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Foods Delivery Applications

Question 1- Write Agile Manifesto

Answer-

The Agile Manifesto is a statement of values and principles of software development, emphasizing flexibility, collaboration, and customer satisfaction over rigid processes and documentation. It was created in 2001 by a group of software developers who met in Snowbird, Utah, seeking alternatives to traditional, heavyweight development methodologies.

Four Main Values:

- Individuals and interactions over processes and tools.
- Working software over comprehensive documentation.
- Customer collaboration over contract negotiations.
- Responding to change over following a plan.

Twelve Principles of Agile Software:

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, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
4. Businesspeople and developers must work together daily 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 to and within a development team is face-to-face conversations.
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, then tunes and adjusts its behaviour accordingly.

Question 2- User Stories- Acceptance Criteria-BV-CP

A user story is an informal, general explanation of a software feature written from the perspective of the end user or customer.

Acceptance Criteria

A set of predefined requirements that must be met to mark a user story complete. Acceptance criteria are also sometimes called the “definition of done”

Answer-

User Story No: 1	Task: Customer registration portal	Priority: Highest
AS A CUSTOMER / USER I WANT TO DO THE REGISTRATION ON THE SCRUM FOOD APP SO THAT I CAN ORDER FOOD ONLINE		
BV: 500	CP: 5	
Acceptance Criteria: Should have valid email ID Send Successful Notification to the user. If I entered incorrect details then form should not processed. For incorrect credentials pop msg should be display on screen. If there is network issue between the login creations then I should get the pop msg. Login id should generated in 1st try without any hassle.		

User Story No: 2	Task: List of restaurants and search bar	Priority: High
AS A CUSTOMER / USER		
I WANT TO SEARCH AND VIEW RESTAURANTS		
SO THAT I CAN CHOOSE THE FOOD AND CAN ADD TO CART		
BV: 200	CP: 2	
Acceptance Criteria:		
User should be able to search as per dish, hotel/restaurant name or category.		
Should get the list of all the restaurants category wise veg and nonveg both.		
User should be able to filter the list as per his/her food preference.		

If the selected restaurant is currently not serving food so the user should get pop up notification and should be able to see similar restaurants selling the same product within the vicinity.

User Story No: 3	Task: Add to card tab	Priority: High
AS A CUSTOMER / USER I WANT TO ADD SELECTED ITEM IN THE CART SO THAT I CAN GET THE SELECTED FOOD		
BV: 500	CP: 13	
Acceptance Criteria: All the selected items should get displayed in the cart. Users should be able to view all the items with price and quantity details in the cart. User should have option of add/ delete the selected item before processing to next step. User should be able to check the offers/ discounts if any.		

User Story No: 4	Task: Payment tab with COD; net banking; UPI and wallet	Priority: Highest
AS A CUSTOMER / USER I WANT TO SELECT THE PAYMENT MODE SO THAT I CAN MAKE THE PAYMENT OF MY CHOICE		
BV: 500	CP: 21	
Acceptance Criteria: The payment option should get displayed in the payment mode. COD - net banking - UPI – wallet. User should be able to select the mode and make the payment safely. After the payment is successful user should get the notification. If the payment is not successful the user should get the notification and this process should be done in a minute or two.		

User Story No: 5	Task: Cancel order tab	Priority: High
AS A CUSTOMER / USER I WANT TO CANCEL MY ORDER SO THAT IF NOT REQUIRED I CAN BE ABLE TO CANCEL THE WHOLE ORDER		
BV: 200	CP: 3	
Acceptance Criteria: App should be able to cancel the order within the 10 min of the given order. After successfully placing the order the user should be able to get the option of order cancellation. The user should get notification once the order is cancelled. If the user has already paid for the order online then he should get the refund process initiated notification.		

If there are any cancellation charges that should be displayed to the user before he confirms the cancellation.

User Story No: 6	Task: Log out tab	Priority: Low
AS A CUSTOMER / USER I WANT TO LOGOUT FROM THE SCRUM FOOD APP SO THAT I CAN LOGOUT		
BV: 200	CP: 3	
Acceptance Criteria: logout button should be displayed (Rule - before logout we need to be asked "are you sure you want to logout ") Once the end user clicks on logout it should be done within 10-15 seconds. If the user is not logged out from the application then he/she should get the notification. If the user is logged out successfully he/she should get the notification as ‘successfully logged out’.		

User Story No: 7	Task: Registration approval	Priority: Highest
AS An ADMIN I WANT TO SEE THE LIST OF RESTAURANTS SO THAT I CAN APPROVE THE REGISTRATION		
BV: 500	CP: 8	
Acceptance Criteria: List of restaurants, select restaurants, verify restaurant details, approve button, reject button, notification to the restaurant. Once the order is placed and it is not confirmed by the restaurant in stipulated time then as a admin I should be able to confirm/ reject the order. For adding or deleting any item for a specific restaurant I should have a right as admin to do so.		

User Story No: 8	Task: Regional restaurants performance	Priority: Low
AS A ADMIN I WANT TO MANAGE REGIONAL RESTAURANTS SO THAT I CAN TRACK THE PERFORMANCE OF REGIONAL RESTAURANTS		
BV: 20	CP: 3	
Acceptance Criteria: Click on performance of restaurants; select date wise report; click on generate report which includes restaurant ID - name and revenue; click on download and share button in excel.		

User Story No: 9	Task: Login page for registered users	Priority: Highest
AS A CUSTOMER / USER		
I WANT TO LOGIN ON THE SCRUM FOOD APP SO THAT I CAN LOGIN ON THE APP		
BV: 500	CP: 8	
Acceptance Criteria:		
Enter Username and Password.		
If correct username and password entered by user then the user should be able to successfully login.		
If incorrect username or password is entered then the user should get the message as wrong username/ password.		
Validation on login button.		
User with incorrect details should be directed to forget password and after clicking on forget password OTP should be generated on either mobile number or email id and the user should be able to reset the password and then login with new password.		

User Story No: 10	Task: List of menu restaurants wise	Priority: High
AS A CUSTOMER / USER		
I WANT TO VIEW RESTAURANTS AS PER THE VEG AND NONVEG CATEGORY SO THAT I CAN CHOOSE THE FOOD AND CAN ADD TO CART		
BV: 500	CP: 13	
Acceptance Criteria:		
User Should get the list of all the restaurants category wise veg and nonveg and both.		
User should be able to filter by selecting veg/ non veg or by menu.		
User should be able to see the list of all the hotels/ restaurants in nearby vicinity.		
User should have option of add to cart.		
If the selected restaurant/ hotel does not have the specific item then 'currently not available' option should be displayed.		

User Story No: 11	Task: Tracking tab with map	Priority: High
AS A CUSTOMER / USER I WANT TO TRACK MY GIVEN ORDER SO THAT I CAN BE ABLE TO VIEW THE CURRENT STATE ON THE MAP		
BV: 500	CP: 8	
Acceptance Criteria: App should display the map and the current movement of the order; display delivery boy mobile number; display delivery boy name in tracking field; display delivery boy picture		

User Story No: 12	Task: Delivery for user creation tab	Priority: High
AS A DELIVERY BOY I WANT TO REGISTER IN THE SCRUM FOOD APP SO THAT I CAN DELIVER THE FOOD		
BV: 100	CP: 8	
Acceptance Criteria: Registration screen; text boxes for username, password, super id, mobile no, email, address, phone number. Click on register button. Send successful notification to the user.		

User Story No: 13	Task: Order list	Priority: Medium
AS A RESTAURANT OWNER I WANT TO SEE ALL THE ORDER IN DAY / WEEK / MONTH /QUARTER / YEAR SO THAT I CAN VIEW THE LIST OF ORDER		
BV: 200	CP: 1	
Acceptance Criteria: View order, display List of orders in the tabular Form day / week /month /quarter / year wise		

User Story No: 14	Task: Restaurant's revenue	Priority: Low
AS A Restaurant owner I WANT TO view the revenue report SO THAT I can view the restaurant's revenue		
BV: 10	CP: 2	
Acceptance Criteria: Select reports; select revenue reports; select to and from date; select region (can select all); generate report; download report in excel; share		

User Story No: 15	Task: Refund tracking	Priority: Low
AS A REGIONAL ADMIN I WANT TO SEE THE REFUND OPTION SO THAT I CAN ABLE TRACK REFUND GIVEN TO THE USERS		
BV: 200	CP: 3	
Acceptance Criteria: All should be able to show - text box field; display order id; text box for description; submit; generate issue id; share refund and display successful		

User Story No: 16	Task: Password reset	Priority: Low
AS A CUSTOMER / USER I WANT TO RESET MY PASSWORD IF I'VE FORGOTTEN IT SO THAT I CAN ACCESS MY ACCOUNT		
BV: 100	CP: 2	
Acceptance Criteria: Should be able to request a password reset link via email; clicking on the reset link should take to a page where a new password can be set; receive a confirmation email after successfully resetting password.		

User Story No: 17	Task: Language selection	Priority: Medium
AS A CUSTOMER / USER I WANT TO SELECT MY PREFERRED LANGUAGE FOR THE APPLICATION SO THAT I CAN USE IT		
BV: 100	CP: 8	
Acceptance Criteria: The application should support multiple languages (e.g., English, Hindi). Language selection should be available in the user settings. Changing the language should update all interface elements accordingly.		

User Story No: 18	Task: Search history	Priority: Low
AS A CUSTOMER / USER I WANT TO VIEW MY SEARCH HISTORY WITHIN THE APPLICATION SO THAT I CAN SELECT PRODUCT OF MY CHOICE		
BV: 100	CP: 5	
Acceptance Criteria: The application should store a record of my past search queries. I should be able to access my search history from the user profile. I should have the option to clear my search history if desired.		

User Story No: 19	Task: Live chat support	Priority: Medium
AS A CUSTOMER / USER I WANT TO INITIATE A LIVE CHAT SESSION WITH CUSTOMER SUPPORT SO THAT I CAN ASK QUERIES		
BV: 200	CP: 3	
Acceptance Criteria: The chat widget should be prominently displayed on the website. I should be connected to a live agent within a reasonable timeframe. The chat interface should support file attachments and clickable links.		

User Story No: 20	Task: Detailed menu	Priority: Highest
AS A CUSTOMER / USER		
I WANT TO VIEW DETAILED MENUS FOR EACH RESTAURANT		
SO THAT I CAN BROWSE AVAILABLE DISHES AND MAKE INFORMED CHOICES		
BV: 500	CP: 8	
Acceptance Criteria:		
The app should display a comprehensive menu for each restaurant, organized by categories (e.g., appetizers, mains, desserts).		
Each menu item entry should include its name, description, price, and optional add- ons.		
Users should be able to view images of menu items and any special dietary information (e.g., vegan, gluten-free).		

User Story No: 21	Task: Customize food order	Priority: Medium
AS A CUSTOMER / USER I WANT TO CUSTOMIZE MY FOOD ORDER BY ADDING SPECIAL INSTRUCTIONS OR MODIFICATIONS SO THAT I CAN TAILOR IT TO MY PREFERENCES		
BV: 500	CP: 8	
Acceptance Criteria: The app should provide an option for users to add special instructions or modifications to each menu item. Users should be able to specify preferences such as cooking instructions, toppings, spice levels, etc. Special instructions should be displayed clearly on the order summary for the restaurant to follow.		

User Story No: 22	Task: Discounts or promotional codes	Priority: Medium
AS A CUSTOMER / USER		
I WANT TO VIEW AND APPLY DISCOUNTS OR PROMOTIONAL CODES TO MY ORDER SO THAT I CAN SAVE MONEY ON MY PURCHASE		
BV: 100	CP: 2	
Acceptance Criteria:		
The app should display available discounts and promotional codes during the checkout process.		
Users should be able to enter a valid promotional code to apply the discount to their order.		
Discounts should be reflected in the order total before payment confirmation.		

User Story No: 23	Task: Delivery fees and minimum order requirements	Priority: Low
AS A CUSTOMER / USER I WANT TO VIEW DETAILED INFORMATION ABOUT DELIVERY FEES AND MINIMUM ORDER REQUIREMENTS FOR EACH RESTAURANT SO THAT I CAN MAKE COST-EFFECTIVE DECISIONS		
BV: 20		CP: 3
Acceptance Criteria: The app should display delivery fees and minimum order amounts prominently on each restaurant's page. Users should be informed of any additional charges or surcharges that may apply to their order. Delivery fees and minimum order requirements should be transparent and clearly communicated to users before they place an order.		

User Story No: 24	Task: Delivery process	Priority: Low
AS A CUSTOMER / USER I WANT TO PROVIDE DELIVERY INSTRUCTIONS OR ADDITIONAL CONTACT INFORMATION SO THAT I CAN HAVE SMOOTH DELIVERY PROCESS		
BV: 100		CP: 5
Acceptance Criteria: The app should include a field for users to enter delivery instructions during checkout. Users should be able to specify details such as gate codes, apartment numbers, or preferred delivery entrances. Delivery instructions should be communicated clearly to the delivery driver along with the order details.		

User Story No: 25	Task: Restaurant menu management	Priority: Medium
AS A RESTAURANT OWNER I WANT TO MANAGE MY MENU AND UPDATE DISH AVAILABILITY IN REAL-TIME SO THAT CUSTOMERS CAN VIEW ACCURATE INFORMATION		
BV: 200		CP: 8
Acceptance Criteria: The app should provide a dashboard for restaurant owners to manage their menus and inventory. Restaurant owners should be able to add, edit, or remove menu items as needed. Changes to menu items or availability should be reflected immediately in the app for customers to see.		

User Story No: 26	Task: Push notifications for restaurant	Priority: Low
AS A RESTAURANT OWNER I WANT TO RECEIVE PUSH NOTIFICATIONS OR ALERTS FOR NEW INCOMING ORDERS SO THAT I CAN PREPARE THEM PROMPTLY		
BV: 100	CP: 5	
Acceptance Criteria: The app should send push notifications to restaurant staff whenever a new order is placed. Notifications should include order details such as items, quantities, and customer contact information. Restaurant staff should be able to acknowledge or accept incoming orders directly from the notification.		

User Story No: 27	Task: Optimized routes and directions	Priority: Highest
AS A DELIVERY DRIVER I WANT TO VIEW OPTIMIZED ROUTES AND DIRECTIONS FOR DELIVERING MULTIPLE ORDERS EFFICIENTLY SO THAT I CAN SAVE TIME AND FUEL		
BV: 500		CP: 8
Acceptance Criteria: Should have valid email id; Send Successful Notification to the user		

User Story No: 28	Task: Communication with customers	Priority: Medium
AS A DELIVERY DRIVER I WANT TO COMMUNICATE WITH CUSTOMERS VIA TEXT OR PHONE CALLS SO THAT I CAN COORDINATE DELIVERY DETAILS AND ADDRESS ANY ISSUES		
BV: 200	CP: 8	
Acceptance Criteria: The app should provide delivery drivers with the customer's contact information (e.g., phone number) for each order. