



CC7169NI Software Project Management

Omni Technology (CRM) System 50% Group Coursework 2024 Spring

Student Name: Rupesh Budhathoki

London Met ID: 23056328

College ID: NP01MS7S240012

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CC7169NI

1.Project Memorandum

Date: 5th May 2024

To: OmniSoft Technologies Inc. Management

From: RBNepal Private Ltd.

Subject: Setting up a Project Management Team for the Omni CRM Implementation

Greetings Sir/Madam,

This memorandum aims to provide details on the development of the Omnisoft CRM project

management team and the project plan for creating a comprehensive Customer Relationship

Management (CRM) tool for OmniSoft Technologies Inc.

The primary objective of the Omnisoft CRM project is to develop and deploy a cutting-edge

CRM solution that will enable our company to streamline sales processes, enhance customer

service, and gain deeper insights into customer behavior and preferences. The new CRM

system will provide a user-friendly platform for our sales, marketing, and customer service

teams to manage customer interactions effectively, leading to improved customer satisfaction

and increased revenue.

To ensure the successful implementation of the Omnisoft CRM project, we propose utilizing

an Agile methodology, specifically the DSDM (Dynamic Systems Development Method)

framework. This approach will facilitate close collaboration between the project team and key

stakeholders, allowing for regular feedback and adaptations to meet evolving business needs.

The PRINCE2 project management standard will be applied to manage the project effectively,

ensuring smooth progress and adherence to best practices.

The project team will consist of experienced professionals from various departments, including

sales, marketing, customer service, IT, and project management. Clear roles and

responsibilities have been defined in the Business Case, ensuring effective communication and

coordination among team members.

The Omnisoft CRM project is scheduled to commence on 1st February 2024 and conclude by 6th June 2024, with an anticipated duration of approximately 4.5 months. The project timeline includes the following key milestones:

Project Initiation and Planning: February 1 - February 28, 2024

Requirements Gathering and Analysis: March 1 - March 31, 2024

System Design and Development: April 1 - May 31, 2024

Testing and Quality Assurance: June 1 - June 6, 2024

The project budget has been allocated based on the detailed cost estimates provided in the Business Case, totaling \$63,600. This budget covers the costs of the 9-member project team, as well as server and other ancillary expenses.

The project requirements will be prioritized using the MoSCoW method, ensuring that the most critical features are delivered within the specified timeframe. Regular progress updates and deliverables will be provided every four weeks, aligning with the DSDM timebox approach.

We are confident that by leveraging the expertise of our project team, applying Agile methodologies, and adhering to the PRINCE2 project management standard, we will successfully deliver the Omnisoft CRM solution that meets and exceeds the expectations of OmniSoft Technologies Inc.

Please feel free to contact me if you have any further questions or require additional information.

Best regards,
Rupesh Budhathoki
Omnisoft CRM Project Manager
OmniSoft Technologies Inc

2.Software Development Approach & Methods

2.1 Software Development Approach

The development of software often creates numerous challenges and difficulties that must be overcome. To address these obstacles, various methods and approaches are employed. Executing a software within the constraints of time, feature, cost and quality necessitates a methodological approach. It serves as a framework for designing, preparing, and managing the system that needs to be developed. This methodological approach enhances the quality of the system and facilitates better documentation. [Badkar, 2023]

Two of the most renowned software development approach are:

- Traditional Approach
- Agile Approach

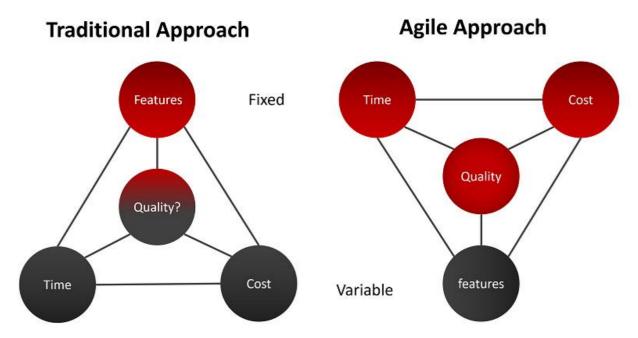


Figure 1 : Comparison between traditional and agile approach.

2.1.1 Traditional Approach

The traditional approach in software development, often known as the waterfall model, follows a sequential and linear process with distinct phases like requirements gathering, design, implementation, testing, deployment, and maintenance. This structured methodology is well-established and widely understood, relying on clear requirements and extensive testing processes. However, it lacks flexibility, making it challenging to accommodate changes in requirements during later stages of the project. The traditional approach is suitable for projects

with stable and well-defined requirements but may be less adaptive to rapidly changing environments. [Gridlex, 2023]



Figure 2: Traditional Project Management (Waterfall Model)

Advantages of the traditional approach:

- Well-established and widely understood methodology.
- Relies on clear and detailed requirements.
- Structured approach with defined phases and milestones.
- Proven track record of success.
- Extensive testing and quality control processes.

Disadvantages of the traditional approach:

- Slow process with lengthy planning and design phases.
- Lack of flexibility, as changes to requirements or design are difficult to implement.
- High cost, particularly for large or complex projects.
- Limited customer involvement, mainly in the planning and design phases.
- Can be conservative and risk-averse, limiting innovation.

The traditional waterfall model is a structured and documented approach to software development, but it lacks the flexibility and customer involvement that is often required in modern software projects, especially in rapidly changing industries like IT.

2.1.2 Agile Approach

The Agile software development approach is characterized by flexibility, collaboration, and customer satisfaction through iterative and incremental development. It values individuals and interactions, working software, customer collaboration, and response to change, as outlined in the Agile Manifesto. Agile methodologies support a broad range of software development life cycle, with some focusing on practices like Extreme Programming (XP) and Agile Modeling, while others manage the flow of work through frameworks like Scrum and Kanban. Agile development promotes early and continuous delivery of working software, customer collaboration, and adaptability to changing requirements, ultimately aiming to improve software quality and responsiveness to customer needs. [Gridlex, 2023]



Figure 3 : Agile Methodology

Advantages of Agile Methodology:

- Focus on Customer Value
- Enhanced Team Morale and Motivation
- Stakeholder Collaboration

- Early and Continuous Delivery
- Delivering High-Quality Software

Disadvantages of Agile Methodology:

- Lack of Predictability
- Dependency on Customer Availability
- Scaling Challenges
- Dependency on Team Dynamics
- Increased Overhead

2.2 Comparison Agile and Traditional Approach

Here is a comparison between the traditional and agile software development methodologies in a table format:

| Criteria | Traditional Methodology | Agile Methodology |
|----------------------|------------------------------|------------------------------|
| Approach | Sequential and linear, with | Iterative and incremental, |
| | distinct phases | with frequent feedback loops |
| Focus | Comprehensive planning and | Responding to change and |
| | documentation | delivering working software |
| Customer Involvement | Limited, mainly in the early | Continuous collaboration |
| | phases | throughout the process |
| Change Management | Difficult to accommodate | Embraces and adapts to |
| | changes after the initial | changes throughout the |
| | planning phase | development cycle |
| Project Visibility | Lower, with limited | Higher, with regular |
| | stakeholder involvement | demonstrations and feedback |
| Testing | Typically done at the end of | Integrated throughout the |
| | the development cycle | development process |
| Delivery | Single, comprehensive | Frequent, incremental |
| | release at the end | releases of working software |
| Suitability | Well-defined and stable | Evolving or uncertain |
| | requirements | requirements |

| Advantages | Clear | project | scope, | Flexibility, | early and |
|---------------|-----------|-------------|-------------|------------------|---------------|
| | predictal | oility, | structured | continuous | delivery, |
| | approach | 1 | | emphasis on qu | ality |
| Disadvantages | Lack of | flexibility | , high cost | Potential | lack of |
| | of chang | es, limite | d customer | predictability, | increased |
| | involven | nent | | overhead, scalin | ng challenges |

Table 1: Comparison between Traditional and agile approaches

The choice between the traditional and agile methodologies depends on factors such as the project's requirements, the level of uncertainty, the need for flexibility, and the organization's culture and experience.

2.3 Methodology

2.3.1 DSDM

DSDM is an agile project delivery framework that was initially developed in the 1990s as a software development methodology. Over time, it has evolved into a more generic approach for project management and solution delivery across various business domains, not just IT. [Wikipedia contributors, 2024a]

2.3.1.1 Key Principles

The DSDM approach is guided by nine core principles:

- Focus on the business need.
- Deliver on time.
- Collaborate
- Never compromise quality.
- Build incrementally from firm foundations.
- Develop iteratively.
- Communicate continuously and clearly.
- Demonstrate control.
- Optimize the whole.

These principles emphasize business value, timely delivery, collaboration, quality, iterative development, and effective communication and control. [Wikipedia contributors, 2024a]

2.3.1.2 DSDM Project Lifecycle

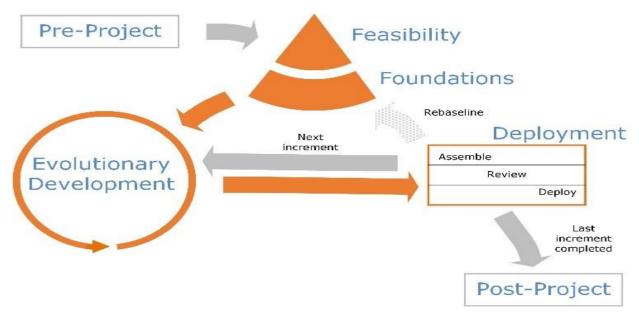


Figure 4 : DSDM Project Life Cycle

i. Pre-Project

As per the DSDM philosophy "that best business value emerges when projects are aligned to. clear business goals" the pre-project phase confirms that the right projects are initiated and that they are properly set up, based on a specifically stated goal. (Render, 2019)

ii. Feasibility

The Feasibility phase is intended mainly to determine whether the planned project is technically viable and seems to be cost-effective from a market standpoint. The effort concerned with Feasibility should be sufficient to determine whether further research is required, or whether the proposal should be discontinued immediately because it is unlikely to be feasible. (Render, 2019)

iii. Foundations

The Foundations process advances the preliminary analysis beyond the Feasibility stage. It is intended to provide a basic (but not detailed) understanding of the project's business rationale, the possible solution that will be generated by the project, and how the solution's production and execution will be handled. The Foundations process can last no more than a few weeks, even for vast and complicated projects, so low levels of detail are avoided. The specifics of

specifications and how they can be met as part of the approach were deliberately left before the project's Evolutionary Development process. The goal of Foundations is to understand the scope of work, how it will be carried out, who will do it, when it will be done, and where it will be done. The Foundations step also establishes the project lifecycle by determining how the DSDM process can be implemented to the project's specific requirements. (Render, 2019)

iv. Evolutionary development

The Evolutionary Development process aims to evolve the solution based on the solid foundations that have been developed for the project.

