

5. Record keeping : This method makes use of the already existing reliable documents and similar sources of information as the data source. This data can be used in new research. This is similar to going to a library. There, one can go over books and other reference material to collect relevant data that can likely be used in the research.

6. Process of observation : Qualitative Observation is a process of research that uses subjective methodologies to gather systematic information or data. Since the focus on qualitative observation is the research process of using subjective methodologies to gather information or data. Qualitative observation is primarily used to equate quality differences.

(Bhat, 2018)

In this following methods techniques what I have used for the research is Interviews.

Interviews

In qualitative research, interviews hold great importance because they place the participant at the center of the research projet, ensuring that their voice and perspectives are prioritized. Interviews are especially effective for capturing personal narratives, stories, and life histories. This makes them ideal for research focused on biography, identity, and personal development. Through interviews, researchers can document individual journeys, challenges, and transformations, providing a rich tapestry of human experience.^(ATLAS.ti, 2024)



Reasons for using interviews

In qualitative research, interviews are a widely used method that provides deep, rich data that can uncover the complexities of human experience. Interviews allow researchers to explore issues that may not be fully understood or captured through other data collection methods such as surveys or focus groups. The interview process will enable researchers to thoroughly explore a participant's feelings, thoughts, and experiences. Open-ended questions let participants express themselves freely, offering insights that might not emerge in other methods like surveys or focus groups. Open-ended questions enable participants to express themselves freely and let researchers ask valuable follow-up questions that arise at the moment. ^(ATLAS.ti, 2024)

Interviews Questions

1. Can you tell me about what you do at work?
2. How is using new technology, like big data, going for your job?
3. What problems do you face when using big data?

4. Have you noticed good things happening from using big data?
5. Does using big data change how decisions are made at your job?
6. Have you ever used smart technology or computer smarts (like robots) along with big data?
7. How does your job make sure information stays safe when using big data?
8. Are there any right or wrong things to think about when using big data at work?
9. What do you think will happen next with big data at your job?
10. If someone wanted to start using big data at work, what advice would you give them?
11. Have you and your coworkers tried new things or worked together more because of big data?
12. How does your company try new things with big data while also being careful about possible problems?

Quantitative research method

Quantitative research is a method that helps understand situations or problems by collecting numerical data and analyzing it using statistics. It revolves around generating findings from real-world data based on mathematical, computational, and statistical methods. Quantitative research provides numerical data or data that can be transformed into usable statistics. It can be used to confirm theories and hypotheses about a phenomenon or to predict future occurrences. (Aggarwal, 2023)

Most common quantitative research approaches :

1. **Surveys :** Surveys are a type of research method that involve collecting data from a large number of people through questionnaires or interviews. Surveys are often used to gather information about attitudes, beliefs, and behaviors.

2. **Experiments** : Experiments are a type of research method that involve manipulating one or more variables in order to observe the effect on another variable. Experiments are often used to test cause-and-effect relationships.
3. **Case studies** : Case studies are a type of research method that involve an in-depth examination of a single individual, group, or event. Case studies are often used to gather detailed information about a specific phenomenon.
4. **Observations** : Observations are a type of research method that involve watching and recording the behavior of individuals or groups. Observations are often used to gather information about naturalistic behavior.
5. **Content analysis** : Content analysis is a type of research method that involves analyzing and interpreting written or spoken text. Content analysis is often used to analyze large amounts of data, such as news articles or social media posts.
6. **Historical research** : Historical research is a type of research method that involves studying the past through the examination of primary and secondary sources, such as documents, artifacts, and photographs.

(Kevin, 2023)

Examine secondary sources to collect relevant secondary data and information for an identified theme.

Definition : Secondary data is the data that has already been collected through primary sources and made readily available for researchers to use for their own research. It is a type of data that has already been collected in the past. A researcher may have collected the data for a particular project, then made it available to be used by another researcher. The data may also have been collected for general use with no specific research purpose. (busayo.longe, 2020)

Most common secondary research approaches :

Textbooks : Books are one of the most traditional ways of collecting data. Today, there are books available for all topics you can think of. When carrying out research, all you have to do is look for a book on the topic being researched, then select from the available repository of books in that area. Books, when carefully chosen are an authentic source of authentic data and can be useful in preparing a literature review.

Journal articles : Journals are gradually becoming more important than books these days when data collection is concerned. This is because journals are updated regularly with new publications on a periodic basis, therefore giving to date information. Also, journals are usually more specific when it comes to research. For example, we can have a journal on, “Secondary data collection for quantitative data” while a book will simply be titled, “Secondary data collection”.

Newspapers : In most cases, the information passed through a newspaper is usually very reliable. Hence, making it one of the most authentic sources of collecting secondary data. The kind of data commonly shared in newspapers is usually more political, economic, and educational than scientific. Therefore, newspapers may not be the best source for scientific data collection.

Role in Research : Looking at existing information, like academic articles and industry reports, is crucial in research. It helps researchers understand what's already known, form better research questions, and build on existing knowledge. This step makes the research more credible and rigorous by using established theories and real-world findings.

Key Considerations : Checking if sources are trustworthy is crucial in research. Researchers should focus on information from peer-reviewed publications, reliable industry reports, and recognized experts. Peer-reviewed publications go through thorough checks by experts in the field, ensuring the quality of the information. Industry reports from trusted sources make the data more reliable, and insights from acknowledged experts add authority to the research. Emphasizing credibility not only makes the study stronger but also makes the findings more trustworthy, reinforcing the integrity and scholarly value of the research.

