Agile Project

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Online Shopping Application

The telephone agent uses an order registry and customer catalog to obtain access to an order & a customer respectively.

The order registry uses an order number as a qualifier to select particular order instance. A customer catalog uses customer name and phone number as a qualifier to select particular customer.

The attributes of an order are the order numbers and time when it is placed. The order consists of many items.

An item has item number, a quantity, unit price. It also has reference to catalog item which represents listing.

When an order is cancelled or committed, it cancels or commits each of its items first. When an order's total price method is invoked, the order calls the total price method of each of items and returns the sum.

Valid Considerations:

Inclusion: Customer provides his/her details online before placing an order.

Agile Documents –

Document 1: Definition of Done

Document 2- Product Vision

Document 3: User stories

Document 4: Agile PO Experience

Document 5: Product and sprint backlog and product and sprint burndown charts

Document 6: Sprint meetings

Document 1: Definition of Done

The **Definition of Done (DoD)** ensures that a user story or task is completed according to project standards and quality requirements. The following checklist must be fulfilled before considering any feature or functionality as "Done":

- 1. Produced Code for Presumed Functionalities:
 - The development team has written and committed code implementing the intended functionalities as described in the user stories.
- 2. Assumptions of User Story Met:
 - The developed feature aligns with the business requirements and satisfies all conditions outlined in the user story.
- 3. Project Builds Without Errors:
 - The application compiles successfully without build-time errors, ensuring that the integration of new code does not break the system.
- 4. Unit Tests Written and Passing:
 - Unit tests are implemented to validate the functionality of the code, and all tests pass without failures.
- 5. Project Deployed on the Test Environment Identical to Production Platform:
 - The application is deployed in a test environment that mimics the production setup to ensure stability and reliability.
- 6. Tests on Devices/Browsers Listed in the Project Assumptions Passed:
 - The application has been tested on all required devices and browsers, ensuring cross-compatibility.
- 7. Feature Ok-ed by UX Designer:
 - The UX designer has reviewed and approved the feature, confirming that the user interface and experience meet design expectations.
- 8. QA Performed & Issues Resolved:
 - Quality Assurance (QA) testing is completed, and all identified issues have been logged, addressed, and verified.
- 9. Feature is Tested Against Acceptance Criteria:
 - The feature has been tested to confirm compliance with the acceptance criteria defined in the user story.
- 10. Feature Ok-ed by Product Owner:
 - The Product Owner has reviewed and approved the feature as per business requirements.

11. Refactoring Completed:

- Any necessary code improvements have been implemented to enhance maintainability, readability, and efficiency.
- 12. Any Configuration or Build Changes Documented:
 - Any configuration updates, environment settings, or build-related changes are properly documented.

13. Documentation Updated:

• All relevant documents, including user guides, API documentation, and technical notes, are updated.

14. Peer Code Review Performed:

• The code has been reviewed by peers, ensuring adherence to coding standards, best practices, and security guidelines.

Document 2- Product Vision

| Scrum Project | Online Shopping Application | | | |
|--------------------|---|--|-----------|--|
| Name: | onine shopping ripplication | | | |
| Venue: | [To be decided] | | | |
| | | | . | |
| Date: | Start time: | End Time: | Duration: | |
| Client: | Mr. ABC | | | |
| Stakeholder List: | Business Own | ner (Client) | | |
| | Customers (E | nd Users) | | |
| | Telephone Ag | gents | | |
| | Scrum Team | Scrum Team (Product Owner, Scrum Master, | | |
| | Developers, QA Testers) | | | |
| | Database Administrators | | | |
| | UI/UX Design | iers | | |
| | Network & Second S | ecurity Team | | |
| | Customer Su | pport Team | | |
| Scrum Team | | | | |
| Scrum Master: | Mr. XYZ | | | |
| Product owner: | Mr. PQR | | | |
| Scrum Developer 1: | Mr. LMN | | | |
| Scrum Developer 2: | Mr. POL | | | |
| Scrum Developer 3: | Mr. KST | | | |
| Scrum Developer 4: | Mr. MSP | | | |
| Scrum Developer 5: | Mr. MNO | | | |

Vision: To develop an Online Shopping Platform that improves order tracking, customer management, and automated price calculations, allowing businesses to manage customer orders efficiently and providing customers with a seamless shopping experience.

