

## Scrum Project Description: Project Case

Digitalizing - **Scrum Foods** which provides fast, reliable online food delivery application targeting customers of all age group offering 24/7 service along with tracking of the delivery real time.

### Question 1: Agile Manifesto

The Agile manifesto has 4 values which are supported by twelve principles 12 principles. It emphasizes a flexible and iterative approach to deliver value efficiently and effectively, focusing on customer satisfaction and continuous improvement.

#### The 4 main values are:

1. **Individuals and interactions over processes and tools:** We prioritize the collaboration and communication between team members and stakeholders. The focus is on building strong relationships and fostering effective teamwork.
2. **Working software over comprehensive documentation:** We emphasize the delivery of functional software that provides value to the end-users. While documentation is important, our primary measure of progress is a working product.
3. **Customer collaboration over contract negotiation:** We promote active involvement and continuous collaboration with customers and end-users throughout the development process. Their feedback and insights are crucial in delivering a product that meets their needs.
4. **Responding to change over following a plan:** We embrace change as a natural and necessary part of the development process. We prioritize flexibility and adaptability to meet evolving customer requirements and market dynamics.

#### These four values are supported by twelve principles:

1. Satisfy the customer 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 shorter timescales.
4. Collaborate daily with customers and stakeholders throughout the project.
5. Build projects around motivated individuals. Give them the environment and support they need and trust them to get the job done.
6. The most efficient and effective method of conveying information is face-to-face conversation.
7. Working software is the primary measure of progress.
8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant 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. The best architectures, requirements, and designs emerge from self-organizing teams.
12. At regular intervals, the team reflects on how to become more effective and adjusts accordingly.

We adhere to these principles to develop software that meets customer needs efficiently and effectively, enabling us to embrace change and deliver value in a timely manner.

## Product Vision Document

**VISION:** Customers of any age group who want to have top-rated restaurant's delicious food in one-go at their doorstep with lightning fast delivery, 24/7 availability and reliable services are SCRUM FOODS. Unlike any other food delivery app in market, our utmost priority is customer need and customer satisfaction which makes us stand out of any other food delivery app in this industry.

<b>Online food delivery industry is our target segment.</b>  <b>Users/Customers:</b> People who want food deliveries within stipulated time at their required place	<b>Scrum foods provide guaranteed safe food delivery in one-go of top rated licensed restaurants.</b>  Customers can receive with safe packaged food within expected time to clear their hunger.	<b>Scrum foods will be on mobile, tablets and desktop application.</b>  Real time tracking and providing 24/7 services and customer support  Product feasibility can be complex and require attention in every aspect	<b>Open up revenue stream</b>  Be leading online food delivery app in country  Create reputed brand image for other business opportunities.
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### Question 2: User Stories- Acceptance Criteria-BV-CP

User Story No: 01	Task 1	Priority: High
AS A CUSTOMER, I WANT TO REGISTER AN ACCOUNT ON THE SCRUM FOODS APP, SO I CAN ACCESS THE FEATURES AND PLACE ORDERS.		
BV: 1000	CP: 5	
Acceptance Criteria : 1. User can enter their name, email, and password to create an account.		

User Story No: 02	Task 1	Priority: High
AS A CUSTOMER, I WANT TO LOG IN TO MY ACCOUNT ON THE SCRUM FOODS APP, SO I CAN VIEW MY ORDER HISTORY AND SAVED PREFERENCES.		
BV: 1000	CP: 3	
Acceptance Criteria: 1. The login page verifies the entered credentials and grants access to the customer's account		

User Story No: 03	Task 1	Priority: Medium
AS A CUSTOMER, I WANT TO SEARCH FOR RESTAURANTS ON THE SCRUM FOODS APP, SO I CAN FIND THE ONES THAT OFFER THE FOOD I DESIRE.		
BV: 800	CP: 5	
Acceptance Criteria:  1. User can enter a search query to find restaurants matching the criteria.		

User Story No: 04	Task 1	Priority: Medium
AS A CUSTOMER, I WANT TO VIEW THE DETAILS AND MENU OF A RESTAURANT ON THE SCRUM FOODS APP, SO I CAN DECIDE WHAT TO ORDER.		
BV: 900	CP: 5	
Acceptance Criteria: <div>1. User can select a restaurant and see its name, address, contact information, and menu.</div>		

User Story No: 05	Task 1	Priority: High
AS A CUSTOMER, I WANT TO PLACE AN ORDER FOR FOOD FROM A RESTAURANT ON THE SCRUM FOODS APP, SO I CAN GET IT DELIVERED TO MY LOCATION.		
BV: 1000	CP: 8	
Acceptance Criteria: <div><div>1.</div>User can select items from the restaurant's menu, specify quantity, and add them to the cart.</div> <div><div>2.</div>User can provide delivery address and any special instructions.</div>		

User Story No: 06	Task 1	Priority: High
AS A CUSTOMER, I WANT TO MAKE A PAYMENT FOR MY ORDER ON THE SCRUM FOODS APP, SO I CAN COMPLETE THE TRANSACTION.		
BV: 1000	CP: 3	
Acceptance Criteria: <div>1. User can select a payment method (e.g., credit card, cash on delivery) and enter payment details if required.</div>		

User Story No: 07	Task 1	Priority: High
AS A CUSTOMER, I WANT TO TRACK THE STATUS OF MY ORDER IN REAL-TIME ON THE SCRUM FOODS APP, SO I CAN KNOW WHEN IT WILL BE DELIVERED.		
BV: 900	CP: 5	
Acceptance Criteria: <div><div>1. User can view the current status of their order (e.g., preparing, out for delivery).</div><div>2. User can see an estimated delivery time.</div></div>		

User Story No: 08	Task 1	Priority: Medium
AS A CUSTOMER, WANT TO CANCEL MY ORDER ON THE SCRUM FOODS APP, IN CASE I CHANGE MY MIND OR FACE AN ISSUE.		
BV: 800	CP: 5	
Acceptance Criteria: <div><div>1. User can request order cancellation before it has been dispatched for delivery.</div><div>2. User receives a confirmation of the cancellation and a refund if applicable.</div></div>		

User Story No: 09	Task 1	Priority: Medium
AS A CUSTOMER, I WANT TO PROVIDE FEEDBACK AND RATING FOR THE FOOD AND DELIVERY SERVICE ON THE SCRUM FOODS APP, SO I CAN SHARE MY EXPERIENCE.		
BV: 700	CP: 3	
Acceptance Criteria: <div><div>1.</div>User can rate their overall experience (e.g., on a scale of 1-5 stars).</div> <div><div>2.</div>User can leave comments or suggestions.</div>		

