**CAPSTONE PROJECT -2- AGILE SCRUM**

**1.Ans. AGILE**

Agile Manifesto is discovering new ways to better deliver our products. It has Four Main Values1.Individual and Interactions / Over processes and tools. 2.Working Products / Over Comprehensive documents 3.Customer Collaborations / Over Contract Negotiation.4.Responding to Feedback / Over Following a Plan.

Agile has 12 principles:

 Agile has 12 principles:

1. Our highest priority is to satisfy the customer through early and continuous delivery

2. welcome changing requirements, even late in development

3. Deliver Working Product frequently

4.Business-people and cross-discipline teams must work together daily

 5. Build projects around motivated individuals and trust them to get the job done.

6.The most effective and efficient method of conveying information is face-to-face conversation

7. Working product is primary measure of progress

8. Maintain a sustainable pace indefinitely

9.Give continuous attention to technical excellence

10. Simplicity- the art of maximizing the amount of work done is essential

11.Teams self-organize

12. Teams regularly reflect and adjust to become more effective

**2Ans.**

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| **User story: 1** | Task:2 | **Priority: highest** |
| AS A DELIVERY BOYI WANT TO REGISTER IN SCRUM FOODSSO THAT ICAN DELIVER ORDER |  |  |
| BV:500 |  | CP:02 |
| Acceptance criteria Registration Screen Text 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: 2** | Task:2 | **Priority: highest** |
| AS A RESTAURANT OWNERI WANT TO VIEW ORDERSSO THAT I CAN VIEW THE LIST OF ORDERS |  |  |
| **BV:500** |  | **CP:02** |
| ACCEPTANCECRITERIA View Order, Display List of orders in the tabular Form |  |  |

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| **User story: 3** | Task:2 | **Priority: highest** |
| As a customer I want to add the Address So that I can get the order to the address |  |  |
| **BV500** |  | **CP:02** |
| ACCEPTANCE CRITERIA Text Box to enter. Business Rules: Within the radius of 5km |  |  |

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| **User story: 4** | Task:2 | **Priority: highest** |
| As a custome rI want to select the payment mode So that can make payment of my choice |  |  |
| **BV:500** |  | **CP:03** |
| **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: 5** | Task:1 | **Priority: highest** |
| As an admin i want to view the restaurants So that I can approve their registration |  |  |
| BV:200 |  | CP02 |
| **Acceptance criteria** Register in the platform with the details |  |  |

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| **User story: 6** | Task:2 | **Priority: highest** |
| **As a customer**I want view the price So that I can order the food |  |  |
| **BV:50** |  | **CP01** |
| **Acceptance criteria**Display price in the list of menu items |  |  |

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| **User story: 7** | Task:2 | **Priority: highest** |
| **As a customer**I want the contact number of delivery boy So that I can contact delivery boy for the status |  |  |
| BV:50 | CP01 |  |
| **Acceptance criteria**1.Display delivery boy mobile number  2.Display delivery boy name in tracking field3.Display Delivery boy picture |  |  |

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| **User story: 8** | Task:2 | **Priority: highest** |
| As a restaurant owner I want to provide time slots So that customers able to see opening and closing hour |  |  |
| **BV:100** | **CP02** |  |
| ACCEPTANCECRITERIA1.Click on restaurant dashboard 2.Add from time to time3.Clickonsubmit 4.Display updated successfully |  |  |

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| **User story: 9** | Task:2 | **Priority: highest** |
| AS A Business OWNERI WANTTO VIEW RESTAURANTREVENUE REPORT SO THAT I CAN VIEW THERESTAURANT’SREVENUE |  |  |
| **BV:200** | **CP:3** |  |
| ACCEPTANCECRITERIA Select Reports Select Revenue Reports Select to and from date Select Region (can select all) Generate Report Download Report in EXCEL |  |  |

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| **User story: 10** | Task:2 | **Priority: highest** |
| AS A REG ADMINIWANT TO MANAGE REGIONAL RESTAURANTSSO THAT, ICAN TRACK THE PERFORMANCE OFREGIONAL RESTAURANTS |  |  |
| **BV:200** | **CP:3** |  |
| ACCEPTANCE CRITERIACLICK ON PERFORMANCE OFRESTAURANTS SELECT FROM DATE TO DATECLICK ON GENERATE REPORT WHICH INCLUDES RESTAURANTS ID, NAME, REVENUE CLICK ON DOWNLOAD REPORTSHOULDBEIN EXCEL |  |  |

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| **User story: 11** | Task:2 | **Priority: highest** |
|  AS An ADMIN I WANT TO SEE THEREGIONAL REVENUEREPORTS, SOTHATICAN VIEW THE REGIONAL PERFORMANCE |  |  |
| **BV:100** | **CP:3** |  |
| ACCEPTANCE CRITERIA Select regional drop down View performance of each rest of that region in tabular form which includes restname, revenue, generated Download in excel or PD |  |  |

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| **User story: 12** | Task:2 | **Priority: highest** |
| AS A CUSTOMERI WANT TO CHAT WITHREG ADMINSO THAT I CAN REQUESTFOR REFUND |  |  |
| **BV:200** | **CP:2** |  |
| Acceptance criteria1)Br-all mandatory 2)text box fields3)display order id4)text box for description5)submit button6)generate issue id7)display successful |  |  |

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| **User story: 13** | Task:2 | **Priority: highest** |
| ASA HUNGRYUSERI WANT TO BROWSENEARBY RESTAURANTSSO THAT I CAN ORDER THEFOOD |  |  |
| **BV:200** | **CP:2** |  |
| ACCEPTANCE CRITERIA1)Each restaurant entry displays its name, cuisine type, and rating2)This list can be sorted by distance or rating |  |  |