| Target Group | Needs | Product | Value |
|---|--|---|---|
| Customers looking for an easy-to-use online shopping system. Telephone Agents who need a structured and automated order processing system. Business Owners aiming to scale and optimize order management. | Customers: Require an intuitive platform for placing, tracking, and managing orders without relying on telephone agents. Agents: Need fast and structured order retrieval using order numbers and a customer catalog based on names and phone numbers. Business Owners: Seek an automated, scalable, and secure order management solution. | An Online Shopping Platform with: Customer Registration & Profile Management Order Registry & Tracking System Secure Customer Data Storage & Searchability Automated Order Calculations & Modifications (Cancellation & Commitment) Real-Time Data Access for Orders & Customers | For Customers: Faster, more convenient shopping experience with order tracking. For Businesses: Increased efficiency, better order management, and reduced manual errors. For Agents: Easier access to order and customer details, minimizing workload. Business Model: Scalable platform capable of handling an increasing number of users, ensuring future growth and expansion. |

Document 3: User stories

| User story No: 1 | Tasks: 2 | Priority: High |
|--------------------------|-----------------------------|--------------------------------------|
| Value statement: | | |
| As a new user, | | |
| I want to register on th | e platform | |
| So that I can place orde | rs and track my purchases | |
| BV: 1000 | CP: 8 | |
| Acceptance criteria: | | |
| 1. The system sho | uld allow users to enter th | eir name, phone number, and address. |
| • | | |

2. Users should receive a confirmation email/SMS upon successful registration.

| User story No: 2 | Tasks: 2 | Priority: High | | | |
|---|--------------------------------|----------------|--|--|--|
| Value statement: | Value statement: | | | | |
| As a registered user, | | | | | |
| I want to log in to my account | I want to log in to my account | | | | |
| So that I can place and track my orders. | | | | | |
| BV: 1000 CP: 5 | | | | | |
| Acceptance criteria: | | | | | |
| 1. Users must log in using their phone number and password. | | | | | |
| 2. Incorrect credentials should prompt an error message. | | | | | |

| User story No: 3 | No: 3 Tasks: 3 Priority: High | | |
|--|-------------------------------|--|--|
| Value statement: | | | |
| As a customer, | | | |
| I want to place an orde | r online | | |
| So that I can buy produ | cts conveniently. | | |
| BV: 1000 | CP: 13 | | |
| Acceptance criteria: | | | |
| 1. Customers can select multiple items with quantity and unit price. | | | |
| 2. The system should generate a unique order number. | | | |
| 3. Users should receive an order confirmation message. | | | |

3. Users should receive an order confirmation message.

| User story No: 4 | Tasks: 2 | Priority: Medium | | |
|--|---------------------------|------------------|--|--|
| Value statement: | | | | |
| As a customer, | | | | |
| I want to cancel my order | I want to cancel my order | | | |
| So that I can modify or re | move unnecessary items | 5. | | |
| 3V: CP: 8 | | | | |
| Acceptance criteria: | | | | |
| 1. Users should be able to cancel an order before it is processed. | | | | |
| 2. Users should receive a cancellation confirmation. | | | | |

| User story No: 5 | Tasks: 3 | Priority: High | | |
|--|---------------------------------|----------------|--|--|
| Value statement: | | | | |
| As a customer, | | | | |
| I want to track my order statu | I want to track my order status | | | |
| So that I can know when to ex | kpect delivery. | | | |
| BV: 1000 | CP: 13 | | | |
| Acceptance criteria: | | | | |
| 1. Users should see order status updates (Processing, Shipped, Delivered). | | | | |
| 2. Customers should receive email/SMS notifications for status changes. | | | | |
| 2 Orders should have a unique tracking number | | | | |

| 3. | Orders should | d have a unique tracking number | ſ . |
|----|---------------|---------------------------------|------------|
| | | | |

| User story No: 6 | story No: 6Tasks: 2Priority: Medium | | | | |
|---|-------------------------------------|--|--|--|--|
| Value statement: | Value statement: | | | | |
| As a telephone agent, | | | | | |
| I want to search for customer details | | | | | |
| So that I can assist them with orders. | | | | | |
| BV: 500 | CP: 8 | | | | |
| Acceptance criteria: | | | | | |
| 1. Agents should be able to search customers using name and phone number. | | | | | |
| The system should display customer details and order history. | | | | | |

