**Question 1** – Write Agile Manifesto.

Ans. The **Agile Manifesto** is a set of guiding values and principles for software development that promotes flexibility, collaboration, and customer satisfaction.

**The Four Values of the Agile Manifesto:**

1. **Individuals and interactions over processes and tools**
People and their collaboration are more important than strict adherence to processes or reliance on tools.
2. **Working software over comprehensive documentation**
Delivering functional software is more valuable than excessive documentation that doesn't contribute to the product’s functionality.
3. **Customer collaboration over contract negotiation**
Working closely with customers throughout the project is more valuable than sticking rigidly to contract terms.
4. **Responding to change over following a plan**
It's more important to adapt to change and new information than to follow a predefined plan without flexibility.

**The 12 Principles behind the Agile Manifesto:**

1. **Customer satisfaction through early and continuous delivery** of valuable software.
2. **Welcome changing requirements**, even late in development. Agile processes harness change for the customer's competitive advantage.
3. **Deliver working software frequently**, with a preference for a shorter timescale (e.g., weeks rather than months).
4. **Business stakeholders and developers must work together** daily throughout the project.
5. **Build projects around motivated individuals**, and provide them with the environment and support they need.
6. **Face-to-face conversation is the best form of communication** (co-location of teams is ideal).
7. **Working software is the primary measure of progress**.
8. **Maintain a sustainable pace** of work. Agile processes should allow for a constant and steady pace indefinitely.
9. **Continuous attention to technical excellence** and good design enhances agility.
10. **Simplicity—the art of maximizing the amount of work not done—is essential**.
11. **Self-organizing teams produce the best architectures, requirements, and designs**.
12. **Regular reflection on how to become more effective**, followed by adjustments to behavior and processes.

Question 2 – User Stories- Acceptance Criteria-BV-CP. Write minimum 40 User stories and their Acceptance Criteria along with their BV and CP.

Ans.

A user story is a short and simple description of a feature or functionality of system written from the perspective of an end user. End users can be customer, Administrators, employees, etc.

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| User Story No: 1 | Tasks: 2 | Priority: HIGHEST |
| AS A DELIVERY BOYI WANT TO REGISTER IN SCRUM FOODS SO THAT I CAN DELIVER ORDERS |
| BV: 500 | CP: 02 |
| ACCEPTANCE CRITERIARegistration ScreenText Boxes for User Name, Password, Nation ID, Mobile No, Email, Address, Phone Number.Click on Register Button.Send Successful Notification to the user |

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| User Story No: 02 | Tasks: 2 | Priority: HIGHEST |
| AS A RESTAURANT OWNER I WANT TO VIEW ORDERSSO THAT I CAN VIEW THE LIST OF ORDERS |
| BV: 500 | CP: 2 |
| Acceptance Criteria :View Order, Display List of orders in the tabular Form |

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| User Story No: 3 | Tasks:2 | Priority: HIGHEST |
| AS A CUSTOMERI WANT TO ADD THE ADDRESSSO THAT I CAN GET THE ORDER TO MY ADDRESS |
| BV: 500 | CP: 2 |
| Acceptance Criteria :Text Box to enter.Business Rules: Within the radius of 5 km |

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| User Story No: 4 | Tasks:2 | Priority: HIGHEST |
| AS A CUSTOMERI WANT TO SELECT THE PAYMENT MODESO THAT I CAN MAKE PAYMENT OF MY CHOICE |
| BV: 500 | CP: 3 |
| Acceptance Criteria :Display payment modes, radio buttons to select payment modes, payments button.Business Rule. Can select only one payment mode |

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| User Story No: 5 | Tasks:2 | Priority: HIGHEST |
| AS AN ADMINI WANT TO VIEW THE RESTAURANTSSO THAT I CAN APPROVE THEIR REGISTRATION |
| BV: 500 | CP: 2 |
| ACCEPTANCE CRITERIAList of restaurant, select Restaurants, verify restaurant details, approve button, reject button, notification to the restaurant. |

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| User Story No: 6 | Tasks:2 | Priority: LOW |
| AS ACUSTOMERI WANT TO VIEW THE PRICESO THAT I CAN ORDER THE FOOD |
| BV: 50 | CP: 1 |
| Acceptance Criteria :1. Display price in the list of menu items |

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| User Story No:7 | Tasks:2 | Priority: LOW |
| AS A CUSTOMERI WANT TO VIEW THE CONTACT NUMBER OF DELIVERY BOY SO THAT I CAN CONTACT DELIVERY BOY FOR THE STATUS |
| BV: 50 | CP: 1 |
| Acceptance Criteria :1. Display delivery boy mobile number
2. Display delivery boy name in tracking field
3. Display delivery boy picture
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| User Story No: 8 | Tasks:2 | Priority: MEDIUM |
| AS A RESTAURANT OWNERI WANT TO PROVIDE TIME SLOTSSO THAT CUSTOMER CAN CHECK OPENING AND CLOSING HOURS |
| BV: 100 | CP: 2 |
| Acceptance Criteria :1. Click on restaurant dashboard
2. Add from time to time
3. Click on submit
4. Display updated successfully
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| User Story No: 9 | Tasks:2 | Priority: HIGH |
| AS A Business OWNERI WANT TO VIEW RESTAURANT REVENUE REPORT SO THAT I CAN VIEW THE RESTAURANT’S REVENUE |
| BV: 200 | CP: 3 |
| Acceptance Criteria : Select ReportsSelect Revenue Reports Select to and from date Select Region (can select all) Generate ReportDownload Report in EXCEL |

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| User Story No: 10 | Tasks: 03 | Priority: High |
| AS A REG ADMINI WANT TO MANAGE REGIONAL RESTAURANTS,SO THAT, I CAN TRACK THE PERFORMANCE OF REGIONAL RESTAURANTS. |
| BV: 200 | CP: 03 |
| Acceptance Criteria :CLICK ON PERFORMANCE OF RESTAURANTS SELECT FROM DATE TO DATECLINCK ON GENERATE REPORT WHICH INCLUSES RESTAURANTS ID, NAME, REVENUECLICK ON DOWNLOAD REPORT SHOULD BE IN EXCEL |