Outcome : Looking into existing information gives a good understanding of how big data is used in healthcare and banking. This knowledge helps shape further research. By bringing together insights from different sources like academic articles and industry reports, researchers learn important things about trends and challenges. This understanding guides the next steps in the research, making sure it's focused and relevant. The insights gathered enrich the overall outcomes of the research project.

(busayo.longe, 2020)

Challenges to the Success of Inside-X IT Solutions in the Big Data Sector

Inside-X IT Solutions, as a startup focused on providing big data solutions, faces several challenges that could impact its success in the competitive technology sector. Here are some key challenges:

- 1. Market Competition :** The big data sector is highly competitive, with numerous established players and new entrants constantly emerging. Inside-X IT Solutions must differentiate itself from competitors by offering unique services or innovative solutions. The challenge lies in effectively marketing its offerings and building a strong brand presence to attract clients in a crowded marketplace.
- 2. Rapid Technological Advancements :** The technology landscape, particularly in big data and analytics, evolves rapidly. New tools, frameworks, and methodologies

are continuously being developed. Inside-X IT Solutions must stay updated with these advancements to remain relevant and competitive. This requires ongoing investment in research and development, as well as continuous training for employees, which can strain resources, especially for a startup.

3. Talent Acquisition and Retention : The IT industry is characterized by a high demand for skilled professionals. Inside-X may face challenges in attracting and retaining top talent due to competition from larger firms that can offer better salaries and benefits. High turnover rates can disrupt project continuity and lead to increased recruitment and training costs.

4. Data Security and Privacy Concerns : As a provider of big data solutions, Inside-X IT Solutions must address significant data security and privacy concerns. Clients are increasingly wary of how their data is handled and protected. The company must implement robust security measures and comply with regulations such as GDPR to build trust with clients. Failure to do so could result in reputational damage and loss of business.

5. Financial Constraints : As a startup, Inside-X IT Solutions may face financial constraints that limit its ability to invest in marketing, technology, and talent. Securing funding or investment can be a challenge, especially in a competitive market. The company must carefully manage its finances and prioritize spending to ensure sustainable growth.

6.Regulatory Compliance : The IT sector is subject to various regulations concerning data protection, cybersecurity, and intellectual property rights. Navigating these regulations can be complex and resource-intensive. Non-compliance can lead to legal repercussions, financial penalties, and damage to the company's reputation.

(Hiscox.co.uk, 2017)

Analyzing Data from Primary and Secondary Sources

To analyze data and information from primary and secondary sources on an identified theme, it is essential to follow a systematic approach that integrates both types of data effectively. Here's how to proceed with this analysis:

Identifying the Theme : "The Impact of IT Solutions on Business Efficiency."

1. Gathering Data from Primary Sources

Primary data involves gathering original information directly from sources. This can include:

- **Surveys:** Design and distribute surveys to businesses that have implemented IT solutions. Questions should focus on their experiences regarding efficiency improvements, cost savings, and user satisfaction.
- **Interviews:** Conduct interviews with stakeholders such as IT managers, business owners, and employees. This qualitative data will provide insights into the real-world impact of IT solutions.
- **Focus Groups:** Organize focus groups with users of IT solutions to discuss their experiences and perceptions. This method allows for deeper exploration of specific issues and can reveal trends not captured in surveys.

2. Gathering Data from Secondary Sources

Secondary data involves analyzing existing information gathered by others. Sources may include:

- **Research Papers:** Review academic articles that discuss the relationship between IT solutions and business efficiency. Look for empirical studies that provide quantitative data or case studies illustrating successful implementations.
- **Textbooks:** Utilize textbooks that cover theories of information technology management and its effects on organizational performance. These resources can provide foundational knowledge and context.
- **Government Reports:** Access reports from governmental agencies that analyze industry trends, technology adoption rates, and economic impacts of IT solutions on businesses.
- **Industry Publications:** Explore white papers and reports from reputable organizations that specialize in IT consulting or market analysis. These

documents often contain valuable statistics and case studies relevant to your theme.

(Stewart, 2024)



3. Analyzing the Data

Once you have collected both primary and secondary data, the next step is to analyze this information:

- **Qualitative Analysis:** For qualitative data from interviews and focus groups, identify common themes, patterns, and insights. Use coding techniques to categorize responses and extract meaningful conclusions.
- **Quantitative Analysis:** Analyze survey results using statistical methods to determine correlations between the use of IT solutions and improvements in business efficiency. Tools like SPSS or Excel can assist in performing these analyses.

- **Comparative Analysis:** Compare findings from primary data with secondary sources to validate results. Look for consistency in trends or discrepancies that may require further investigation.

(Data, 2024)

Features of Inside-X IT Solutions:

- Inside-X IT Solutions is a tech company that does really cool stuff with big data. They make special solutions for different kinds of businesses like healthcare, manufacturing, banking, and retail. Imagine they create smart and helpful tools using a lot of information to solve problems.
- What makes Inside-X stand out is that they're super good at using the newest and best technologies. They love playing with big data and making clever artificial intelligence (AI) solutions. It's like they're the wizards of the tech world!
- One impressive thing about Inside-X is their collection of successful projects. They've worked on lots of different things for different types of businesses. It's like a trophy shelf that shows how skilled they are.
- Inside-X doesn't just do the same thing for everyone. They like to think of new and smart ideas for each industry they work with. They believe in being creative, making their tools work for big or small problems, and making sure each business gets exactly what it needs.
- The company understands that each industry has its own unique challenges. They want to be the heroes that help businesses overcome those challenges. So, they create tools that can change and adapt as businesses grow and face new problems.