| User story No: 7 | Tasks: 2 | Priority: Medium | | |
|---|---------------------------|------------------|--|--|
| Value statement: | | | | |
| As a telephone agent, | As a telephone agent, | | | |
| I want to retrieve orders using order numbers | | | | |
| So that I can assist custom | ers with their purchases. | | | |
| BV: 500 CP: 8 | | | | |
| Acceptance criteria: | | | | |
| 1. Agents should enter an order number to view order details. | | | | |
| 2. The system should display itemized order details, total price, and status. | | | | |

| User story No: 8 | Tasks: 2 | Priority: High |
|--|--------------------------------|----------------|
| Value statement: | | |
| As a customer, | | |
| I want to see the t | otal price of my order | |
| So that I can revie | w my purchase before checkout. | |
| BV: 1000 | CP: 5 | |
| Acceptance criter | ia: | |
| 1. The system should sum up the unit price * quantity for all items in an order. | | |
| 2. The total price should update dynamically when items are added or removed. | | |

| User story No: 9 | Tasks: 3 | Priority: High | |
|---|---|----------------|--|
| Value statement: | | | |
| As a system administrator, | | | |
| I want to ensure customer dat | a is stored securely | | |
| So that I can protect sensitive | So that I can protect sensitive information. | | |
| BV: 1000 | CP : 20 | | |
| Acceptance criteria: | | | |
| 1. Customer details should be encrypted before storage. | | | |
| 2. Unauthorized users sh | 2. Unauthorized users should not access customer information. | | |
| 3. The system should comply with data protection regulations. | | | |

| User story No:10 | Tasks: 2 | Priority: Low | |
|---------------------------------|-----------------------|---------------|--|
| Value statement: | | | |
| As a customer, | | | |
| I want to receive notifications | about my orders | | |
| So that I stay informed about | order status updates. | | |
| BV: 100 | CP: 3 | | |
| Acceptance criteria: | | | |

- 1. Customers should receive notifications for order confirmation, dispatch, and delivery.
- 2. Messages should be clear and include relevant order details.

| User story No: 11 | Tasks: 3 | Priority: High |
|----------------------------------|---------------------------------|--------------------------|
| Value statement: As a custom | er, | |
| I want to search for products | | |
| So that I can quickly find what | I need. | |
| | | |
| BV: 1000 | CP: 10 | |
| Acceptance criteria: Users sh | ould be able to search product | s by name, category, and |
| brand. | | |
| The system should display rele | evant search results with image | es and prices. |
| Users should be able to filter a | and sort search results. | |
| | | |
| | | |

| User story No: 12 | Tasks: 2 | Priority: High | | |
|---|---------------------------------|----------------|--|--|
| Value statement: As a customer, | | | | |
| I want to browse products by | category | | | |
| So that I can explore available | options easily | | | |
| | | | | |
| BV: 1000 | BV: 1000 CP: 6 | | | |
| Acceptance criteria: | | | | |
| 1. Products should be grouped into categories | | | | |
| 2. Users should be able to | o navigate through categories e | asily. | | |

| User s | tory No: 13 | Tasks: 3 | Priority: High |
|---------------|---|------------------------|---|
| Value | statement: | | |
| As a c | ustomer, | | |
| l want | to view product deta | ils | |
| So tha | t I can make an inforn | ned purchasing decisio | n |
| | | | |
| BV: 10 | 000 | CP: 9 | |
| | | | |
| Accep | tance criteria: | | |
| • | | have a detailed page v | with a description, price, and |
| • | | have a detailed page v | with a description, price, and |
| 1. | Each product should specifications. | | with a description, price, and s and availability status. |
| 1. 2. | Each product should specifications. Users should be able | e to see product image | |

| User story No: 14 Tasks: 3 Priority: High | | | |
|--|---|----------------------------|--|
| Value statement: | | | |
| As a customer, | | | |
| I want to add products t | o a cart | | |
| So that I can review the | m before purchasing. | | |
| | | | |
| BV: 1000 | CP: 8 | | |
| PA: 1000 | | | |
| Acceptance criteria: | | | |
| Acceptance criteria: | able to add, update, and re | emove items from the cart. | |
| Acceptance criteria: 1. Users should be | able to add, update, and re display the total cost dynar | | |

