Bharati Vidyapeeth's College
of Engineering, Lavale,
Pune - 412115

Assignment I

Problem Statement: Create Project Plan

- Specify project name and start (or finish) date.
- Identify and define project tasks.
- Define duration for each project task.
- Define milestones in the plan.
- Define dependency between tasks.
- Define project calendar.
- Define project resources and specify resource type.

Requirements: Project Management tools (any one tool from the list given below)
1. Primavera Project Management Software
2. Microsoft Project Management Software
3. **Edrawmax Project Management Software**
4. Jira Project Management Software

Theory:
A Software Project is the complete procedure of software development from requirement gathering to testing and maintenance, carried out according to the execution methodologies, in a specified period of time to achieve intended software product.

A Project can be characterized as:
- Every project may have a unique and distinct goal.
- Project is not routine activity or day-to-day operations.
- Project comes with a start time and end time.
- Project ends when its goal is achieved hence it is a temporary phase in the lifetime of an organization.
- Project needs adequate resources in terms of time, manpower, finance, material and knowledge-bank.

Project Management is the presentation of knowledge, skills, tools and techniques to project activities to encounter the project requirements. Project management is proficient through the

suitable application and combination of the project management process identified for the project. Project management permits organization to execute projects effectively and profile.

Edraw Max is 2D business technical diagramming software which help create flowcharts, organizational charts, network diagrams, floor plans, workflow diagrams, business charts, and engineering diagrams.

Project Introduction:

A project plan is a comprehensive document that outlines the scope, objectives, timelines, resources, and tasks associated with a project. It serves as a roadmap for project managers and team members, providing a structured framework to guide the project from initiation to completion. Creating a project plan using EDrawMax software involves several key steps to ensure clarity, organization, and effective communication.

Basics of a Project Plan:

1. ***Project Scope Definition:***

   Begin by clearly defining the project scope. What are the goals and deliverables? Understanding the scope sets the boundaries for the project and ensures that everyone involved has a shared understanding of what needs to be accomplished.

2. ***Objective Identification:***

   Define the specific objectives and milestones that mark the project's progress. Objectives should be measurable, achievable, and aligned with the overall goals of the project. Milestones act as key checkpoints, providing a sense of accomplishment as the project advances.

3. ***Task Breakdown:***

   Break down the project into smaller, manageable tasks. Each task should have a defined start and end date, assigned resources, and dependencies on other tasks. This detailed breakdown facilitates a granular understanding of the work involved and aids in accurate resource allocation.

4. ***Timeline and Scheduling:***

   Develop a realistic timeline for the project. Use EDrawMax's scheduling features to create a visual representation of task dependencies and critical paths. This timeline becomes a dynamic tool for tracking progress and adjusting schedules as needed.

5. ***Resource Allocation:***

   Identify and allocate resources, including team members, equipment, and materials, to each task. EDrawMax allows you to visually represent resource assignments, making it easier to ensure that workloads are balanced and resources are utilized efficiently.

6. ***Risk Assessment:***

Anticipate potential risks and uncertainties that may impact the project. Document strategies for risk mitigation and contingency plans. EDrawMax's features for flowcharts and diagrams can help visualize these risk management strategies.

Creating a Project Plan with EDrawMax:

1. ***Select a Template:***

EDrawMax provides various project management templates. Choose a template that aligns with your project's needs, whether it's a Gantt chart, timeline, or flowchart.

2. ***Outline Project Details:***

Fill in the project title, objectives, and scope. This initial step sets the foundation for the entire plan.

3. ***Task and Timeline Creation:***

Use EDrawMax's intuitive interface to create tasks, define dependencies, and set timelines. Drag and drop elements to adjust schedules easily.

4. ***Resource Allocation:***

Utilize EDrawMax's features to assign resources to tasks. This may include team members, equipment, or other essential elements required for task completion.

5. ***Visualize with Diagrams:***

Enhance your project plan with visual elements such as diagrams and charts. EDrawMax allows you to create visual representations of complex information, making it easier to understand and communicate.

6. ***Collaborate and Share:***

EDrawMax enables collaboration by allowing team members to contribute to the project plan. Share the plan with stakeholders, and use feedback to refine and improve the document.