The Evolutionary Development process necessitates that the Development Team(s) use. techniques discussed in the DSDM Technique and practices to converge overtime on an accurate solution that satisfies the company's needs while still being designed in the best. manner from a technical point of view. The Solution Development Team creates Solution Increments inside Timeboxes, iteratively exploring the low-level specifics of the criteria and testing constantly as they progress. (Render, 2019)

v. Deployment

The Deployment process is divided into three stages: Assemble, Review, and Deploy.

a. Assemble

Before the physical launch, usually activities are carried out to make sure what is being delivered is coherent. This will also involve gathering all necessary supporting information. Assemble refers to the work that is done to "get together" what is to be released. Combining a new business process, a schedule of training, user guides, and a new IT solution are some of the examples of this sub-process.

b. Review

In most cases, after all the components of a release have been assembled, some kind of "Approval to deploy" would be required. This will be focused on a final review of the solution before it is put into production, to ensure that the planned release follows the requirements and is complete enough to be feasible. This can be very casual in a simple environment –but in a more complex environment- it may be as informal as a go/no-go checkpoint workshop. The team also conducts a Project Increment retrospective currently, focusing on ways of working and new opportunities for change. Both the retrospective and casual reviews of the product provide information that helps influence future increment efforts that can be used to promote learning through projects in a portfolio.

c. Deploy

Once the approval is done, deployment is the process where the physical act of putting what has been assembled into operation. This can be making the website live in our case.

vi. post-project

After the deployment, this phase is where all the checking of how well the expected business benefits have been met. (Render, 2019)

2.3.1.3 DSDM Technique & Practices

Following are the techniques and practices used in DSDM making it stand out among other development methods.

• Timeboxing:

DSDM has a strict deadline principle, where the project is divided into small chunks with a fixed budget and timeframe. Requirements are prioritized, and if time or money is running out, the lowest priority requirements are removed to ensure the project is completed on time.

• MoSCoW Prioritization:

A key aspect of DSDM is the MoSCoW prioritization technique, which categorizes requirements into four groups:

- a. **Must have**: Essential for the solution to be viable.
- b. Should have: Important, but not critical for the initial release.
- c. **Could have**: Desirable but not necessary for the initial release.
- d. Won't have (this time): Identified but not included in the current scope.

This prioritization helps the team focus on the most critical requirements and deliver value incrementally.

• Modeling and Iterative Development:

Modeling is used to visualize the various components of the project as it progresses. This allows for iterative development, with constant feedback and adoption of improvements.

• Prototyping:

Prototyping is a critical practice in DSDM, allowing for early testing of the conceptual functionality. It helps identify flaws and allows users to test the software.

• Facilitated Workshops:

DSDM relies heavily on user participation, with workshops where users and stakeholders discuss requirements, challenges, findings, and testing. Testing is a crucial aspect in DSDM to ensure high-quality outcomes.

These techniques and practices, such as timeboxing, MoSCoW prioritization, modeling, iterative development, prototyping, and facilitated workshops, are what make DSDM stand out among other development methods. They enable DSDM to deliver software in a timely and cost-effective manner while adapting to changing requirements. [Wikipedia contributors, 2024a]

2.3.1.4 Roles and Responsibilities

DSDM defines several key roles. These roles work together to ensure effective collaboration and delivery of the project. [Wikipedia contributors, 2024a]

- **Executive sponsor**: So, called the project champion. An important role from the user organization who has the ability and responsibility to commit appropriate funds and resources. This role has the ultimate power to make decisions.
- **Visionary**: The one who has the responsibility to initialize the project by ensuring that essential requirements are found early on. Visionary has the most accurate perception of the business objectives of the system and the project. Another task is to supervise and keep the development process on the right track.
- Ambassador user: Brings the knowledge of the user community into the project, ensures that the developers receive enough user feedback during the development process.
- **Advisor user**: Can be any user that represents an important viewpoint and brings daily knowledge of the project.
- **Project manager**: Can be anyone from the user community or IT staff who manages the project in general.
- **Technical coordinator**: Responsible for designing the system architecture and control the technical quality of the project.
- **Team leader**: Leads their team and ensures that the team works effectively as a whole.
- **Solution developer**: Interpret the system requirements and model it is including developing the deliverable codes and build the prototypes.
- **Solution tester**: Checks the correctness to a technical extent by performing some testing, raise defects where necessary and retest once fixed. The tester will have to provide some comments and documentation.
- **Scribe**: Responsible for gathering and recording the requirements, agreements, and decisions made in every workshop.

- **Facilitator**: Responsible for managing the workshops' progress, acts as a motivator for preparation and communication.
- Specialist roles: Business architect, quality manager, system integrator, etc.

2.3.1.5 Benefits of DSDM

The DSDM approach offers several benefits, including:

• Faster Delivery:

DSD allows goods to arrive at the point of sale more quickly, as it eliminates the need for storage at the retailer's warehouse. This is especially beneficial for perishable products with a short shelf life.

• Improved Stock Management:

DSD gives suppliers greater control over the distribution process, enabling more efficient stock management. Suppliers can ensure their products are available on the shelves, reducing the risk of out-of-stock situations.

• Cost Savings for Retailers:

DSD reduces retailers' warehouse overhead costs, as fewer products need to be stored in their own facilities. It also lowers transportation costs and labor costs associated with shelf replenishment.

• Enhanced Customer Satisfaction:

With faster delivery, products arrive in better condition, improving the quality and freshness experienced by customers. DSD helps prevent out-of-stock situations, which can lead to customer dissatisfaction.

• Ability to Manage Demand Surges:

DSD allows retailers to quickly replenish supplies during periods of high demand, such as holidays or special events.

Overall, the key benefits of DSD are improved supply chain efficiency, cost savings, and enhanced customer experience, making it a valuable distribution model for both suppliers and retailers. [Wikipedia contributors, 2024a]

2.3.2 Extreme Programming (XP)

Extreme Programming (XP) is an Agile project management methodology that focuses on improving software quality and responsiveness to changing customer requirements. It aims to enhance software development productivity by advocating for frequent releases in short

development cycles, allowing for checkpoints where new customer requirements can be adopted. XP emphasizes practices like programming in pairs, extensive code review, unit testing, simplicity in code design, and clarity, not programming features until they are needed, and expecting changes in customer requirements over time. XP is known for its disciplined approach to software development, aiming to produce higher-quality software more productively by organizing teams to work collaboratively and adaptively. (Technologies, 2024)

2.3.2.1 Key Principles

The key principles of Extreme Programming (XP) are:

- Rapid Feedback: Emphasize timely and continuous communication within the development team, creating a loop of feedback for quick adjustments and improvements.
- **Assumed Simplicity**: Focus on the task at hand without unnecessary complexity, aligning with the YAGNI (You Ain't Gona Need It) and DRY (Don't Repeat Yourself) principles.
- **Incremental Changes**: Make small changes to the system, design, plan, or team, rather than making big changes all at once, to reduce risk and maintain flexibility.
- **Embracing Change**: Acknowledge that change is inevitable and design the development process to accommodate and adapt to these changes, emphasizing continuous learning and improvement.
- Quality Work: Emphasize the importance of producing high-quality software that
 meets the customer's needs, ensuring reliability, maintainability, and scalability, and
 aligning with evolving requirements.

These principles provide a clear roadmap for team actions, ensuring alignment with the fundamental values of Extreme Programming and guiding the development process towards effective collaboration, adaptability, and the continuous pursuit of quality. (Technologies, 2024)

2.3.2.2 Extreme Programming (XP) Process and Roles

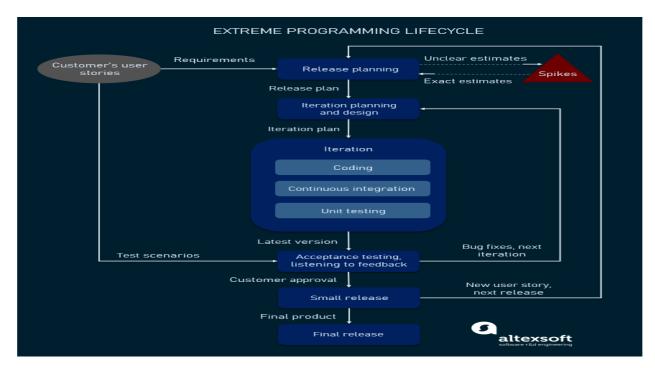


Figure 5 : Extreme Programming (XP) Project Lifecycle

XP is a set of engineering practices. Developers must go beyond their capabilities while performing these practices. That's where the "extreme" in the framework's title comes from. To get a better understanding of these practices, we'll start by describing XP's lifecycle and the roles engaged in the process. (Editor, 2021)

The XP Process:

• Planning:

The team meets with the customer to understand the desired product and gather user stories. The user stories are estimated, prioritized, and transformed into tasks. This stage sets the goals and lays the foundation for the project.

• Design:

The development team designs the code architecture to meet the customer's expectations. This includes deciding on the programming language, environment, libraries, and frameworks to be used.

• Coding:

The code is written iteratively, in small chunks, and tested regularly. This ensures high-quality code and quick identification and resolution of any bugs.

• Testing:

Developers write automated tests to ensure the code is working as expected. Testing is a vital part of the XP methodology, helping to identify and address potential issues.

• Listening:

The customer is encouraged to provide feedback on the software and suggest improvements. This helps ensure the software meets the customer's expectations and is of the highest quality.

The XP Roles:

• The Customer:

There should be an actual customer on-site to prioritize user stories, answer questions, and collaborate with acceptance testing. If there is no one available, the customer should appoint a representative.

• The Programmers:

Programmers estimate how much work it takes to finish tasks and stories, write the automated tests, and implement customer stories.

• The Coach:

Not every team needs a leader, but sometimes this role is required to make sure everyone follows the practices consistently enough to turn into habits.

• The Tracker:

The tracker keeps track of the team's progress metrics, including identifying obstacles and devising workarounds.

These roles and the iterative XP process emphasize the importance of communication, collaboration, and continuous improvement within the development team to deliver high-quality software that meets the customer's evolving requirements. (Editor, 2021)

2.3.2.3 Values Of XP

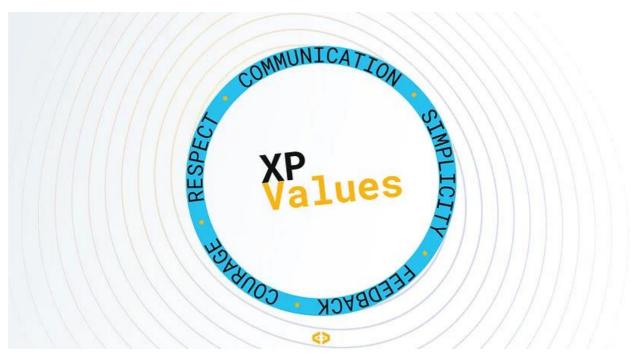


Figure 6 : XP Values

The five core values of Extreme Programming (XP) are:

- **Simplicity:** Encouraging simplicity in code design and avoiding unnecessary complexity.
- **Communication:** Emphasizing transparent, frequent, and face-to-face communication within the team.
- **Feedback:** Providing rapid and continuous feedback within the development team to facilitate quick adjustments and improvements.
- **Courage:** Encouraging the courage to speak up, put ego aside, be vulnerable, and share knowledge openly.
- **Respect:** Fostering respect among team members, acknowledging individual contributions, and valuing diverse perspectives.

These values represent a specific mindset of motivated team players who do their best on the way to achieving a common goal. XP principles derive from these values and reflect them in more concrete ways. (Editor, 2021)

2.3.2.4 Values Of XP

The Extreme Programming (XP) practices are:

• **Pair Programming**: Two programmers work together on the same task, enhancing communication and code quality.

- **Planning Game**: Collaborative planning sessions involving the customer and developers to determine project scope and tasks.
- **Continuous Integration**: Frequently integrating code changes into the mainline to ensure a stable codebase.
- **Refactoring**: Continuously improving the codebase by restructuring it without changing its external behavior.
- **Small Releases**: Breaking down projects into smaller, manageable releases for quicker feedback and adaptation.
- Sustainable Pace: Ensuring developers work a standard 40-hour week without overtime for a sustainable work environment.
- On-site Customer: Having the customer or a representative available on-site for feedback and ensuring the system meets their needs.
- Collective Ownership: All team members are responsible for the entire codebase, promoting shared responsibility and collaboration.

2.3.2.5 Benefits of Extreme programming (XP)

The benefits of Extreme Programming (XP) include:

- **Cost and Time Savings:** XP allows software development companies to save costs and time by focusing on timely delivery and reducing unproductive activities.
- **Simplicity:** XP promotes creating simple code that can be easily improved, enhancing maintainability and adaptability.
- **Visible and Accountable Process:** XP ensures that the development process is visible and accountable, with developers making concrete commitments and showing progress.
- **Constant Feedback:** XP emphasizes continuous feedback, enabling early and frequent demonstration of software, listening carefully, and making necessary changes promptly.
- **Increased Employee Satisfaction:** XP's value-driven approach, fixed work time, and teamwork foster employee satisfaction and retention by promoting a sustainable work environment and collaboration.

These advantages make Extreme Programming a valuable methodology for software development, enabling teams to deliver high-quality software efficiently and effectively. (Editor, 2021)

2.4 Reason for choosing the DSDM model:

The following are the major justification for choosing the DSDM model over Extreme Programming:

Justification 1

| Given Setup | The company is a large software company and already has other products in it. The new products should meet up the quality standards set by previous releases. |
|-------------|---|
| Attribute | Quality and testing |
| Reasoning | One of the DSDM principles states "Never compromise on quality". |
| | DSDM primarily focuses on the quality of the product. DSDM helps |
| | to build quality by testing deliverables early and continuously and |
| | reviewing them constantly. |

Table 2: Justification 1 for selecting DSDM

Justification 2

| Given Setup | The product helps in the growth of the company and has a lot of | |
|-------------|---|--|
| | requirements plus features. | |
| Attribute | Feasibility phase | |
| Reasoning | The project goes through a feasibility phase where it intends to | |
| | establish whether the proposed project is feasible from a technical | |
| | perspective and if it's cost-effective from a business perspective. | |

Table 3: Justification 2 for selecting DSDM

Justification 3

| Given Setup | Involvement of teams and people having different roles on the | |
|-------------|---|--|
| | board. | |
| Attribute | Communicate continuously | |
| Reasoning | Poor communication has a huge impact on project success. Teams are | |
| | encouraged to interact through daily standups and workshops. Models | |
| | and prototypes are used to present work early to avoid crossed wires. | |

Table 4: Justification 3 for selecting DSDM

Justification 4

| Given Setup | As for the case, the company needs a lot of functions, features, and | |
|-------------|---|--|
| | nonfunctional requirements so constant revisions and reviewing arenot | |
| | the type required. | |
| Attribute | Developing the product iteratively | |
| Reasoning | DSDM iterative development will be approached for developing | |
| | modules to revise it to stakeholders and gain feedback if anything | |
| | needs to be improved. | |

Table 5: Justification 4 for selecting DSDM

Justification 5

| Given Setup | Click Interactive Solutions is a multinational company and delivering | |
|-------------|---|--|
| | a product in time is very crucial to keep the company's reputation | |
| | intact. | |
| Attribute | Deliver On time | |
| Reasoning | DSDM focuses on business priorities and timeboxing techniques are | |
| | used to make sure the delivery date remains the same as on the | |
| | agreement. | |

Table 6: Justification 5 for selecting DSDM

Justification 6

| Given Setup | The project has various functional requirements and consultation of | |
|-------------|---|--|
| | people from different expertise is required. Similarly coordinating with the stakeholders will help to be in line with the project goals. | |
| | with the stakeholders will help to be in line with the project goals. | |
| Attribute | Cooperate and collaborate | |
| Reasoning | One of the DSDM principles is to collaborate and cooperate. Teams | |
| | work collaboratively and make decisions on behalf of those they | |
| | represent. Subject matter experts are appointed to ensure the sharing of | |
| | knowledge Facilitated workshops are used to share stakeholder's | |
| | knowledge. | |

Table 7: Justification 6 for selecting DSDM

Justification 7

| Given Setup | This product is expected to impact the growth of the company. This | |
|-------------|---|--|
| | means that any decisions taken in the project should be in line withthe | |
| | project goals. | |
| Attribute | Focusing on business needs | |
| Reasoning | Using techniques such as timeboxing and MoSCow prioritization will | |
| | help to focus on delivering what the business needs and when it needs | |
| | it. | |

Table 8: Justification 7 for selecting DSDM

2.5 Reason for Rejecting the Extreme Programing (XP):

The following are the major justification for rejecting the Extreme Programming over DSDM model:

Justification 1

| Given Setup | The product contains many features so upfront planning, feasibility | |
|-------------|---|--|
| | study, and cost-benefit analysis must be done. | |
| Attribute | Lack of planning | |
| Reasoning | If the project team lacks prior experience with XP practices, adopting | |
| | the methodology may require significant training and adaptation. This | |
| | could lead to delays and inefficiencies in the early stages of the project, | |
| | potentially impacting the overall timeline and success of the Omnisoft | |
| | CRM implementation. | |

Table 9: Justification 1 for rejecting Extreme Programming

Justification 2

| Given Setup | By looking at the company scale it is important to deliver the | |
|-------------|--|--|
| | product in time | |
| Attribute | Project timeline and scope | |
| Reasoning | XP is best suited for projects with a smaller scope and shorter | |
| | timelines. The Omnisoft CRM project has a relatively short timeline | |
| | of 4.5 months and a significant number of features and requirements. | |
| | XP's emphasis on delivering working software frequently may not | |

| align well with the project's need to deliver a comprehensive CRM |
|---|
| solution within the given timeframe. |

Table 10: Justification 2 for rejecting Extreme Programming

Justification 3

| Given Setup | For the project, management team and board members havebeen introduced. In addition, a number of departments have been defined for the project. |
|-------------|---|
| Attribute | Large project team with diverse skill sets |
| Reasoning | The project team for OmniSoft CRM consists of members with diverse skill sets and expertise. XP's reliance on collective code ownership and pair programming may not fully leverage the individual strengths and specialties of team members. A more flexible methodology that allows for specialized roles and responsibilities may be more effective in maximizing the team's capabilities and contributions. |

Table 11: Justification 3 for rejecting Extreme Programming

3.Business Case

Executive summary:

The executive summary highlights the strategic importance of implementing Omnisoft CRM to drive growth, improve efficiency, and enhance customer service for OmniSoft Technologies Inc. Key benefits include increased sales, improved customer retention, and better operational efficiency. Costs involve CAPEX and OPEX projections, while risks encompass data migration challenges, user adoption issues, and integration complexities. The recommended approach involves a phased implementation, with a clear rationale for selecting Omnisoft CRM as the preferred solution. The executive summary requests approval to proceed with the project.

Financial assessment:

The financial assessment for the Omnisoft CRM project includes detailed CAPEX and OPEX projections, as well as an analysis of potential financial benefits. The total cost of ownership (TCO) over a 5-year period is estimated

at \$2.5 million, including software licenses, implementation services, and ongoing maintenance and support.

The potential financial benefits of implementing Omnisoft CRM include:

- Increased revenue of \$5 million per year through improved sales effectiveness and customer retention
- Cost savings of \$1 million per year through streamlined processes and reduced manual effort
- Improved customer lifetime value (CLV) and reduced customer acquisition costs (CAC)

Based on these projections, the net present value (NPV) of the project is \$8.2 million, with an internal rate of return (IRR) of 35% and a payback period of 2.5 years. These metrics demonstrate the strong financial viability of the Omnisoft CRM project and its potential to deliver significant returns on investment.

Business objectives:

Implementing Omnisoft CRM aligns with OmniSoft Technologies Inc.'s strategic goals of becoming a customer-centric organization and leveraging technology to drive competitive advantage. The CRM system aims to solve specific business problems, such as inefficient sales processes, lack of customer insights, and siloed data across various departments. The desired outcomes include:

- Streamlining sales processes and improving lead conversion rates
- Gaining a 360-degree view of customers to deliver personalized experiences.
- Enhancing cross-selling and upselling opportunities through better customer insights
- Improving customer satisfaction and reducing churn
- Enabling data-driven decision-making through consolidated customer data

The success of the Omnisoft CRM project will be measured by key performance indicators (KPIs) such as increased revenue, improved customer retention rates, and enhanced employee productivity.

Project options analysis:

The project team evaluated three options for improving customer relationship management at OmniSoft Technologies Inc.:

- Maintaining the status quo: This option involves continuing with the
 existing CRM system and processes, which are no longer meeting the
 company's needs. It has the lowest upfront cost but fails to address the
 identified business problems.
- Enhancing the existing CRM system: This option involves upgrading the current system with additional features and functionalities. While it leverages existing investments, the costs and implementation timeline are still significant, and the system may not fully meet future requirements.
- Implementing a new CRM system: This option involves deploying a
 comprehensive, modern CRM solution like Omnisoft CRM. It offers
 the best functionality, scalability, and long-term value, but requires a
 higher upfront investment and a more complex implementation
 process.

After careful analysis, the project team recommends implementing Omnisoft CRM as the preferred solution. The benefits of a new CRM system, such as improved customer insights, streamlined processes, and better data integration, outweigh the costs and risks. Omnisoft CRM's robust features, user-friendly interface, and strong vendor support make it the best fit for OmniSoft Technologies Inc.'s current and future needs.

Cost benefit analysis:

The cost-benefit analysis for the Omnisoft CRM project quantifies both tangible and intangible benefits. Tangible benefits include increased sales, reduced customer churn, and improved operational efficiency, while

intangible benefits encompass enhanced customer satisfaction, improved decision-making, and better employee productivity.

The estimated annual benefits of implementing Omnisoft CRM are as follows:

• Increased sales revenue: \$5 million

• Reduced customer churn: \$1 million

• Improved operational efficiency: \$1 million.

• Total annual benefits: \$7 million

When compared to the estimated annual costs of \$1.5 million, the project demonstrates a strong return on investment (ROI) of 4.67x. This means that for every dollar invested in Omnisoft CRM, OmniSoft Technologies Inc. can expect to realize \$4.67 in benefits over the long term.

Project governance:

The Omnisoft CRM project will be governed by a steering committee composed of key stakeholders from sales, marketing, customer service, IT, and executive leadership. The steering committee will be responsible for:

- Setting the strategic direction and priorities for the project
- Approving major decisions and changes
- Monitoring project progress and addressing any issues or risks
- Ensuring alignment with the company's overall business objectives

A project management office (PMO) will be established to oversee the day-to-day execution of the project. The PMO will be led by a dedicated project manager and will include representatives from various functional teams. Clear communication channels and reporting mechanisms will be put in place to ensure transparency and accountability throughout the project lifecycle.

Risk management:

The Omnisoft CRM project team has identified several potential risks and developed mitigation strategies to address them:

Data migration challenges: Risks related to data quality,
 completeness, and accuracy during the migration process. Mitigation:

Conduct thorough data assessments, implement data cleansing and transformation processes, and involve key stakeholders in data validation.

- User adoption issues: Risks related to employee resistance to change and lack of user adoption of the new CRM system. Mitigation: Develop a comprehensive change management plan, provide extensive training and support, and identify and engage with change champions within the organization.
- Integration complexities: Risks related to integrating Omnisoft CRM
 with existing systems and processes. Mitigation: Conduct a thorough
 assessment of integration requirements, develop a detailed integration
 plan, and involve IT stakeholders throughout the process.
- Budget and timeline overruns: Risks related to exceeding the project budget and timeline. Mitigation: Implement robust project management practices, regularly monitor and report on project progress, and have a clear change control process in place.

Each risk will be assigned an owner who will be responsible for monitoring, reporting, and taking corrective actions as needed. The project team will conduct regular risk reviews to identify new risks and update mitigation strategies accordingly.

By addressing these key areas in the business case, OmniSoft Technologies Inc. can effectively communicate the strategic importance, financial viability, and risk management approach for the Omnisoft CRM project, securing the necessary support and resources for successful implementation.

4.Project Plan

4.1 Project Methodology

The project methodology for implementing the new Customer Relationship Management (CRM) system, "Omni CRM," could involve the following key aspects:

1. Requirement Gathering:

- Collaborate with stakeholders from various departments and development centers to gather detailed requirements for the CRM system.
- Understand the specific needs of different regions and departments to tailor the CRM system accordingly.
- 2. Project Planning:
- Develop a comprehensive project plan outlining the timeline, resource allocation, budget, and key milestones for the CRM implementation project.
- Consider the distributed nature of the development centers and diverse stakeholder involvement in the planning process.
- 3. Technology Selection:
- Evaluate different technology options for the CRM system, considering scalability, compatibility with existing systems, and customization capabilities.
- Ensure the selected technology can meet the unique requirements of each region and department.
- 4. Development and Testing:
- Carry out iterative development of the Omni CRM platform with regular feedback and collaboration between development teams in the USA, Kenya, and Nepal.
- Conduct rigorous testing at each stage to ensure the quality and functionality of the CRM system.
- 5. Deployment and Rollout:
- Deploy the CRM system in phases, starting with a pilot rollout in one region before expanding to others.
- Provide training and support to users across departments and development centers for a smooth transition to the new system.
- 6. Monitoring and Optimization:
- Monitor the performance of the Omni CRM platform post-deployment and gather user feedback for continuous improvement.
- Implement updates and optimizations to enhance user experience and address evolving business needs.
- 7. Change Management:
- Implement effective change management strategies to engage stakeholders across the organization and prepare them for the transition to the new CRM system.

 Provide communication, training, and support to facilitate adoption and maximize the benefits of the new platform.

This project methodology will be collaborative, iterative, and tailored to accommodate the distributed nature of the organization while ensuring alignment with business objectives and stakeholder requirements.

4.2 Team Structure

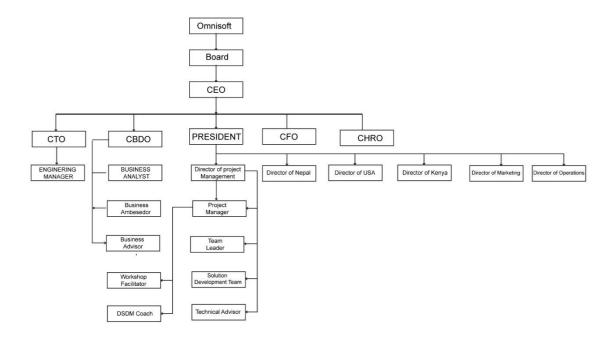


Figure 7: Team Structure

4.3 Team Role Description

| Name | Organizational Role | Project Role |
|------------------|--------------------------|-----------------------|
| Richard Bed | Chief Executive Officer | Business Sponsor |
| Michael Williams | Chief Operating Officer | Business Visionary |
| Brad Kasper | Chief Financial Officer | Financial Advisor |
| Julia Stephenson | Chief HR officer | HR Coordinator |
| Kevin Wilson | Chief Technology Officer | Technical Coordinator |
| Robert Howles | President – USA | USA Development Team |
| | | Lead |

| Aditya Thapa | President - Nepal | Nepal Development Team |
|-------------------|---------------------|------------------------|
| | | Lead |
| Bernard Bolsei | President – Kenya | Kenya Development Team |
| | | Lead |
| Kyle Jones | Director of Project | Workshop Facilitator |
| | Management | |
| Rupesh Budhathoki | Project Manger | Project Manger |

Table 12: Team Role Description

The Project Board for the Omni CRM project is led by the Business Sponsor, Richard Bed, the Chief Executive Officer, who provides strategic direction and executive-level support for the project. Alongside him, Michael Williams, the Chief Operating Officer, serves as the Business Visionary, offering insights into how the CRM system can drive business growth and innovation. The Project Management Team is led by Rupesh Budhathoki, the Project Manager, who is responsible for the overall planning, coordination, and delivery of the Omni CRM project. Assisting him is Kevin Wilson, the Chief Technology Officer, who acts as the Technical Coordinator, guiding the technical aspects of the CRM system implementation. The Solution Development Team is organized into regional teams, with Robert Howles, Aditya Thapa, and Bernard Bolsei leading the USA, Nepal, and Kenya development teams, respectively. These Team Leads manage the development process and ensure the successful implementation of the CRM system within their regions, supported by their dedicated teams of developers. In the Supporting Roles, Kyle Jones, the Director of Project Management, serves as the Workshop Facilitator, driving effective collaboration and decision-making within the project team. Rupesh Budhathoki also takes on the role of the DSDM Coach, providing guidance on the application of the Dynamic Systems Development Method (DSDM) principles. Additionally, Kevin Wilson, the Chief Technology Officer, acts as the Technical Advisor, offering expertise and recommendations to the project team.

This comprehensive team structure, with clearly defined roles and responsibilities, aligns with the DSDM methodology and ensures the successful implementation of the Omni CRM project.

4.4 User Stories

| S.N. | User Story |
|------|--|
| 1. | As a sales representative, I must be able to create and update customer profiles with essential information. |
| 2. | As a customer service representative, I must be able to view customer interactions across all channels. |
| 3. | As a user, I should be able to set reminders and schedule follow-up activities for leads and opportunities. |
| 4. | As a sales manager, I must have access to real-time sales data and reports. |
| 5. | As a user, I could have access to gamification features for incentivizing sales performance. |
| 6. | As a user, I won't have the ability to customize the entire UI layout of the CRM. |
| 7. | As a user, I could have integration with social media platforms for customer interactions. |
| 8. | As a marketing manager, I should have the ability to integrate third-party analytics tools. |
| 9. | As a user, I must have access to mobile applications for on-the-go CRM functionalities. |
| 10. | As a user, I won't have integration with social media platforms for customer interactions within the CRM. |
| 11. | As a user, I should have access to a knowledge base or self-service portal. |
| 12. | As a user, I won't have access to gamification features for incentivizing sales performance within the CRM. |

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| 13. | As a sales representative, I should have access to integrated communication tools within the CRM. |
|-----|---|
| 14. | As a manager, I must have the option to set up automated workflows and notifications. |
| 15. | As a user, I won't have integration with virtual reality or augmented reality technologies for immersive customer experiences within the CRM. |
| 16. | As an administrator, I should have the option to configure user permissions and access levels. |
| 17. | As a customer, I expect the CRM system to provide a secure and reliable platform for storing and managing my personal and professional data. |
| 18. | As a manager, I should have the ability to customize dashboard views and reports. |
| 19. | As a user, I won't have the ability to create custom plugins or extensions for extending CRM functionality. |
| 20. | As a user, I could have advanced customization options for UI layout. |
| 21. | As a marketing manager, I must be able to segment customers for targeted campaigns. |
| 22. | As a user, I could have enhanced reporting features with advanced data visualization. |
| 23. | As a user, I could have integration with additional third-party tools for enhanced functionality. |

Table 13: User Stories

4.5 MoSCoW Prioritization

MoSCoW prioritization is a method commonly used in Agile project management, such as within the Dynamic Systems Development Method (DSDM), to categorize project

requirements into four main priorities: Must Have, Should Have, Could Have, and Won't Have. This technique helps teams prioritize and manage their work effectively to meet project deadlines and deliver value to stakeholders.

- Must Have: These are the critical requirements that form the Minimum Usable Subset (MUST) of conditions that the project commits to delivering. Must Have requirements are essential for project success and without them, the project would not make sense to proceed. If a Must Have requirement is not fulfilled, it may lead to canceling the project as it is crucial for delivering value and functionality.
- Should Have: Should Have requirements are valuable but not essential for the core
 functionality of the project. While leaving out Should Have requirements may cause
 some inconvenience or inefficiencies, the solution remains workable. These
 requirements are important but not critical, and their omission does not jeopardize the
 project's success.
- Could Have: Could Have requirements are desirable features that are not as vital as
 Must Have or Should Have requirements. These are nice-to-have functionalities that
 add value but are not crucial for the project's core objectives. Could Have requirements
 serve as contingencies and are the first to be considered for removal if project
 constraints arise.
- Won't Have: This category includes requirements that the project team has decided will
 not be addressed in the current phase. These requirements are listed to define the
 project's scope and prevent them from being reintroduced later. Won't Have
 requirements help manage expectations and focus on delivering the most critical
 features first, ensuring that the project stays on track and prioritizes essential
 functionalities.

By using MoSCoW prioritization, project teams can effectively manage and prioritize requirements, ensuring that the most critical features are delivered first while providing flexibility for additional functionalities based on project constraints and priorities. [Lazar and Lazar, 2023]

MoSCoW Prioritization

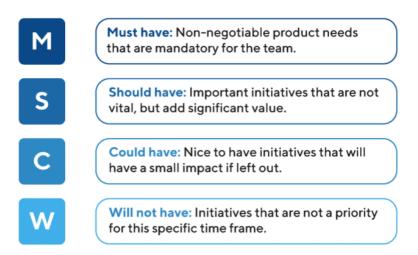


Figure 8: MoSCoW Prioritization

The above figure represents the MoSCoW balancing the priorities.