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| User Story No: 11 | Tasks: 02 | Priority: Medium |
| AS ADMINI WANT TO SEE THE REGIONAL REVENUE REPORTS, SO THAT I CAN VIEW THE REGIONAL PERFORMANCE |
| BV: 100 | CP: 03 |
| Acceptance Criteria :Select regional dropdownView performance of each rest of that region in tabular form which includes rest name, revenue, generatedDownload in excel or PDF |

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| User Story No: 12 | Tasks: 02 | Priority: High |
| AS A CUSTOMERI WANT TO CHAT WITH REG ADMIN SO THAT I CAN REQUEST FOR REFUND |
| BV: 200 | CP: 02 |
| Acceptance Criteria :1. BR-ALL MANDATORY
2. TEXT BOX FIELDS
3. DISPLAY ORDER ID
4. TEXT BOX,FOR DESCRIPTION
5. SUBMIT BUTTON
6. GENERATE ISSUE ID
7. DISPLAY SUCCESSFUL
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| User Story No: 13 | Tasks: 3 | Priority: HIGHEST |
| AS A NEW USERI WANT TO SIGN UP FOR AN ACCOUNT USING MY EMAIL OR PHONE NUMBER SO THAT I CAN PLACE ORDERS AND SAVE MY PREFERENCES |
| BV: 500 | CP: 02 |
| ACCEPTANCE CRITERIAUser can sign up using email or phone number.Email/Phone number must be verified via OTP.A successful sign-up redirects the user to the profile page. |

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| User Story No: 14 | Tasks: 2 | Priority: MEDIUM |
| AS A REGISTERED USERI WANT TO LOG IN TO MY ACCOUNT SO THAT I CAN VIEW MY PREVIOUS ORDERS AND SAVED PAYMENT METHODS. |
| BV: 500 | CP: 02 |
| ACCEPTANCE CRITERIAUser can log in with email/phone and password.If incorrect credentials are entered, an error message is displayed. |

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| User Story No: 15 | Tasks: 2 | Priority: Low |
| AS A USERI WANT TO BROWSE NEARBY RESTAURANTS SO THAT I CAN CHOOSE THE ONE I WANT TO ORDER FOOD FROM. |
| BV: 100 | CP: 02 |
| ACCEPTANCE CRITERIAThe app shows a list of restaurants based on the user's location.Filters for cuisine type, ratings, and delivery time are available. |

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| User Story No: 16 | Tasks: 2 | Priority: HIGHEST |
| AS A USERI WANT TO VIEW THE MENU OF A SELECTED RESTAURANT SO THAT I CAN CHOOSE WHAT TO ORDER. |
| BV: 500 | CP: 02 |
| ACCEPTANCE CRITERIAThe menu displays items, prices, and descriptions.Option to add items to the cart. |

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| User Story No: 17 | Tasks: 2 | Priority: HIGHEST |
| AS A USER I WANT TO ADD FOOD ITEMS TO MY CART SO THAT I CAN REVIEW MY ORDER BEFORE CHECKOUT. |
| BV: 100 | CP: 01 |
| ACCEPTANCE CRITERIAUsers can add one or more items to the cart.The cart shows the quantity and price of each item. |

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| User Story No: 18 | Tasks: 2 | Priority: HIGHEST |
| AS A USER I WANT TO EDIT MY CART BY UPDATING THE QUANTITY OR REMOVING ITEMS SO THAT I CAN MODIFY MY ORDER. |
| BV: 500 | CP: 02 |
| ACCEPTANCE CRITERIAUsers can increase or decrease item quantities.Users can remove items from the cart. |

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| User Story No: 19 | Tasks: 2 | Priority: HIGHEST |
| AS A USER I WANT TO APPLY A PROMO CODE TO MY ORDER SO THAT I CAN GET A DISCOUNT. |
| BV: 500 | CP: 02 |
| ACCEPTANCE CRITERIAUsers can enter a valid promo code at checkout.The promo code is applied and the discount is reflected in the order total. |

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| User Story No: 20 | Tasks: 2 | Priority: MEDIUM |
| AS A USER I WANT TO CHOOSE OR ENTER A DELIVERY ADDRESS SO THAT MY FOOD CAN BE DELIVERED TO THE CORRECT LOCATION. |
| BV: 50 | CP: 03 |
| ACCEPTANCE CRITERIAUsers can select a saved address or enter a new one.The system validates the address format. |

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| User Story No: 21 | Tasks: 2 | Priority: LOW |
| AS A USER I WANT TO BE NOTIFIED WHEN THE DELIVERY IS NEAR SO THAT I CAN BE READY TO RECEIVE IT. |
| BV: 100 | CP: 02 |
| ACCEPTANCE CRITERIAThe user receives a notification when the driver is 5 minutes away. |

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| User Story No: 22 | Tasks: 2 | Priority: MEDIUM |
| AS A USER I WANT TO REVIEW MY ORDER AND PLACE IT SO THAT I CAN COMPLETE MY PURCHASE. |
| BV: 100 | CP: 01 |
| ACCEPTANCE CRITERIAThe order summary is shown with all items, quantities, prices, and discounts.Users can confirm and place the order. |

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| User Story No: 23 | Tasks: 2 | Priority: HIGHEST |
| AS A USER I WANT TO TRACK THE STATUS OF MY ORDER IN REAL-TIME SO THAT I KNOW WHEN MY FOOD WILL ARRIVE. |
| BV: 500 | CP: 02 |
| ACCEPTANCE CRITERIAThe app shows the real-time status of the order (e.g., preparing, out for delivery).Notifications are sent when the order is out for delivery and when it arrives. |

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| User Story No: 24 | Tasks: 2 | Priority: MEDIUM |
| AS A USER I WANT TO RATE AND REVIEW A RESTAURANT BASED ON MY EXPERIENCE SO THAT I CAN HELP OTHERS MAKE INFORMED DECISIONS. |
| BV: 50 | CP: 02 |
| ACCEPTANCE CRITERIAUsers can give a rating (1 to 5 stars) and write a review.Reviews are submitted successfully and displayed publicly. |

