A

PROJECT REPORT

ON

"Agile E-commerce Website Development via Scrum and Jira"

SUBMITTED TO

SAVITRIBAI PHULE PUNE UNIVERSITY

IN PARTIAL FULFILMENT OF THE COURSE

MASTER OF BUSINESS ADMINISTRATION

BY

SAKSHI SUHAS SHINDE

SEAT NO:

M.B.A- Sem-III

UNDER THE GUIDANCE OF PROJECT GUIDE

Mr. Najmul Huda

AUDYOGIK SHIKSHAN MANDAL INSTITUTE OF
PROFESSIONAL STUDIES (IPS), PUNE 411019

YEAR 2024-25

<u>DECLARATION</u>

This is to certify that the project-work titled "**Agile E-commerce Website Development via Scrum and Jira**" has been completed satisfactorily and submitted in partial fulfilment of Master Degree in Business Administration of Savitribai Phule Pune University for the academic year 2024-2025 by the following student of. AUDYOGIK SHIKSHAN MANDAL INSTITUTE OF PROFESSIONAL STUDIES (IPS), PUNE 411019. My intention to understanding this project lies towards enhancing my knowledge in the field of **Business Analytics.**

Sakshi Shinde

ACKNOWLEDGEMENT

I would like to express my sincere thanks to the Savitribai Phule Pune University and Principal- **Dr. Sudhakar J. Bokephode and Audyogik Shikshan Mandal Institute of Professional Studies** For giving me the opportunity to prepare and present this report.

"There is a good saying that the work is successfully completed if the person is guided properly at the right time by the right person", with that the good opportunities that we receive as well as the efficient supervision and the most valuable the internal guidance.

Hereby, I would like to express my deep gratitude towards our **'Mr. Najmul Huda**, who helped and guide me in project work. Her encouragement and whole-hearted co-operation throughout the progress helped me in completion of project.

Last but not the least I would like to thank my family and friends for their encouragement and direct or indirect support in completion of the project.

Sakshi Suhas Shinde
SYMBA (BA)

INTERNSHIP CERTIFICATE

Seva Satkar
Foundation
Helping Hands, Growing Together

Completion Certificate

College Name – ASM's Institute of Professional Studies, Pimpri, Pune   **Certificate Code - sakdc13**
Student Name - Sakshi Suhas Shinde
Duration – 01/07/2024 to 18/09/2024

Congratulations on completing your **Summer Internship Project** with **Seva Satkar Foundation** in the domain of **Marketing and BA**. Your dedication and hard work have been commendable. Throughout your Project, you consistently Demonstrated exceptional skills, professionalism, and a strong work ethic. Your contributions to our organization have been Invaluable.

We appreciate your efforts in completing assigned projects and tasks. Your attention to detail, ability to meet deadlines, and high-quality work have been impressive. Thank you for your positive attitude and collaboration with the team. Your ability to work well with others and contribute to our success has beengreatly appreciated.

We are confident that you have a bright future ahead. On behalf of **Seva Satkar Foundation**, we wish you every success in your future endeavors. Please feel free to reach out if you need any further assistance or ityou require any documentation from our organization.

Regards,
Seva Satkar Foundation

Priyanka Singh
Organization Representative

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INDEX

❑ Chapter 1

Agile Ecommerce website development via scrum and Jira

INTRODUCTION

In today's fast-paced digital world, software development requires a flexible and adaptive approach to meet customer needs and deliver high-quality products. This is where Agile methodology comes into play. Agile is a project management approach that emphasizes collaboration, flexibility, and customer satisfaction. It encourages teams to work in short cycles, known as iterations or sprints, allowing them to make continuous improvements and adapt to changes quickly.

Overview of Agile Methodology

Agile methodology is a dynamic approach to project management and software development that prioritizes flexibility, collaboration, and customer satisfaction. Unlike traditional models that follow a linear, sequential process, Agile emphasizes iterative development, where projects are divided into smaller, manageable increments called iterations or sprints. Each sprint typically lasts two to four weeks, allowing teams to develop, test, and deliver functional components of the project quickly.

One of the core principles of Agile is its focus on customer collaboration over contract negotiation. This means that feedback from stakeholders is continuously integrated into the development process, enabling teams to adapt to changing requirements and expectations. Agile encourages active participation from customers throughout the project, ensuring that the final product aligns closely with their needs.