Operational Areas:

1. Project Planning, Development, and Implementation of Big Data Solutions

Inside-X plans projects carefully, determining what the client needs, creating a roadmap, and then developing and implementing custom big data solutions. This ensures the solutions work well for each client.

2. Client Collaboration and Tailoring Solutions to Industry Requirements

Inside-X works closely with clients, understanding their unique needs. The company customizes solutions to fit industry rules and standards, making sure the solutions are a perfect match.

3. Operational Workflow: Data Analysis, Machine Learning Model Development, and Integration of Advanced Technologies

Inside-X follows a step-by-step process. They start by analyzing data to gain insights, then create specialized machine learning models. Finally, they integrate these advanced technologies into the client's existing systems.

4. Continuous Improvement and Adaptation to Emerging Technologies

Inside-X always looks for ways to do better. They gather feedback, learn from each project, and strive to improve. They also stay updated with the latest technologies, making sure they're using the newest and best tools for their clients.

Role of Stakeholders and Their Impact on the Success of a Business

A stakeholder is defined as the person who is interested in something that especially happens within the company. By having the financial interest, a stakeholder may begin to create profitable decisions for the company and the entity of the success.



1. Customers as stakeholders

In the context of Inside-X IT Solutions, customers play a crucial role as stakeholders. As the primary source of support for the company, customers heavily rely on the big data solutions and services provided by Inside-X. Their purchasing decisions and feedback guide the company's direction, influencing decisions on product development and service enhancement. By sharing their opinions and experiences, customers contribute valuable insights, aiding the company in refining its offerings and meeting their immediate demands. This close interaction allows Inside-X to understand customer needs, make necessary changes, and explore opportunities for business growth and expansion. Ultimately, customers serve as essential partners, helping Inside-X navigate its business journey and ensuring the company aligns with market demands.

Impacts:

Customers have a big say in how well Inside-X IT Solutions does. They impact the company's success by helping decide what products and services to improve or create. When customers buy things or give feedback, it guides the company's decisions.

Inside-X listens to customers' opinions, making changes and finding chances to grow. This keeps the company in sync with what people need and helps it do well in the long run.

Employees as stakeholder:

Inside-X IT Solutions relies on its employees as crucial stakeholders, as their livelihoods are closely tied to the company's success. The dedication and daily contributions of these employees significantly impact the business, making them essential for achieving prosperity. In recognition of their importance, Inside-X invests in employee training, enhancing skills and readiness for tasks critical to the company's growth. These employees serve as a cornerstone for creating valuable business insights, maintaining a positive work environment, and fostering collaboration within the small-scale business. Even in instances where business owners work independently, employees play a vital role, contributing to the strength of the company and influencing its financial dynamics. Their efforts exemplify their role as stakeholders, actively participating in the success and sustainability of Inside-X IT Solutions.

Impact:

Employees are super important for Inside-X IT Solutions. Their hard work and daily efforts really affect how well the company does. Inside-X invests in training them to make the company grow. Employees help create good ideas, keep a positive work atmosphere, and work well together. Even if business owners work alone, employees make the company strong and influence its money matters. Their efforts as stakeholders really make a big difference in how successful Inside-X is.

3. Suppliers as stakeholders

Inside-X IT Solutions relies heavily on suppliers as vital stakeholders, providing essential materials and components crucial for product development. Whether delivering raw materials or finished products, these suppliers play a central role in shaping the quality and competitiveness of Inside-X's offerings. The company's

standing in the marketplace is intricately tied to the superior raw materials sourced from these suppliers. This dependence is particularly pronounced for a small business like Inside-X, where specialized products are obtained from specific suppliers, introducing an element of risk and dependence. The quality and reliability of these supplies significantly impact the company's operational continuity and strategic decisions. The dynamic with suppliers becomes a key factor influencing Inside-X's growth and business expansion, highlighting the crucial role suppliers play as stakeholders in the company's success.

Impact:

Suppliers greatly impact Inside-X IT Solutions' success by providing essential materials. The quality of these materials influences the company's products and competitiveness. Inside-X's standing in the market relies on reliable suppliers for superior raw materials. The relationship with suppliers is crucial, affecting the company's operations, strategic decisions, and overall growth.

5. Community and Government as a Stakeholder

For Inside-X IT Solutions, the government serves as a significant stakeholder, collecting taxes regardless of the company's size. The government's interest lies in the company's profitability, with taxes contributing to public funds. As a small-scale business, Inside-X has a notable impact on the community, both positively and negatively. By providing job opportunities and contributing to various funds, the company plays a role in supporting and improving the community. Small-scale businesses like Inside-X can demonstrate social responsibility by actively contributing to community development. Their actions influence the broader nature of the community and, on a larger scale, can even impact the world. Acting as stakeholders, small businesses can influence citizen practices and environmental policies. When the business environment positively affects the community, it creates an ethically responsible ecosystem, fostering community improvement and sustainable activities.

Impact:

The community and government impact Inside-X IT Solutions' success. The government collects taxes, crucial for public funds. Inside-X, as a small business, influences the community by providing jobs and contributing to its improvement. Small businesses like Inside-X show social responsibility, positively impacting the community and even influencing global practices and policies.