User Story No: 10	Task 1	Priority: Low
AS A CUSTOMER, I WANT TO LOG OUT OF MY ACCOUNT ON THE SCRUM FOODS APP, SO I CAN ENSURE THE SECURITY OF MY INFORMATION.		
BV: 500	CP: 2	
Acceptance Criteria: <div>1. User can click on the logout button and be redirected to the login screen.</div>		

User Story No: 11	Task 1	Priority: Medium
AS A DELIVERY BOY, I WANT TO REGISTER AN ACCOUNT ON THE SCRUM FOODS APP, SO I CAN START ACCEPTING DELIVERY ORDERS.		
BV: 800	CP: 5	
Acceptance Criteria: <div>1. Delivery boy can enter their name, contact information, and create a password to register.</div>		

User Story No: 12	Task 1	Priority: High
AS A DELIVERY BOY, I WANT TO LOG IN TO MY ACCOUNT ON THE SCRUM FOODS APP, SO I CAN VIEW AND MANAGE MY ASSIGNED ORDERS.		
BV: 900	CP: 3	
Acceptance Criteria: <div>1. Delivery boy can enter their email and password to log in to their account.</div>		

User Story No: 13	Task 1	Priority: High
AS A DELIVERY BOY, I WANT TO VIEW THE AVAILABLE ORDERS ON THE SCRUM FOODS APP, SO I CAN CHOOSE WHICH ONES TO ACCEPT.		
BV: 900	CP: 5	
Acceptance Criteria: <div>1. Delivery boy can see a list of orders with details such as the customer's name, address, and order contents.</div>		

User Story No: 14	Task 1	Priority: High
AS A DELIVERY BOY, I WANT TO SELECT AND ACCEPT AN ORDER ON THE SCRUM FOODS APP, SO I CAN PROCEED WITH THE DELIVERY.		
BV: 900	CP: 3	
Acceptance Criteria: <div>1. Delivery boy can choose an order from the available list and confirm their acceptance.</div>		

User Story No: 15	Task 1	Priority: Medium
AS A DELIVERY BOY, I WANT TO PICK UP THE ORDERED FOOD FROM THE RESTAURANT ON THE SCRUM FOODS APP, SO I CAN START THE DELIVERY PROCESS.		
BV: 800	CP: 5	
Acceptance Criteria: <div>1. Delivery boy receives details of the restaurant and the order for pickup.</div>		

User Story No: 16	Task 1	Priority: Medium
AS A DELIVERY BOY, I WANT TO UPDATE THE STATUS OF THE ORDER IN REAL-TIME ON THE SCRUM FOODS APP, SO THE CUSTOMER CAN TRACK ITS PROGRESS.		
BV: 800	CP: 3	
Acceptance Criteria: <div>1. Delivery boy can mark the order as picked up, out for delivery, and delivered.</div>		

User Story No: 17	Task 1	Priority: Medium
AS A DELIVERY BOY, I WANT TO RECEIVE PAYMENT IN CASH FROM THE CUSTOMER FOR CASH-ON-DELIVERY ORDERS ON THE SCRUM FOODS APP, SO I CAN COMPLETE THE TRANSACTION.		
BV: 800	CP: 3	
Acceptance Criteria: <div>1. Delivery boy collects the payment amount mentioned in the order and marks the payment as received.</div>		

User Story No: 18	Task 1	Priority: Low
AS A DELIVERY BOY, I WANT TO VIEW FEEDBACK AND RATINGS PROVIDED BY CUSTOMERS ON THE SCRUM FOODS APP, SO I CAN SEE THEIR REVIEWS.		
BV: 600	CP: 2	
Acceptance Criteria: <div>1. Delivery boy can see the ratings and comments left by customers for their deliveries.</div>		

User Story No: 19	Task 1	Priority: Medium
AS A DELIVERY BOY, I WANT TO RAISE ANY ISSUES OR CONCERNS REGARDING AN ORDER ON THE SCRUM FOODS APP, SO THE APPROPRIATE ACTION CAN BE TAKEN.		
BV: 700	CP: 3	
Acceptance Criteria: <div>1. Delivery boy can report problems with an order (e.g., incorrect address, missing items).</div>		

User Story No: 20	Task 1	Priority: Medium
AS A DELIVERY BOY, I WANT TO VIEW A REPORT OF MY DELIVERIES AND THE REVENUE GENERATED ON THE SCRUM FOODS APP, SO I CAN TRACK MY PERFORMANCE.		
BV: 700	CP: 5	
Acceptance Criteria: <div>1. Delivery boy can access a summary of their deliveries, earnings, and tips received.</div>		

User Story No: 21	Task 1	Priority: High
AS A RESTAURANT OWNER, I WANT TO REGISTER AN ACCOUNT ON THE SCRUM FOODS APP, SO I CAN RECEIVE AND PROCESS ORDERS.		
BV: 900	CP: 5	
Acceptance Criteria: <div>1. Restaurant owner can enter their restaurant details, contact information, and create a password to register.</div>		

User Story No: 22	Task 1	Priority: High
AS A RESTAURANT OWNER, I WANT TO LOG IN TO MY ACCOUNT ON THE SCRUM FOODS APP, SO I CAN MANAGE ORDERS AND OTHER RESTAURANT-RELATED TASKS.		
BV: 900	CP: 3	
Acceptance Criteria: <div>1. Restaurant owner can enter their email and password to log in to their account.</div>		

User Story No: 23	Task 1	Priority: High
AS A RESTAURANT OWNER, I WANT TO VIEW THE INCOMING ORDERS ON THE SCRUM FOODS APP, SO I CAN PREPARE AND FULFILL THEM.		
BV: 900	CP: 5	
Acceptance Criteria: <div>1. Restaurant owner can see a list of orders with details such as the customer's name, address, and order contents.</div>		

User Story No: 24	Task 1	Priority: Medium
AS A RESTAURANT OWNER, I WANT TO VERIFY THE ASSIGNED DELIVERY BOY FOR AN ORDER ON THE SCRUM FOODS APP, SO I CAN ENSURE A SMOOTH DELIVERY PROCESS.		
BV: 800	CP: 3	
Acceptance Criteria: <div>1. Restaurant owner can confirm the assigned delivery boy for an order and view their contact information.</div>		

User Story No: 25	Task 1	Priority: Low
AS A RESTAURANT OWNER, I WANT TO VIEW FEEDBACK AND RATINGS PROVIDED BY CUSTOMERS FOR MY RESTAURANT ON THE SCRUM FOODS APP, SO I CAN UNDERSTAND THEIR SATISFACTION LEVEL.		
BV: 700	CP: 2	
Acceptance Criteria: <div>1. Restaurant owner can see the ratings and comments left by customers for their restaurant.</div>		