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| User Story No: 25 | Tasks:3 | Priority: LOW |
| AS A USER I WANT TO RATE MY DELIVERY EXPERIENCE SO THAT I CAN PROVIDE FEEDBACK ABOUT THE DELIVERY PROCESS. |
| BV: 50 | CP: 02 |
| ACCEPTANCE CRITERIAUsers can rate delivery on a scale of 1 to 5 stars.The system captures feedback and updates the driver’s rating. |

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| User Story No: 26 | Tasks: 2 | Priority: HIGHEST |
| AS A USERI WANT TO APPLY FOR A REFUND IF MY FOOD WAS NOT DELIVERED CORRECTLY OR IS OF POOR QUALITY. |
| BV: 500 | CP: 02 |
| ACCEPTANCE CRITERIAUsers can submit a refund request with a description and images of the issue.Refund requests are processed within a certain time frame. |

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| User Story No: 27 | Tasks: 2 | Priority: LOW |
| AS A USERI WANT TO SHARE MY ORDER WITH FRIENDS VIA SOCIAL MEDIA OR MESSAGING APPS SO THAT I CAN RECOMMEND THE FOOD TO OTHERS. |
| BV: 50 | CP: 02 |
| ACCEPTANCE CRITERIAUsers can share order details (restaurant name, items, and price) on social media or through messages. |

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| User Story No: 28 | Tasks: 2 | Priority: LOW |
| AS A USER I WANT TO PLACE AN ORDER FOR A LATER TIMESO THAT I CAN SCHEDULE A MEAL IN ADVANCE. |
| BV: 50 | CP: 03 |
| ACCEPTANCE CRITERIAUsers can select a date and time for delivery.The system validates the time and confirms the scheduled order. |

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| User Story No: 29 | Tasks: 2 | Priority: MEDIUM |
| AS A USERI WANT TO SET DIETARY PREFERENCES (E.G., VEGETARIAN, GLUTEN-FREE) SO THAT I RECEIVE MEAL RECOMMENDATIONS THAT SUIT MY NEEDS. |
| BV: 100 | CP: 02 |
| ACCEPTANCE CRITERIAUsers can select preferences during sign-up or in the profile section.Restaurants and menu items filter according to selected preferences. |

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| User Story No: 30 | Tasks: 2 | Priority: HIGHEST |
| AS A USERI WANT TO VIEW THE RATINGS AND REVIEWS OF RESTAURANTS SO THAT I CAN MAKE INFORMED DECISIONS BEFORE ORDERING. |
| BV: 500 | CP: 02 |
| ACCEPTANCE CRITERIAUsers can view ratings and reviews for each restaurant.Reviews include both star ratings and written feedback. |

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| User Story No: 31 | Tasks: 2 | Priority: HIGHEST |
| AS A USERI WANT TO JOIN A LOYALTY PROGRAM SO THAT I CAN EARN REWARDS FOR REPEAT ORDERS. |
| BV: 500 | CP: 02 |
| ACCEPTANCE CRITERIAUsers can enroll in the loyalty program via the app.Points are accumulated after each order and can be redeemed for discounts. |

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| User Story No: 32 | Tasks: 2 | Priority: HIGHEST |
| AS A USERI WANT TO CANCEL MY ORDER BEFORE IT IS PREPARED SO THAT I CAN AVOID PAYING FOR SOMETHING I NO LONGER NEED. |
| BV: 500 | CP: 02 |
| ACCEPTANCE CRITERIAUsers can cancel orders within a specified time frame.A confirmation message is shown before the order is cancelled. |

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| User Story No: 33 | Tasks: 2 | Priority: HIGHEST |
| AS A USERI WANT TO VIEW THE ESTIMATED DELIVERY TIME SO THAT I CAN PLAN ACCORDINGLY |
| BV: 500 | CP: 02 |
| ACCEPTANCE CRITERIAThe app provides an estimated delivery time after the order is placed.The estimate is updated based on real-time factors (traffic, restaurant speed). |

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| User Story No: 34 | Tasks: 2 | Priority: HIGHEST |
| AS A USERI WANT TO ADD SPECIAL DELIVERY INSTRUCTIONS SO THAT THE DRIVER CAN FOLLOW SPECIFIC GUIDELINES FOR DELIVERY |
| BV: 500 | CP: 02 |
| ACCEPTANCE CRITERIAUsers can input special instructions at checkout.Instructions are clearly visible to the driver. |
| User Story No: 35 | Tasks: 2 | Priority: HIGHEST |
| AS A USERI WANT TO RECEIVE PUSH NOTIFICATIONS ABOUT NEW OFFERS SO THAT I CAN TAKE ADVANTAGE OF DISCOUNTS |
| BV: 500 | CP: 02 |
| ACCEPTANCE CRITERIAUsers can opt-in to receive notifications about promotions.Notifications include relevant offer details (e.g., discounts, promo codes). |

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| User Story No: 36 | Tasks: 2 | Priority: HIGHEST |
| AS A USERI WANT TO RATE THE FOOD QUALITY OF MY ORDERSO THAT I CAN PROVIDE FEEDBACK TO THE RESTAURANT |
| BV: 500 | CP: 02 |
| ACCEPTANCE CRITERIAUsers can rate the food quality on a scale of 1-5 stars.A review text box is available for additional feedback. |

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| User Story No: 37 | Tasks: 2 | Priority: HIGHEST |
| AS A USERI WANT TO SEE THE CURRENT PROMOTIONS SO THAT I CAN TAKE ADVANTAGE OF DISCOUNTS BEFORE PLACING MY ORDER. |
| BV: 500 | CP: 02 |
| ACCEPTANCE CRITERIAUsers can see a list of active promotions on the homepage or during checkout.The promotions are valid and can be applied to the current order. |

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| User Story No: 38 | Tasks: 2 | Priority: HIGHEST |
| AS A USERI WANT TO RECEIVE PUSH NOTIFICATIONS FOR EACH STAGE OF MY ORDER SO THAT I CAN TRACK THE PROGRESS. |
| BV: 500 | CP: 02 |
| ACCEPTANCE CRITERIAUsers receive notifications when the order is confirmed, prepared, and out for delivery.Notifications are timely and contain relevant information (e.g., expected arrival time). |