(OkCredit, 2021)

(alva, 2021)

Interpret findings of your research to generate knowledge on how the research theme supports the business requirements in the identified sector.

Interpreting the findings of the research theme focused on the application of Big Data and IoT/AI in various sectors allows us to gain valuable insights into how these technological advancements align with business requirements. In this context, let's explore how the research findings support business requirements in the identified sector:

1. Enhanced Decision-Making in Healthcare:

The research found that using Big Data and AI in healthcare helps doctors make better decisions. It makes diagnoses more accurate, allows for personalized treatment plans, and improves how well patients do. By using data analytics, hospitals and healthcare organizations can make smarter choices, leading to better care for patients, smoother day-to-day operations, and using resources more effectively. So, these technologies not only help doctors make better decisions but also improve the overall quality of healthcare and how hospitals run.

2. Efficiency and Innovation in Manufacturing:

The research found that when factories use Big Data in making things, it makes everything work better. It helps them predict when machines might have problems and fix them before they break. This makes the factories run more smoothly, reduces the time machines aren't working, and allows them to come up with new and better ways to make things. So, using these technologies doesn't just help factories work better; it also makes the whole business grow and be more competitive. It's like making manufacturing smarter and more successful.

3. Risk Mitigation in Banking:

The research found that when banks use Big Data analytics, they can better identify and prevent risks, catch fraud, and make online banking safer. This means banks can be more careful with their customers' money, follow the rules, and ensure that their customers' assets are protected. By doing this, banks can build trust with their customers, making them feel more secure. In simpler words, it makes banking safer and helps banks keep the trust of their clients.

4. Customer Insights in Retail:

The research found that when stores use Big Data and smart technologies in retail, they can learn a lot about their customers. This helps them suggest personalized recommendations to shoppers and handle their products in the store more effectively. So, retailers can use this information to plan how they sell things, make shopping better for customers, and manage their stock wisely. This usually leads to more sales and customers who are happier with their shopping experience. In simple words, it helps stores sell more by understanding what customers like and organizing their products better.

5. Scientific Research Advancements:

The research found that when scientists use Big Data in their studies, they can discover things faster and work together with other scientists from around the world.

This technology helps them analyze lots of data, find patterns, and make important breakthroughs in various fields of research. In simple words, using Big Data makes it quicker and easier for scientists to learn new things and make progress in their studies.

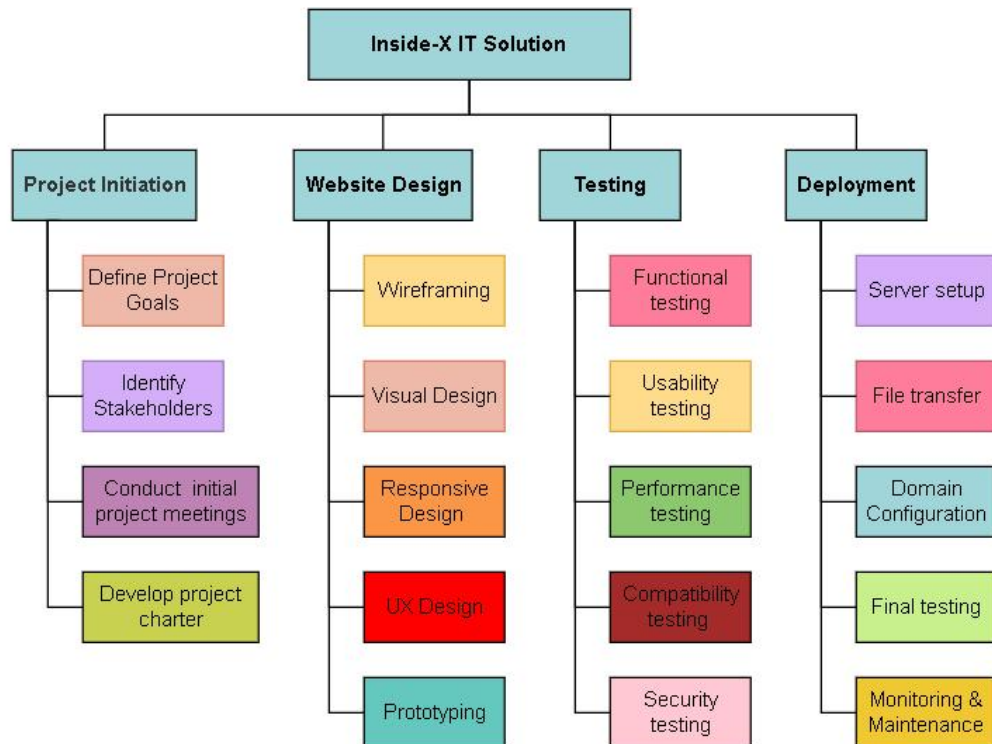
Activity 3

Scope of the project

Defining the Project scope is the first and foremost step in Project Planning. It involves clarifying what the Project will accomplish, its boundaries, and what it will not include. A well-defined scope prevents scope creep, ensuring the Project stays on track and within its intended parameters. (TheKnowledgeAcademy, 2023)

The scope of the project involves the development of a comprehensive website for Inside-X IT Solutions, a startup tech company based in Kathmandu, Nepal, which specializes in big data solutions for various industries, including healthcare, manufacturing, banking, and retail. The website will serve as an online portfolio, showcasing the projects undertaken by the company, providing general information about its services, and displaying essential contact details and location information. Additionally, the website will feature a user-friendly contact form that allows potential clients to request quotes for services. The project will also include a detailed project management plan that outlines the project scope, work breakdown structure, Gantt chart, resource allocation, budget, risk management strategies, and communication plans. This plan will ensure that the website is developed efficiently and effectively, meeting the needs of the company and its clients while adhering to best practices in project management. The overall aim is to enhance the company's online presence, attract new clients, and facilitate better communication with existing ones, ultimately contributing to the growth and success of Inside-X IT Solutions in the competitive tech landscape.