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| **User story: 14** | Task:2 | **Priority: highest** |
| AS A CUSTOMERI WANT TO BROWSE DIFFERENT RESTAURANTS AND MENUS SO THAT I CAN FIND APLACE TO ORDER FOOD |  |  |
| **BV:200** | **CP:2** |  |
| ACCEPTANCECRITERIA1)The menu includes dishes, prices and descriptions2)Show the restaurant is open or closed |  |  |

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| **User story: 15** | Task:1 | **Priority: highest** |
| AS ACUSTOMERI WANT TO BROWSE FOR SPECIFIC DISHES  AND CUISINES SO THAT I CAN FIND A PLACE TO ORDER FOOD |  |  |
| **BV:200** | **CP:2** |  |
|  ACCEPTANCE CRITERIA 1)App displays relevant restaurantand dishes matching the query |  |  |

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| **User story: 16** | Task:1 | **Priority: highest** |
| AS ACUSTOMER I WANTTOFILTER RESTAURANTS SO THAT I CAN FIND A PLACE TO ORDER FOOD |  |  |
| **BV:200** | **CP:2** |  |
| ACCEPTANCE CRITERIA1)Filter restaurants by cuisine type and dietary options (vegan, veg, non-veg, egg) |  |  |

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| **User story: 17** | Task:2 | **Priority: highest** |
| AS ACUSTOMER I WANT TO TRACK MY ORDER SO THAT I KNOW THE TIME OF DELIVERY |  |  |
| **BV:200** |  | **CP2** |
| ACCEPTANCECRITERIA 1)App shows real time update on the orderstatus 2)Display estimateddelivery time |  |  |

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| **User story: 18** | Task:2 | **Priority: highest** |
| AS AUSER I WANT TO RATE AND REVIEW RESTAURANTS SO THAT I CAN RATE AND REVIEW THE RESTAURANTS I HAVE VISITED |  |  |
| **BV:200** | **CP:2** |  |
| ACCEPTANCE CRITERIA1)Can see reviews from other users tohelp me make dining decisions |  |  |

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| **User story: 19** | Task:1 | **Priority: highest** |
|  AS AUSER I WANT TOSAVEFAVOURITERESTAURANTS AND DISHESSOTHATICANORDERFROMMYFAVOURITES |  |  |
| **BV:200** | **CP:2** |  |
| ACCEPTANCE CRITERIA1)Access my list of favourites easily for future orders |  |  |

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| **User story: 20** | Task:3 | **Priority: highest** |
| AS AUSER I WANTTOVIEWPASTORDERHISTORY SOTHATI CANORDERAGAIN |  |  |
| **BV:200** | **CP:02** |  |
| ACCEPTANCE CRITERIA 1)Can see the details such as order items, total cost and order date |  |  |

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| **User story: 21** | Task:2 | **Priority: highest** |
| AS AUSER I WANT TO RECEIVE NOTIFICATIONS SO THAT I CAN RECEIVE UPDATES |  |  |
| **BV:200** | **CP:02** |  |
| ACCEPTANCECRITERIA 1)Notifications for order confirmation2)Notification for dispatch3)Notification for delivery |  |  |

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| **User story: 22** | Task:2 | **Priority: highest** |
| AS ACUSTOMER I WANT TO CONTACT CUSTOMER SUPPORT SO THAT I CAN SUBMIT QUERIES OR ISSUES |  |  |
| **BV:200** | **CP:02** |  |
| ACCEPTANCE CRITERIA1)Customer support section with contact information |  |  |

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| **User story: 23** | Task:2 | **Priority: highest** |
| AS A RESTAURANT OWNER I WANT TO RECEIVE AND MANAGE ORDERS SO THAT I CAN UPDAT EORDER STATUS |  |  |
| **BV:200** | **CP:02** |  |
| ACCEPTANCE CRITERIA 1)Manage order status 2)Notify restaurants about incoming orders |  |  |

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| **User story: 24** | Task:1 | **Priority: highest** |
| ‘AS A RESTAURANT OWNER I WANT TO ACCESS TO CUSTOMER REVIEWS SO THAT I CAN VIEW AND RESPOND TO CUSTOMER REVIEWS |  |  |
| **BV:100** | **CP:04** |  |
| ACCEPTANCE CRITERIA 1)Owners can address feedback2)Owners can improve their services |  |  |

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| **User story: 25** | Task:1 | **Priority: highest** |
| AS A CUSTOMER I WANT TO APPLY PROMO CODES AND DISCOUNTS SO THAT I CAN ORDER AT LOWERPRICE |  |  |
| **BV:100** | **CP:04** |  |
| ACCEPTANCE CRITERIA 1)Active Promo codes |  |  |

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| **User story: 26** | Task:7 | **Priority: highest** |
| AS A CUSTOMER I WANT TO APPLY PROMO CODES AND DISCOUNTS SO THAT I CAN ORDER AT LOWERPRICE |  |  |
| **BV:200** | **CP:04** |  |
| ACCEPTANCE CRITERIA1)Active Promo codes |  |  |

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| **User story: 27** | Task:5 | **Priority: highest** |
| AS A DELIVERY BOY I WANT TO VIEW THE ORDERS SO THAT I ACCEPT THE ORDER |  |  |
| **BV:200** | **CP:04** |  |
| ACCEPTANCE CRITERIA1)Order visibility 2)Real-time updates3)Order details 4)Order filtering and sorting5)Order map view6)Order navigation7)Order completion and confirmation |  |  |