Agile methodology promotes a culture of transparency and open communication, fostering teamwork among cross-functional members. Regular meetings, such as daily stand-ups and sprint reviews, facilitate discussion and help identify potential obstacles early on. Agile's adaptive nature allows teams to pivot quickly in response to new information or market shifts, ultimately leading to higher-quality products delivered in shorter timeframes. This approach has become increasingly popular in today's fast-paced environment, where the ability to respond to change is crucial for success.

Importance of Scrum in Project Management

Scrum is one of the most popular frameworks within Agile methodology. It provides a structured yet flexible approach to project management, making it easier for teams to implement Agile practices. Scrum divides the project into small, manageable parts called sprints, typically lasting two to four weeks. Each sprint begins with a planning meeting where the team defines the tasks to be completed, prioritizing the work based on customer needs.

The Scrum framework includes specific roles, events, and artefacts. The key roles in Scrum are:

- ❖ **Product Owner**: Responsible for defining the product vision, managing the product backlog, and ensuring that the team delivers value to customers.
- ❖ **Scrum Master**: Acts as a facilitator, helping the team adhere to Scrum principles and practices. The Scrum Master removes obstacles that may hinder the team's progress.
- ❖ **Development Team**: A cross-functional group of professionals who work together to complete the tasks defined for each sprint.

Scrum events include sprint planning, daily stand-ups, sprint reviews, and sprint retrospectives. Daily stand-ups allow team members to share progress, identify challenges, and plan their work for the day. Sprint reviews enable the team to showcase completed work to stakeholders and gather feedback, while sprint retrospectives focus on reflecting on the team's performance and identifying areas for improvement.

By adopting Scrum, teams can enhance collaboration, increase accountability, and improve the overall quality of their work. The iterative nature of Scrum allows for frequent adjustments based on feedback, resulting in a product that better meets customer expectations.

Introduction to Jira for Managing Agile Projects

Jira is a powerful project management tool designed to support Agile methodologies, including Scrum. It provides teams with a centralized platform to plan, track, and manage their projects effectively. With Jira, teams can create and prioritize user stories, track progress, and visualize their workflow through boards and reports.

One of the key features of Jira is its ability to manage backlogs, allowing teams to organize and prioritize tasks efficiently. The tool supports the Scrum framework by providing functionalities such as sprint planning, progress tracking, and reporting on team performance. Jira's visual boards help teams manage their work visually, making it easier to understand project status at a glance.

Jira also facilitates collaboration among team members by allowing them to comment on tasks, share updates, and attach relevant documents. This enhances communication and ensures that everyone is on the same page throughout the project.

In summary, Agile methodology, particularly through the Scrum framework, offers a flexible and collaborative approach to project management. Jira serves as an invaluable tool that supports teams in implementing Agile practices effectively, ultimately leading to the successful development of high-quality products. In this project, we aim to develop an e-commerce website using these methodologies, ensuring that we deliver a product that meets customer needs and adapts to changes in the market.

❑ **Chapter 2**

PROJECT NAME AND OBJECTIVE

Project Name:

Agile E-commerce Website Development via Scrum and Jira
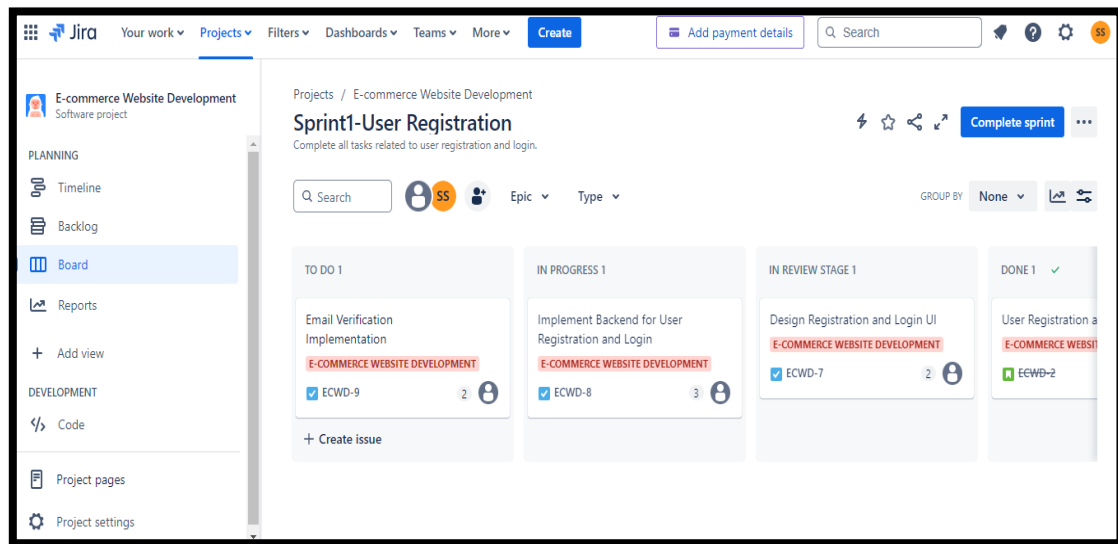
Project Objective:

◆ Develop a user-friendly shopping website.

◆ Use Agile methodology for flexible and efficient project management.

◆ Organize the project into Scrum sprints for better progress tracking.

◆ Utilize Jira to manage tasks and monitor the project's development.

◆ Ensure a smooth user experience with features like registration, product catalog, shopping cart, and payment integration.

◆ Enhance collaboration and communication among team members throughout the project.

❑ Chapter 3

COMPANY INFORMATION

Seva Satkar Foundation

Seva Satkar Foundation is a non-profit organization dedicated to social welfare, focusing on improving the lives of underprivileged communities through a range of initiatives. The foundation is committed to addressing critical issues such as education, healthcare, women's empowerment, and community development. Through its various projects, Seva Satkar Foundation aims to create sustainable change by fostering collaboration between individuals, local organizations, and volunteers.

Role at Seva Satkar Foundation:

During my internship at **Seva Satkar Foundation** as a **Business Analyst**, I was responsible for driving data-driven insights to support the foundation's initiatives. My key contributions included:

- **Data Analysis**: Analyzing donation data and identifying trends, including the performance of referral codes and locations.
- **Power BI Dashboards**: Created dynamic Power BI dashboards that helped visualize key metrics such as:
    - Top 10 Donors by Amount
    - Analysis by Location and Referral Code
    - Average Donation Amount Calculation
    - Correlation Analysis
- **Performance Tracking**: Assisted in evaluating the foundation's outreach efforts and made recommendations based on data trends to improve donation campaigns and operational efficiency.
- Through this role, I developed strong skills in data analysis, visualization, and using business intelligence tools to support strategic decision-making.

❑ Chapter 4

PROJECT SCOPE

Description of the E-commerce Website Features

The e-commerce website will have the following main features:

- **User Registration:**

  Users will be able to create accounts by registering on the website. They will need to provide basic information such as their name, email address, and password.

- **Product Catalog:**

  The website will display a variety of products in a catalog format. Users can browse through different categories, view product details, and filter products based on their preferences.

- **Shopping Cart:**

  Users will be able to add products to their shopping cart while they shop. The shopping cart will allow users to review their selected items before proceeding to checkout.

- **Payment Gateway Integration:**

  The website will support online payments through a secure payment gateway. Users can choose their preferred payment method and complete their purchases safely.

- **Order Management:**

  Users will be able to view their order history and track the status of their current orders. Admins will also have access to manage and update order statuses.

Scope of Project Implementation

The project will focus on developing the following functionalities:

- **User Registration**: Creating and implementing a registration and login system.

- **Product Catalog**: Designing and developing the user interface for the product catalog, along with backend integration to display product information.

- **Shopping Cart**: Implementing the shopping cart feature, allowing users to add, view, and remove products.

- **Payment Processing**: Integrating a payment gateway to facilitate secure online transactions and sending confirmation emails to users after payment.

- **Order Management**: Creating an admin panel for managing orders and notifying customers about their order status.

This project aims to build a fully functional e-commerce website that provides users with a smooth shopping experience from registration to order delivery.