WBS of the Project



Project Initiation

In the project initiation phase, we focus on defining the objectives and scope of the project to ensure a solid foundation for success. This stage allows us to align all stakeholders and establish a clear framework that will guide the project through its lifecycle.

- **Define project goals:** Establish clear and measurable objectives for the website development project to ensure alignment with the company's vision and client needs.

- **Identify stakeholders:** Recognize all individuals and groups who have an interest in the project, including team members, clients, and management, to facilitate effective communication and collaboration.
- **Conduct initial project meetings:** Organize meetings with stakeholders to discuss project scope, expectations, and timelines, ensuring everyone is on the same page from the outset.
- **Develop project charter:** Create a formal document that outlines the project's purpose, objectives, scope, and key stakeholders, serving as a foundational reference throughout the project lifecycle.

Website Design

Website design is the process of planning and creating the visual elements of a website, ensuring it is both aesthetically pleasing and user-friendly. This phase focuses on the layout, color scheme, typography, and overall user experience to effectively communicate the brand's message.

- **Wireframing:** I create wireframes to outline the basic structure and layout of the website, helping to visualize the arrangement of elements before the design is finalized.
- **Visual Design:** I develop the visual style of the website, selecting color palettes, fonts, and images that align with the brand identity and enhance the overall user experience.
- **Responsive Design:** I ensure the website is designed to be responsive, meaning it will function well on various devices and screen sizes, providing a seamless experience for all users.
- **User Experience (UX) Design:** I focus on optimizing the user journey through the website, making it intuitive and easy to navigate, which helps improve user satisfaction and engagement.

- **Prototyping:** I create interactive prototypes to simulate the user interface, allowing stakeholders to experience the design and provide feedback before development begins.

Testing

Testing is a critical phase in the website development process that ensures the site functions correctly and meets the specified requirements. This phase involves identifying and fixing any issues or bugs to enhance performance, usability, and security before the website goes live.

- **Functional Testing:** I verify that all features and functionalities of the website work as intended, ensuring that links, forms, and interactive elements function correctly.
- **Usability Testing:** I conduct usability tests with real users to gather feedback on the website's navigation and overall user experience, identifying areas for improvement.
- **Performance Testing:** I assess the website's speed and responsiveness under various conditions to ensure it loads quickly and performs well, even during high traffic.
- **Compatibility Testing:** I check the website's compatibility across different browsers and devices to ensure a consistent experience for all users, regardless of their platform.
- **Security Testing:** I perform security assessments to identify vulnerabilities and ensure that user data is protected, implementing necessary measures to safeguard against potential threats.

Deployment

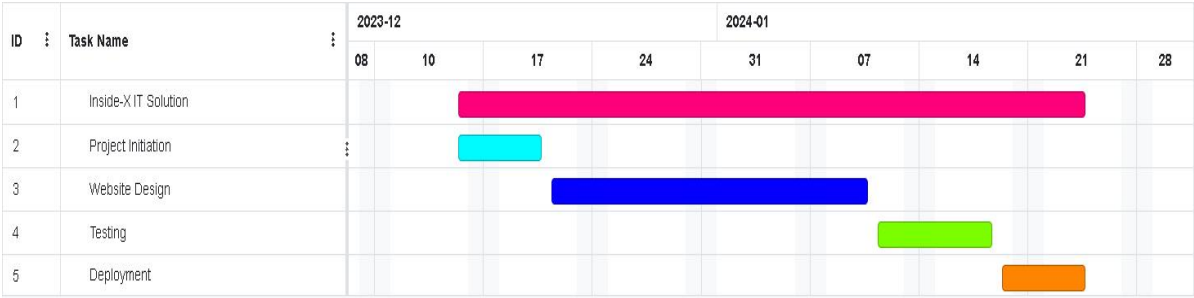
Deployment is the final phase of the website development process, where the completed website is launched and made accessible to users. This stage involves

transferring the website files to a live server and ensuring that all components function correctly in the production environment.

- **Server Setup:** I configure the web server environment, ensuring that it meets the technical requirements for hosting the website, including setting up databases and server software.
- **File Transfer:** I upload all website files, including HTML, CSS, JavaScript, and media assets, to the live server using FTP or other deployment tools to make the site accessible online.
- **Domain Configuration:** I set up the domain name and ensure it points to the correct server, allowing users to access the website through its designated URL.
- **Final Testing:** I conduct a final round of testing in the live environment to confirm that all features work as expected and that there are no issues that could affect user experience.
- **Monitoring and Maintenance:** After deployment, I implement monitoring tools to track website performance and user activity, and I establish a maintenance plan to address any future updates or issues that may arise.