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| User Story No: 39 | Tasks: 2 | Priority: HIGHEST |
| AS A USERI WANT TO SCHEDULE RECURRING ORDERS FOR MY FAVORITE MEALS SO THAT I DON'T NEED TO REORDER EACH TIME |
| BV: 500 | CP: 02 |
| ACCEPTANCE CRITERIAUsers can schedule orders to repeat at specific times and days.The app automatically processes the order on the scheduled date. |

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| User Story No: 40 | Tasks: 2 | Priority: HIGHEST |
| AS A USERI WANT TO VIEW MY LOCATION ON A MAP SO THAT I CAN ENSURE THE CORRECT DELIVERY ADDRESS IS SELECTED. |
| BV: 500 | CP: 02 |
| ACCEPTANCE CRITERIAThe app integrates with GPS to show the user’s location on a map.The user can edit the delivery address based on the map. |

**Question 3**– What is epic? Write 2 epics.

Ans- In Scrum, an **Epic** is a large body of work that can be broken down into smaller, more manageable tasks called **user stories**. Epics are typically high-level descriptions of functionality or features that are too large to be completed in a single sprint. They represent significant pieces of work that will take more than one sprint to complete and are used to organize and structure the product backlog.

2 Epics:

1. Epic: User Account and Profile Management

This epic encompasses all the features related to user authentication, registration, and account management in the app. It ensures users can create, manage, and personalize their profiles for a seamless experience.

**Possible user stories under this epic**:

* **User Story 1**: "As a new user, I want to register for an account using my email address and password."
* **User Story 2**: "As a returning user, I want to log in using my registered email and password."
* **User Story 3**: "As a user, I want to reset my password if I forget it."
* **User Story 4**: "As a user, I want to edit my profile information (name, contact details, preferences)."
* **User Story 5**: "As a user, I want to link my account with social media accounts (e.g., Facebook, Google) for easier login."
* **User Story 6**: "As a user, I want to view my past orders and reorder quickly."

2. Epic: Food Ordering and Delivery Process

This epic covers all the steps from browsing restaurants, selecting food, placing an order, and tracking its delivery. It focuses on ensuring a smooth, efficient, and user-friendly ordering experience.

**Possible user stories under this epic**:

* **User Story 1**: "As a user, I want to browse a list of nearby restaurants based on my location."
* **User Story 2**: "As a user, I want to search for specific dishes or cuisines across all available restaurants."
* **User Story 3**: "As a user, I want to filter restaurants by rating, price, and delivery time."
* **User Story 4**: "As a user, I want to add multiple items to my cart before placing an order."
* **User Story 5**: "As a user, I want to review my order and see the estimated total cost before confirming."
* **User Story 6**: "As a user, I want to select a payment method (credit card, PayPal, cash on delivery)."
* **User Story 7**: "As a user, I want to receive real-time notifications about the status of my order (confirmed, cooking, on the way)."
* **User Story 8**: "As a user, I want to track the delivery driver in real-time using a map."

Question 4 –What is the difference between BV and CP?

Ans. In **Scrum**, both **Business Value** and **Complexity Points** are important concepts used to prioritize and estimate work, but they serve very different purposes.

**1. Business Value:**

**Business Value** refers to the importance or benefit that a particular feature or user story brings to the business or the customer. It is often a subjective measure used by the **Product Owner** (and sometimes the team) to determine how much a specific feature, user story, or task will contribute to the overall goals of the project, customer satisfaction, revenue generation, or any other strategic objective.

* **Purpose**: To prioritize work that delivers the most value to the customer or business.
* **Measurement**: It’s often represented as a relative value (for example, currency note from rs. 10 to rs. 500 being the most valuable). The Product Owner might assign business value based on customer impact, strategic alignment, or the financial return of a feature.
* **How it’s used**: Business value is used to determine **which** items from the product backlog should be prioritized for implementation in upcoming sprints.

**2. Complexity Points (or Effort Points):**

**Complexity Points** (also sometimes called **Story Points**, or simply **Points**) are a measure of the **effort**, **complexity**, or **difficulty** required to complete a user story or task. This is usually done using a relative scale (like Fibonacci numbers: 1, 2, 3, 5, 8, 13, etc.) to estimate the amount of work a team believes is necessary to complete the task, considering factors like time, technical complexity, team experience, and potential risks.

* **Purpose**: To estimate the effort or complexity involved in completing a task or user story.
* **Measurement**: Typically measured using a scale (such as Fibonacci numbers, or even simpler scales like 1-5). These points are assigned during a **Sprint Planning** meeting where the team discusses the relative difficulty of completing each user story.
* **How it’s used**: Complexity points are used to determine the **capacity** of the team and to forecast how much work can be completed in a sprint.

**Example**:

* A user story that requires creating a complex algorithm for calculating delivery costs might have high complexity points (e.g., 8 or 13 points).
* A user story that only involves simple UI adjustments might have low complexity points (e.g., 1 or 2 points).

Question 5 –Explain about Sprint.

Ans. A **Sprint** is a fundamental concept in the Scrum framework. It is a **time-boxed** period during which a Scrum team works to complete a set of predefined tasks (or **user stories**) from the **product backlog**. Sprints help break down the overall project into smaller, manageable chunks and focus on delivering a potentially **shippable product increment** at the end of each sprint.

**Key Features of a Sprint:**

1. **Fixed Duration**:
	* A Sprint typically lasts between **1 to 4 weeks**. The duration is kept consistent throughout the project to allow for predictable rhythms of planning, work, and review.
	* Most commonly, teams choose a **2-week** or **1-month** Sprint duration.
2. **Clear Goal**:
	* Each Sprint has a specific **Sprint Goal** which is a concise, measurable objective for what the team hopes to achieve by the end of the Sprint.
	* The Sprint Goal provides focus and alignment to the team, ensuring everyone is working toward the same end result.
3. **Time-boxed**:
	* The Sprint is strictly **time-boxed**, meaning that no matter how much work is completed, the Sprint will end at the scheduled time.
	* If necessary, work that hasn’t been finished during the Sprint can be carried over to the next Sprint.
4. **Incremental Delivery**:
	* At the end of each Sprint, the team delivers a **potentially shippable product increment**. This means that the work completed is fully integrated, tested, and ready for use, though it may not always be released immediately.
5. **Self-Organizing Teams**:
	* Scrum teams are **self-organizing** and determine the best way to complete the work in the Sprint. They collaborate, adjust their approach as necessary, and hold themselves accountable to meet the Sprint Goal.