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| **User story: 28** | Task:5 | **Priority: highest** |
| AS A DELIVERYBOY I WANTTO LOGIN SO THAT I CANACCEPT THE ORDER |  |  |
| **BV:200** | **CP:04** |  |
| ACCEPTANCECRITERIA1)User Authentication2)Error Handling3)Password security 4)Multi-factor Authentication5)Compatibility and Usability |  |  |

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| **User story: 29** | Task:2 | **Priority: highest** |
| AS A ADMIN I WANT TO VIEW FEEDBACK SO THAT I CAN KNOW THE CUSTOMERS FEEDBACK |  |  |
| **BV:200** | **CP:04** |  |
| ACCEPTANCE CRITERIA 1)Access to feedback system 2)Feedback Visibility 3)Feedback sorting and filtering 4)Response Mechanism5)User Support |  |  |

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| **User story: 30** | Task:5 | **Priority: highest** |
| AS A ADMIN I WANT TO VIEW FEEDBACK SO THAT I CAN KNOW THE CUSTOMERS FEEDBACK |  |  |
| **BV:200** | **CP:04** |  |
| ACCEPTANCECRITERIA1)Access to feedback system2)Feedback Visibility3)Feedback sorting and filtering4)Response Mechanism5)User Support |  |  |

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| **User story: 31** | Task: | **Priority: highest** |
| ASARESTAURANT OWN I WANT TO VIEW FEEDBACK SO THAT I CAN KNOW THE CUSTOMERS FEEDBACK |  |  |
| **BV:100** | **CP:03** |  |
| ACCEPTANCECRITERIA1)Access to feedback system2)Feedback Visibility3)Feedback sorting and filtering4)Response Mechanism5)User Support |  |  |

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| **User story: 32** | Task:3 | **Priority: highest** |
| AS A ADMIN I WANT TO KNOW THE ISSUES SO THAT I CAN RESOLVE THEM |  |  |
| **BV:200** | **CP:04** |  |
|  ACCEPTANCECRITERIA 1)Display issue section 2)Sorting and filtering of issues list 3)Editing and modifying the issues |  |  |

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| **User story: 33** | Task:6 | **Priority: highest** |
| AS A REGIONAL ADMIN I WANT TO KNOW THE ISSUES SO THAT I CAN RESOLVE THEM |  |  |
| **BV:200** | **CP:04** |  |
| ACCEPTANCECRITERIA 1)Display issue section 2)Sorting and filtering of issues list 3)Editing and modifying the issues |  |  |

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| **User story: 34** | Task:2 | **Priority: highest** |
| AS A RESTAURANT OWNER I WANT TO VIEW REVENUE GENERATED SO THAT I VIEW RESTAURANTS REVENUE |  |  |
| **BV:200** | **CP:04** |  |
| ACCEPTANCE CRITERIA Select Reports Select Revenue Reports Select to and from date Select Region (can select all) Generate Report Download Report in EXCEL |  |  |

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| **User story: 35** | Task:2 | **Priority: highest** |
| AS A RESTAURANT OWNER I WANT TO KNOW DELIVERY BOY SO THAT I VERIFY THE DELIVERY BOY |  |  |
| **BV:50** | **CP:1** |  |
| ACCEPTANCECRITERIAID proof Punctuality and reliability |  |  |

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| **User story: 36** | Task:2 | **Priority: highest** |
| AS A CUSTOMER I WANT TO VIEW THE CONTACT NUMBER OF DELIVERY BOY SO THAT I CAN CONTACT DELIVERY BOY FOR THE STATUS |  |  |
| **BV:100** | **CP:2** |  |
| ACCEPTANCECRITERIA 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: 37** | Task:3 | **Priority: highest** |
| AS A RESTAURANT OWNER I WANT TO PROVIDE TIMES LOTS SO THAT CUSTOMER CAN CHECK OPENING AND CLOSING HOURS |  |  |
| **BV:200** | **CP:2** |  |
| ACCEPTANCECRITERIA1.Click on restaurant dashboard 2.Add from time to time3.Click on submit4.Display updated successfully |  |  |

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| **User story: 38** | Task:1 | **Priority: highest** |
| AS A USER I WANT TO RECEIVE NOTIFICATIONS SO THAT I CAN RECEIVE UPDATES |  |  |
| **BV:200** | **CP:2** |  |
| ACCEPTANCECRITERIA1)Notifications for order confirmation2)Notification for dispatch 3)Notification for deliver |  |  |

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| **User story: 39** | Task:4 | **Priority: highest** |
| AS A CUSTOMER I WANT TO CONTACT CUSTOMER SUPPORT SO THAT I CAN SUBMIT QUERIES OR ISSUES |  |  |
| **BV:200** | **CP:3** |  |
| ACCEPTANCE CRITERIA1) Customer support section with contact information |  |  |

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| **User story: 40** | Task:2 | **Priority: highest** |
| AS A REGIONAL ADMIN I WANT TO TRACK THE DELIVERY SO THAT I CAN VIEW THE STATUS OF THE DELIVERY |  |  |
| **BV:200** | **CV:3** |  |
| ACCEPTANCE CRITERIA Real time tracking Security and data privacy User friendly Interface |  |  |

**3 Ans.** **EPIC:**

Epic is a large user story or a collection of related user stories that represents a significant feature or functionality Epics are high level, often spanning multiples prints or iterations, and they provide away to organize and prioritize work in a product backlog.

**2 Epics1.Ratings and reviews:**

 As a user, I want to view ratings and reviews for restaurants on scrum foods, so that I can make informed decisions about where to order food from. As a user, I want to provide ratings and reviews for restaurants on scrum foods, so that I can share my experiences with other users and contribute to the community.