User Story No: 26	Task 1	Priority: Medium
AS A RESTAURANT OWNER, I WANT TO RAISE ANY ISSUES OR CONCERNS REGARDING AN ORDER OR DELIVERY ON THE SCRUM FOODS APP, SO THE APPROPRIATE ACTION CAN BE TAKEN.		
BV: 700	CP: 3	
Acceptance Criteria: <div>1. Restaurant owner can report problems with an order or delivery (e.g., delayed pickup, damaged food).</div>		



User Story No: 27	Task 1	Priority: Medium
AS A RESTAURANT OWNER, I WANT TO VIEW THE REVENUE GENERATED THROUGH THE SCRUM FOODS APP, SO I CAN TRACK MY EARNINGS.		
BV: 700	CP: 5	
Acceptance Criteria: <div>1. Restaurant owner can access a summary of their earnings from orders placed through the app.</div>		

User Story No: 28	Task 1	Priority: High
AS A REGIONAL ADMIN, I WANT TO LOG IN TO MY ACCOUNT ON THE SCRUM FOODS APP, SO I CAN MANAGE MULTIPLE REGIONS AND THEIR ASSOCIATED STAKEHOLDERS.		
BV: 900	CP: 3	
Acceptance Criteria: <div>1. Regional admin can enter their email and password to log in to their account.</div>		

User Story No: 29	Task 1	Priority: High
AS A REGIONAL ADMIN, I WANT TO TRACK AND VIEW THE STATUS OF ORDERS AND DELIVERIES IN MY REGION ON THE SCRUM FOODS APP, SO I CAN ENSURE SMOOTH OPERATIONS.		
BV: 900	CP: 5	
Acceptance Criteria: <div>1. Regional admin can see the real-time status of orders and deliveries within their assigned region.</div>		

User Story No: 30	Task 1	Priority: Medium
AS A REGIONAL ADMIN, I WANT TO MANAGE AND RESPOND TO CUSTOMER FEEDBACK AND RATINGS IN MY REGION ON THE SCRUM FOODS APP, SO I CAN ADDRESS THEIR CONCERNS.		
BV: 800	CP: 3	
Acceptance Criteria: <div>1. Regional admin can access customer feedback and ratings specific to their region and take appropriate actions or respond to customers.</div>		

User Story No: 31	Task 1	Priority: High
AS A REGIONAL ADMIN, I WANT TO MANAGE AND ASSIGN DELIVERY BOYS AND RESTAURANTS WITHIN MY REGION ON THE SCRUM FOODS APP, SO I CAN ENSURE EFFICIENT OPERATIONS.		
BV: 900	CP: 5	
Acceptance Criteria: <div>1. Regional admin can view and update the list of available delivery boys and registered restaurants within their region.</div>		

User Story No: 32	Task 1	Priority: Medium
AS A REGIONAL ADMIN, I WANT TO VIEW THE REVENUE GENERATED IN MY REGION THROUGH THE SCRUM FOODS APP, SO I CAN ASSESS PERFORMANCE AND PROFITABILITY.		
BV: 800	CP: 3	
Acceptance Criteria: <div>1. Regional admin can access a summary of the earnings from orders placed within their region.</div>		

User Story No: 33	Task 1	Priority: High
AS A REGIONAL ADMIN, I WANT TO HANDLE ISSUES, REFUNDS, AND PAYMENTS RELATED TO ORDERS AND DELIVERIES WITHIN MY REGION ON THE SCRUM FOODS APP, SO I CAN PROVIDE TIMELY RESOLUTIONS.		
BV: 900	CP: 8	
Acceptance Criteria: <div>1. Regional admin can manage and resolve issues reported by customers, process refunds if necessary, and handle payments to restaurants and delivery boys within their region.</div>		

User Story No: 34	Task 1	Priority: High
AS AN ADMIN, I WANT TO LOG IN TO MY ACCOUNT ON THE SCRUM FOODS APP, SO I CAN OVERSEE AND MANAGE MULTIPLE REGIONS AND THEIR ASSOCIATED STAKEHOLDERS.		
BV: 1000	CP: 3	
Acceptance Criteria: <div>1. Admin can enter their email and password to log in to their account.</div>		

User Story No: 35	Task 1	Priority: High
AS AN ADMIN, I WANT TO MANAGE REGIONAL ADMINS AND THEIR PRIVILEGES ON THE SCRUM FOODS APP, SO I CAN MAINTAIN CONTROL AND ACCESS LEVELS.		
BV: 900	CP: 5	
Acceptance Criteria: <div>1. Admin can view and update the list of regional admins, their permissions, and access levels.</div>		

User Story No: 36	Task 1	Priority: Medium
AS AN ADMIN, I WANT TO HANDLE ISSUES AND RESOLVE THEM EFFECTIVELY ON THE SCRUM FOODS APP, SO I CAN ENSURE SMOOTH OPERATIONS AND CUSTOMER SATISFACTION.		
BV: 800	CP: 5	
Acceptance Criteria: <div>1. Admin can access and resolve reported issues from customers, delivery boys, and restaurant owners.</div>		

User Story No: 37	Task 1	Priority: Medium
AS AN ADMIN, I WANT TO MANAGE CUSTOMER FEEDBACK AND RATINGS ON THE SCRUM FOODS APP, SO I CAN ANALYZE OVERALL SATISFACTION AND IDENTIFY AREAS FOR IMPROVEMENT.		
BV: 700	CP: 3	
Acceptance Criteria: <div>1. Admin can view and analyze customer feedback and ratings to gather insights and take necessary actions.</div>		

User Story No: 38	Task 1	Priority: High
AS AN ADMIN, I WANT TO APPROVE OR REJECT REQUESTS RELATED TO RESTAURANTS, DELIVERY BOYS, AND REGIONAL ADMINS ON THE SCRUM FOODS APP, SO I CAN CONTROL THE ONBOARDING PROCESS.		
BV: 900	CP: 5	
Acceptance Criteria: <div>1. Admin can review and approve/reject requests for new restaurants, delivery boys, and regional admins, based on the provided information and requirements.</div>		

User Story No: 39	Task 1	Priority: High
AS AN ADMIN, I WANT TO RESOLVE ANY ISSUES OR CONFLICTS REPORTED BY STAKEHOLDERS ON THE SCRUM FOODS APP, SO I CAN ENSURE SMOOTH OPERATIONS AND MAINTAIN A POSITIVE BRAND IMAGE.		
BV: 900	CP: 8	
Acceptance Criteria: <div>1. Admin can address and resolve issues raised by customers, delivery boys, restaurant owners, and regional admins within a reasonable time frame.</div>		