3. The cart should be accessible from all pages.

| User story No: 15 | Tasks: 3 | Priority: High |
|---|---------------------|----------------------|
| Value statement: | | |
| As a customer, | | |
| I want a smooth che | ckout process | |
| So that I can comple | te my order quickly | |
| | | |
| | | |
| BV: 1000 | CP: 12 | |
| BV: 1000 Acceptance criteria: | | |
| Acceptance criteria: | | s before confirming. |
| Acceptance criteria: 1. Users should | | e |

| User story N | lo: 16 | Tasks: 4 | Priority: High | | |
|---|----------------------|-----------------------|----------------|--|--|
| Value stater | nent: | | | | |
| As a custom | As a customer, | | | | |
| I want to pa | y online securely | | | | |
| So that I can | complete my pur | rchase without hassle | | | |
| | | | | | |
| BV: 1000 | | CP: 15 | | | |
| Acceptance | Acceptance criteria: | | | | |
| 1. The system should support multiple payment options (Credit/Debit Cards, UPI, Net | | | | | |
| T. 1116 (| | | | | |
| Bank | • | | | | |
| Bank | ing). | d be encrypted and pr | | | |

| User story No: 17 | Tasks: 3 | Priority: Medium |
|--|-----------------------|------------------|
| Value statement: | | |
| As a customer, | | |
| I want to apply discount coo | des | |
| So that I can get the best de | eals | |
| _ | | |
| BV: 800 | CP: 10 | |
| Acceptance criteria: | | |
| 1. Users should be able | e to enter promo code | es at checkout. |
| 2. The system should validate and apply discounts correctly. | | |
| 2 Discounted prices should be reflected in the order summary | | |

3. Discounted prices should be reflected in the order summary.

| User st | ory No: 18 | Tasks: 3 | Priority: Medium |
|----------------|--|--------------------------|------------------|
| Value s | tatement: | | |
| As a cu | stomer, | | |
| l want t | o leave reviews and | l ratings | |
| So that | I can share my expe | rience with other users | |
| BV: 800 | | CP: 10 | |
| Accept | ance criteria: | | |
| 1. | Registered users sh | ould be able to submit p | roduct reviews. |
| 2. | 2. The system should display average ratings on product pages. | | |
| 3. | Reviews should be | moderated before being | published. |

| User story No: 19 | Tasks: 2 | Priority: Low |
|--------------------------------------|-----------|--------------------------|
| Value statement: | | |
| As a customer, | | |
| I want to save items to a | wish list | |
| | | |
| So that I can buy them la | ater. | |
| So that I can buy them la | ater. | |
| So that I can buy them la BV: 500 | eter. | |
| BV: 500 | | |
| BV: 500 Acceptance criteria: | | to/from their wish list. |

| User story No: | 20 | Tasks: 3 | Priority: Medium |
|--|--|--------------------|------------------|
| Value stateme | nt: | | |
| As a user, | | | |
| I want to acces | s the platform i | n my preferred lan | guage |
| So that I can na | avigate comfort | ably. | |
| BV: 700 | | CP: 12 | |
| Acceptance cri | teria: | | |
| 1. Users should be able to choose their preferred language. | | | |
| 2. The inte | 2. The interface should support multiple regional languages. | | |
| 3. Translations should be accurate and contextually appropriate. | | | |

| User story No: 21 | Tasks: 3 | Priority: High |
|-------------------------------|--------------------------------|----------------|
| Value statement: | | |
| As a seller, | | |
| I want to list my products, | | |
| so that customers can purchas | se them online. | |
| BV: 1000 | CP: 13 | |
| Acceptance criteria: | | |
| 1. Sellers should add proc | duct name, description, images | s, and price. |

2. The system should validate product details before listing.

| Jser story No: 22Tasks: 2Priority: Medium | | | |
|---|---------------------------|-------------------------|--|
| Value statement: | | | |
| As a customer, | | | |
| I want to filter and searc | h for products, | | |
| so that I can find what I | need quickly. | | |
| BV: 500 | CP: 8 | | |
| Acceptance criteria: | | | |
| 1. The system shou | ld allow searching by nam | e, category, and price. | |
| 2. Filters should be | applicable based on relev | ance. | |

| 2. | Filters should be applicable based on relevance. |
|----|--|
| | |

| User story No: 23 | Tasks: 3 | Priority: High |
|-------------------------------|----------|----------------|
| Value statement: | | |
| As a system administrator, | | |
| I want to monitor system perf | ormance, | |
| so that I can ensure uptime. | | |
| | | |

| BV: 1000 | CP : 20 | |
|--|----------------|--|
| Acceptance criteria: | | |
| 1. The system should generate performance metrics. | | |
| 2. Admins should receive alerts for downtime issues. | | |