❑ Chapter 5

EPICS AND SPRINTS OVERVIEW

Epic Overview: E-commerce Website Development

An epic is a large body of work that can be broken down into smaller tasks, known as user stories or features. In this project, our epic is "E-commerce Website Development." This epic focuses on creating a shopping website that allows users to register, browse products, add items to their cart, make payments, and manage their orders.
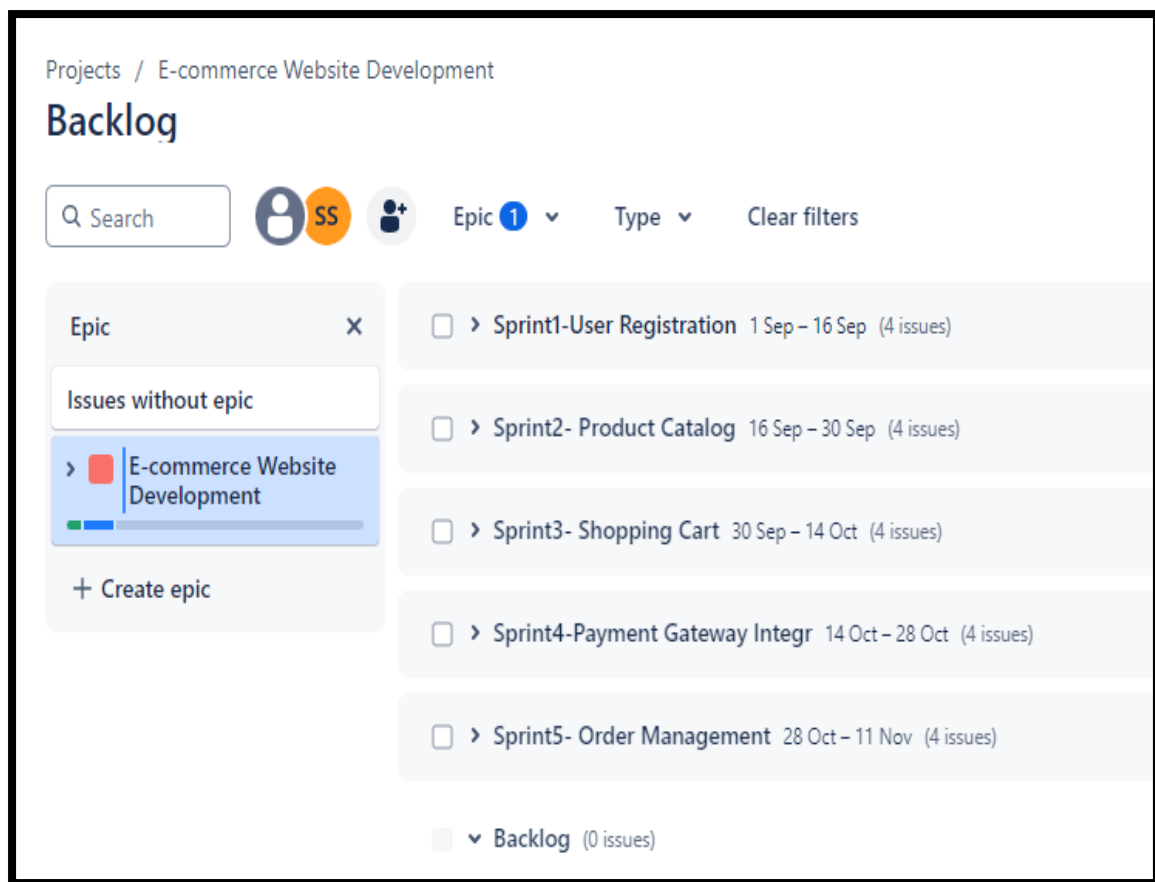
Sprint Planning Process

A sprint is a set period during which specific tasks are completed. For this project, we divided the work into five sprints, each focusing on a different aspect of the e-commerce website.

- **Sprint 1: User Registration**

    Focuses on creating the user registration and login system.

- **Sprint 2: Product Catalog**

    Centers on designing and implementing the product catalog, allowing users to view and filter products.

- **Sprint 3: Shopping Cart**

    Involves creating the shopping cart feature, where users can add items they wish to purchase.

- **Sprint 4: Payment Gateway Integration**

    Focuses on selecting and integrating a payment gateway to enable secure transactions.