(TheKnowledgeAcademy, 2023)

Gantt chart for the project



Resource Plan for Inside-X Website Development

The resource plan for the Inside-X website development outlines the essential resources required to successfully complete the project. It encompasses human resources, technology, materials, budget considerations, and time allocation to ensure a smooth development process. Efficient resource allocation ensures that the Project has the required support to achieve its goals. (TheKnowledgeAcademy, 2023)

1. Human Resources : This section identifies the team members needed for the project, including roles such as project manager, web designer, web developer, content writer, and quality assurance tester. Each member will contribute their expertise to ensure the project is completed efficiently.

2. Technology Resources : This part details the technological tools and platforms required for development, such as web hosting services, domain registration, and development software. These resources are crucial for building and maintaining the website.

3. Material Resources : This section includes design assets like stock images, icons, and graphics, as well as a content management system (CMS) for easy content updates. These materials enhance the website's visual appeal and functionality.

4. Budget Considerations : Here, the financial aspects of the project are outlined, including personnel costs, hosting and domain fees, and software licenses. A clear budget helps manage expenses and allocate funds effectively.

5. Time Allocation : This part provides a timeline for the project, detailing the duration allocated for each phase, such as design, development, testing, and deployment. Proper time management ensures that the project stays on track and meets deadlines.

Budget plan / Costing for Inside-X IT Solutions Website Development

The budget plan for the Inside-X IT Solutions website development totals Forty-Seven Thousand Rupees (Rs 47,000), allocated across various phases: Nine Thousand Rupees (Rs 9,000) for project initiation, Eighteen Thousand Rupees (Rs 18,000) for website design, Ten Thousand Rupees (Rs 10,000) for testing, Nine Thousand Rupees (Rs 9,000) for deployment, and an Emergency Fund of One Thousand Rupees (Rs 1,000) to cover unexpected expenses. This structured budget ensures effective resource management throughout the project.

Phase	Estimated Cost (Rs)
Project Initiation	Rs 9,000
Website Design	Rs 18,000
Testing	Rs 10,000
Deployment	Rs 9,000
Emergency Fund	Rs 1,000
Total Budget	Rs47,000

Risk Management Plan for Inside-X Website Development

A risk management plan is a comprehensive documentation of your organization's risk management process for special projects that offer opportunities to grow and reinvent. It requires close collaboration between your risk department, senior executives and key stakeholders to create a plan that doesn't compromise the company's risk exposure. It covers the entire risk management approach, from risk identification and assessment to response and documentation.^(Nidhi Choraria, 2024)



1. Risk Identification : In the development of the Inside-X website, several potential risks have been identified. These include technical risks such as software bugs or compatibility issues, resource risks like the unavailability of skilled personnel, and project management risks such as scope creep, where additional features are added without proper assessment. Additionally, there are external risks, including changes in market demand or regulatory requirements that could impact the project timeline and budget.

2. Risk Assessment : Each identified risk needs to be assessed based on its likelihood of occurrence and potential impact on the project. For instance, technical risks like software bugs are likely to occur and could significantly delay the project if not addressed promptly. Resource risks, such as the unavailability of skilled personnel, may have a moderate likelihood but can severely affect the project timeline. External risks, while less predictable, can have a high impact if they arise, making it essential to monitor market trends and regulatory changes closely.

3. Response Planning : To mitigate the identified risks, a response plan will be developed. For technical risks, regular testing and quality assurance processes will be implemented to catch bugs early. To address resource risks, a backup plan will be created, including training existing staff or hiring freelancers if necessary. For project management risks, clear project scopes and timelines will be established, with regular

reviews to prevent scope creep. Lastly, for external risks, the team will stay informed about industry trends and regulations to adapt the project as needed.

4. Monitoring and Controlling : Continuous monitoring of risks will be essential throughout the website development process. This will involve regular team meetings to discuss any emerging risks and assess the effectiveness of the response strategies. Key performance indicators (KPIs) will be established to track project progress and identify any deviations from the plan. If a risk materializes, the team will quickly implement the response plan to minimize its impact on the project.

5. Reporting : Regular reporting will be crucial for keeping stakeholders informed about the status of the project and any risks encountered. A risk management report will be created at each project milestone, summarizing identified risks, their assessments, response actions taken, and any changes in the risk landscape. This report will ensure transparency and facilitate informed decision-making among stakeholders, helping to maintain confidence in the project's progress and outcomes.

(Nidhi Choraria, 2024)

Communication Plan for Inside-X IT Solutions Website Development

A communication plan is a strategic document that outlines how information will be disseminated within an organization or project. It defines the communication objectives, identifies the target audience, specifies the key messages to be conveyed, and outlines the channels and timeline for communication activities. (Textmagic, 2024)

1. Purpose of the Communication Plan : The communication plan aims to keep everyone involved in the Inside-X IT Solutions website development informed and engaged. By ensuring clear communication, we can work together effectively, address any concerns quickly, and keep the project on schedule.

2. Stakeholder Identification : The main stakeholders in this project include the project team members, such as developers and designers, who will work on the website. Company management, including executives, will need regular updates on the project's progress. Clients who will use the website are also important

stakeholders, as their feedback will help shape the final product. Additionally, external vendors, like hosting services, will be involved in specific aspects of the project.

3. Communication Methods : To communicate effectively with different stakeholders, we will use various methods. Regular email updates will be sent to everyone, summarizing what has been accomplished and what is coming next. The project team will hold weekly meetings to discuss progress and challenges, and these meetings will be documented for reference. Formal progress reports will be created at key milestones to keep management informed. We will also schedule feedback sessions with clients to gather their input on the website design and features.