| User story No: 24 | Tasks: 2 | Priority: Medium |
|--|----------------------|------------------|
| Value statement: | | |
| As a customer, | | |
| I want to update my pro | file details, | |
| | | |
| | account information. | |
| so that I can manage my | account information. | |
| | account information. | |
| so that I can manage my | | |
| so that I can manage my BV: 500 Acceptance criteria: | | and address. |

| onal data. | |
|----------------------|-------------------|
| CP: 5 | |
| | |
| account deletion. | |
| move personal data s | securely. |
| | account deletion. |

| User story No: 26 | Tasks: 3 | Priority: High |
|-------------------------------|------------------------|----------------|
| Value statement: | | |
| As a customer, | | |
| I want to receive promotiona | l offers, | |
| so that I can save money on r | ny purchases. | |
| BV: 1000 | CP: 8 | |
| Acceptance criteria: | | |
| 1. Users should opt in fo | r promotional emails | /SMS. |
| 2. The system should ap | ply valid discounts au | itomatically. |

| User story No: 27 | Tasks: 2 | Priority: Medium |
|------------------------|-------------|------------------|
| Value statement: | | |
| As a seller, | | |
| I want to manage produ | ct returns, | |
| | | |

| so that I can process refunds efficiently. | | |
|---|--|--|
| BV: 500 CP: 8 | | |
| Acceptance criteria: | | |
| 1. The system should track return requests. | | |
| 2 | 2. Refunds should be processed based on return status. | |

2. Refunds should be processed based on return status.

| User story No: 28 | ser story No: 28 Tasks: 2 Priority: High | | | |
|-----------------------|--|-----------------|--|--|
| Value statement: | | | | |
| As a delivery agent, | | | | |
| I want to update orde | r delivery status, | | | |
| so that customers sta | v informed. | | | |
| | , | | | |
| BV: 1000 | CP: 5 | | | |
| Acceptance criteria: | | | | |
| 1. Agents | should mark orders as delive | ered. | | |
| 2. Custon | ners should receive a deliver | y confirmation. | | |

| User story No: 29 | Tasks: 2 | Priority: Medium |
|----------------------------|------------------------------|------------------|
| Value statement: | | |
| As a customer, | | |
| I want to schedule deliver | ries, | |
| so that I receive my order | at a convenient time. | |
| BV: 500 | CP: 8 | |
| Acceptance criteria: | · | |
| 1. Users should select | ct delivery slots. | |
| 2. The system should | d validate available time sl | ots. |

| User story No: 30 | Tasks: 3 | Priority: High |
|-------------------------|---------------------------------|----------------|
| Value statement: | | |
| As a system administr | ator, | |
| I want to prevent frau | dulent transactions, | |
| so that I can secure th | e platform. | |
| BV: 1000 | CP: 20 | |
| Acceptance criteria: | | |
| 1. The system she | ould detect suspicious activiti | es. |
| 2. Admins should | receive alerts for flagged tra | nsactions. |

| User story No: 31 | Tasks: 2 | Priority: Low |
|---------------------------|-----------------------------|------------------|
| Value statement: | | |
| As a customer, | | |
| I want to save multiple a | ddresses, | |
| so that I can choose whe | ere to receive my orders. | |
| BV: 100 | CP: 5 | |
| Acceptance criteria: | | |
| 1. Users should a | dd, edit, or delete address | ses. |
| 2. The system she | ould save multiple address | ses per account. |

| User story No: 32 | Tasks: 3 | Priority: High |
|--------------------------|----------------------------|----------------|
| Value statement: | | |
| As a seller, | | |
| I want to receive custor | ner feedback, | |
| so that I can improve m | y service. | |
| BV: 1000 | CP: 8 | |
| Acceptance criteria: | · | |
| 1. The system s | should allow feedback subr | nissions. |
| 2. Sellers shoul | d access feedback reports. | |

| User story No: 33 | Tasks: 2 | Priority: Medium |
|--------------------------------|-------------------------------|------------------|
| Value statement: | | |
| As a customer, | | |
| I want to reorder previous put | rchases, | |
| so that I can save time. | | |
| BV: 500 | CP: 5 | |
| Acceptance criteria: | | |
| 1. Users should view pas | t orders. | |
| 2. The system should allo | ow quick reordering of items. | |

| User story No: 34 | Tasks: 2 | Priority: High | | |
|---------------------------------|---------------|----------------|--|--|
| Value statement: | | | | |
| As a system administrator, | | | | |
| I want to ensure GDPR compl | iance, | | | |
| so that I protect user privacy. | | | | |
| | | | | |
| BV: 500 | CP: 13 | | | |
| Acceptance criteria: | | | | |