Must Have

| US1 | As a sales representative, I must be able to create and update customer profiles | | | | |
|------|---|--|--|--|--|
| | with essential information. | | | | |
| US2 | As a customer service representative, I must be able to view customer interactions across all channels. | | | | |
| | interactions across an enamers. | | | | |
| US4 | As a sales manager, I must have access to real-time sales data and reports. | | | | |
| US9 | As a user, I must have access to mobile applications for on-the-go CRM functionalities. | | | | |
| US14 | As a manager, I must have the option to set up automated workflows and notifications. | | | | |
| US21 | As a marketing manager, I must be able to segment customers for targeted campaigns. | | | | |

Table 14: Must Have

• Should Have

| US3 | As a user, I should be able to set reminders and schedule follow-up activities for |
|-----|--|
| | leads and opportunities. |

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| US8 | As a marketing manager, I should have the ability to integrate third-party |
|------|---|
| | analytics tools. |
| US11 | As a user, I should have access to a knowledge base or self-service portal. |
| US13 | As a sales representative, I should have access to integrated communication tools |
| | within the CRM. |
| US16 | As an administrator, I should have the option to configure user permissions and |
| | access levels. |
| US18 | As a manager, I should have the ability to customize dashboard views and |
| | reports. |

Table 15: Should Have

• Could Have

| US5 | As a user, I could have access to gamification features for incentivizing sales |
|------|--|
| | performance. |
| US7 | As a user, I could have integration with social media platforms for customer |
| | interactions. |
| US17 | As a customer, I expect the CRM system to provide a secure and reliable |
| | platform for storing and managing my personal and professional data. |
| US20 | As a user, I could have advanced customization options for UI layout. |
| US22 | As a user, I could have enhanced reporting features with advanced data |
| | visualization. |
| US23 | As a user, I could have integration with additional third-party tools for enhanced |
| | functionality. |

Table 16: Could Have

• Won't Have

| US6 | As a user, I won't have the ability to customize the entire UI layout of the CRM. |
|------|---|
| US10 | As a user, I won't have integration with social media platforms for customer |
| | interactions within the CRM. |
| | |
| US12 | As a user, I won't have access to gamification features for incentivizing sales |
| | performance within the CRM. |

| US15 | As a user, I won't have integration with virtual reality or augmented reality |
|------|--|
| | technologies for immersive customer experiences within the CRM. |
| US19 | As a user, I won't have the ability to create custom plugins or extensions for |
| | extending CRM functionality. |

Table 17: Won't Have

4.6 Timebox Planning

Timeboxing is a project management technique where a fixed amount of time is allocated to complete a specific task or set of tasks. In Agile, timeboxing is often used in the form of sprints - fixed-length iterations (typically 2-4 weeks) where a specific set of tasks must be completed.

• Time box 1

| ID | User Story | MoSCoW | Story | Remarks |
|----|------------------------------------|-------------|--------|-----------------------|
| | | | Points | |
| 1 | As a sales representative, I must | Must-Have | 3 | Core functionality |
| | be able to create and update | | | |
| | customer profiles with essential | | | |
| | information. | | | |
| 2 | As a customer service | Must-Have | 2 | Essential for support |
| | representative, I must be able to | | | team |
| | view customer interactions across | | | |
| | all channels. | | | |
| 3 | As a user, I should be able to set | Should-Have | 2 | Enhances user |
| | reminders and schedule follow-up | | | experience |
| | activities for leads and | | | |
| | opportunities. | | | |
| 4 | As an administrator, I should have | Should-Have | 3 | Admin control feature |
| | the option to configure user | | | |
| | permissions and access levels. | | | |

Table 18: Time box 1

Objectives of Timebox 1

Implement core functionalities necessary for sales representatives and customer service representatives to manage customer profiles and interactions effectively. Lay the foundation for essential user capabilities such as setting reminders and configuring user permissions.

• Time box 2

| ID | User Story | MoSCoW | Story Points | Remarks |
|----|---|-------------|-----------------|------------------------|
| 5 | As a sales manager, I must have access to real-time sales data and reports. | Must-Have | 5 | Managerial analytics |
| 6 | As a marketing manager, I must be able to segment customers for targeted campaigns. | Must-Have | 3 | Marketing optimization |
| 7 | As a sales representative, I should have access to integrated communication tools within the CRM. | Should-Have | 3 | Enhances sales process |
| 8 | As a manager, I should have the ability to customize dashboard views and reports. | Should-Have | 5 | Personalized analytics |

Table 19: Time box 2

Objectives of Timebox 2

Enable sales managers and marketing managers to access real-time data and reports for informed decision-making. Enhance user experience by providing integrated communication tools and customizable dashboard views for sales representatives and managers.

• Time box 3

| ID | User Story | MoSCoW | Story | Remarks |
|----|-----------------------------------|-----------|--------|---------------------|
| | | | Points | |
| 9 | As a user, I must have access to | Must-Have | 8 | Mobile optimization |
| | mobile applications for on-the-go | | | |
| | CRM functionalities. | | | |

| 10 | As a manager, I must have the option to set up automated | Must-Have | 5 | Workflow automation |
|----|--|-------------|---|---------------------|
| | workflows and notifications. | | | |
| 11 | As a marketing manager, I should | Should-Have | 5 | Advanced analytics |
| | have the ability to integrate third- | | | |
| | party analytics tools. | | | |
| 12 | As a user, I should have access to | Should-Have | 3 | Self-service option |
| | a knowledge base or self-service | | | |
| | portal. | | | |

Table 20: Time box 3

Objectives of Timebox 3

Extend CRM accessibility by developing mobile applications for users to access CRM functionalities on-the-go. Improve efficiency by implementing automated workflows and notifications, empowering managers to streamline processes.

• Time box 4

| ID | User Story | MoSCoW | Story | Remarks |
|----|-------------------------------------|------------|--------|-----------------------|
| | | | Points | |
| 13 | As a user, I could have access to | Could-Have | 8 | Potential motivation |
| | gamification features for | | | |
| | incentivizing sales performance. | | | |
| 14 | As a user, I could have integration | Could-Have | 5 | Social media outreach |
| | with social media platforms for | | | |
| | customer interactions. | | | |

Table 21: Time box 4

Objectives of Timebox 4

Explore additional features such as gamification for sales performance and integration with social media platforms to enhance user engagement. Focus on refining existing functionalities and addressing any feedback or issues from previous sprints.

• Time box 5

| ID | User Story | MoSCoW | Story | Remarks |
|----|----------------------------------|------------|--------|---------------------------|
| | | | Points | |
| 15 | As a user, I could have advanced | Could-Have | 8 | Customization flexibility |
| | customization options for UI | | | |
| | layout. | | | |
| 16 | As a user, I could have enhanced | Could-Have | 5 | Data analysis |
| | reporting features with advanced | | | improvement |
| | data visualization. | | | |

Table 22: Time box 5

Objectives of Timebox 5

Provide users with advanced customization options for UI layout to cater to diverse preferences and requirements. Enhance reporting features with advanced data visualization to facilitate better data analysis and decision-making.

• Time box 6

| ID | User Story | MoSCoW | Story | Remarks |
|----|-------------------------------------|------------|--------|-------------------------|
| | | | Points | |
| 17 | As a user, I could have integration | Could-Have | 8 | Expanded feature set |
| | with additional third-party tools | | | |
| | for enhanced functionality. | | | |
| 18 | As a user, I could have AI- | Could-Have | 13 | Advanced AI integration |
| | powered recommendations for | | | |
| | personalized customer | | | |
| | interactions. | | | |

Table 23: Time box 6

Objectives of Timebox 6

Expand CRM capabilities by integrating with additional third-party tools to meet evolving user needs and industry standards. Investigate and implement AI-powered recommendations for personalized customer interactions to drive engagement and satisfaction.

4.5 Project Budget Estimation

| Task | Resource Type | Unit/Hours | Cost/Hr. | Subtotals |
|-------------------------------------|------------------|------------|----------|-----------|
| | | required | (USD) | (USD) |
| Requirements gathering | Business Analyst | 40 hours | \$50 | \$2000 |
| System design and architecture | System Architect | 60 hours | \$70 | \$4200 |
| Frontend development | Developer | 200 hours | \$60 | \$12000 |
| Backend development | Developer | 250 hours | \$70 | \$17500 |
| Database setup and management | Database | 80 hours | \$65 | \$5200 |
| | Administrator | | | |
| Testing and Quality Assurance | QA Engineer | 120 hours | \$55 | \$6600 |
| Deployment and integration | DevOps | 80 hours | \$75 | \$6000 |
| | Engineer | | | |
| Project management and coordination | Project Manager | 100 hours | \$80 | \$8000 |
| Training and documentation | Technical Writer | 40 hours | \$50 | \$2000 |
| Contingency | | | | \$5000 |
| Total | | | | \$63600 |

Table 24: Project Budget Estimation

4.6 Project Plan

| Activity | Start Date | End Date | Duration (days) | Resource | Deliverable |
|-------------------------------|------------|-----------|--------------------|---------------------------|----------------------------|
| Project Kickoff | 2/1/2024 | 2/1/2024 | 1 | Project Manager | Kickoff meeting agenda |
| Requirements Gathering | 2/2/2024 | 2/15/2024 | 14 | Business Analyst | Requirements document |
| System Design | 2/16/2024 | 2/30/2024 | 15 | System Architect | System architecture design |
| Frontend Development | 3/1/2024 | 3/21/2024 | 21 | Frontend Developer | Frontend UI |
| Backend Development | 3/1/2024 | 3/28/2024 | 28 | Backend Developer | Backend logic |
| Database Setup | 3/29/2024 | 4/9/2024 | 12 | Database Administrator | Database setup |
| Testing and Quality Assurance | 4/10/2024 | 4/24/2024 | 15 | QA Engineer | Test cases, QA report |

| Deployment and Integration | 4/25/2024 | 5/5/2024 | 12 | DevOps Engineer | Deployed CRM system |
|--------------------------------|-----------|-----------|----|------------------------|----------------------------------|
| User Training | 5/6/2024 | 5/15/2024 | 10 | Training Specialist | User training materials |
| Documentation | 5/16/2024 | 5/22/2024 | 7 | Technical Writer | User manual, documentation |
| User Acceptance Testing | 5/23/2024 | 5/30/2024 | 8 | QA Team | UAT report |
| Final Adjustments and Sign-Off | 6/1/2024 | 6/5/2024 | 5 | Project Manager | Sign-off from stakeholders |
| Project Closure | 6/6/2024 | 6/6/2024 | 1 | Project Manager | Project closure documentation |

Table 25: Project Plan

This plan outlines the activities, start and end dates, duration, assigned resources, and deliverables for each phase of the Omni CRM project.

5.Project Brief

5.1 Document Information

Project Name: Omnisoft CRM

Date: 1st February 2024

Author: Rupesh Budhathoki, Project Manager

Owner: Omnisoft Technology

Document Code: 001

Version: V1

5.2 Project Definition

5.2.1 Background:

Omni Soft technology is a large multi-national company having its development centers in USA, Nepal and Kenya. The administrative departments: Finance, Human Resources Management, and Marketing are based at the Corporate Office in Chicago, USA. Development

center is in Nepal and has its local president along with a pool of Managers and other required Development Team members. Each country and region have their own management and engineering team. The company is planning to add a new product, Omni CRM and Customer relationship management tool. The company is building this product to expand their business, and which is expected to contribute to the growth of the company.

5.2.2 Project Objectives

The main objectives of this project are as follows:

- Objective 1: The project will begin on 1st February 2024 and should be finished by 6th June 2024.
- Objective 2: With the cost of \$63600 the project will be completed successfully.
- Objective 3: To ensure that the project delivers the most value possible, develop it with ongoing testing and feedback.
- Objective 4: Develop projects that increase user experience and offer a pleasant environment.
- Objective 5: Make sure the project will be advantageous to various organizational functional divisions.
- Objective 6: Make sure the initiative boosts productivity and revenue to help the company's future growth.

5.2.3 Desired Outcomes

The desired outcomes of the Omnisoft CRM project include:

- Outcome 1: Enhance customer service and satisfaction through personalized interactions and timely responses.
- Outcome 2: Streamline sales processes and improve sales team productivity.
- Outcome 3: Gain deeper insights into customer behavior and preferences through advanced data analytics.
- Outcome 4: Ensure compliance with data security and privacy regulations, safeguarding customer information.
- Outcome 5: Empower employees with intuitive tools and user-friendly interfaces to maximize productivity and efficiency.
- Outcome 6: The product can handle 100,000 users at a time.

5.2.4 Project Scope

Omnisoft CRM is a customer relationship management (CRM) tool developed by Omnisoft Enterprise. The aim of the OmniCRM project is to build a comprehensive CRM platform to enhance customer service, streamline sales processes, and provide deeper insights into customer behavior.

Key features of Omnisoft CRM include:

- Individual customer profiles
- Access to customer information for sales and support teams
- Data compilation and analytics capabilities
- Support ticket and case tracking for customer service.
- Lead tracking and sales pipeline management.

5.2.5 Project Exclusions

Exclusions from the project scope include:

- Integration with third-party software not specified in the project requirements.
- Customization beyond the capabilities of the OmniSoft CRM suite
- Development of additional features not outlined in the key requirements.
- Training and onboarding of users beyond basic system usage
- Hardware procurement or installation for the CRM system 5.3 Outline Business Case

5.2.6 Constraints and Assumptions

There are flaws or restrictions in the project at hand. Team should thus be able to function within such constraints. The project's duration, cost, and scope are all subject to limits. The restrictions of constraints are connected to one another. Therefore, if any one of them are changed, it may have an impact on the project's goal.

Scope

- The Omnisoft CRM project scope remains the same as previously outlined, including features like individual customer profiles, sales and support team access, data analytics, support ticket tracking, and lead management.
- The project scope can be adjusted if stakeholders decide to modify the initial requirements.

Cost

- The total budget for the Omnisoft CRM project is \$63,600.
- This budget covers the costs of the 9-member project team, as well as server and other ancillary expenses.
- Any significant changes in resource costs or work quality could impact on the project's overall budget.

Time

- The Omnisoft CRM project has a start date of 1st February 2024 and an end date of 6th June 2024, with a total duration of approximately 4.5 months.
- The time estimation process has considered various factors, but unforeseen circumstances like personnel turnover, resource constraints, external interventions, and schedule changes could affect the project's timeline.

Assumptions:

The project can be completed with the availability of basic resources like workstations, supplies, internet, and power.

- The project team members are highly motivated and committed to the success of the endeavor.
- The required resources will be provided as per the project's demand.
- The project team is self-organizing, and each member is an expert in their respective specialties.
- The project leader will remain with the team throughout the DSDM (Dynamic Systems Development Method) process.

5.2.7 Project Tolerances

These project tolerances ensure that the Omnisoft CRM project stays within predefined limits for costs, time, scope, quality, benefits, and risks, with deviations requiring appropriate managerial involvement to maintain project alignment and success.

Cost:

The expenses for the Omnisoft CRM project are managed within the DSDM (Dynamic Systems Development Method) solution. Any variations beyond the set tolerance level would necessitate further managerial involvement.

Time:

The time constraints for the Omnisoft CRM project are fixed within the DSDM solution. Any deviations from the established timeline would require additional managerial involvement.

Scope:

A slight change in scope is acceptable for the Omnisoft CRM project to prevent the scope from becoming outdated over time, considering the project's estimated duration of around 6 months.

Quality:

The Omnisoft CRM project follows DSDM standards established during the planning phase, and adherence to these standards throughout the project is crucial. Variations in quality are not acceptable.

Benefits:

Benefits for the Omnisoft CRM project are allowed to vary by a small margin, and any significant deviations should be communicated to management for further assessment.

Risk:

Management should be informed if any observations indicate risks exceeding the low threshold of risk tolerance during the Omnisoft CRM project implementation.

5.2.8 The User(s) and Any other Known Interested Parties

The initiation, progression, and completion of the project are effectively communicated to all relevant stakeholders. This includes key individuals such as the board of directors, CEO, CTO, Chief Financial Officer, directors, president, engineering team, and the end-users who will benefit from the product.

5.2.9 Interface

The elements that will require adjustment or modification upon project completion include:

- Updating the user guides and brochures for the product.
- Ensuring readiness of the sales team to showcase the product to internal staff or customers and deliver effective sales presentations.
- Launching a product marketing strategy by the marketing team.

5.3 Outline Business Case

5.3.1 Reason

- The existing CRM system is showing limitations in terms of scalability, flexibility, and performance.
- The need to improve customer service, streamline sales processes, and enhance data analytics capabilities.
- Maintain competitiveness in the market and meet evolving customer expectations.

5.3.2 Benefits Expected

- Improved customer service through personalized interactions and faster response times.
- Streamlined sales processes leading to increased productivity and higher sales conversions.
- Enhanced data analytics capabilities enabling data-driven decision-making and targeted marketing strategies.
- Positive feedback from employees on the ease of use and effectiveness of the new CRM system.
- Improved data security and compliance with regulatory requirements, ensuring customer trust and confidence.

5.3.3 Risks

- Resistance to change from existing systems or processes.
- Integration challenges with other enterprise systems.
- Difficulty in user adoption and training.
- Potential data migration or data quality issues.

5.3.4 Cost Estimation

Number of team members * Time Period * Amount of Payment + Other expenses 9*8*\$500 + \$18,600

Breakdown:

Number of team members: 9

Time Period: 8 months

Amount of Payment per team member: \$500 per month

Other expenses: \$18,600

Calculation:

9 team members * 8 months * \$500 per month = \$36,000

Other expenses: \$18,600

Total Project Budget: \$36,000 + \$18,600 = \$54,600

Therefore, the total cost estimation for the Omnisoft CRM project with a budget of \$63,600 is:

Total Project Budget: \$63,600

Breakdown:

Team Member Costs: \$36,000 (9 team members * 8 months * \$500 per month)

Other Expenses: \$18,600

Total: \$54,600

This cost estimation aligns with the provided project budget of \$63,600.

5.3.5 Time:

- The project is scheduled to commence on 1st February 2024 and conclude by 6th June 2024, with an anticipated duration of approximately 4.5 months.
- Contingencies have been factored in, but unforeseen circumstances could impact the project timeline.

5.3.6 Non-Functional Requirements

- The OmniSoft CRM platform's website should support 100,000 users concurrently without performance degradation.
- A maximum response time of 5 seconds is targeted for optimal user experience.
- Robust disaster recovery measures will be implemented to ensure seamless business continuity.

In summary, the OmniSoft CRM project aims to overcome the limitations of the current CRM system, delivering a robust, scalable, and secure solution to elevate customer service, sales efficiency, and data-driven decision-making within OmniSoft Technologies Inc.

5.3.7 Project Product Description

Quality Criteria:

• The Omnisoft CRM product should be able to meet all the business requirements and address the identified challenges.

- The final product should achieve the desired outcomes, including:
- Enhancing customer service and satisfaction through personalized interactions and timely responses.
- Streamlining sales processes and improving sales team productivity.
- Gaining deeper insights into customer behavior and preferences through advanced data analytics.
- Ensuring compliance with data security and privacy regulations, safeguarding customer information.
- Empowering employees with intuitive tools and user-friendly interfaces to maximize productivity and efficiency.

Quality Tolerances:

• The established project approval standards should always be followed, and quality should never be compromised.

Quality Method:

• The system requirements are documented as user stories to help the team better understand the system's needs.

Quality Responsibilities:

- The Solution Testing Team is responsible for ensuring the quality of the Omnisoft CRM product.
- The Business Ambassador acts as the liaison between the project team and the business stakeholders, providing guidance on the desired outcomes and quality expectations.

In summary, the Omnisoft CRM product is expected to meet all the business requirements, achieve the desired outcomes, and adhere to the established quality standards throughout the project. The team will utilize user stories to capture the system requirements and collaborate with the Solution Testing Team and Business Ambassador to ensure the product's quality.

5.4 Project Approach

The project approach for implementing the Omni CRM system at OmniSoft Technologies Inc. will involve a comprehensive discovery and analysis phase to understand the business needs and challenges, followed by detailed planning and design of the technical architecture and system requirements. Effective stakeholder engagement will be crucial, with regular

communication and feedback sessions to manage expectations and ensure involvement throughout the project lifecycle. A robust change management plan will be developed to facilitate smooth user adoption, including training programs and communication campaigns. The implementation and testing phase will leverage project management tools to monitor progress, mitigate risks, and ensure adherence to timelines and budgets, while also incorporating robust security measures to protect customer data and maintain regulatory compliance. Finally, the deployment will be evaluated for success, and continuous improvement initiatives will be undertaken to optimize the platform's performance, scalability, and disaster recovery capabilities, ultimately delivering a transformative customer relationship management solution for OmniSoft Technologies Inc.

5.6 Project management team structure

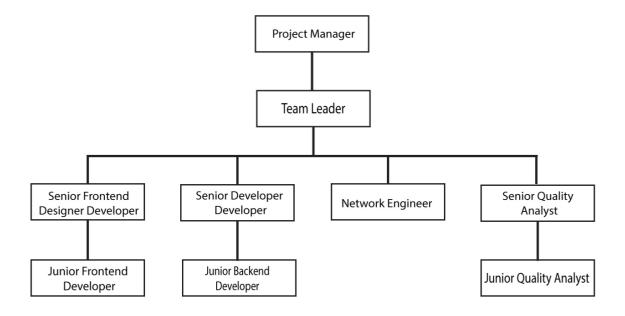


Figure 9: Project management team structure

5.7 Role descriptions

Role Descriptions for OmniSoft CRM Project:

• Project Manager:

Responsible for gathering project requirements, assigning tasks, setting project timelines, and liaising with higher management to ensure project alignment and success.

• Team Leader:

Works closely with the project manager, addressing any issues that arise during the project's development phase and supporting the team in delivering solutions effectively.

• Senior Frontend Developer/Designer:

Tasked with creating an aesthetically pleasing user interface for the OmniSoft CRM application, overseeing frontend development tasks, and guiding junior frontend developers in their assignments.

• Junior Frontend Developer:

Completes assigned tasks under the guidance of the senior frontend developer, contributing to the frontend development of the OmniSoft CRM system.

• Senior Backend Developer:

Designs the system architecture, develops the backend of the application, and supervises junior backend developers in their system development tasks.

• Junior Backend Developer:

Works on tasks delegated by the senior backend developer, assisting in the backend development of the OmniSoft CRM platform.

• Network Engineer:

Maintains and updates the application servers, designs the network architecture to handle user requests, and ensures data backups for the OmniSoft CRM system.

• Senior Quality Analyst:

Develops test strategies, ensures product quality, and oversees the testing process to guarantee customer satisfaction, while also guiding junior quality analysts in their tasks.

• Junior Quality Analyst:

Completes assigned tasks under the supervision of the senior quality analyst, contributing to the quality assurance processes for the OmniSoft CRM project.

6.PRINCE2(Projects in Controlled Environment)

6.1 PRINCE2 Overview

PRINCE2 is a widely adopted project management methodology, particularly prevalent in the UK, Australia, and European countries. The acronym stands for "Projects IN Controlled Environments," reflecting its focus on managing resources and risks through a structured approach. PRINCE2 divides projects into smaller, manageable stages, clearly defines roles and responsibilities, and utilizes seven processes to guide the project life cycle. By breaking down projects into logical steps, PRINCE2 requires a well-organized and controlled project plan before commencement, ensuring that the project maintains its structure throughout its lifecycle. This control is achieved through the seven PRINCE2 processes that encompass the entire project, from initiation to completion. These processes involve meticulous planning

and scheduling to ensure the project's success. PRINCE2 emphasizes the importance of having an organized and controlled project plan in place before starting, which is then maintained throughout the project's lifecycle. This structured approach helps project managers effectively manage resources, mitigate risks, and deliver successful project outcomes. [Malsam, 2023]

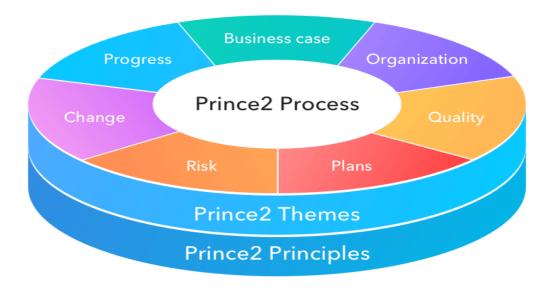


Figure 10: PRINCE 2 Process

6.1.2 Seven Principle of PRINCE 2

The PRINCE2 methodology is built upon seven core principles that serve as a framework for effective project management. These principles are essential for ensuring the successful delivery of projects and are as follows:

- Continued Business Justification: The business case is the foundation of PRINCE2, and it is continuously reviewed and revised throughout the project lifecycle to ensure the project remains viable. If the project no longer meets the business needs, it is terminated.
- **Learn From Experience:** Lessons learned from previous projects are documented and shared to avoid repeating past mistakes. This is achieved through the use of a lesson log that is referenced throughout the project.
- Roles and Responsibilities Are Defined: Clear roles and responsibilities are established to ensure that each team member knows their tasks and expectations. This includes defining the corporate, project board, project manager, and team roles.

- **Manage by Stages:** PRINCE2 is structured around a stage-by-stage approach, where each stage is planned and executed before moving to the next. The business case, risk, and project plan are updated during each stage transition.
- Manage by Exception: Tolerances are set for each project objective, defining the limits and delegating authority. If a tolerance is exceeded, the management team decides whether to redefine the tolerance or adjust the project plan.
- Focus on Products: The quality requirements of deliverables are the primary focus of PRINCE2, ensuring that the project produces high-quality products that meet the business needs.
- Tailor to Suit Project Environment: The project environment, including factors such as size, complexity, importance, time, and risk, is considered during the initiation phase and throughout each stage of the project. This ensures that the project is tailored to meet the specific needs of the project environment.

These seven principles provide a comprehensive framework for effective project management, ensuring that projects are delivered on time, within budget, and meet business needs.

6.2 DSDM

The DSDM (Dynamic Systems Development Method) is an agile project delivery framework that originated as a software development methodology in the 1990s. It has since evolved into a more generic approach for project management and solution delivery across various business domains, extending beyond just IT projects. The key principles of DSDM focus on business value, timely delivery, collaboration, quality, iterative development, effective communication, and control. DSDM emphasizes the importance of delivering projects aligned with clear business goals, maintaining quality, and adapting to changes throughout the development cycle. Refer table of contents 2.3.1 for detailed information.

6.3 PRINCE2 and DSDM Comparison

Both approaches apply to all sizes and types of organizations and projects. They can be applied to IT and non-IT projects. They are both product-based and business-focused approaches.

6.3.1 In terms of Processes

The comparison and mapping of the process of both approaches are given below:

| SN | PRINCE2 Processes | Possible Mapping in DSDM |
|----|---|--|
| 1. | Directing a project: This project runs from the startup until the project ends. This project is aimed at the present board. Reports are used to manage and monitor project boards and control them through decision points. Decisions about risk and change management are done. this basis. | There is no possible mapping for directing a project in the DSDM project cycle |
| 2. | Starting up a project: It is a pre-project process that expects a project mandate to define the aim and outcome of the project. The key processes are: Assigned as the project management teamPrepare project brief. Prepare outline business case | In pre-project, it makes sure the project has been set up correctly and has clearly defined goals. This is the commitment part of the phase. They both have similar activities like ensuring if the project is aligned to the goal. |
| 3. | Initiating a project: In this process the projectmanager is involved in establishing a firmfoundation, making sure the works that need to be done in the organization are understood. The detailed business cases are written which helps to understand the benefits of the project. In this process project timeline and costs are estimated and also risks are identified. The activities involved in the process are as follows: Time and cost estimation Identification of risk Preparing project initiation document | In the feasibility phase of DSTM outlined plan is prepared which defines the estimation of cost time and benefits which looks like initiating a project in PRINCE2. |

| 4. | Controlling a Stage: A project manager is mostly engaged in this process which includes assigning tasks to the team, giving process, and reporting it to the project board, using a risk management approach. The key process is are Assign tasks to the team Review work status Risk assessment and management | In DSDM, risk analysis is done at the start of each timebox. Similarly, tasks are also assigned in each time box |
|----|---|---|
| 5. | Managing Product Delivery: The project manager compares the progress against the project brief and ensures deliverables meet PRINCE2 quality expectations. The Project board checks the work packages that have been completed and either approves or asks for revision. | A timebox is kicked off for the execution of development. Timebox is planned and the development team works as per the plan. The work done is tested and reviewed and send for deployment. This is done throughout the timeboxes, and the project manager is constantly informed. |
| 6. | Managing Stage Boundary: The project manager and project board assess each step to verify sure the project is going according to plan and satisfying project assurance standards. Project managers conduct a retrospective with the project team to document any lessons learned and to enhance the next stage. | In DSDM also retrospective is held after every timebox is completed to make an improvement plan for the next timebox. Lesson learned report is also created in DSDM. |
| 7. | Closing a Project: When the project is over, the project manager ties up any loose ends, such as PRINCE2 documentation, results, and reporting. | With the end of the last timebox the project is closed in DSDM. The whole performance of timeboxes is discussed by organizing a retrospective and lesson learned report is produced. |

Table 26: Integration at Process Level

6.3.2 In terms of Roles

| S N | PRINCE2 Roles and Responsibilities | Possible Mapping in DSDM |
|--------|---|--|
| 1. | Executive: | Business Sponsor: |
| | The executive gets project financing and | Business sponsor has dissimilar |
| | maintains the project's business case and | responsibilities to that of Executive. |
| | justification. (Pmp, 2018a) | The business sponsor is accountable |
| | | for the project's viability throughout its |
| | | life cycle. He owns the business case, |
| | | which assures adequate funds and |
| | | resources are accessible for the project. |

2. Senior User:

The senior user represents people for whom the project will achieve a goal or those who will profit from the product. They test the product to make sure benefits will be realized.

They define the demands of the end-users and collaborate with the project management team to guarantee that the end product's quality and functionality meet the project's business case. (Pmp, 2018a)

Business Visionary:

Business visionary has the role of providing a clear vision to the project throughout the project. Business visionary also works to interpret the needs of the business making the role somehow similar to senior users.

3. Senior Supplier:

The suppliers are all of the individuals and/or organizations who carry out the project work, i.e. those who create the project's deliverables. It consists of both internal (the project team) and external (suppliers). It may also involve individuals who will assist and maintain the items after the project has been completed. (Pmp, 2018a)

Solution Developer:

So listen developers work together to develop an increment of the solution in each iteration making the role similar to the senior supplier.

4. **Project Assurance:**

The function of project assurance is to measure the state of the project and report it to the project board. It can cover any aspect - budget, timeline, and quality are generally toward the top of the list.

Business Advisor, Project Manager:

The business advisor is the one who helps to ensure the testing of the solution meets the business need what is project manager is the one who monitors project progress.

5. Change Authority:

Although the project board oversees approving modifications to the project plan – scope, budget, timetables, and so on – there are many projects where adjustments need a higher degree of scrutiny or technical understanding. In addition, the projected amount of modifications may

Business Visionary:

Changes are reported to and approved by a business visionary in DSDM.

| | necessitate the creation of a separate | |
|----|---|---|
| | Change Authority. | |
| 6. | Project Manager: | Project Manager: |
| | The project manager oversees the project's | The project manager coordinates and |
| | day-to-day operations. The project board | empowers the whole team and works to |
| | delegated authority to them to make choices | integrate the piece. The project |
| | that impact the project's result. | manager also Handles escalated |
| | | problems |
| 7. | Project Support: | Advisor, Project Manager, Workshop |
| | Project support, which reports to the project | Facilitator: |
| | manager, assists the project manager with | |
| | administration, counsel, and direction. | The project manager handles the duties |
| | Many businesses have a project | such as project scheduling, control, and risk |
| | management office (PMO) that serves as | management. Technical and business |
| | the project manager's support staff. | advisor advice on the technical or business- |
| | Although the tasks and duties of PMOs | related difficulties respectively. workshop |
| | vary considerably between organizations, | facilitator are responsible for organizing |
| | the project support position under | meetings that achieve a workshop objective. |
| | PRINCE2 is one of assisting the project | |
| | manager with project management duties | |
| | such as project scheduling, control, and risk | |
| | management. (Pmp, 2018a) | |
| 8. | Team Manager: | Team leader: |
| | The Team Manager is a lower-level | A team leader can be someone who has |
| | manager who oversees the project's | been elected by the solution development |
| | deliverables daily. They are responsible to | team who helps the team to focus on |
| | the project manager. They may have a large | solution delivery making the role similar to |
| | project team behind them, or they may be | team manager. |
| | handling all of the work solo, but they are | |
| | the technical experts. (Pmp, 2018a) | |