- **Sprint 5: Order Management**

    Deals with creating an admin interface for managing orders and keeping customers informed about their order status.
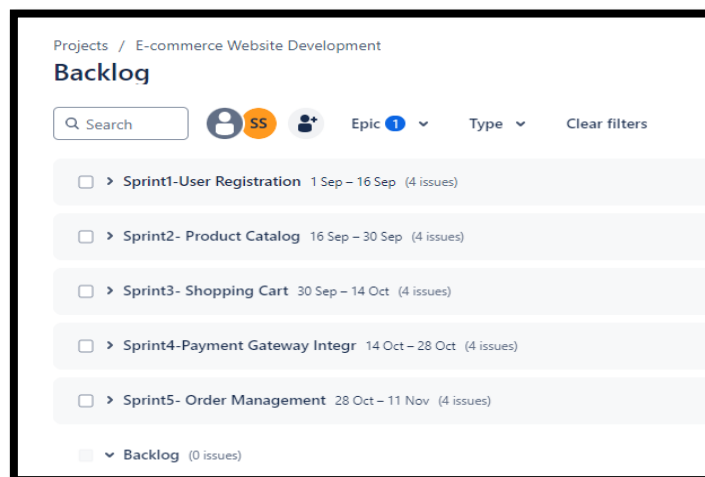
By planning in sprints, we can focus on specific tasks one at a time, allowing for better organization, time management, and teamwork. At the end of each sprint, we review our progress and make any necessary adjustments for the next sprint.

❑ Chapter 6

SPRINT BREAKDOWN AND TASK DESCRIPTIONS

Sprint 1: User Registration

- **Task 1**: User Registration and Login

  Set up the basic user registration and login functionality.

- **Task 2**: Design Registration and Login UI

  Create user-friendly UI for the registration and login pages.

- **Task 3**: Implement Backend for User Registration and Login

  Develop the backend logic to handle user registration and login.

- **Task 4:** Email Verification Implementation

  Integrate email verification to ensure user authenticity.

Sprint 2: Product Catalog

- **Task 1:** Design Product Catalog UI

  Create the user interface for displaying the product catalog.

- **Task 2:** Implement Product Listing and Filtering

  Add product listing functionality and implement filtering options.

- **Task 3:** Backend Integration for Product Details

  Connect the product catalog to the backend for dynamic product information.

Sprint 3: Shopping Cart

- **Task 1:** Design Shopping Cart UI

  Design an intuitive shopping cart interface for users.

- **Task 2:** Implement Add to Cart Functionality

  Enable users to add products to their shopping carts.

- **Task 3:** Integrate Cart with Backend

  Link the shopping cart UI to the backend for real-time data processing.

Projects / E-commerce Website Development

Backlog

Q Search   Epic ❶ ⌄   Type ⌄   Clear filters

☐ > **Sprint2- Product Catalog** 16 Sep – 30 Sep (4 issues)

☐ ⌄ **Sprint3- Shopping Cart** 30 Sep – 14 Oct (4 issues)

Complete all tasks related to the shopping cart.

▣ ECWD-4 Shopping Cart

☑ ECWD-16 Design Shopping Cart UI

☑ ECWD-17 Implement Add to Cart Functionality

☑ ECWD-18 Integrate Cart with Backend

+ Create issue

Sprint 4: Payment Gateway Integration

- **Task 1:** Select and Integrate Payment Gateway
  Choose and integrate a suitable payment gateway (e.g., PayPal, Stripe).
- **Task 2:** Develop Payment Flow
  Implement a smooth and secure payment process for users.
- **Task 3:** Implement Payment Confirmation and Receipt Email
  Set up payment confirmation notifications and email receipts.

Projects / E-commerce Website Development
Backlog

Q Search   SS   Epic **1** ⌄   Type ⌄   Clear filters

⌄ **Sprint4-Payment Gateway Integr** 14 Oct – 28 Oct (4 issues)
Complete all tasks related to payment gateway integration.