- 1. The system should store and process data securely.
- 2. Users should have access to their stored data.

| User story No: 3 | 5 T | Tasks: 2Priority: High | | | |
|---|------------------|------------------------|----------|--|--|
| Value statement | • | | | | |
| As a customer, | | | | | |
| I want to pay usi | ng cash on deliv | very (COD), | | | |
| so that I have fle | xible payment o | options. | | | |
| BV: 1000 | C | P: 8 | | | |
| Acceptance crite | eria: | | | | |
| 1. The system should allow COD selection at checkout. | | | | | |
| 2. COD sho | uld be available | only in eligible loo | cations. | | |

| User story No: 36 | Tasks: 3 | Priority: Medium |
|--------------------------------|-----------------------|------------------|
| Value statement: | | |
| As a customer, | | |
| I want to earn loyalty points, | | |
| so that I can get rewards on f | uture purchases. | |
| BV: 500 | CP: 8 | |
| Acceptance criteria: | | |
| 1. Users should earn | points based on purch | nase value. |
| 2. Points should be re | deemable for discour | nts. |

| User story No: 37 | Tasks: 3 | Priority: High | |
|--------------------------------------|-----------------------|----------------|--|
| Value statement: | | | |
| As a seller, | | | |
| I want to analyse sales t | rends, | | |
| | | | |
| so that I can make bette | r business decisions. | | |
| so that I can make bette | r business decisions. | | |
| so that I can make bette BV: 1000 | r business decisions. | | |
| | | | |
| BV: 1000 Acceptance criteria: | | reports. | |

| User story No: 38 | Tasks: 2 | Priority: Low |
|---------------------------------|--------------------|---------------|
| Value statement: | | |
| As a customer, | | |
| I want to be able to report a c | lefective product, | |
| so that I can get a replacemer | nt. | |

BV: 100

CP: 5

Acceptance criteria:

- 1. Users should submit defect reports.
- 2. The system should initiate a replacement/refund process.

| User story No: 39 | Tasks: 3 | Priority: High |
|--------------------------|-----------------------------|----------------|
| Value statement: | | |
| As a system administrate | ır, | |
| I want to enable two-fac | tor authentication (2FA), | |
| so that I enhance accour | it security. | |
| BV: 1000 | CP: 13 | |
| Acceptance criteria: | | |
| 1. Users should ena | ble 2FA via SMS or email. | |
| 2. The system shoul | d require 2FA for high-risk | logins. |

| User story No: 40 | Tasks: 2Priority: Medium | | | | |
|--------------------------------|--------------------------|--------------------------|--|--|--|
| Value statement: | | | | | |
| As a customer, | | | | | |
| I want to chat with support a | gents, | | | | |
| so that I can resolve my issue | es quickly. | | | | |
| BV: 500 | CP: 8 | | | | |
| Acceptance criteria: | | | | | |
| 1. The system should pr | ovide live chat suppo | ort. | | | |
| 2. Users should be able | to initiate a conversa | tion from their account. | | | |

Document 4: Agile PO Experience

Agile Product Owner (PO) Experience

1. Role and Responsibilities of a Product Owner

The Product Owner (PO) in Agile plays a crucial role in ensuring the development team delivers maximum value. Key responsibilities include:

- Defining and managing the product backlog.
- Prioritizing user stories based on Business Value (BV) and Complexity Points (CP).
- Collaborating with stakeholders, developers, and Scrum teams.
- Ensuring user stories are well-defined with clear acceptance criteria.
- Participating in sprint planning, reviews, and retrospectives.
- Making decisions on product increments and releases.
- Aligning product development with business goals and customer needs.

2. Product Backlog Management

The PO maintains a structured backlog by:

- Creating user stories with clear goals and value.
- Assigning Business Value (BV) using Scrum currency denominations (₹1000, ₹500, ₹100, ₹50, ₹20, ₹10).
- Assigning Complexity Points (CP) using Planning Poker (1, 2, 3, 5, 8, 13, 20, 40, 100, BIG).
- Conducting backlog refinement sessions with stakeholders and developers.
- Removing outdated or irrelevant backlog items.