User Story No: 40	Task 1	Priority: High
AS A BUSINESS OWNER, I WANT TO LOG IN TO MY ACCOUNT ON THE SCRUM FOODS APP, SO I CAN MONITOR AND MANAGE FINANCIAL ASPECTS OF THE PLATFORM.		
BV: 800	CP: 3	
Acceptance Criteria: <div>1. Business owner can enter their email and password to log in to their account.</div>		

### Question 3: What is epic? Write 2 epics

<b>Epic 1:</b>	<b>User Management and Authentication</b>	<b>BV: 1000</b>	<b>CP: 8</b>
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This epic focuses on user registration, login, and authentication features. It includes managing customer, delivery boy, restaurant, regional admin, admin, and business owner accounts.

<b>User Story 1: Customer Registration</b>  AS A CUSTOMER, I WANT TO REGISTER AN ACCOUNT ON THE SCRUM FOODS APP, SO I CAN ACCESS THE FEATURES AND PLACE ORDERS.	<b>Acceptance Criteria:</b> <ul style="list-style-type: none"><li>• User can enter their name, email, and password to create an account.</li><li>• The system validates the uniqueness of the email address.</li><li>• Upon successful registration, the customer receives a confirmation email.</li></ul>
<b>User Story 2: Customer Login</b>  AS A CUSTOMER, I WANT TO LOG IN TO MY ACCOUNT ON THE SCRUM FOODS APP, SO I CAN VIEW MY ORDER HISTORY AND SAVED PREFERENCES.	<b>Acceptance Criteria:</b> <ul style="list-style-type: none"><li>• User can enter their email and password to log in to their account.</li><li>• The system verifies the credentials and grants access to the customer's account.</li><li>• Once logged in, the customer can view their order history, saved preferences, and account details.</li></ul>

<b>Epic 2:</b>	<b>Delivery Boy Management and Operations</b>	<b>BV: 1000</b>	<b>CP: 9</b>
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This epic focuses on the activities and operations of the delivery boys, including order assignment, pickup, and real-time status updates.

<b>User Story 1: View Assigned Orders</b>  AS A DELIVERY BOY, I WANT TO VIEW ORDERS ASSIGNED TO ME ON THE SCRUM FOODS APP, SO I CAN ACCEPT AND DELIVER THEM.	<b>Acceptance Criteria:</b> <ul style="list-style-type: none"><li>• Delivery boy can log in to their account and see a list of orders assigned to them.</li><li>• The system displays order details, including the customer's name, delivery address, and order contents.</li><li>• Delivery boy can accept or reject an assigned order based on their availability.</li></ul>
<b>User Story 2: Update Order Status</b>  AS A DELIVERY BOY, I WANT TO UPDATE THE STATUS OF THE ORDER IN REAL-TIME ON THE SCRUM FOODS APP, SO THE CUSTOMER CAN TRACK ITS PROGRESS.	<b>Acceptance Criteria:</b> <ul style="list-style-type: none"><li>• Delivery boy can update the order status to reflect milestones such as pickup, out for delivery, and delivered.</li><li>• The system notifies the customer of the order's progress and provides real-time tracking updates.</li></ul>

#### Question 4: What is the difference between BV and CP

##### Business Value (BV):

- BV represents the importance of a feature from the client's perspective and is based on the financial benefit it brings to the organization.
- BV is calculated by the product owner and business stakeholders who consider the business relevance and impact of the user story.
- BV values are assigned using Scrum currency notes with denominations of 10, 20, 50, 100, 500, and 1000, indicating the relative importance of the user story.
- BV helps prioritize user stories and guides decision-making based on the value they bring to the business.

##### Complexity Points (CP):

- CP represents the level of complexity or effort required to implement a feature or user story from a development perspective.
- CP is estimated by the Scrum development team, considering factors like technical challenges, dependencies, and implementation effort.
- CP values are assigned using a modified Fibonacci series such as 1, 2, 3, 5, 8, 13, 20, 40, 100, and occasionally higher for extremely complex tasks.
- CP helps in planning and resource allocation by providing an understanding of the development effort required for each user story.

#### Question 5: Explain about Sprint

A sprint is a time-boxed iteration in agile project management, typically lasting from one to four weeks. It is a fundamental concept in Scrum, an agile framework.

During a sprint, a cross-functional team collaborates to complete a set of prioritized tasks from the product backlog. Sprint planning, daily standup meetings, development testing, and sprint review are key activities in a sprint, fostering collaboration, transparency, and continuous improvement.

The sprint allows for incremental delivery and enables the team to adapt and refine their approach based on feedback and lessons learned.

##### Time-based duration:

- Sprints have a fixed duration, which allows for better planning and predictability.
- The duration is typically between one to four weeks, with two weeks being the most common.
- The fixed time frame encourages the team to focus on delivering a potentially shippable product increment within that timeframe.
- At the end of the sprint, the team reflects on their progress and plans for the next sprint.

**Goal:**

- Each sprint has a defined goal or set of objectives that the team aims to accomplish.
- The goal is determined based on the product backlog and customer priorities.
- It provides a clear focus and direction for the team's work during the sprint.
- The goal helps the team stay aligned and ensures that the sprint delivers value to the stakeholders.

**Sprint Planning:**

- Sprint planning is a meeting held at the beginning of each sprint to determine which tasks will be worked on.
- The team collaboratively selects items from the product backlog and breaks them down into smaller, manageable tasks.
- The team estimates the effort required for each task and decides how much work they can commit to completing in the sprint.
- The output of sprint planning is a sprint backlog, which contains the tasks and their estimated effort for the sprint.

**Daily Standup Meetings:**

- Daily standup meetings are short, time-boxed meetings held each day during the sprint.
- The purpose is to provide a brief status update on progress and identify any obstacles or issues that need attention.
- Each team member shares what they accomplished since the last meeting, what they plan to work on next, and if they have any challenges.
- The meetings encourage collaboration, transparency, and accountability within the team.

**Development Testing:**

- Development testing, also known as sprint testing or unit testing, is an integral part of the sprint.
- It involves testing the developed features or functionalities to ensure they meet the required quality standards.
- Development testing is typically performed by the development team members themselves.
- The objective is to catch any defects early and provide feedback for continuous improvement.