- ECWD-5   Payment Gateway Integration
- ☑ ECWD-13   Select and Integrate Payment Gateway
- ☑ ECWD-14   Develop Payment Flow
- ☑ ECWD-15   Implement Payment Confirmation and Receipt Email

+ Create issue

Sprint 5: Order Management

- **Task 1:** Design Admin Order Management UI
  Create the UI for administrators to manage customer orders.
- **Task 2:** Implement Order Tracking and Status Updates
  Develop functionality to track orders and update statuses.
- **Task 3:** Implement Customer Notification System
  Set up notifications to inform customers about order updates.
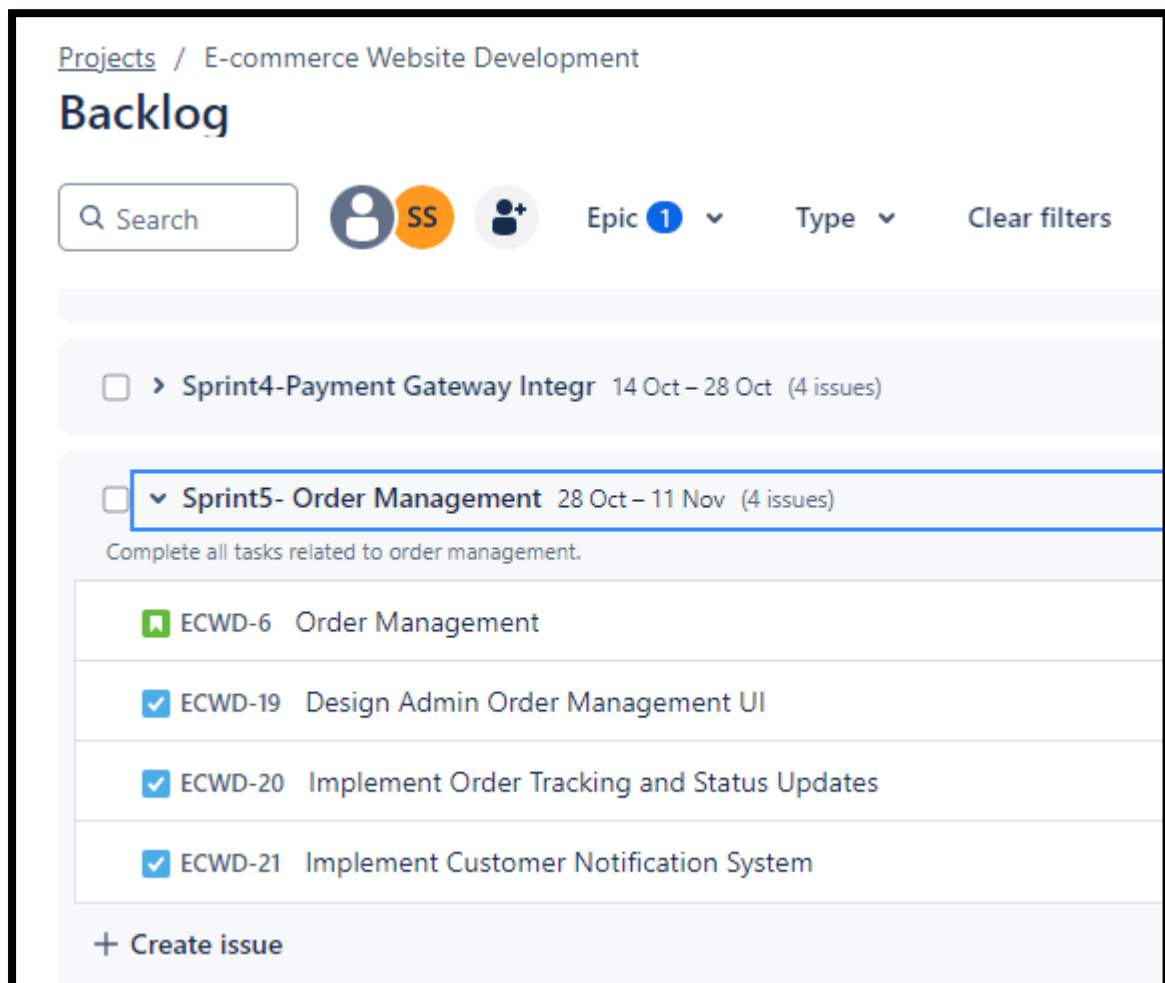
This breakdown simplifies the tasks for each sprint, making it easy to understand the key objectives and actions for your project.

❑ Chapter 7

<u>SCRUM FRAMEWORK IMPLEMENTATION</u>

Roles in the Scrum Framework

1. **Product Owner:** The person responsible for defining the features of the e-commerce website. They prioritize tasks based on customer needs and ensure the team is working on the right tasks.
2. **Scrum Master:** This role helps the team follow Scrum practices. They facilitate meetings, remove obstacles that the team might face, and ensure that everyone is working efficiently.
3. **Development Team:** A group of developers who are responsible for building the e-commerce website. They work together to complete tasks and deliver a functional product at the end of each sprint.

Time Duration of Each Sprint

Each sprint in this project lasts two weeks. During this time, the team focuses on completing specific tasks related to the sprint's goal (e.g., user registration or product catalog). This timeframe allows for regular progress updates and adjustments based on feedback.

Daily Stand-ups and Sprint Reviews

- **Daily Stand-ups:** These are short, daily meetings (about 15 minutes) where team members discuss what they worked on yesterday, what they plan to work on today, and any challenges they are facing. This keeps everyone informed and helps identify any issues quickly.
- **Sprint Reviews:** At the end of each sprint, the team meets to review what was completed. They demonstrate the work done during the sprint to stakeholders and gather feedback. This helps ensure that the project is on the right track and allows for adjustments in the next sprint based on what was learned.

❑ Chapter 8

<u>JIRA SETUP AND MANAGEMENT</u>

How Jira Was Used for Sprint Planning

In this project, we used Jira to plan our sprints effectively. First, we created an epic called **"E-commerce Website Development,"** which served as a large goal for our project. We then broke this epic down into smaller sprints, each focusing on specific features of the website. For example, the first sprint was dedicated to user registration, while the second sprint focused on the product catalog. This organization helped us understand what we needed to work on and set clear goals for each sprint.

Task Creation and Assignment in Jira

After defining our sprints, we created tasks for each one in Jira. Each task represented a specific job that needed to be done. For instance, in Sprint 1, we created tasks like **"Design Registration and Login UI" and "Implement Backend for User Registration."** We assigned these tasks to team members based on their strengths and skills, making sure everyone had a clear understanding of their responsibilities. This assignment process ensured that all tasks were covered and helped us work efficiently.

Monitoring and Tracking Progress Using Jira

Throughout the project, we used Jira to monitor our progress. We regularly updated the status of each task, marking them as "**To Do," "In Progress," or "Done."** This allowed us to see how much work was completed and what still needed to be done. We also held daily stand-up meetings to discuss any challenges and adjust our plans as needed. This way, Jira helped us stay organized and focused, ensuring that we met our deadlines and delivered a successful project.

CONCLUSION

In this project, we successfully developed an e-commerce website using the Agile methodology and managed the process through Jira. This approach allowed us to break the project into manageable sprints, each focusing on specific features.

Key Takeaways from the Project:

- **Enhanced Collaboration**: Working in sprints fostered teamwork and communication among members, ensuring everyone was aligned on tasks and goals.
- **Flexibility:** Agile methodology allowed us to adapt to changes and new ideas quickly, which is essential in the fast-paced world of e-commerce.
- **Customer Focus:** By developing features iteratively, we could gather feedback at each stage, helping us better meet user needs.
- **Improved Time Management:** Each sprint had a clear timeline, which helped us stay on track and deliver our project on time.

How Agile and Jira Improved Project Workflow:

- **Organized Task Management:** Jira helped us organize our tasks effectively, allowing us to assign responsibilities and track progress in real time.
- **Visual Tracking:** The visual boards in Jira made it easy to see the status of tasks and identify any bottlenecks in the workflow.
- **Sprint Reviews:** Regular sprint reviews enabled us to assess our progress, learn from our experiences, and continuously improve our processes.
- **Documentation:** Jira provided a centralized platform for documenting all project details, making it easier to reference and manage changes.

Overall, using Agile and Jira significantly enhanced our project management process, resulting in a more efficient and collaborative development of the e-commerce website.

<u>REFERENCES</u>

- **Jira**

Jira is a project management tool used to plan, track, and manage Agile software development projects. It helped in organizing tasks, tracking progress, and facilitating communication among team members.

Link to Jira: https://www.atlassian.com/software/jira

- **Google :**

Google was used as a resource to gather information about Agile methodology and best practices in project management. The search engine provided access to various articles, tutorials, and documentation to understand the principles of Agile and how to implement them effectively.