By leveraging the capabilities of EDrawMax, project managers can create visually appealing and highly informative project plans. The software's user-friendly interface, templates, and diagramming features streamline the process, resulting in a well-organized and effective project roadmap.
Here is how to use this tool for project management –

1. Open Edraw Max. Go to Files menu - Business – Project Management Tab. You will see the screen like this:
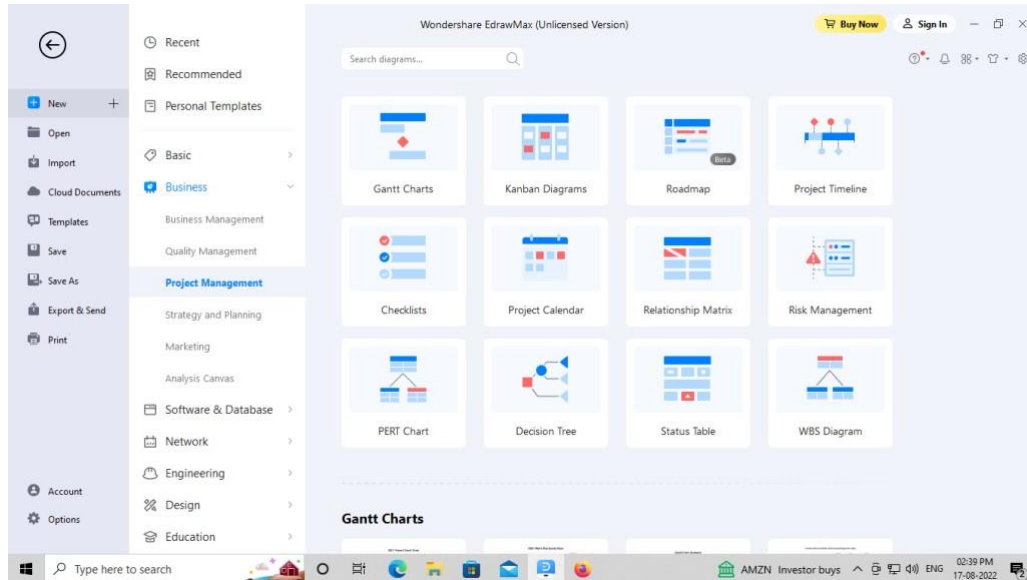
2. You will get options like Gantt chart, PERT chart etc. Select the chart type.
3. Drag and drop the format as per your requirement and you will get an auto generated table:
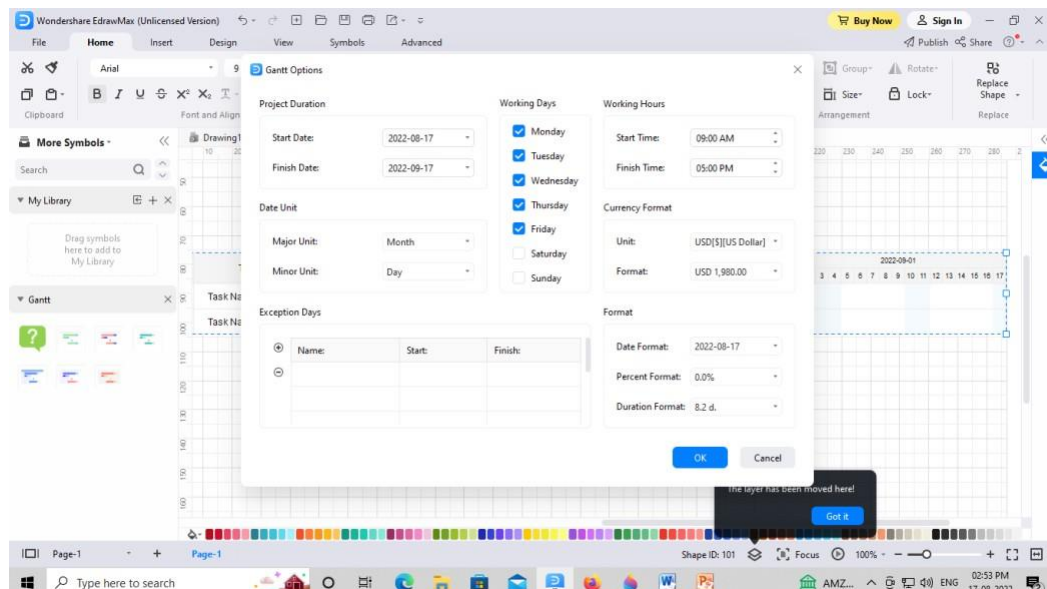
4. Fill up the required information. This includes start date, expected and date, resource allocation, weekly status and monthly progress.