**Incremental Delivery:**

- Sprint focuses on delivering a potentially shippable product increment at the end of each iteration.
- Incremental delivery means that with each sprint, the product gains new features or enhancements.
- The product increment should be functional and meet the Definition of Done (DoD) criteria set by the team.
- Incremental delivery allows for early feedback and helps validate assumptions and requirements.

**Sprint Review and Retrospective:**

- At the end of each sprint, a sprint review and retrospective are conducted. The sprint review is a meeting where the team demonstrates the completed work to stakeholders and collects their feedback.
- The retrospective is a meeting where the team reflects on the sprint, identifies what went well and areas for improvement.
- The team discusses how to adapt and refine their processes, tools, and practices for better efficiency and effectiveness.

**Backlog Refinement:**

- Backlog refinement, also known as backlog grooming or refinement, is an ongoing activity throughout the sprint.
- It involves reviewing and updating the product backlog to ensure it remains relevant, prioritized, and well-defined.
- The team collaborates to refine user stories, estimate effort, and break down larger items into smaller ones.
- Backlog refinement helps keep the backlog ready for future sprints, ensuring that the team has a clear understanding of upcoming work.

**Question 6: Explain Product backlog and sprint back log**

	Product Backlog	Sprint Backlog
Definition	A prioritized list of all requirements, features, etc.	Subset of the product backlog containing tasks for a specific sprint
Scope	Represents the overall scope of the product	Focuses on the work to be completed within a specific sprint
Ownership	Managed by the product owner	Owned and managed by the development team
Prioritization	Items are prioritized based on business value and need	Items are selected from the product backlog based on their estimated capacity
Dynamic	Evolves and changes over time based on feedback and needs	Fixed for the duration of the sprint, with items added or removed as necessary
Time Frame	Not time-boxed	Time-boxed to the duration of a specific sprint
Planning	Items are planned and refined for future sprints	Items are selected and planned for the upcoming sprint during sprint planning
Granularity	Can include high-level epics, themes, and user stories	Contains smaller, more granular tasks that can be completed within the sprint
Responsibility	Product owner is responsible for managing and maintaining	Development team is responsible for managing and executing



## Question 7: What is an impediments log? Write 2 impediments.

An impediments log, also known as an issue log or obstacle log, is a tool used in agile project management to document and track any impediments or obstacles that hinder the progress of the project or the team's ability to deliver value.

An impediments log is a structured record used in agile project management to track and manage obstacles or impediments that hinder project progress.

It serves as a centralized repository for capturing and managing impediments throughout the project's lifecycle. The log helps the team identify, address, and resolve obstacles to ensure smooth and efficient project execution.

- **Purpose:** The impediments log serves as a central repository for capturing and addressing issues, obstacles, or challenges faced by the project team.
- **Documentation:** It provides a structured format for documenting impediments, including their description, impact, severity, and proposed solutions.
- **Transparency:** The log promotes transparency by making impediments visible to the stakeholders.
- **Tracking:** It enables the team to track the status, progress, and resolution of each impediment, ensuring that nothing falls through the cracks.
- **Prioritization:** The log helps prioritize impediments based on their severity and impact on project success.
- **Ownership:** Each impediment is assigned an owner responsible for driving its resolution.
- **Action Plans:** The log includes action plans or next steps to address and remove each impediment.
- **Collaboration:** It encourages collaboration and problem-solving within the team, as members can contribute their insights and proposed solutions.
- **Continuous Improvement:** By tracking and resolving impediments, the team can identify recurring issues and implement measures to prevent similar obstacles in the future.
- **Decision-making:** The log provides valuable data for decision-making, helping the team and stakeholders understand the project's challenges and make informed choices to overcome them.

Here are some common and important impediments that can hinder project progress:

- **Lack of Clear Requirements:** When project requirements are unclear, ambiguous, or constantly changing, it can lead to confusion, rework, and delays in development.
- **Insufficient Stakeholder Involvement:** Limited engagement and involvement from key stakeholders can result in delayed feedback, decision-making bottlenecks, and difficulty in obtaining necessary approvals.
- **Resource Constraints:** A shortage of skilled team members, inadequate tools or equipment, or limited budget can impact the team's productivity and ability to deliver on time.
- **Dependencies and Bottlenecks:** Dependencies on external teams, systems, or suppliers that are not readily available or not meeting deadlines can cause delays and disrupt the project flow.
- **Communication Issues:** Poor communication within the team, between teams, or with stakeholders can lead to misunderstandings, misalignment, and inefficient coordination, affecting progress.

- **Scope Creep:** Uncontrolled changes or additions to the project scope beyond what was initially planned or agreed upon can cause delays, overwork, and increased complexity.
- **Technical Challenges:** Complex technical requirements, integration issues, or limitations of existing systems can pose significant obstacles to progress.
- **Quality Assurance and Testing Bottlenecks:** Inadequate or delayed testing processes, lack of resources for quality assurance, or difficulties in reproducing and resolving defects can impact the overall project timeline.
- **Organizational Change:** Significant changes in the organization's structure, leadership, or priorities can disrupt project teams, causing uncertainty and impacting progress.
- **External Factors:** Unforeseen events, such as natural disasters, economic shifts, or regulatory changes, can create unexpected impediments that require adjustments in project plans and timelines.

### Question 8: Explain Velocity of the Team

Velocity refers to the measurement of the amount of work a team can accomplish in a given time frame, typically calculated in agile project management.

Team velocity is a “measure of the amount of work a team can tackle during a single sprint and is the key metric in Scrum”. When you complete a sprint, you’ll total the points for all fully completed user stories and over time find the average number of points you complete per sprint.

**Definition:** Velocity is a metric used to quantify the team's productivity and efficiency by measuring the number of story points completed in a sprint or iteration.

**Story Points:** Story points are a relative estimation unit used to size user stories or tasks based on their complexity, effort, and uncertainty. The team assigns story points to each item in the backlog during sprint planning.

**Calculation:** Velocity is calculated by summing up the story points completed in a sprint. For example, if the team completed user stories with a total of 30 story points in a sprint, the velocity for that sprint is 30.

**Iterative Improvement:** Velocity provides valuable insights into the team's capacity and helps in planning future sprints. Over time, as the team gains experience and improves its estimation accuracy, velocity stabilizes and becomes a reliable predictor of the team's output.

**Planning and Forecasting:** Velocity is used as a basis for planning the amount of work that can be taken up in future sprints. It helps the team set realistic goals and commitments based on their historical performance.

**Tracking Progress:** Velocity acts as a tracking mechanism for the team's progress. By comparing the planned velocity with the actual achieved velocity, the team can identify if they are on track or if there are any potential issues to address.