4. Communication Frequency : The frequency of communication will depend on the audience. The project team will meet weekly and have daily check-ins as needed. Management will receive bi-weekly progress reports to stay updated. Clients will get monthly updates and have feedback sessions, or more often if significant changes arise. External vendors will be contacted as necessary based on project needs.

5. Responsibilities : Clear responsibilities will be assigned for communication tasks. The project manager will oversee the communication strategy, send out progress reports, and lead meetings. Team members will provide updates during meetings and communicate any issues they encounter. Stakeholders will be encouraged to give feedback and participate in discussions to ensure their needs are met.

6. Evaluation of Communication Effectiveness : To ensure the communication plan is working well, we will evaluate its effectiveness regularly. Surveys will be conducted to gather feedback from stakeholders about the clarity and frequency of communication. After meetings, we will collect feedback to see if they are productive. Based on this feedback, we will make adjustments to the communication plan to improve engagement and information sharing.

This communication plan will help Inside-X IT Solutions create a collaborative environment that supports the successful development of the website and meets the needs of all involved parties.

(Team, 2024)

Project Recommendations for Technical Audiences:

- **Utilize Big Data Analytics:** Implement advanced analytics tools to process and analyze large datasets from banking and healthcare sectors to improve decision-making and operational efficiency.
- **Integrate IoT Solutions:** Develop IoT applications that can collect real-time data from various sources, enhancing service delivery in healthcare and banking.
- **Adopt AI Technologies:** Leverage AI algorithms for predictive analytics to forecast trends and customer behavior, which can lead to better service offerings.
- **Ensure Data Security:** Implement robust cybersecurity measures to protect sensitive data, especially in banking and healthcare applications.
- **Scalable Architecture:** Design a scalable IT infrastructure that can grow with the business needs, ensuring flexibility and adaptability.

Project Recommendations for Non-Technical Audiences:

- **Focus on Customer Needs:** Understand what customers in banking and healthcare want and tailor services to meet those needs.
- **Invest in Technology:** Encourage the use of modern technology to help the business run more smoothly and efficiently.
- **Prioritize Safety:** Make sure that all customer information is kept safe and secure to build trust.
- **Train Staff:** Provide training for employees on new technologies and processes to ensure they can effectively use them.
- **Monitor Progress:** Regularly check how well the new systems are working and make adjustments as needed to improve performance.

Key Planning Decisions Made :



- **Alignment with Business Goals:** The project plan directly supports Inside-X IT Solutions' strategic objectives, ensuring that all efforts contribute to growth in the banking and healthcare sectors.
- **Comprehensive Research:** Extensive primary and secondary research informed the project, ensuring that the website features meet the specific needs of target clients.
- **Stakeholder Engagement:** Involving stakeholders in the planning process helped identify their needs, increasing the relevance and acceptance of the project outcomes.
- **Risk Management Planning:** A detailed risk management plan was created to proactively address potential challenges, minimizing disruptions during execution.

- **Resource Allocation:** A clear resource plan was established to ensure adequate support in terms of human, financial, and technological resources for project completion.
- **Timeline and Milestones:** A Gantt chart was developed to track progress and ensure the project stays on schedule, allowing for timely adjustments if necessary.
- **Communication Strategy:** A defined communication plan keeps all stakeholders informed, fostering collaboration and prompt issue resolution.
- **Budget Planning:** A realistic budget plan was developed, supporting the project's sustainability and justifying expenditures to stakeholders.

(TheKnowledgeAcademy, 2023)

Accuracy and Reliability of Different Research Methods

When discussing the accuracy and reliability of different research methods applied in a project, it is essential to consider both qualitative and quantitative approaches, as well as secondary approaches used within each category. Here's a structured analysis:

Through focus groups and interviews, qualitative research provides insights into the viewpoints of stakeholders. These methods allow for in-depth discussions, revealing personal experiences and opinions that can help shape the project. However, potential biases in the analysis should be carefully recognized, as the facilitator's influence or the group dynamics can affect the responses. Additionally, the small sample size may not represent the larger population, which can limit the generalizability of the findings.

Surveys and experiments are effective quantitative research methods that gather data from a larger group of people. Surveys can reach many respondents quickly, providing statistical data that can be analyzed for trends and patterns. Experiments allow researchers to test specific hypotheses in controlled settings, which can lead to reliable results. However, the accuracy of surveys depends on the questions asked and how they are interpreted by respondents. If questions are unclear or biased, the results may not reflect true opinions or behaviors.

Textbooks and journal articles are valuable sources for secondary research, offering established knowledge and findings from previous studies. They provide a solid foundation for understanding a topic and can help support arguments with credible evidence. However, the reliability of these sources can vary. It is essential to evaluate the credibility of the authors and the publication date, as outdated information may not reflect current trends or advancements in the field. Additionally, relying solely on secondary sources may limit the depth of understanding compared to primary research methods.

Project Logbook

Name : Krishna Prasad Bajgai

Project Title : Inside-X IT Solutions Website Development

Date : January 24, 2024

1. Update on weekly research/tasks achieved

● What have you completed?

- Completed the initial research on the requirements for the Inside-X website development, including identifying necessary human and technology resources.
- Developed a Gantt chart outlining the project timeline and key milestones.
- Drafted the resource plan detailing team roles and responsibilities.

● Did you fulfill task requirements?

- Yes, all tasks outlined in the project plan for this week were completed.

● Are you on track and within deadlines set?

- Yes, I am on track with the project timeline and deadlines.

● Did you need to make any changes to your project management plan?