Question 6 – Explain Product backlog and sprint back log.

Ans. In **Scrum**, the **Product Backlog** and the **Sprint Backlog** are two essential artifacts that help manage and track the work needed to create and deliver a product increment. Though they are related, they serve different purposes and are used by different stakeholders throughout the Scrum process.

### 1. ****Product Backlog****:

The **Product Backlog** is a dynamic, ordered list of all the work (features, enhancements, bug fixes, technical tasks, etc.) required to build a product. It represents the **complete scope** of the product and contains every feature, change, or task that could potentially be worked on, prioritized based on business value and customer needs.

#### Key Characteristics:

* **Owned by the Product Owner**: The **Product Owner** is responsible for maintaining, refining, and prioritizing the Product Backlog. They work closely with stakeholders, customers, and the Scrum Team to ensure the backlog is aligned with business goals and customer needs.
* **Dynamic and Evolving**: The Product Backlog is **never static**. It evolves over time as new requirements, ideas, or changes emerge. Items may be added, removed, or re-prioritized based on feedback and changing circumstances.
* **Prioritized**: The items in the Product Backlog are ordered based on their **business value** and importance. The higher-priority items are those that provide the most value to the customer or business. The Product Owner works with the team to ensure that the most important tasks are completed first.
* **Contains Multiple Types of Items**:
	+ **Features**: New functionality or capabilities the product will have.
	+ **User Stories**: Specific requirements, often written from the perspective of an end user.
	+ **Defects/Technical Debt**: Bugs or improvements to the existing product.
	+ **Technical Tasks**: Backend work or infrastructure needed to support the product.

### 2. ****Sprint Backlog****:

The **Sprint Backlog** is a subset of the **Product Backlog** that represents the work the Scrum Team has committed to complete during the current Sprint. It is a list of items selected from the Product Backlog, along with a detailed plan on how the team will deliver those items and achieve the **Sprint Goal**.

#### Key Characteristics:

* **Owned by the Development Team**: The **Development Team** is responsible for managing and updating the Sprint Backlog. They select the items from the Product Backlog that they believe they can complete in the Sprint, based on their capacity and the Sprint Goal.
* **Commitment for the Sprint**: Once the Sprint Backlog is created during **Sprint Planning**, it becomes the team's commitment for the Sprint. The team works exclusively on the items in the Sprint Backlog until the Sprint ends.
* **Detailed and Actionable**: The Sprint Backlog includes the user stories or tasks to be completed, along with detailed actions or sub-tasks necessary to accomplish the work. It provides enough clarity for the team to understand **how** they will achieve the Sprint Goal.
* **Dynamic**: The Sprint Backlog is a living artifact that can change during the Sprint. New tasks may be added, or existing ones may be redefined as the team works through the Sprint. If new insights arise or new tasks are identified, the team can update the Sprint Backlog, but the overall **Sprint Goal** remains unchanged.
* **Visibility**: The Sprint Backlog is visible to the team and stakeholders. It helps track progress and provides a clear view of what is being worked on and how close the team is to completing the Sprint Goal.

Question 7 – What is impediments log? write 2 impediments .

Ans. An **Impediments Log** is a tool used by the Scrum team to track and manage any obstacles or challenges that hinder progress during a Sprint. These impediments can arise from various sources, such as technical issues, resource shortages, external dependencies, or team dynamics. The **Impediments Log** helps the team document, prioritize, and track these issues in order to prevent them from becoming blockers that significantly impact progress.

**Example of Two Impediments for an Online Food Delivery App:**

1. **Impediment 1: Payment Gateway Integration Issues**
	* **Description**: The app team is facing issues integrating a third-party payment gateway (e.g., PayPal, Stripe) for processing online payments. The integration is causing delays because of inconsistent API responses or incorrect data formatting.
	* **Impact**: Without a functioning payment system, customers cannot complete their orders, leading to a critical roadblock for delivering a fully functional app.
	* **Resolution**: The Scrum Master escalates the issue to the external payment service provider's support team, and a temporary workaround is implemented to use a different payment processor until the issue is resolved.
	* **Status**: In Progress (team working on contacting support and investigating alternative solutions).
2. **Impediment 2: Lack of User Testing Resources**
	* **Description**: There is a shortage of users for conducting beta tests of the app. The team had planned to perform usability testing for the restaurant search feature but is unable to recruit enough testers within the timeframe.
	* **Impact**: Without proper testing, there is a risk that critical usability issues might go undetected, leading to poor user experience once the feature is released.
	* **Resolution**: The Scrum Master works with the **Product Owner** to engage external testers and adjusts the Sprint Backlog to include a plan for internal testing or limited testing with a smaller group.
	* **Status**: Blocked (Scrum Master coordinating with external testers).

Question 8 – Explain Velocity of the Team.

**Ans. - Velocity of the Team** is a key concept in Agile methodologies, particularly in Scrum and Kanban, used to measure the amount of work a team completes during a specific period, usually a sprint (typically 1-4 weeks).

The calculation of velocity is performed by the development team itself as they are responsible for estimating the effort required to complete each user story or backlog item.

 Velocity of the team = Sum of all the story point/no. of sprints

* **Velocity** is a metric used to estimate the work output of a team. It measures how many "story points" or "work units" a team can handle in a sprint.
* **Story points** are units of measurement used to represent the relative effort required to complete a user story or task. These points can also consider complexity, risk, or time, but are usually assigned based on the team's experience and historical data.

Velocity is calculated by adding up the total number of story points (or other work units) completed by the team during a sprint. For example:

1. If in Sprint 1, the team completes 30 story points worth of tasks, then their velocity for that sprint is 30.
2. In Sprint 2, if they complete 40 story points, their velocity for Sprint 2 is 40.
3. The average velocity over several sprints (usually the last 3-5) gives a more reliable view of the team's performance.

**Why is Velocity Important?**

1. **Predicting Future Work**: Velocity helps teams predict how much work they can realistically complete in future sprints. By knowing their average velocity, they can estimate how many user stories or tasks they can take on in the next sprint.
2. **Planning**: It assists in sprint planning. The Product Owner can look at the team’s velocity and decide how many user stories to prioritize in the next sprint, based on the team's capacity.
3. **Tracking Team Progress**: Velocity provides insights into how well the team is performing. A stable or increasing velocity can indicate that the team is functioning effectively, while a sudden drop in velocity might signal issues such as blockers, team fatigue, or scope creep.
4. **Continuous Improvement**: Teams can use their velocity data to make process improvements. For example, if a team consistently completes fewer story points than expected, they can review their processes or resources to understand why and improve efficiency.

Top of Form

Question 9 – Draw Sprint Burn Charts and Product Burn Down Charts.

Ans. Sprint Burn Chart and Product Burn Down Chart are tools commonly used in Agile project management (especially in Scrum) to visually represent the progress of work throughout a sprint or project.

A Sprint Burn Chart shows how much work remains in the sprint, typically by displaying the remaining effort (in hours or story points) versus time, usually on a daily basis. It helps the team track progress throughout the sprint and ensures that the sprint is on track to be completed by the end of the time box (usually 2-4 weeks).

A Product Burn down Chart is used to visualize progress over the entire product backlog, representing how much work remains to be done to complete the product. It's similar to the sprint burn chart but it focuses on the entire project, tracking work completed across multiple sprints.

Bottom of Form



Question 10 – Explain about Product Grooming.

Ans. **Product Grooming** (also known as **Backlog Grooming** or **Backlog Refinement**) is the process of reviewing, prioritizing, and refining the product backlog to ensure that it contains the most relevant, well-defined, and prioritized items that the development team will work on in future sprints. It is a collaborative activity that involves the product owner, Scrum master, and the development team.

Product Grooming is not a one-time activity but a continuous process throughout the project. The goal is to maintain a well-organized, clear, and prioritized backlog, ensuring that the team has a clear understanding of what needs to be worked on next and that they can plan their sprints effectively.

### Key Aspects of Product Grooming in Agile

1. **Backlog Refinement**
2. Prioritization of Backlog Items
3. Estimating Effort
4. Breaking Down Epics and Large User Stories

### Benefits of Product Grooming in Agile

1. **Better Sprint Planning:** By grooming the backlog regularly, the team can ensure that the items in the next sprint are well-defined, estimated, and prioritized. This results in more efficient sprint planning, where the team can confidently select the right user stories for the upcoming sprint.
2. **Clearer Requirements:** Regular grooming helps clarify requirements for the development team. Well-defined user stories with acceptance criteria make it easier for the team to understand what needs to be delivered and how it will be validated.
3. **Faster Delivery:** Having a well-groomed backlog means that the team spends less time during sprint planning sessions debating or clarifying what to work on next. This leads to faster and more focused delivery of features.
4. **Improved Product Quality:** Continuous refinement and review help ensure the product evolves in the right direction, with relevant features, fewer bugs, and a higher-quality end product. Prioritizing improvements and bug fixes also reduces risks over time.
5. **Stakeholder Engagement:** Grooming sessions create an opportunity for constant communication between the product owner and the development team, as well as other stakeholders. This ensures that everyone is aligned on priorities, timelines, and expectations

Question 11 – Explain the roles of Scrum Master and Product Owner.

Ans. Both the **Scrum Master** and **Product Owner** play essential roles in ensuring the success of an Agile project. The **Scrum Master** is focused on facilitating the Scrum process, removing impediments, and ensuring the team is operating efficiently within the framework. The **Product Owner**, on the other hand, ensures that the product is being built in alignment with business goals and customer needs, managing the product backlog and making critical prioritization decisions.

|  |  |  |
| --- | --- | --- |
| **Aspect** | **Scrum Master** | **Product Owner** |
| **Primary Focus** | Facilitating the Scrum process and team success | Defining and managing the product backlog and vision |
| **Key Responsibilities** | Removing impediments, coaching the team, ensuring Scrum practices are followed | Prioritizing and clarifying backlog items, aligning the product with business goals |
| **Interaction with Team** | Facilitates Scrum events, supports team collaboration | Defines user stories, clarifies requirements, accepts/rejects work |
| **Role in Decision Making** | Does not make decisions on the product content, focuses on the process | Makes decisions on what features are prioritized and when they should be developed |
| **Collaboration** | Works with the team to improve processes and remove barriers | Works with the team and stakeholders to ensure the right features are being developed |

Question 12 – Explain all Meetings Conducted in Scrum Project.

Ans. In a **Scrum** project, several key meetings (also called **ceremonies**) are conducted to ensure transparency, inspection, and adaptation. These meetings are designed to enable communication and collaboration, help the team track progress, and continuously improve their work. The main Scrum meetings include:

### 1. ****Sprint Planning****

**Purpose:** The goal of Sprint Planning is to define what work will be done in the upcoming sprint and how it will be achieved.

* **When:** At the beginning of each sprint (typically at the start of the first day of the sprint).
* **Who Attends:** The **Product Owner**, **Scrum Master**, and the **Development Team**.
* **Key Activities:**
	+ **What can be done in this sprint?** The Product Owner presents the **product backlog** items (user stories or tasks) that need to be completed during the sprint. The Development Team asks questions to clarify the items.
	+ **How will the chosen work be done?** The Development Team discusses how they will accomplish the work and decides on the tasks, estimated effort, and necessary resources.
	+ **Define the Sprint Goal:** The team agrees on a clear Sprint Goal, which is a high-level objective the team aims to achieve during the sprint.
* **Outcome:**
	+ A **Sprint Backlog**, which contains the user stories or tasks selected for the sprint and a plan for how to complete them.

### 2. ****Daily Scrum (Daily Standup)****

**Purpose:** The Daily Scrum is a short meeting where the team synchronizes and inspects progress toward the Sprint Goal.

* **When:** Every day of the sprint, typically 15 minutes long, usually held at the same time and place.
* **Who Attends:** The **Development Team** (Product Owner and Scrum Master can attend but are not required).
* **Key Activities:**
	+ Each team member answers three key questions:
		- **What did I do yesterday?**
		- **What will I do today?**
		- **Are there any blockers or impediments?**
	+ The goal is to provide transparency into the progress of the sprint, discuss any issues, and ensure that the team is on track to meet the Sprint Goal.
* **Outcome:** The Scrum Master or Development Team may identify impediments or issues to address outside of the meeting to ensure that the team can continue making progress.

### 3. ****Sprint Review****

**Purpose:** The Sprint Review is an inspection of the increment, where the team demonstrates the work completed during the sprint and gathers feedback from stakeholders.

* **When:** At the end of the sprint, after the Development Team has completed the sprint backlog items.
* **Who Attends:** The **Product Owner**, **Scrum Master**, **Development Team**, and **stakeholders** (such as customers, managers, or business owners).
* **Key Activities:**
	+ The **Development Team** demonstrates the completed user stories, features, or items from the sprint backlog.
	+ The **Product Owner** discusses the progress toward the **Product Goal** and assesses what was achieved compared to the Sprint Goal.
	+ **Feedback is gathered** from stakeholders, and the Product Owner may adjust the product backlog based on that feedback.
	+ The team and stakeholders discuss the next steps and any changes in priorities.
* **Outcome:**
	+ **Feedback** from stakeholders, which may result in updates to the product backlog.
	+ The **Sprint Review** provides valuable input that can shape the direction of the next sprint.

### 4. ****Sprint Retrospective****

**Purpose:** The Sprint Retrospective is a meeting where the Scrum Team inspects its processes and performance and looks for ways to improve its practices for the next sprint.

* **When:** At the end of the sprint, after the Sprint Review and before the next Sprint Planning session.
* **Who Attends:** The **Scrum Master**, **Product Owner**, and **Development Team**.
* **Key Activities:**
	+ The team reflects on the previous sprint and discusses what went well, what didn’t go well, and what could be improved.
	+ **Action items** for improvement are identified and agreed upon by the team, such as changes to processes, tools, or team collaboration.
	+ The Scrum Master facilitates the discussion and ensures that it is constructive and focused on improvement.
* **Outcome:**
	+ A list of **actionable improvements** to implement in the next sprint. These might include changes to the development process, communication, tools, or team dynamics.

### 5. ****Backlog Refinement (Backlog Grooming)****

**Purpose:** Backlog Refinement (also known as **Backlog Grooming**) is a continuous activity to ensure that the product backlog is up to date, prioritized, and well-defined.

* **When:** This is an ongoing activity, but Scrum teams often schedule periodic sessions to refine the backlog, typically once or twice per sprint.
* **Who Attends:** The **Product Owner**, **Scrum Master**, and the **Development Team** (sometimes involving other stakeholders).
* **Key Activities:**
	+ **Review and clarify backlog items:** The Product Owner presents items from the backlog, and the team helps break them down, re-estimate, and refine them.
	+ **Prioritize backlog items:** The Product Owner works with the team to ensure that the highest priority items are at the top of the backlog, ready for the next sprint.
	+ **Estimation:** The team may estimate the effort or complexity of backlog items (often using techniques like story points or time-based estimates).
* **Outcome:**
	+ A **well-defined and prioritized backlog** with clear user stories or tasks, ready for Sprint Planning.
	+ Updated **estimates** and **clarified acceptance criteria** for backlog items.

### Summary of Scrum Meetings

| **Meeting** | **Purpose** | **Frequency** | **Attendees** |
| --- | --- | --- | --- |
| **Sprint Planning** | Define the work for the upcoming sprint, set a Sprint Goal, and create a Sprint Backlog | At the start of each sprint | Product Owner, Scrum Master, Development Team |
| **Daily Scrum** | Synchronize daily work, inspect progress toward the Sprint Goal, and address obstacles | Daily (15 minutes) | Development Team (PO and Scrum Master optional) |
| **Sprint Review** | Demonstrate completed work, gather feedback, and adjust the product backlog if necessary | End of each sprint | Product Owner, Scrum Master, Development Team, Stakeholders |
| **Sprint Retrospective** | Reflect on the sprint, identify improvements, and plan for better practices in the next sprint | End of each sprint | Scrum Master, Product Owner, Development Team |
| **Backlog Refinement** | Continuously refine and prioritize the product backlog | Ongoing, with periodic sessions | Product Owner, Scrum Master, Development Team |

Question 13 – Explain Sprint Size and Scrum Size.

Ans.

**Sprint Size** refers to the duration of a sprint and is typically **1 to 4 weeks**, depending on the project needs. Shorter sprints provide quick feedback and adaptability, while longer sprints offer more time for development but may delay feedback.

**Scrum Team Size** refers to the number of people in a Scrum team and is typically recommended to be **3-9 members**. Smaller teams promote communication and quick decisions, while larger teams bring more diverse skills but may face coordination challenges.

Both Sprint Size and Scrum Team Size need to be carefully considered and adjusted to the context of the project, team capacity, and business needs to ensure maximum effectiveness, adaptability, and value delivery.

Question 14 – Explain DOR and DOD.

Ans.

 **DoR** ensures that the team starts working only on items that are well-defined, estimable, and ready to be worked on, reducing ambiguity and increasing the chances of successfully completing the work within the sprint.

 **DoD** ensures that the team delivers high-quality, complete, and functional work, meeting the agreed-upon standards and requirements.

| **Aspect** | **Definition of Ready (DoR)** | **Definition of Done (DoD)** |
| --- | --- | --- |
| **Purpose** | Defines when a backlog item is ready to be worked on in a sprint | Defines when work on a backlog item is complete and ready for release |
| **Focus** | Preparation and clarity of backlog items before work starts | Quality and completeness of work after the sprint is completed |
| **Timing** | Before the item is taken into the sprint | After the item is completed in the sprint |
| **Criteria** | Clear requirements, acceptance criteria, dependencies resolved | Code is tested, meets acceptance criteria, no bugs, documented |
| **Outcome** | Ensures the team can start work without blockers or confusion | Ensures that the work is complete, tested, and ready to be delivered |
| **Typical Activities** | Clarifying requirements, estimating, ensuring no blockers | Code reviews, testing, documentation updates, integration |

Question 15 – Explain Prioritization Techniques and MVP.

Ans.

In Scrum, **prioritization** is critical to ensuring that the team works on the most valuable tasks, and various techniques such as **MoSCoW**, **Kano Model**, and **Value vs. Effort** Matrix help the Product Owner make informed decisions. The goal is to maximize the value delivered to users while minimizing waste.

The **Minimum Viable Product (MVP)** concept aligns closely with prioritization by focusing on the essential features required to deliver value and test assumptions with real users. The MVP allows teams to learn quickly, reduce risk, and continuously adapt the product based on feedback, ultimately leading to a more successful and user-centric product.

The Product Owner is responsible for prioritizing the **Product Backlog**, which is a dynamic list of features, enhancements, bug fixes, and other deliverables. Common **prioritization techniques** used in Scrum are:

* 1. MoSCoW Method
	2. Kano Mode
	3. 100-Point Method
	4. Prioritization by Risk or Opportunity

Question 16 – Difference between Business Analyst n Product Owner.

Ans. The **Business Analyst (BA)** focuses on gathering detailed requirements and ensuring that the team has the necessary information to implement the solution. They bridge the gap between business stakeholders and the development team, often in a more traditional role focused on documentation and analysis.

 The **Product Owner (PO)**, on the other hand, is accountable for the overall success of the product. The PO manages the **Product Backlog**, prioritizes features based on business value, and is a key decision-maker throughout the development process, ensuring that the product aligns with stakeholder needs and business objectives.

| **Aspect** | **Business Analyst (BA)** | **Product Owner (PO)** |
| --- | --- | --- |
| **Primary Focus** | Requirements gathering, documentation, and solution design | Prioritization of backlog, maximizing product value |
| **Authority** | No final authority on product decisions or priorities | Full authority on what features get built and in what order |
| **Stakeholder Interaction** | Works with business stakeholders to gather detailed requirements | Represents the voice of stakeholders and the customer to the Scrum team |
| **Decision-Making** | Analyzes requirements but typically does not make final decisions | Makes final decisions about the product’s features and priorities |
| **Involvement in Sprint** | Mostly in the initial stages (requirements gathering, documentation) | Continuous involvement in the entire Scrum process (Backlog management, sprint reviews, etc.) |
| **Outcome of Work** | Well-documented and detailed requirements or user stories | Delivery of valuable and prioritized product increments |

Question 17 – Prepare a sample Resume of 3yrs exp Product Owner.

Ans.

**Professional Summary:**

Dynamic and results-driven **Product Owner** with 3 years of experience leading product development in Agile environments. Proven ability to manage product backlogs, define user stories, and collaborate with cross-functional teams to deliver high-quality products. Strong focus on user-centered design, business value, and continuous improvement. Adept at translating customer needs into actionable product requirements and ensuring timely delivery. Skilled in prioritizing features, managing stakeholder expectations, and driving product strategy.

**Professional Experience:**

**Product Owner**

**XYZ Technologies, Bangalore**
**March 2021 – Present**

* Managed and prioritized a product backlog of over 100+ features for a SaaS application, collaborating closely with the development team, designers, and stakeholders.
* Defined and wrote user stories, ensuring they were clear, actionable, and aligned with business objectives.
* Led Sprint Planning, Daily Scrums, Sprint Reviews, and Retrospectives, fostering an Agile culture within the team.
* Worked closely with stakeholders to understand business requirements and translated them into functional specifications for the product team.
* Delivered **3 successful product releases** within 6 months, improving user engagement by 25%.
* Utilized data analysis and customer feedback to prioritize features and enhance the product roadmap.
* Managed the development of new features from concept through to post-launch analysis, ensuring timely delivery and successful implementation.
* Fostered cross-functional collaboration between marketing, sales, engineering, and customer support teams to ensure product alignment with market needs.
* Acted as the key liaison between stakeholders, ensuring that their needs were understood and integrated into the product development cycle.

**Junior Product Owner**

**ABC Solutions, Hyderabad**
**June 2019 – February 2021**

* Supported the Product Owner in the creation and refinement of product backlog, ensuring all user stories were well-defined and prioritized.
* Assisted in the coordination of **2 major product releases**, working with UX/UI, development, and QA teams to ensure successful deployment.
* Participated in sprint reviews and planning sessions, helping to define the scope of upcoming sprints and adjust priorities as needed.
* Assisted in gathering and analyzing customer feedback to iterate and improve product features.
* Monitored product performance and user behavior, providing insights to stakeholders for better decision-making.
* Managed Jira boards, ensuring timely updates on sprint progress and resolution of blockers.
* Contributed to the creation of product roadmaps and tracked key performance indicators (KPIs) for product performance.

**Education:**

**Bachelor of Computer Science**
**University of ABC, Ahmedabad**
Graduation Year: 2019

**Certifications:**

* **Certified Scrum Product Owner (CSPO)** – Scrum Alliance, 2021
* **Agile Certified Product Manager (ACPM)** – AIPMM, 2022
* **Jira Software Administration Certification** – Atlassian, 2022

**Projects:**

**Product X (SaaS Application)**

* Spearheaded the development of a cloud-based SaaS application aimed at automating business processes for small to medium enterprises.
* Collaborated with UX/UI designers to create a streamlined user interface, resulting in a 20% increase in user retention.
* Delivered a mobile version of the application, contributing to a 35% increase in daily active users.

**Product Y (Mobile App)**

* Defined the product vision and user stories for a mobile application aimed at improving customer engagement.
* Prioritized new features based on customer feedback, resulting in a 15% increase in app downloads and a 10% increase in user interaction.
* Worked with QA teams to ensure quality standards were met before product release.

**Technical Skills:**

* **Tools:** Jira, Confluence, Aha!, Trello, Monday.com, Miro
* **Languages:** Basic understanding of HTML, CSS, and SQL for product analysis
* **Methodologies:** Scrum, Agile, Kanban
* **Design:** Figma, Balsamiq, InVision (collaboration with design teams)

**Language:**

* English (Fluent)
* Spanish (Intermediate)