**Variations in Velocity:** Velocity can vary from sprint to sprint due to factors like changing team composition, complexity of tasks, external dependencies, or unforeseen obstacles. It is important to analyze the reasons behind variations to make adjustments and improve accuracy.

**Continuous Improvement:** Velocity provides an opportunity for the team to reflect on their performance and identify areas for improvement. By analyzing factors that impact velocity, such as impediments or bottlenecks, the team can make adjustments to increase their efficiency and productivity.

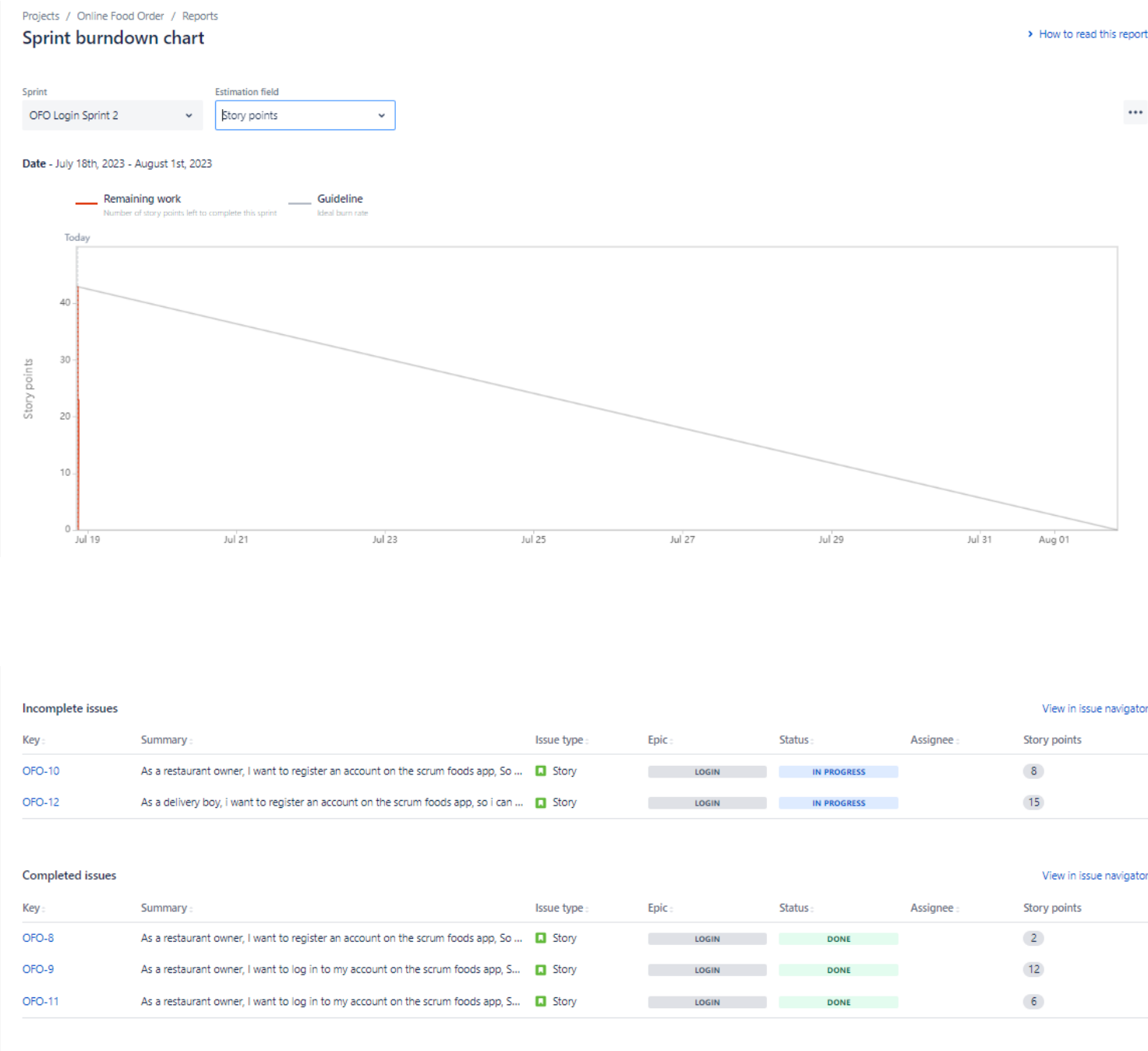
When calculating velocity, only include user stories that are complete. Incomplete Users Stories should be carried into the next sprint.

Question 9: Draw Sprint Burn Charts n Product Burn Down Charts

Burn Up



Burn Down:



## Question 10: Explain about Product Grooming

**Product grooming:** It involves reviewing, clarifying, and preparing user stories or product backlog items (PBIs) for inclusion in future sprints to ensure that the product backlog remains organized, prioritized, and ready for implementation.

The primary goal of product grooming is to refine the product backlog by adding details, estimating effort, and prioritizing items based on their value and feasibility. This process helps the development team and the product owner gain a shared understanding of the product requirements and aligns their expectations.

Here are the key steps involved in conducting product grooming:

**Scheduling the Grooming Session:** The product owner, Scrum Master, and development team decide time slot to conduct grooming sessions. These sessions typically occur before the start of the next sprint planning meeting.

**Selecting PBIs for Grooming:** The product owner selects a subset of user stories or PBIs from the product backlog to be groomed in the upcoming session. These items are usually those that are highest in priority or will be considered for inclusion in the next sprint.

**Preparing the PBIs:** The product owner ensures that the selected PBIs are well-defined and sufficiently detailed for the development team to understand. They may collaborate with stakeholders, gather additional information, and make any necessary updates or clarifications to the PBIs.

**Grooming Session:** During the grooming session, the product owner presents the selected PBIs to the development team. The team members discuss each PBI, seek clarification if required, and identify any missing details or dependencies.

**Estimating Effort:** The development team estimates the effort required to implement each PBI. This estimation is usually done using techniques such as story points or relative sizing. It helps the team understand the complexity and impact of each PBI.

**Prioritization:** The product owner and the development team collaboratively prioritize the PBIs based on their value, dependencies, and urgency. This prioritization ensures that the most valuable and feasible items are at the top of the backlog.

**Updating the Product Backlog:** The product owner updates the product backlog based on the outcomes of the grooming session. This includes incorporating any new details, estimates, and priorities discussed during the session.

**Iterative Grooming:** Product grooming is an ongoing process and is typically conducted regularly, usually before each sprint planning meeting. This iterative approach ensures that the backlog remains up-to-date and ready for implementation.