 Acceptance Criteria

● Users can view average ratings and reviews for each restaurant on the restaurants details page

● Users can read detailed reviews and comments left by the other customers

● Users can sort and filter reviews based on criteria such as rating and relevance

● Users can rate the restaurants and leave a review after placing the order

● Users can edit or delete their own reviews within a specified timeframe

● Reviews are displayed in a way that provides helpful insights to other users

● The rating and review system maintains the integrity and authenticity of user  feedback

**2**.

**Epic: Real-Time Order Tracking for Food Delivery App Description**

The real-time order tracking epic aims to provide users with a seamless and transparent experience by allowing them to track the status and location of their food orders in real-time. This feature enhances customer satisfaction, reduces support inquiries.

**User Stories:**

 As a customer, I want to see the live status of my order.

● Display the current status of the order, such as "order confirmed," "preparing" "out for delivery," and "delivered."

● Provide real-time updates as the order progresses through various stages. As a customer, I want to track the location of my delivery.

● Integrate GPS or location services to show the delivery partner's real-time location on a map.

● Allow customers to view the estimated time of arrival (ETA) based on the delivery partner's location. As a customer, I want to receive notifications for order updates

**Acceptance Criteria:**

**Real-Time Order Updates:**

 ● The app should provide real-time updates on the status of the user's order, such as "Order received," "Preparing," "Out for delivery," and "Delivered."

**Order Location Tracking:**

 ● The app should display the live location of the delivery driver while en route to the user's address.

● The map should update at regular intervals to reflect the driver's movement accurately.

**Estimated Delivery Time:**

 ● The app should provide an accurate estimated time of delivery (ETA) based on the driver's current location, distance to the delivery address, and traffic conditions.

**Delivery Notifications**

: ● Users should receive push notifications or in-app alerts for significant order updates, such as when the order is dispatched for delivery or when it is near the delivery address.

**Map Zoom and Interaction:**

 ● Users should be able to zoom in and out on the map to view the delivery driver's route more closely. ● The map should support standard interactions, such as panning and rotating, to improve the user experience.

**Delivery Status History:**

 ● Users should have access to the delivery status history, allowing them to see the timeline of their order from placement to delivery completion.

**Accuracy and Reliability:**

 ● The real-time tracking information should be accurate and reliable, providing users with the most up-to-date data available.

**Privacy and Security:**

 ● The real-time tracking feature should adhere to data privacy regulations and ensure that user location data is handled securely and used only for  order tracking purposes.

**Compatibility:**

 ● The real-time order tracking should work smoothly across various platforms, including iOS and Android devices, as well as web browsers.

**Opt-Out Option:**

 ● Users should have the option to disable real-time order tracking if they prefer not to share their location information.

**User Education:**

 ● Provide clear instructions or tooltips to educate users on how to use the real-time order tracking feature effectively.

**Support for Multiple Orders:**

 ● If a user places multiple orders, the app should allow them to track each order  individually with its own status and location updates.

By meeting these acceptance criteria, the food delivery app can successfully implement real-time order tracking, providing users with a transparent and convenient way to monitor their orders from the moment they are placed until they are delivered to their doorstep.

**4Ans**.

**Difference between BV and CP**

 **Business Value (BV):**

● Business Value refers to the perceived or quantifiable worth or benefit that a specific task, feature, or requirement brings to the business or project.

● It is typically determined based on factors such as revenue generation, cost savings, customer satisfaction, market competitiveness, strategic alignment, and other business-related criteria.

● Business Value helps prioritize tasks or features based on their importance to the overall project goals and objectives.

● Examples of Business Value considerations: Increased revenue, improved user experience, compliance with industry regulations, competitive advantage.

**Techniques used: Moscow, Currency notes technique**

**MOSCOW:** The MOSCOW technique is a prioritization and requirements management technique used in project management and software development. It helps stakeholders and project teams prioritize and categorize requirements or tasks based on their importance and urgency. The acronym "MOSCOW" stands for the four categories into which requirements or tasks are typically classified:

●**Must Have**: These are critical requirements or tasks that are essential for the project's success. Without these, the project would likely fail to meet its objectives.

●**Should Have**: These are important requirements or tasks that are not absolutely critical but significantly contribute to the project's value. They are high-priority items that should be included if possible.

**● Could Have**: These are desirable requirements or tasks that would enhance the project but are not essential. They are often considered nice-to-have features thatcan be addressed if time and resources allow.

●**Won't Have (this time):**

 These are requirements or tasks that are deliberately deprioritized and will not be included in the current phase of the project. They may be considered for future iterations or versions.

**Complexity Points (CP):**

 ● Complexity Points, also known as story points or function points, are a measure of the relative complexity or effort required to complete a task, feature, or requirement.

● They are used to estimate the effort, time, and resources needed to implement a specific item.

● Complexity Points are often assigned based on factors such as technical difficulty, development effort, integration challenges, and other technical or development-related criteria.

● Complexity Points help in assessing the workload and resource allocation needed for different tasks or features.

● Examples of Complexity Points considerations: Integration with legacy systems, technical dependencies, data migration, algorithmic complexity.

**Techniques used:**

 **Planning poker:**

Planning Poker is a consensus-based technique commonly used in Agile and Scrum methodologies for estimating the effort or complexity of user stories or tasks. It helps teams collaborate and arrive at a shared understanding of the work involved in a

 particular item. The term "CP" in your question likely stands for "Complexity Points," which are used in Planning Poker to represent the relative effort or complexity of a task. Here's how the Planning Poker technique works:

**Preparation:**

 ● The team gathers to estimate the effort or complexity of user stories or  tasks that need to be completed in a sprint or iteration.

**Estimation Cards:**

● Estimation cards are used, each containing a number representing a predefined range of Complexity Points (e.g., 0, 1, 2, 3, 5, 8, 13, 20, 40, 100).