5. You can edit and update the Gantt chart as you go on executing your project.

6. For PERT chart, go to File Menu – Business – Project Management – PERT chart.

7. Drag and drop PERT chart template as per your requirement.

8. Create nodes, dependencies, milestones and add schedules on the arrows.

The PERT chart screen sample of my project:
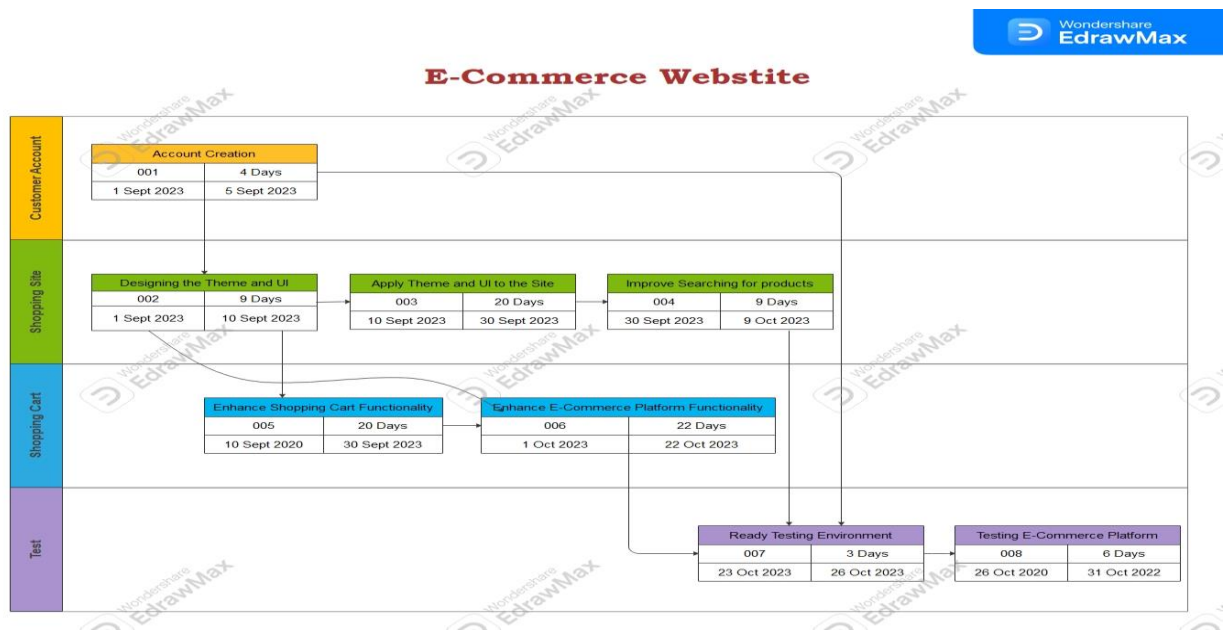
Conclusion: Software Project Management is very essential for smooth execution of project. It helps to get better outcomes and to provide the best practices in project.

Hence we successfully implemented the pert chat presentation for the E-commerce site and its process.

We also learned the environment of E-Draw used to implement this lab assignment.

Assignment II

Problem Statement : Execute and Monitor Project Plan

Requirements: Project Management tools (any one tool from the list given below)
1. Primavera Project Management Software
2. Microsoft Project Management Software
3. **Edrawmax Project Management Software**
4. Jira Project Management Software
5. **Microsoft**

Theory:

Title: Efficient Execution and Monitoring of an E-commerce Website Project

In the dynamic landscape of e-commerce, successful project execution and vigilant monitoring are critical for ensuring timely delivery and optimal performance. This note delves into key aspects of managing an e-commerce website project, including update completion percentages, task reviews, planned vs. actual status comparisons, critical path assessments, and resource assignment evaluations.

Update Completion Percentages:

Monitoring the progress of an e-commerce website project involves tracking update completion percentages to gauge overall advancement. Regular updates, whether in terms of feature development, design elements, or backend functionalities, provide a comprehensive view of the project's trajectory. A robust project management system should be in place to record and communicate these updates efficiently.