By conducting product grooming sessions, the development team and the product owner collaborate to refine and maintain a well-organized and prioritized product backlog. This, in turn, enables a smooth sprint process.

## Question 11: Explain the roles of Scrum Master and Product Owner

### Scrum Master:

- **Facilitator:** The Scrum Master acts as a facilitator for the Scrum team, ensuring that the team follows the Scrum framework, ceremonies, and practices. They help remove any obstacles that may impede the team's progress and enable a collaborative and productive environment.
- **Process Coach:** The Scrum Master coaches the team on Scrum principles, values, and practices. They help the team understand and embrace the agile mindset, guiding them to self-organize, make decisions collectively, and continuously improve their processes.
- **Servant Leader:** The Scrum Master serves the team by ensuring their needs are met, fostering a supportive and empowering atmosphere. They act as a servant leader, assisting the team members, addressing their concerns, and facilitating their growth and development.
- **Scrum Expert:** The Scrum Master is the go-to person for Scrum knowledge and expertise. They guide the team on how to apply Scrum practices effectively, advise on Scrum artifacts, such as the product backlog and sprint backlog, and help the team adhere to Scrum principles.
- **Communication Facilitator:** The Scrum Master facilitates effective communication within the team and between the team and external stakeholders. They ensure that information flows transparently, and everyone is aware of the project's progress, challenges, and goals.

### Product Owner:

- **Visionary and Decision-Maker:** The Product Owner is responsible for defining and communicating the product vision and goals. They have a clear understanding of the product, its target audience, and the market, enabling them to make informed decisions about product features and priorities.
- **Product Backlog Management:** The Product Owner maintains and prioritizes the product backlog, which is a dynamic list of requirements, features, and enhancements. They work closely with stakeholders, gather feedback, and ensure that the backlog items are well-defined, actionable, and aligned with the overall product vision.
- **Stakeholder Management:** The Product Owner collaborates with various stakeholders, including customers, users, business representatives, and the development team. They gather input, manage expectations, and negotiate requirements to ensure that the product meets stakeholder needs and delivers value.
- **Sprint Planning:** The Product Owner actively participates in sprint planning meetings, where they work with the team to determine which backlog items should be included in the upcoming sprint. They provide clarifications on the product backlog items, set the sprint goal, and ensure that the team understands the requirements.
- **Acceptance of Deliverables:** The Product Owner reviews and accepts the completed work delivered by the team during the sprint. They verify if the deliverables meet the acceptance criteria and are aligned with the product's overall vision and quality standards.

## Question 12: Explain all Meetings Conducted in Scrum Project

In a Scrum project, several meetings, also known as ceremonies, are conducted to facilitate effective communication, collaboration, and progress tracking. The key meetings in Scrum are as follows:

### 1. Sprint Planning Meeting:

**Purpose:** This meeting initiates each sprint and aims to determine what work will be accomplished during the upcoming sprint.

**Attendees:** Scrum Master, Product Owner, and the entire Scrum team.

**Agenda:**

- Product Owner presents the prioritized product backlog items.
- The team clarifies requirements and discusses the feasibility of each item.
- The team collectively decides which items to select for the sprint backlog.
- The team creates a sprint goal and outlines a plan to achieve it.

### 2. Daily Stand-up (Daily Scrum):

**Purpose:** This short, daily meeting fosters transparency, alignment, and quick problem-solving within the team.

**Attendees:** Scrum Master, Product Owner, and the entire Scrum team.

**Agenda:**

- Each team member briefly shares:
- What they accomplished since the last stand-up.
- What they plan to accomplish before the next stand-up.
- Any obstacles or impediments they are facing.
- The team collaborates to address any obstacles and adjusts plans if needed.
- The meeting typically lasts around 15 minutes and should be held at the same time and place every day.

### 3. Sprint Review:

**Purpose:** This meeting occurs at the end of each sprint to review and demonstrate the work completed during the sprint.

**Attendees:** Scrum Master, Product Owner, the entire Scrum team, stakeholders, and potentially customers or users.

**Agenda:**

- The team showcases the completed work and demonstrates its functionality.
- Stakeholders provide feedback, ask questions, and offer suggestions.
- The Product Owner discusses the product backlog and potential updates based on the feedback received.
- The team collaborates with stakeholders to prioritize and plan the next steps.



#### 4. Sprint Retrospective:

**Purpose:** This meeting takes place at the end of each sprint to reflect on the team's processes, identify areas for improvement, and plan changes for the upcoming sprints.

**Attendees:** Scrum Master, Product Owner, and the entire Scrum team.

**Agenda:**

- The team reflects on the sprint, discussing what went well and what could be improved.
- They identify and prioritize actionable items for process enhancements.
- The team creates an action plan to implement the identified improvements.
- The Scrum Master ensures that the action plan is followed in the next sprint.

Additionally, there may be other meetings outside of the Scrum framework that are necessary for planning, refinement, and coordination. These can include **Backlog Refinement meetings**, where the Product Owner and team collaborate to clarify and estimate backlog items, and Sprint Preparations meetings, where the team prepares for the upcoming sprint by reviewing the sprint backlog and planning their work in detail.

#### Question 13: Explain Sprint Size and Scrum Size

❖ **Sprint Size:** Sprint size refers to the duration or length of a sprint in Scrum.

- Purpose: A sprint is a time-boxed iteration during which the Scrum team works on delivering a potentially shippable increment of the product. The Sprint Size determines the time frame within which the team plans, executes, and reviews their work.

**Determining Factors:**

- Project Complexity: The complexity of the project or product being developed influences the appropriate Sprint Size. More complex projects may require longer sprints to deliver valuable increments.
  - Stakeholder Expectations: The expectations of stakeholders regarding the frequency of product releases or updates can impact Sprint Size. Stakeholders desiring more frequent releases may favor shorter sprints.
  - Team Capacity: The team's capacity to complete work within a specific time frame influences the Sprint Size. The team's velocity, skill levels, and availability should be considered.
- Common Sprint Lengths: Sprint lengths typically range from one to four weeks. Two weeks is a commonly recommended duration, striking a balance between frequent feedback and sustainable pace.

❖ **Scrum Size:** Scrum Size refers to the scale or scope of the Scrum implementation within an organization or project.

**Small Scrum Size:**

- In a small Scrum Size, Scrum practices are applied within a single team working on a specific project or product.
- The team consists of a Product Owner, Scrum Master, and development team members. They collaborate closely to deliver product increments through iterative development.
- Benefits: Small Scrum Size allows for close communication, rapid decision-making, and adaptability within the team. It promotes a focused approach to delivering value incrementally.