- No significant changes were needed; however, I adjusted the timeline for the content writing phase to allow for additional review time.

2. Any risks and/or issues identified?

● Risks:

- Potential delays in receiving content from the content writer could impact the overall timeline.
- Technical challenges with the chosen web hosting platform may arise, requiring contingency planning.

● Issues:

- No major issues have been encountered so far, but ongoing communication with team members will be essential to mitigate any future risks.

3. What have I learnt about myself this week?

● How did I feel when I had to deal with tasks/problems?

- I felt a mix of excitement and pressure while managing multiple tasks. The challenges motivated me to stay organized and focused.

● Did I find it useful to complete the tasks?

- Yes, completing the tasks provided me with a clearer understanding of the project requirements and helped me develop my project management skills.

● How well have I performed? What did I contribute?

- I believe I performed well, contributing significantly to the planning phase by creating essential documents like the Gantt chart and resource plan.

● What can I improve on next week?

- I can improve my time management skills by allocating specific time slots for each task to ensure I stay ahead of deadlines.

● How might this learning apply in the future?

- This experience has taught me the importance of proactive communication and thorough planning, which will be beneficial in future projects.

4. Tasks planned for next week

- **Which tasks are priority?**

- Finalizing the content outline and beginning the content writing process are my top priorities for next week.

- **Have you set aside sufficient time for completion?**

- Yes, I have allocated specific time blocks in my schedule to focus on content writing and to review the work with the team.

- **3. Project plan status to date (on, ahead, behind)**

- The project is currently on track with the established timeline. All initial phases have been completed as planned.

4. Supervisor comments to address : -----

References :

Newcastle.edu.au. (2024). LibGuides: Research Methods: What are research methods? [online] Available at: <https://libguides.newcastle.edu.au/researchmethods> [Accessed 15 Dec. 2023].

Bhat, A. (2018). Qualitative Research: Definition, Types, Methods and Examples. [online] QuestionPro. Available at: <https://www.questionpro.com/blog/qualitative-research-methods/> [Accessed 16 Dec. 2023].

ATLAS.ti. (2024). Research Interviews | Advantages & Benefits. [online] Available at: <https://atlasti.com/guides/interview-analysis-guide/advantages-of-research-interviews> [Accessed 16 Dec. 2023].

Aggarwal, C. (2023). Quantitative Research: Types, Methods and Examples - Shiksha Online. [online] Shiksha.com. Available at: <https://www.shiksha.com/online-courses/articles/quantitative-research-types-methods-and->

examples/#:~:text=Quantitative%20research%20is%20a%20structured%20method%20of,fields%2C%20including%20business%2C%20healthcare%2C%20and%20social%20sciences. [Accessed 15 Dec. 2023].

Kevin (2023). Types of Research Methods: Examples and Tips - Wordvice. [online] Wordvice. Available at: <https://blog.wordvice.com/research-methods-types-examples/> [Accessed 18 Dec. 2023].

busayo.longe (2020). What is Secondary Data? + [Examples, Sources, & Analysis]. [online] Formplus. Available at: <https://www.formpl.us/blog/secondary-data> [Accessed 18 Dec. 2023].

Hiscox.co.uk. (2017). The 10 biggest challenges businesses face today (and need consultants for). [online] Available at: <https://www.hiscox.co.uk/business-blog/the-10-biggest-challenges-businesses-face-today-and-need-consultants-for> [Accessed 24 Dec. 2023].

Stewart, L. (2024). Primary vs. Secondary Data: Key Distinctions and Uses. [online] ATLAS.ti. Available at: <https://atlasti.com/research-hub/primary-secondary-data> [Accessed 26 Dec. 2023].

Data, S. (2024). Analyzing Secondary Data - FasterCapital. [online] FasterCapital. Available at: <https://fastercapital.com/topics/analyzing-secondary-data.html> [Accessed 26 Dec. 2023].

OkCredit (2021). How the Stakeholders Create their Impact on Small-Scale Businesses? [online] OkCredit Blogs - Business Ideas, Tips, Government Schemes & more. Available at: <https://okcredit.in/blog/how-stakeholders-create-their-impact-on-small-business/> [Accessed 28 Dec. 2023].

alva. (2021). What are the impacts of stakeholders on a business? | alva. [online] Available at: <https://www.alva-group.com/blog/what-are-the-impacts-of-stakeholders-on-a-business/> [Accessed 30 Dec. 2023].

Nidhi Choraria (2024). What Is A Risk Management Plan? A Comprehensive Guide. [online] Selecthub.com. Available at: <https://www.selecthub.com/risk-management/risk-management-plan/> [Accessed 5 Jan. 2024].

Textmagic. (2024). 6 Strategic communication plan templates for your team. [online] Available at: <https://www.textmagic.com/blog/communication-plan-templates/#:~:text=A%20communication%20plan%20is%20a%20strategic%20document,the%20channels%20and%20timeline%20for%20communication%20activities.> [Accessed 8 Jan. 2024].

Team, W. (2024). What Is a Project Communication Plan? | Wrike. [online] Blog Wrike. Available at: <https://www.wrike.com/blog/what-is-a-project-communication-plan/> [Accessed 8 Jan. 2024].

TheKnowledgeAcademy (2023). Importance of Project Planning: All You Need to Know. [online] Theknowledgeacademy.com. Available at: <https://www.theknowledgeacademy.com/blog/importance-of-project-planning/> [Accessed 10 Jan. 2024].

Thank You