● The cards are often designed such that the numbers increase non-linearly, reflecting that as tasks become more complex, the uncertainty in estimates also increases.

 **Facilitator:**

 ●A facilitator (often the Scrum Master or Agile Coach) leads the session and explains the process to the team.

**Estimation Process:**

 ● Foreach user story or task, the team discusses the requirements, assumptions, and any relevant information.

●Each team member selects an estimation card representing their individual view of the Complexity Points required to complete the task. The card is kept face down.

**Reveal and Discussion:**

 ● After everyone has selected a card, all team members reveal their chosen cards simultaneously.

● If there's a wide variation in estimates, team members have a discussion to share their reasoning and insights. This helps clarify assumptions and leads to a shared understanding.

**Re-Estimation and Consensus:**

 ● After the discussion, team members may revise their estimates by selecting a different card based on the insights gained. ●The process of discussion and re-estimation continues until a consensus is reached. The goal is to align the team's estimates.

**Repeat for Each Task:**

 ● The process is repeated for each user story or task in the backlog.

**Final Estimate:**

 The final estimate for each user story or task is often determined by the mode or median of the estimates chosen by the team members. Planning Poker helps mitigate individual biases and provides a collaborative and transparent way to estimate work. It encourages discussions, helps identify potential challenges, and allows the team to make informed decisions about how much work can be taken on in a sprint or iteration in summary, Business Value focuses on the business impact and significance of tasks or features, while Complexity Points focus on the technical effort and complexity involved in implementing those tasks or features. Both concepts are valuable in project management and software development, as they help prioritize and plan work based on both business goals and technical constraints.

**5Ans.**

**SPRINT:**

 In the context of software development and project management, a sprint is a time-boxed, iterative development period during which a specific set of tasks and goals are worked on by a development team. Sprint is a core concept in Agile methodologies, such as Scrum, which emphasizes flexibility, collaboration, and delivering value to the customer in shorter cycles.

Here are the key characteristics and components of a sprint:

●**Time Frame:**

 A sprint typically has a fixed duration, often ranging from 1 to 4 weeks. The duration is consistent across all sprints to provide a predictable cadence for development and planning.

●**Goals and Objectives**: At the beginning of each sprint, the development team,  along with stakeholders, selects a set of user stories, features, or tasks to work on during that sprint. These items are collectively referred to as the sprint backlog.

**● Planning**: During sprint planning, the development team breaks down the selected items from the product backlog into smaller tasks and estimates the effort required for each task. The team commits to completing these tasks within the sprint duration.

●**Daily Stand-ups**: Throughout the sprint, the team holds daily stand-up meetings (also known as daily scrums) to discuss progress, obstacles, and plans. Each team member shares what they've accomplished, what they're working on, and any challenges they're facing. These meetings foster communication and collaboration.

●**Development:** The development team works on the tasks identified in the sprint backlog. They collaborate closely, often using techniques like pair programming and frequent code reviews to ensure high-quality work.

**● Continuous Integration**: Developers integrate their code changes into the main codebase regularly, ensuring that the software remains functional and stable throughout the sprint.

●**Testing**: Testing is an integral part of a sprint. Automated tests are run to validate code changes, and manual testing may be conducted to ensure the quality of the software.

●**Review and Demo**: At the end of the sprint, the development team conducts a sprint review and demo. They showcase the completed work to stakeholders, gathering feedback and validation. This helps ensure that the delivered features align with expectations.

●**Retrospective**: Following the review and demo, the team holds a sprint retrospective. They reflect on what went well during the sprint, what could be improved, and actions to take in the next sprint. The retrospective encourages  continuous improvement.

●**Incremental Development**: Each sprint results in a potentially shippable product increment, meaning that at the end of each sprint, a new version of the software is available with additional features or improvements.

**● Adaptability**: Agile methodologies emphasize adaptability and the ability to respond to changing requirements. If new priorities or insights emerge, adjustments can be made in subsequent sprints.

**6Ans**. **Product Backlog and Sprint backlog**:

The Product Backlog is a dynamic, prioritized list of all the features, user stories, enhancements, bug fixes, and other work items that need to be addressed over the course of a project. It represents the entire scope of the product's development and is managed by the Product Owner.

The Product Backlog is continually refined and updated based on feedback, changing requirements, and new insights. The Sprint Backlog is a subset of the Product Backlog that represents the work that the development team commits to completing during a specific time period called a" Sprint." A Sprint is a fixed-duration iteration, usually lasting two to four weeks, in which the team Works on a set of items from the Product Backlog.

 The Sprint Back log is created during the Sprint Planning meeting, where the development team selects a set of items to work on based on their capacity and the priorities set by the Product Owner.

|  |  |  |
| --- | --- | --- |
| **S .No** | **Product Backlog** | **Sprint Backlog** |
| 1. | Anything that needed to Accomplish the project vision | Anything that needed to fulfil the sprint goal |
| 2. | Product owner owns | Development team own |
| 3. | Contains requirements, tasks, defects | A subset of product backlog items defined as a priority by the product owner |
| 4. | Every one contributes to the product catalogue | Sprint planning meeting is to refine the sprint backlog items |
| 5. | Product back log evolves and changes will be done by the PONO changes are all owed to the sprint backlog item through the product lifecycle | NO changes are all owed to the sprint backlog items once the sprint has started |
| 6. | Product backlog refinement meeting is to refine the product backlog | Sprint planning meeting is to refine the sprint backlog items |

**7Ans.**

**Impediments Log:**

 An impediment log, also known as an issue log or obstacle log, is a document or tool used in Agile software development to track and manage obstacles, bottlenecks, orany factors that impede the progress of a project or team.

2 Impediments:

● Delivery partner shortage in a specific region

● Technical issue causing intermittent order processing failure

|  |  |
| --- | --- |
| **Login ID** | **1** |
|  Description | Delivery partner storage in specific region |
| Impact | Delays in order deliveries and increases customer dissatisfaction |
| Priority | High (due to its impact on customer experience) |
| Assigned to  | Operations team and HR team |
| Status  | Open |
| Action take | The operations team is actively recruiting new delivery partners |
| Resolution | Delivery partner recruitment efforts are ongoing and the HR team is streamlining the on-boarding process to expedite new hires. Regular updates are being provided in team meetings. |

**Technical issue causing intermittent order processing failure:**

|  |  |
| --- | --- |
| **Login ID** | **2** |
| Description | Technical issue causing intermittent order processing failures |
| Impact | Delays in order processing and potential revenue loss |
|  Priority | High(due to its impact on revenue and customer experience ) |
| Assigned to | Tech team and QA team |
|  Status | In progress |
|  Action taken | The tech team has identified the root cause and is working on a fix. The QA team is conducting extensive testing to ensure the issue is resolved |
| Resolution | The tech team has implemented a fix and conducted through testing. The issue has been resolved, and orders are now processing smoothly. |

**8Ans.**

**VELOCIT YOF THE TEAM:**

 Velocity refers to the measure of the amount of work a development team can complete during a sprint.

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.

**Story point estimation:**

 Story point estimation is a technique used in agile software development to estimate the effort required for a specific task or user story. It's a relative measure of complexity rather than a fixed time unit. Team members assign story points based on their understanding of the work involved, considering factors like complexity, effort, and uncertainty. The actual time a story point represents can vary from team to team. For some, it might equate to hours, while for others, it might represent days. It's important to establish a consistent baseline with in the team so that story point estimates can be used effectively for planning and prioritization.

**Tracking completed work:**

 Tracking completed work in Agile development typically involves calculating the total story points completed by the team over a specific time frame, usually a sprint or  iteration.

Here's how you can calculate completed work:

●**Identify Completed Stories**: At the end of the sprint or iteration, review the user  stories or tasks that were completed and accepted as done.

**● Sum Story Points:**

 Add up the story points assigned to all the completed user  stories. Exclude any story points that were not fully finished or accepted during the sprint.

**Calculate Total Completed Work**

: The sum of story points completed represents the total completed work for that sprint. This completed work can be used to calculate the team's velocity for that specific sprint, as mentioned in the previous response. It provides insights into the team's capacity and helps with future sprint planning and estimation.

**Summing story points:**

 Summing story points involves adding up the numerical values assigned to individual user stories or tasks during the estimation process in Agile development. Story points are used to represent the effort, complexity, and size of a piece of work relative to other items on the backlog.

Here's how you can sum story points:

● List Completed User Stories: Gather a list of user stories or tasks that have been completed during a specific sprint or iteration.

● Identify Story Point Values: Each user story or task should have a story point value assigned to it during the estimation process. These values are usually relative, such as 1, 2, 3, 5, 8, 13, etc., representing increasing levels of  complexity or effort.

● Add Up Story Point Values: Sum up the story point values for all the completed user stories or tasks. For example, if you completed user stories with story point values of 3, 5, and 8, the sum would be 16.

The sum of story points provides a quantitative measure of the work completed by the team during a sprint. This sum is often used to calculate the team's velocity, which helps in future sprint planning and estimation. Average velocity: Average velocity in Agile development refers to the average amount of work, measured in story points, that a team completes during a series of sprints or iterations. It's a key metric used for planning and estimating future work.

Here's how to calculate average velocity:

● Select a Time Frame: Choose a specific number of past sprints or iterations for  which you want to calculate the average velocity. For example, you might choose the last 5 sprints.

● Sum Completed Story Points: Add up the total story points completed by the team in each of the selected sprints. This will give you the total completed work for the chosen time frame.

● Calculate Average: Divide the total completed story points by the number of  sprints or iterations you selected. This will give you the average velocity for that period.

 Formula: Average Velocity = Total Completed Story Points / Number of Sprints Use for Planning: The average velocity can serve as a guideline for future sprint planning.

It helps the team estimate how much work they can commit to in upcoming iterations based on their historical performance. Keep in mind that average velocity is a rough estimate and can fluctuate based on various factors.

 It's important to consider the team's capacity, any changes in team composition, and improvements in estimation accuracy over time.

**9Ans.**

**SPRINT BURNDOWN CHART:**



**PRODUCT BURN DOWN CHART:**



**10Ans.**

**PRODUCT GROOMING**

Product grooming, also known as backlog grooming or refinement, is a crucial activity in Agile development that involves preparing and refining items in the product backlog to ensure they are well-understood, prioritized, and ready for development.

Let's break down the process step by step:

●**Setting the Context**: At the beginning of the backlog grooming process, the team and relevant stakeholders come together to understand the overall goals and objectives of the project. This helps set the context for the work to be done and aligns everyone's understanding.

●**Backlog Review**: The product owner and the development team review the items in the product backlog. This involves assessing the user stories, tasks, and other items to ensure they are accurate, up-to-date, and still relevant to the project's goals.

●**Prioritization:**

 During backlog grooming, the team collaboratively prioritizes the backlog items based on their value to the product and the needs of the users or customers. This helps ensure that the most important and valuable work is addressed first.

**● Refinement and Estimation**: In this step, the backlog items are refined to provide clear and detailed descriptions. The team breaks down user stories into smaller tasks and discusses the technical requirements. Estimation involves assigning story points or other sizing metrics to each item, indicating the relative effort needed for implementation.

●**Dependency Analysis**: The team examines potential dependencies between backlog items. Identifying and understanding dependencies helps in planning the order of implementation and managing potential bottlenecks.

**● Acceptance Criteria**: Well-defined acceptance criteria are established for each backlog item. These criteria outline the conditions that must be met for the item to be considered complete and ready for delivery. Clear acceptance criteria help prevent misunderstandings and ensure a shared understanding of what is expected.

● Backlog Grooming Meetings: These are recurring meetings where the product owner and the development team come together to perform the activities mentioned above. These meetings often occur before sprint planning sessions to ensure that the upcoming sprint backlog is well-prepared. Backlog grooming is an iterative process that helps maintain a healthy and well-organized product backlog. It ensures that the development team always has a prioritized list of well-defined, estimated, and ready-to-develop items. This, in turn, supports the efficient planning and execution of sprints and helps the team deliver value to customers in a more predictable and effective manner.

**11Ans.**

|  |  |  |
| --- | --- | --- |
| **Criteria** | **Product Owner** |  **Scrum Master** |
| **Nature of work** | Collaborates with all the stakeholders and brings the vision of a product into the product backlog | Acts as a team coach an dis responsible for maintaining the quality of the product |
| **Responsibility** | Responsible for completing the project on time. Acts as an intermediary between development team and the customers | Ensures the scrum frameworks followed and helps the development team create a quality product. |
| **Accountability** | Responsible for project backlog and the timely completion of the product and for providing updates to the clients and stake-holders | Accountable for the quality of the entire project and for giving updates to the management about the completion of the product |
| **Reporting** | Reports to top management and clients | Reports to top management about the efficiency of the team and the quality of the product |
| **Qualities** | Communication and the Leadership skills, creativity, critical thinking and a sharp mind are key assets for  any product owned | Thorough knowledge of scrum theory and practices. Being able to lead the team but without the sense of authority |

**12Ans.**

**All the meetings in scrum project Sprint**

**Planning**: This meeting kicks off each sprint, which is a time-boxed iteration of work, usually spanning 2-4 weeks.

During this meeting, the Scrum team, including the Product Owner, Scrum Master, and Development Team, collaborates to determine which backlog items (user stories, features, etc.) will be worked on in the upcoming sprint.

The team also breaks down these items into tasks and estimates the effort required.

**Daily Stand-up (Daily Scrum):**

 Held daily during the sprint, this short meeting aims to facilitate quick and focused communication among team members.

 Each team member answers three key questions:

What did I accomplish since the last stand-up?

What will I work on until the next stand-up?

 Are there any obstacles or impediments in my way?

This meeting helps keep everyone aligned and informed about the progress and challenges.

**Sprint Review:**

 At the end of each sprint, the team holds a review meeting to showcase the work completed during the sprint to stakeholders, customers, and the Product Owner. The team demonstrates the potentially shippable product increment and gathers feedback. Based on this feedback, the Product Owner can update the backlog.

**Sprint Retrospective:**

 Also held at the end of each sprint, the retrospective is a dedicated time for the team to reflect on their processes and practices. The team discusses what went well, what could be improved, and any potential change they'd like to make in the next sprint to enhance their efficiency and effectiveness.

**Backlog Refinement (Grooming):**

 While not officially part of the Scrum events, backlog refinement is an important ongoing activity. During these sessions, the team and the Product Owner review and refine backlog items, adding details, clarifications, and estimates to make them ready for inclusion in future sprints.

**Product Backlog Refinement**: This meeting focuses on refining the product backlog items. The team and the Product Owner discuss and clarify requirements, priorities, and any changes needed in the backlog items. This ensures that the backlog is well-prepared for upcoming sprints.

**Release planning:** This meeting occurs at the start of the project or major release and involves the product owner, development team, and stakeholders. It aims to discuss and plan the high level scope, timeline, and goals for the project**.**

**Ad hoc meetings:** These meetings may be schedules as needed to address specific topics or issues, such as resolving impediments, discuss technical challenges, or conducting additional planning or collaboration sessions.

**13Ans.**

**Sprint Size:**

In Scrum, a "sprint" is a time-boxed iteration during which the development team works to deliver a potentially shippable product increment. The length of a sprint is referred to as the "sprint duration" and is usually fixed throughout the project. Common sprint durations are 1 to 4 weeks. The choice of sprint duration depends on factors such as team velocity, project complexity, and business needs. A shorter sprint encourages more frequent opportunities for feedback and adaptation, while a longer sprint provides more time for development.

**Scrum size**

The Scrum team size refers to the number of individuals who collectively contribute to the development of the product. A Scrum team consists of three key roles: the Product Owner, the Scrum Master, and the Development Team. The Development Team, in particular, is responsible for creating the product increment. Scrum recommends that the Development Team size be kept small, typically between 3 to 9members, to facilitate effective communication, collaboration, and decision-making.

**14Ans.**

DOR (definition of ready):The Definition of Ready outlines the criteria that a product backlog item (user story, feature, task, etc.) should meet before it is considered ready to be taken into a sprint

for development. The DOR ensures that the item is well-defined,

understood, and prepared for efficient development. The specific criteria in the

DOR can vary from team to team,

 but commonly include elements such as:

● Clear description and acceptance criteria: The item's requirements are clearly stated, and the conditions for its successful completion are well-defined.

● Dependencies identified: Any dependencies on external factors, teams, or  resources are identified and addressed.

● Estimable: The team has enough information to provide a reasonable estimate of the effort required.

● Testable: It's possible to determine whether the item has been successfully implemented through testing.

● Minimal ambiguity: The item's details are clear, and any uncertainties are Resolved

Definition of Done (DOD):

The Definition of Done outlines the criteria that must be met for a product incrementor backlog item to be considered complete and potentially shippable. The DOD ensures that the team maintains a consistent level of quality and completeness in their work. The specific criteria in the DOD can vary based on the team's standards, the nature of the project, and the industry,

but commonly include elements such as:

● Code complete: All development work is finished, including coding, testing, and integration.

● Peer-reviewed: Code has been reviewed by other team members for  quality and adherence to coding standards.

● Automated tests passed: Automated tests (unit tests, integration tests,etc.) have been successfully executed and passed.

● Functional requirements met: The item meets all specified acceptance criteria and functional requirements.

● Documentation updated: Any necessary documentation, user guides, or  technical documentation has been updated.

**15Ans.Prioritization Techniques**

Prioritization techniques are methods used to determine the order in which tasks, features, or items should be addressed in a project. These techniques help teams allocate resources effectively and focus on delivering the most valuable work first. Some common prioritization techniques include:

**MOSCOW:**

This technique categorizes items into Must have, should have, could have, and won't have categories. It helps clarify essential features from those that are optional or lower priority.

**Weighted Shortest Job First (WSJF):**

WSJF assigns a priority score to each item based on factors like business value, time sensitivity, and risk. Items with higher scores are considered more important to work on.

**Kano Model**: This model categorizes features into Basic Needs, Performance Needs, and Delighters. It helps prioritize based on how features impact user satisfaction.

**Value vs. Effort Matrix:** Items are plotted on a matrix based on their potential value and effort required. This helps identify quick wins and high-value tasks.

**Relative Prioritization:** Teams compare items pairwise to determine which is more important. This helps create a relative ranking of items.

Buy a Feature: Stakeholders are given a budget to 'buy' features, which helps prioritize features based on how much value they see in them Prioritization Techniques:

Minimum Viable Product (MVP):  An MVP is the smallest version of a product that includes just enough features to provide value to early adopters and gather feedback. The MVP approach helps validate assumptions, learn from users, and iteratively build upon a product's foundation.

 It involves:

 ●Core Functionality: An MVP focuses on delivering the core functionalities that address the primary needs or pain points of the target users.

 ●Minimal Features: The MVP omits non-essential features to avoid unnecessary complexity and expedite development.

● Testing Hypotheses: The MVP tests assumptions and hypotheses about user behaviour, market demand and product viability.

● Iterative Development: Based on user feedback, the product is refined and expanded in subsequent iterations, gradually adding more features.

● Early Value: The MVP allows the product to be released faster, gaining valuable Insights and attracting early adopters.

**16Ans.**

|  |  |  |
| --- | --- | --- |
| **Aspect** | **Business analyst**  | **Product owner** |
| **Role focus** | Understanding business needs process and requirements | Define, prioritize and convey requirements for the product |
| **Requirement** | Gathers and documented detailed business requirements | Creates user stories and define product features |
| **Problem solving** | Identifies problems, inefficiencies and suggest improvements | Drives the product vision, strategy and value proposition |
| **Communication** | Act as a liaison b/w stakeholders and development team | Collaborates with stakeholders, customer sand development team |
| **Documentation** | Creates documentation of  Business rules, workflows, and requirements | Manage the product backlog and maintain clear user stories |
| **Scope** | Helps define scope of the project based on business needs | Define the product features and enhancement |
| **Prioritization** | Does not have primary role in prioritizing features | Prioritize features based on business needs, customer value and market trends |
| **Decision making** | Provide inputs but not responsible for final product decisions | Make final decision on product features, enhancement and priorities |
| **Iterative development** | May or may not involved in iterative development | Actively participate in sprint planning, review |

**17Ans.**

**Nikita Sharma**

**Product Owner**

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**SUMMARY**

Experienced Product Owner with demonstrated history of working on transformative initiatives and achieving results. Proven track record of leadership skills with an ability to develop high-performing team and team members.

Multi-sector product expertise, with experience working with users across publishing, financial, technical, and consumer sectors.

Proficient at leveraging key data from stakeholders through guided workshops on Miro.

Dedicated to meeting and exceeding expectations for product launches and sprint updates.

Expertise in executing A/B testing and drafting Technical User Stories for product development.

**EMPLOYMENT HISTORY Product Owner**

* Steam global service, Mumbai 2018 - 2021
* Facilitated project meetings to capture testing and project updates within credit risk reporting processes.
* Created project plans/timelines in Microsoft Projects, resolved issues to promote efficient and successful project releases across multiple teams.
* Led multiple tasks to implement best practices by documenting, tracking end-to-end life cycle review and signoff processes.
* Collaborated closely with technology, business partners to develop business requirement documents, and test scripts during multiple release phases.

**Product Owner**(Crowd strike, Pune 2015 – 2018)

Provided roadmap baseline, prioritized projects, implemented requirements change control, and synchronized cross functional teams.

Provided market analysis, design recommendations.

Managed Quarterly releases of the product, supported strategic planning, designing, and delivering new features within the product.

Oversaw the product team and guided them on issues related to product development.

Served as liaison between customers and multiple teams to establish business requirements and create functional specifications.

**EDUCATION**

Bachelor of Engineering, Electronics and Communications | University Of Mumbai

**SKILLS**

User-Centred Design Processes

Design Quality Standards

User Validation

Product Roadmap

Product Design Methodologies

 Agile and Scrum

**COURSES**

Certified Scrum Product Owner at IIBA

Certified Product Owner at AIPMM

**LANGUAGES**

Telugu | English | Hindi

**EXTRACURRICULAR ACTIVITIES Volunteering**

Volunteer once a month as clothes intake assistant at Goodwill

**Blood Donation**

Donated blood at the blood donation camp organised by the lions club.