## Large Scrum Size:

- In a large Scrum Size, Scrum practices are scaled to accommodate multiple teams working together on complex projects or products.
- Various scaling frameworks, such as Scrum of Scrums, Nexus, LeSS, or SAFe, can be employed to coordinate efforts and align multiple Scrum teams.
- Benefits: Large Scrum Size enables collaboration, synchronization, and integration across teams. It facilitates efficient communication, cross-team coordination, and the delivery of complex products through a scaled Agile approach.
- Considerations: Scaling Scrum requires additional coordination and synchronization efforts. It is essential to maintain the core principles and values of Scrum while adapting practices to the larger context.
- The Scrum Size is influenced by factors such as organizational structure, project complexity, team size, and the need for cross-functional collaboration.

## Question 14: Explain DOR and DOD

**Definition of Ready (DOR):** The Definition of Ready outlines the criteria that a user story or product backlog item must meet before it can be considered ready for selection and implementation in a sprint. DOR helps the team ensure that the work is well-defined, understood, and feasible to be worked on during a sprint. It typically includes criteria such as:

- Clear and concise description: The user story should be written in a way that is understandable and unambiguous.
- Acceptance criteria: The specific conditions that must be met for the story to be considered complete.
- Dependencies identified: Any external dependencies or prerequisites necessary for the successful completion of the story should be identified.
- Estimates: The story should have a rough estimate of the effort required to complete it.

By establishing a shared understanding of the readiness criteria, the team can make informed decisions during sprint planning and prevent incomplete or poorly defined work from entering the sprint backlog.

**Definition of Done (DOD):** The Definition of Done defines the set of criteria or conditions that must be met for a user story, task, or any increment of work to be considered complete and potentially shippable. It helps ensure that the team consistently produces high-quality deliverables. The DOD typically includes elements such as:

- Functionality: The work item meets the requirements specified in the user story and acceptance criteria.
- Code quality: The code is reviewed, clean, and follows agreed-upon coding standards.
- Testing: The work item has been adequately tested, including unit tests, integration tests, and any other required testing.
- Documentation: The necessary documentation, such as user manuals or technical specifications, has been created or updated.
- Review and approval: The work item has been reviewed and approved by relevant stakeholders, such as product owners or end-users.

The Definition of Done serves as a quality checklist, ensuring that the team maintains a consistent level of quality for their deliverables and helps prevent any unfinished or substandard work from being considered complete.

Both DOR and DOD are collaborative agreements within the Scrum team, and they help maintain transparency, clarity, and shared understanding throughout the development process.

### Question 15: Explain Prioritization Techniques and MVP

#### MoSCoW Method:

MoSCoW is a prioritization technique commonly used in project management and software development. It helps in categorizing requirements, features, or tasks based on their importance and urgency. The term "MoSCoW" is an acronym derived from the first letter of each category: Must have, should have, Could have, and Won't have.

- **Must have:** These are the essential requirements or features that are critical for the success of the project or product. Must-have items are necessary for the product to function or meet the minimum viable product (MVP) criteria. If any must-have item is not implemented, it can significantly impact the project's success, and the product may not be considered viable.
- **Should have:** Should-have items are important but not critical. They add value to the product or project but are not strictly necessary for its core functionality. These items are prioritized immediately after the must-have items and are typically addressed once the must-have items are implemented.
- **Could have:** Could-have items represent desirable features or requirements that are not crucial for the product's functionality or immediate success. They are nice to have, but their absence does not affect the core value or viability of the product. These items are prioritized lower than must-have and should-have items and are addressed if time and resources permit.
- **Won't have:** Won't-have items are explicitly identified as not being included in the current iteration or version of the product. They are either postponed to future releases or completely discarded. These items are often features that are deemed not necessary or are out of scope for the current project or product goals.

**The Minimum Viable Product:** MVP is a product development strategy that focuses on creating and launching a version of the product with the bare minimum features required to solve the core problem or address the primary needs of the target audience. The goal of an MVP is to test assumptions, gather user feedback, and validate the product concept with minimal investment and effort. Here are some key aspects of an MVP:

- **Core Functionality:** An MVP includes only the essential features that provide the primary value or solve the core problem. It avoids complex or additional functionalities that can be added in later iterations.
- **Rapid Development:** The emphasis of an MVP is on speed and efficiency. It aims to quickly develop and deploy the product to the market to gather real-world user feedback.
- **Learning and Iteration:** The MVP approach encourages learning from user feedback and behavior. Based on the insights gained, the product can be iterated and improved incrementally.

- **Risk Mitigation:** By releasing an MVP, the development team can reduce the risk of investing significant resources into a product that may not meet user expectations or market demand.
- **Market Validation:** The MVP helps validate the product concept and market demand by observing how users interact with the product, identifying pain points, and refining the product accordingly.
- **Cost and Time Efficiency:** By focusing on the minimum set of features required, an MVP reduces development time and costs, allowing for quicker iterations and adjustments based on market response.

The MVP approach allows for an iterative and customer-centric product development process, enabling businesses to build products that resonate with users while minimizing waste and maximizing value.

### Question 16: Difference between Business Analyst n Product Owner

Business Analyst (BA) and Product Owner (PO) are two distinct roles in the field of business and product development, although there can be some overlap in their responsibilities depending on the organization and project. Here is a detailed comparison between the two roles:

#### Business Analyst (BA):

- Focuses on understanding business needs, analyzing processes, and recommending solutions.
- Acts as a bridge between business stakeholders and the development team.
- Has a broader focus that extends beyond a single product or project.
- Analyzes business processes, identifies areas for improvement, and proposes solutions.
- Deeply involved in requirements gathering, analysis, and documentation.
- Elicits requirements from stakeholders, conducts interviews and workshops, and creates functional and non-functional requirements.
- Facilitates communication, ensures requirements are understood, and resolves conflicts.
- Provides recommendations and insights based on analysis but final decisions rest with business stakeholders or project sponsors.
- Responsible for stakeholder communication and facilitation.

#### Product Owner (PO):

- Responsible for defining and prioritizing the product backlog.
- Represents the voice of the customer and ensures the product meets customer needs.
- Has a narrower focus on a specific product or product line.
- Defines the product vision, conducts market research, and prioritizes features.
- Gathers requirements, creates a well-defined product backlog, and translates requirements into user stories.
- Works closely with the development team, including developers, testers, and Scrum Masters.
- Has decision-making authority regarding the product backlog, prioritizing features, and making trade-offs.
- Responsible for the product vision, strategy, and ensuring customer satisfaction.
- Primarily associated with Agile methodologies, such as Scrum or Kanban.