Table 27: Integration in roles

6.3.3 In terms of Deliverables

| S.No | Prince2 Deliverables | Possible mapping with DSDM |
|------|--|--|
| 1. | Benefits management approach: These | Business Case: This document provides a |
| | are the reason projects are undertaken or | vision of any justification from the project |
| | they represent what the project is trying to | from a business perspective. |
| | achieve. | |
| 2. | Business Case: This contains the reason for | Business Case: This document provides a |
| | undertaking the project, expected benefits, | vision of any justification from the project |
| | and expected return on investment analysis. | from a business perspective. |
| 3. | Change Control Approach: This contains | Delivery Control Pack: Contains risk |
| | the reports that will be produced when | register, change control records, and |
| | project changes occur, and who will | progress reports which are presented to the |
| | approve these reports. (Pmp, 2018a) | sponsor. |
| 4. | Checkpoint Report: This is the report | Timebox Review Record: Contains what |
| | produced by the team manager to update the | has been achieving up to the point. |
| | project manager about the project progress. | |

| 5. | Communication Management Approach: This approach states and communication strategy of the project to its stakeholders. (Pmp, 2018a) | Management Approach Definition: It represents the overall approach to project management and addresses how the project will be organized and planned, how stakeholders will be involved in the project, and how progress will be demonstrated and, if required, reported. |
|----|---|---|
| 6. | Configuration Item Record: This is the tracking mechanism for the new product or services they are creating. Version number, current status, location, the responsible person is logged within the configuration item record. | No mapping with DSDM products. |
| 7. | Daily Log: The project manager keeps note of informal items, action items, and other matters that aren't covered by the official logs. It may be used as a project diary. It can also serve as an issue and risk registry if they are not already in place. (Pmp, 2018a) | No mapping with DSDM products. |
| 8. | End Project Report: This report is used to close the project formally. lessons learned final detail and final cost information are recorded. | Project Review Record: This is a record update at the end of each project increment to capture the feedback from the review of the delivered solution. |
| 9. | End-Stage Report: A report to obtain formal approval from the project board to proceed to the next stage. This document is created by the project manager which contains the review of the business case, a review of the stage that is finishing, and any issues and major risks. (Pmp, 2018a) | Timebox Review Record: It outlines what has been accomplished up to that point, as well as any input that may impact future goals. |

| 10. | Exception Report: This report is created | No possible mapping. |
|-----|--|--|
| | when management stays exceed tolerance | 1 11 5 |
| | in certain areas. This contains double-level | |
| | options to fix the problem and recommends | |
| | one of the options to the project board. (Pmp, | |
| | 2018a) | |
| 11. | Highlight Report: The project manager | Delivery Control Pack: Contains risk |
| | creates a highlight report to keep the project | register, change control records, and |
| | board up to date on the state of the project. | progress reports which are presented to the |
| | During the project initiation phase, the | sponsor. |
| | project board establishes the intervals for | |
| | preparing highlight reports. The report | |
| | contains budget, timeline, scope, risks, and | |
| | benefits progress. It recounts the previous | |
| | reporting period and anticipates the future. | |
| | It also highlights any problems that have | |
| | arisen and how they have been/will be | |
| | resolved. | |
| 12. | Issue Register: Any problem that occurs, | Delivery Control Pack: Contains risk |
| | whether or not it puts the project out of | register, change control records, and |
| | tolerance, is an issue. Issues are reported | progress reports which are presented to the |
| | and tracked to ensure that they are | sponsor. |
| | addressed quickly and aggressively. The | SF SEES SEE |
| | issue register may be a strong record of | |
| | what the project had to deal with through its | |
| | life cycle, as well as lessons learned that | |
| | may be applied to future initiatives. (Pmp, | |
| | 2018a) | |
| 13. | Issue Report: When formal adjustments are | Timebox Review Record: |
| | required to resolve the issue, a formal issue | It outlines what has been accomplished up |
| | report is created that includes a description, | to that point, as well as any input that may |
| | impact assessment, and suggestions for | impact future goals. |
| | change. The issue report is a live document | |
| | that is updated when the issue is addressed, | |
| | evaluations are made, and/or choices are | |
| | taken. | |
| 14. | Lessons Log: This log documents any | Timebox Review Record: |
| | lessons gained that can be used to the | It outlines what has been accomplished up |
| | project's remaining phases or future | to that point, as well as any input that may |
| | initiatives within the company. It is updated | impact future goals. |
| | anytime new lessons are learned, resulting | |
| | in a strong technique to adhere to Principle | |
| | #2, Learn from Experience. | |
| 15. | Lessons Report: When the lessons learned | Project Review Record: This is a record |
| | are complicated or demand immediate | update at the end of each project increment |
| | action, a lessons report can be utilized to | to capture the feedback from the review of |
| | communicate action items for improvement | the delivered solution. |
| | to the project team, stakeholders, or the | |
| | parent company. (Pmp, 2018a) | |
| | | |

| 16. | Project Plan: The project plan includes all |
|-----|--|
| | the information needed to convey how the |
| | project expects to manufacture its products |
| | or services. Schedules, budgets, scope |
| | statements, benefits analysis, risk analysis, |
| | and delivery methodologies are all |
| | included. (Pmp, 2018a) |
| 1 | D. I. A. D |

Delivery Plan: A high-level schedule of Project Increments and, at the very least, Timeboxes that comprise that Increment for the first/imminent Increment

Product Description: Every project generates some form of output that is handed to a permanent owner. A project's output can also be a service, such as a project to give a training course. Whatever the ultimate result, the product description product, specifies the its purpose. composition, format, quality requirements, and any other item essential to its development. The more thorough the product description, the higher the project team's chances of getting it right on the first try. (Pmp, 2018a)

Solution Architecture Definition: It supplies the solution with a high-level design framework. It is intended to cover both the business and technical components of the solution in sufficient depth to make the solution's scope evident.

18. Product Status Account: The product status account describes the product's current status. It may be used to transmit things like product information, testing findings, cost status, and so on.

Delivery Control Pack: Contains risk register, change control records, and progress reports which are presented to the sponsor.

19. Project Brief: It contains the business case, project objectives, scope and scope exclusions, tolerances, and any other relevant information. (Pmp, 2018a)

Business Case: This document provides a vision of any justification from the project from a business perspective.

20. Project Initiation Documentation (PID):

The PRINCE2 system's most significant document is the PID. It oversees project planning. It provides a breakdown of the project's stages, timeline, budget, quality requirements, and any additional items needed to complete the project. The PID is a live document that is constantly updated and gives a snapshot of the project plan. It always represents the current project state and the path to completion. The original PID, on the other hand, is kept evaluating the entire project performance. The PID is made up of the following components:

Solution Foundation: Contains Business area definition (BAD), System Architecture Definition (SAD), Deployment Approach Definition (DAD): Solution review and testing strategy.

Delivery Control Pack: Contains risk register, change control records, and progress reports which are presented to the sponsor.

- Project definition
- Project approach
- Business case
- Project management team structure
- Role descriptions
- Quality management approach

| Change control approach. Risk management approach. Communication management approach Project plan Project controls Tailoring of PRINCE2 Project product description: Defines the scope and requirements of the project, as well as the customer's quality expectations and acceptance criteria. | Solution Architecture Definition: It supplies the solution with a high-level design framework. It is intended to cover both the business and technical components of the solution in sufficient depth to make the solution's scope evident. |
|--|--|
| 22. Quality Management Approach: This paper defines quality criteria, how they will be met, and how quality will be measured. | No possible mapping |
| 23. Quality Register: The Quality Register is used to track quality activities to guarantee acceptable project quality. | Timebox Review Record: It outlines what has been accomplished up to that point, as well as any input that may impact future goals. |
| 24. Risk Management Approach: This method specifies the risk managementoperations that will be carried out. The techniques for risk identification and analysis, probability and severity indices, and risk responses are all described in depth. Roles and duties for risk response strategies are defined, and the organization's risk tolerances are assessed. (Pmp, 2018a) | Risk Management: Risks and analyzed in the feasibility stage. |
| 25. Risk Register: The Risk Register lists the risks that might compromise the project's success. | Delivery Control Pack: Contains risk register, change control records, and progress reports which are presented to the sponsor. |
| 26. Work Package: The most fundamental unit of project work is the work package. It is a project assignment. | Timebox Plan: It gives depth and information for each Timebox in the Delivery Plan It expands on the objectives specified for that Timebox and describes the deliverables, as well as the actions required to achieve those deliverables and the resources required to complete the job. The Solution Development Team creates the Timebox Plan, which is frequently represented on a Team Board as work to do, in progress, and completed. It is at least daily updated during the Daily Stand-ups. |

Table 28: Integration at deliverables

References

[1] Badkar, A. (2023) Software development Methodologies: Everything you need to know, Simplilearn.com. [Online] Available at: https://www.simplilearn.com/software-developmentmethodologies-article.

[Accessed: April 2024]

[2] Gridlex (2023) Choosing the Right Path: Traditional vs. Agile Software Development Methods for Project Success. [Online] Available at: https://www.linkedin.com/pulse/choosing-right-pathtraditional-vs-agile-software-development/.

[Accessed: April 2024]

[3] Wikipedia contributors (2024a) Dynamic systems development method, Wikipedia. [Online] Available at: https://en.wikipedia.org/wiki/Dynamic_systems_development_method.

[Accessed: April 2024]

[4] Render, J. (2019) A full lifecycle agile approach: Dynamic Systems Development Methodology (DSDM), Agile-Mercurial. [Online] https://agile-Available at: mercurial.com/2018/07/09/a-full-lifecycle-agile-approach-dynamic-systems-developmentmethodology-dsdm/.

[Accessed: April 2024]

[5] Technologies, W. (2024b) "Extreme programming: values, principles, and practices," Wazobia Technologies, 5 April. [Online] Available at: https://wazobia.tech/blog/development/extremeprogramming-values-principles-and-practices.

[Accessed: April 2024]

[6] Editor (2021) "Extreme programming: values, principles, and practices," AltexSoft, 18 January. [Online] Available at: https://www.altexsoft.com/blog/extreme-programming-values-principles-and-practices/.

[Accessed: April 2024]

[7] Lazar, M. and Lazar, M. (2023) How to effectively balance features, deadlines, and resources in software development projects, HyperSense Blog. [Online] Available at: https://hypersensesoftware.com/blog/2023/11/15/prioritization-in-software-project-management/.

[Accessed: April 2024]

[8] Malsam, W. (2023) What is PRINCE2? Principles, aspects, roles & processes, ProjectManager. [Online] Available at: https://www.projectmanager.com/blog/prince2-methodology. [Accessed: April 2024]

[9] Pmp, B. R. P. Eng. (2018) The 26 project documents of PRINCE2. [Online] Available at:

https://www.projectengineer.net/the-26-project-documents-of-prince 2/.

[Accessed: April 2024]

[10] Pmp, B. R. P. Eng. (2018a) The 9 Project roles in PRINCE2. Available at: https://www.projectengineer.net/the-9-project-roles-in-prince2/.

[Accessed: April 2024]