3. Sprint Planning and Execution

During sprint planning:

- The PO collaborates with the Scrum team to select user stories based on priority and capacity.
- Provides clarifications on user stories to developers.
- Ensures that each story meets the "Definition of Ready" before execution.
- Assists developers in breaking down complex stories into smaller tasks.

4. User Story Definition and Acceptance Criteria

Each user story follows the format:

As a [user], I want to [goal], so that [benefit].

- User stories are assigned BV and CP values.
- Acceptance criteria are clearly defined to guide development and testing.

5. Stakeholder Collaboration

- Conducts regular meetings with stakeholders to gather requirements and feedback.
- Engages in discussions with developers to refine requirements.
- Aligns product vision with market trends and customer expectations.

6. Sprint Review and Retrospective

- Reviews completed user stories and gathers feedback.
- Ensures sprint goals are met.
- Identifies areas for improvement in the development process.
- Works with the team to enhance future sprints based on feedback.

7. Agile Metrics and Reporting

- Tracks team velocity using sprint burndown charts.
- Monitors backlog health and ensures timely refinement.
- Analyses completed vs. planned story points.

8. Continuous Improvement

- Encourages innovation and iterative improvements.
- Conducts workshops and training sessions for Agile best practices.

9. Challenges and Solutions

Common Challenges:

- Conflicting stakeholder priorities.
- Unclear or frequently changing requirements.
- Limited development capacity.
- Technical debt and backlog overload.

Solutions:

- Prioritization techniques like MoSCoW (Must have, Should have, Could have, Won't have).
- Conducting regular backlog grooming sessions.
- Aligning with stakeholders through transparent communication.
- Ensuring technical debt is addressed in each sprint.

Document 5: Product and sprint backlog and product and sprint burndown charts

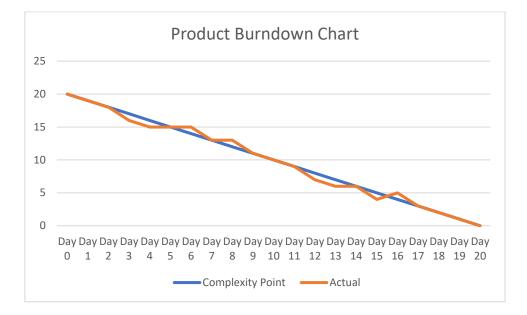
Product Backlog:

| User Story | User Story | Tasks | Priority | BV | СР | Sprint |
|---------------|---------------------------------------|-------|----------|---------|----|--------|
| ID | | | | | | |
| 1. | Customer Registration | 2 | High | ₹ 1,000 | 8 | - |
| 2. | Customer Login | 2 | High | ₹ 1,000 | 5 | - |
| 3. | Order Placement | 3 | High | ₹ 1,000 | 13 | - |
| 4. | Order Cancellation | 2 | Medium | ₹ 500 | 8 | - |
| 5. | Order Tracking | 3 | High | ₹ 1,000 | 13 | - |
| 6. | Customer Catalog for Agents | 2 | Medium | ₹ 500 | 8 | - |
| 7. | Order Registry for Agents | 2 | Medium | ₹ 500 | 8 | - |
| 8. | Total Price Calculation | 1 | High | ₹ 1,000 | 5 | - |
| 9. | Secure Customer Data Storage | 3 | High | ₹ 1,000 | 20 | - |
| 10. | Customer Notifications | 2 | Low | ₹ 100 | 3 | - |

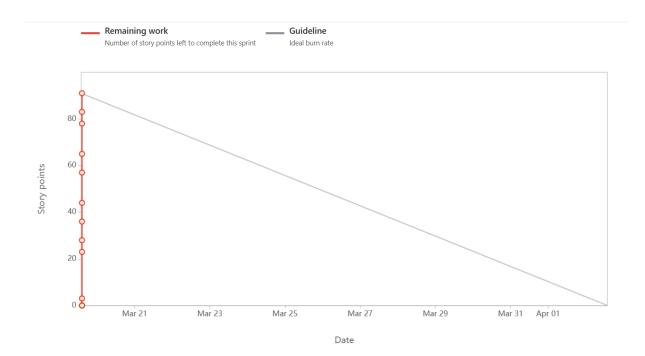
Sprint Backlog:

| User Story ID | User Story | Jser Story Tasks Owner S | | Status | Estimated Effort (CP) | |
|---------------------|-------------------------------|--------------------------|----------------|----------------|-----------------------------|--|
| 1. | Customer Registration | 2 | Developer A | In Progress | 8 | |
| 2. | Customer Login | 2 | Developer B | Not Started | 5 | |
| 3. | Order Placement | 3 | Developer C | Not Started | 13 | |
| 5. | 5. Order Tracking | | Developer D | Not Started | 13 | |
| 8. | 8. Total Price Calculation | | Developer E | Not Started | 5 | |