Maintaining an accurate update completion percentage not only serves as a progress metric but also aids in identifying potential bottlenecks. This information is invaluable for project managers, allowing them to allocate resources effectively, address delays promptly, and keep stakeholders informed.

Task Review Status:

Each task within the project should undergo periodic reviews to ensure alignment with

6

project goals and standards. Task reviews involve assessing the quality of work, adherence to timelines, and compliance with project requirements. This step is crucial for identifying any deviations from the project plan early on and implementing corrective measures.

The task review status serves as a checkpoint for the team, facilitating continuous improvement and preventing the accumulation of errors. Regular feedback loops, coupled with constructive criticism, contribute to a culture of accountability and excellence within the project team.

Planned vs. Actual Status Comparison:

An effective project management strategy involves constant evaluation of planned versus actual progress. This comparison highlights areas where the project is on track, exceeding expectations, or falling behind schedule. Discrepancies between planned and actual progress can be indicative of underlying issues, such as resource constraints, unforeseen challenges, or misjudgments during project planning.

Regularly analyzing planned versus actual status enables project managers to make informed decisions, reallocate resources if necessary, and recalibrate timelines. This proactive approach minimizes the impact of deviations and ensures that the project stays on course towards successful completion.

Review Status of Critical Path:

The critical path is the sequence of tasks that determines the minimum time needed for the project's completion. Monitoring the review status of critical path tasks is paramount for preventing delays that could cascade throughout the project timeline. These tasks often have dependencies that can significantly impact overall progress.

Identifying and prioritizing critical path tasks for review ensures that any issues are addressed promptly, preventing potential delays in the project timeline. Regular updates on the critical path review status allow project managers to stay ahead of challenges and maintain control over project timelines.

Review Resource Assignment Status:

Efficient resource management is a cornerstone of successful project execution. Periodic

reviews of resource assignment status involve assessing whether the allocated resources

align with the evolving needs of the project. This includes evaluating the workload of individual team members, identifying potential bottlenecks, and ensuring that resources are distributed optimally.

Resource assignment status reviews contribute to a balanced workload distribution, preventing burnout and maximizing team productivity. Additionally, they provide insights into whether additional resources are required or if existing resources can be reallocated to address emerging priorities.

Edraw Max provides time-line generation. Here is the sample representation of project:
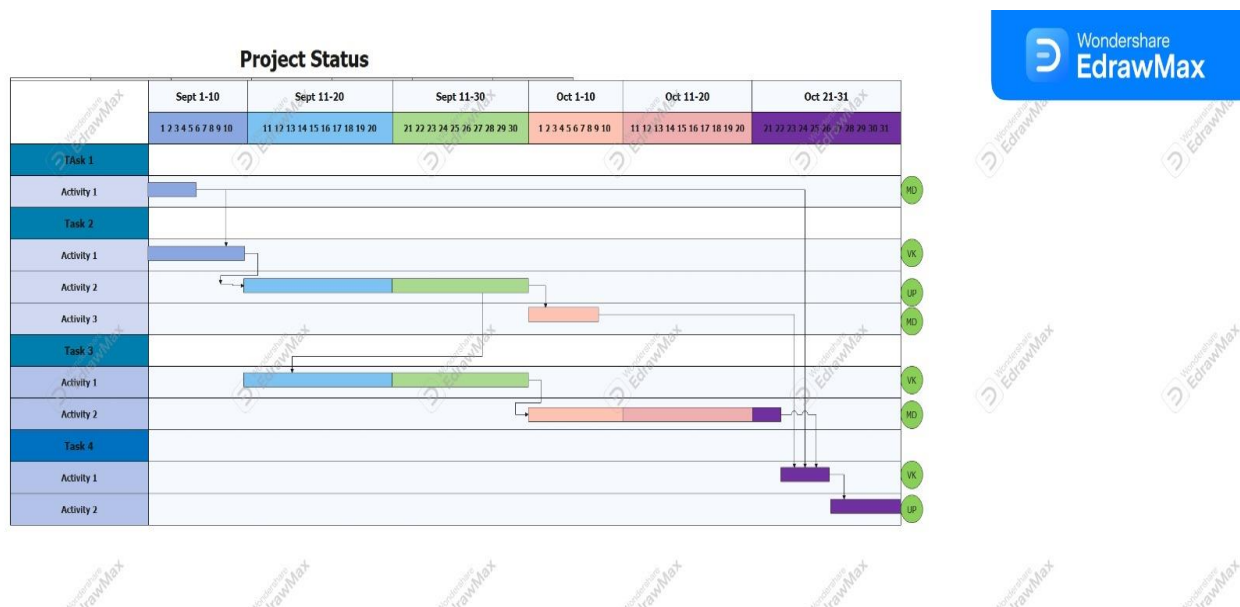
Conclusion:

Hence we learned about the Gantt Chart which can be used for the Efficient Execution and Monitoring of an E-commerce Website Project.

Assignment III

Problem statement : Generate Dashboard and Reports

Requirements: Project Management tools (any one tool from the list given below)

1. Primavera Project Management Software
2. Microsoft Project Management Software
3. **Edrawmax Project Management Software**
4. Jira Project Management Software

Theory:

Resource Report: E-commerce Website

Software Project

Resource Overview

- **Project Name: E-commerce Website**
- **Project Manager:** Divesh Harangera
- **Project Duration:**
- 1 Sept. 2023 - 31
- **Project Team:**
  1. Udit Janardhan
  2. Vedant Sathe
  3. Manas Pathak
  4. Divesh Harangera

Resource Allocation

1. Human Resources

Project Team

• Divesh Harangera - Project Manager

• Udit Janardhan - Front-end Developer

• Manas Pathak - Back-end Developer

• Manas Pathak - Database Administrator

• Udit Janardhan - UI/UX Designer

• Vedant Sathe - Quality Assurance Tester

Client Team (as needed)

• Charandas Chaudhary - Point of contact for the client

2. Software and Tools

• Development Environment:

• PyCharm

• Database Management:

• MongoDB

• Version Control:

• Git

• Project Management:

• Jira, Slack

3. Hardware

• Client Server:

•

• Testing Devices:

• Desktop, laptop, mobile

4. Financial Resources

• Budget Allocation:

• Rs. 5,00,000

• Funding Sources:

• Client investment

5. Resource Roles and Responsibilities

• Project Manager Divesh Harangera:

• Overall project management, including planning, scheduling, and resource coordination.

• Stakeholder communication and client interaction.

• Risk management and issue resolution.

• Front-end Developer (Team Member 1):

• Udit Janardhan

Cost Report: E-commerce Website

Software Project

Earned Value Report

1. Planned Value (PV)

• Budget at Completion (BAC): 4,30,000

• Planned Percentage Complete: 91.9%

• Planned Value (PV): 375000

2. Earned Value (EV)

• Actual Percentage Complete: 84.5%

• Earned Value (EV): 3,30,000

3. Cost Performance Index (CPI)

- Cost Performance Index (CPI): 0.75

4. Schedule Performance Index (SPI)

- Schedule Performance Index (SPI): 0.82

Resource Cost Overview

1. Human Resources

- Total Personnel Costs: 3,50,000
- Budget Allocated for Personnel: 2,50,000

2. Software and Tools

- Software and Tools Costs: 1,00,000

3. Hardware

- Hardware Costs: 50,000

4. Other Expenses

- Other Project Expenses: 30,000

5. Total Project Cost (TPC)

- Total Project Cost (TPC): 4,30,00

Task Cost Overview

1. Task 1: Planning and Requirements

- Planned Cost: 75000
- Actual Cost: 80,000

2. Task 2: Design and Development

- Planned Cost; 60,000
- Actual Cost: 70,000

3. Task 3: Testing and Quality Assurance

- Planned Cost: 50,000
- Actual Cost: 30,000

4. Task 4: Deployment and Training

- Planned Cost: 70,000
- Actual Cost: 75,000

5. Task 5: Maintenance and Support

- Planned Cost: 45,000
- Actual Cost: 78,562
- Front-end development, including the user interface design and implementation.
- Ensuring the website's responsiveness across different devices.
- Back-end Developer (Team Member 2):Manas Pathak
- Back-end development, including server-side logic and database integration.
- Secure payment gateway implementation.
- Database Administrator (Team Member 3): Manas Pathak
- Database design, optimization, and maintenance.
- Ensuring data integrity and security.
- UI/UX Designer (Team Member 4):Udit Janardhan
- User interface and user experience design.

• Collaborating with front-end developers for seamless integration.
• Quality Assurance Tester (Team Member 5): Vedant Sathe
• Comprehensive testing, including functional, usability, security, and performance testing.
Progress Report: E-commerce
Website Software Project

- **Project Name: E-commerce Website**
- **Project Manager:** Divesh Harangera
- **Project Duration:**
- 1 Sept. 2023 - 31
- **Project Team:**
  5. Udit Janardhan
  6. Vedant Sathe
  7. Manas Pathak
  8. Divesh Harangera

Summary of Progress

The "E-commerce Website" project is progressing as scheduled, with significant milestones achieved. This report provides an overview of the critical tasks, a milestone report, and identifies any tasks that are slipping behind the planned schedule.
Critical Tasks
1. Task 2: Design and Development
• Status: In Progress
• Description: Front-end and back-end development, including the user interface, database integration, and payment gateway implementation.
• Progress: 70% complete
• Issues/Challenges: Less Personnel available
2. Task 3: Testing and Quality Assurance
• Status: Upcoming
• Description: Testing phase, including functional, usability, security, and performance testing.
• Progress: Not yet started
• Scheduled Start Date: 20-10-23
Milestone Report
Milestone 1: Project Kickoff
• Status: Completed
• Description: Initial project planning, scope definition, and team assignment.
• Completion Date: 1-11=23
Milestone 2: Design and Development Phase
• Status: On Track
• Description: Completion of design and development tasks, including front-end and

back-end development.

• Estimated Completion Date: 31=10=23

Milestone 3: Testing and Quality Assurance

• Status: Upcoming

• Description: Initiation of the testing phase, including functional, usability, security, and performance testing.

• Scheduled Start Date: 15-10-23

Slipping Tasks

1. Task 1: Planning and Requirements

• Status: Delayed

• Description: Initial planning and requirements gathering phase.

• Progress: 60% complete

• Scheduled Completion Date: 1-11-23

• Estimated Completion Date: 2=11=23
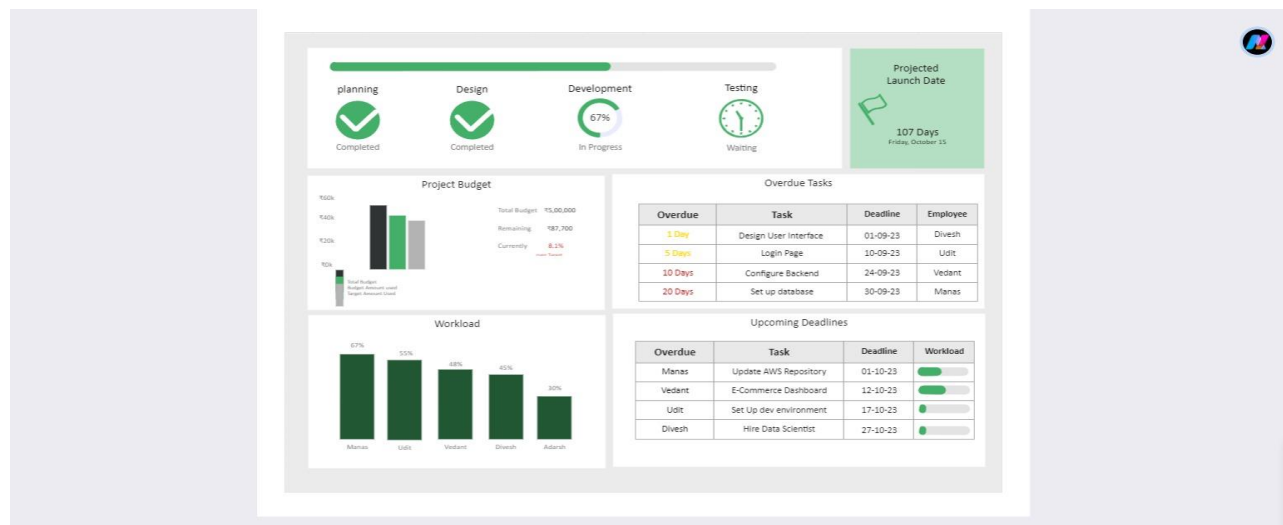
Conclusion:

The E-commerce Website project is a significant undertaking that aims to provide our client with a powerful online selling platform. This report outlines the project's objectives, scope, phases, and deliverables, serving as a roadmap for successful project completion.