Product Burndown Chart:



Sprint Burndown Chart:



Document 6: Sprint meetings

Meeting Type 1: Sprint Planning meeting

| Date | 05/01/2025 | |
|-------------|---|--|
| Time | 10:00 AM | |
| Location | Meeting Room | |
| Prepared By | Scrum Master / Product Owner | |
| Attendees | Product Owner, Scrum Master, Development Team, QA Team | |

Agenda Topics

| Торіс | Presenter | Time Allotted | | |
|-----------------------------|------------------|---------------|--|--|
| Sprint Goals Review | Product Owner | 15 mins | | |
| Backlog Prioritization | Scrum Master | 20 mins | | |
| Task Breakdown | Development Team | 30 mins | | |
| QA & Testing Strategy | QA Lead | 15 mins | | |
| Sprint Capacity Planning | Scrum Master | 15 mins | | |

Other Information

| Observers | Product Owner (to clarify backlog items) |
|---------------|--|
| Resources | Jira, Balsamiq, Visio |
| Special Notes | Ensure all dependencies are resolved before the sprint begins. |

Meeting Type 2: Sprint review meeting

| Date | 30/01/2025 |
|-------------|---|
| Time | 10:00 AM |
| Location | Meeting Room |
| Prepared By | Scrum Master / Product Owner |
| Attendees | Scrum Master, Product Owner, Development Team, Stakeholders (Clients, Management, End Users) |

Sprint Status:

| Sprint status | Things to demo | Quick updates | What's next |
|-----------------------|--|--|--|
| Sprint 1 Completed | User Registration, Login, Order Placement | Customer registration and login functionalities are working. Minor UI improvements suggested. | Next sprint will focus on Order Tracking and Secure Data Storage |

Meeting Type 3: Sprint Retrospective Meeting

| Date | 2/02/2025 |
|-------------|--|
| Time | 10:00 AM |
| Location | Meeting Room |
| Prepared By | Scrum Master |
| Attendees | Scrum Master, Development Team, Sometimes Product Owner |

| Agenda What Went Well | | What Didn't Go Well | Questions | Reference | |
|-----------------------|---|------------------------------|--|--------------------------|--|
| User Login System | Implemented Secure Authentication | Delayed due to API issues | How to improve API response time? | Backend Documentation | |
| Product Page UI | Optimized for mobile devices | Design inconsistencies | Should we test on multiple devices? | UI Guidelines | |
| Payment Module | Successful Transactions | Some payment failures | How to handle failed payments better? | Payment API Docs | |

Meeting Type 4: Daily Stand-up Meeting

| Question | Name/Role | Monday | Tuesday | Wednesd ay | Thursday | Friday | Satur day | Sunday |
|--|-------------|---------------------------------|----------------------------------|----------------------------------|-------------------------------|--------------------------|--------------|--------|
| What did you do yesterday ? | Developer 1 | Worked on Login API | Fixed UI issues | Reviewed code | Integrated with DB | Tested login | N/A | N/A |
| | Developer 2 | Setup Product DB | Created Product Filters | Updated UI | Implemente d Search | Performance optimization | N/A | N/A |
| | Developer 3 | Integrated Payment API | Debugged payment issues | Tested transacti ons | Fixed checkout errors | Deployed fixes | N/A | N/A |
| What will you do today? | Developer 1 | Debug session handling | Improve password recovery | API performa nce tuning | Review security logs | Finalize auth testing | N/A | N/A |
| | Developer 2 | Optimize queries | Implement sorting features | Finalize category filters | Test UI responsivene ss | Deploy changes | N/A | N/A |
| | Developer 3 | Test refund system | Enhance payment logging | Ensure PCI complian ce | Final testing | Submit for review | N/A | N/A |
| What is blocking your progress? | Developer 1 | API response delays | N/A | Server issues | N/A | N/A | N/A | N/A |
| | Developer 2 | UI inconsistenci es | Awaiting design approval | N/A | N/A | N/A | N/A | N/A |
| | Developer 3 | Payment provider downtime | N/A | N/A | N/A | N/A | N/A | N/A |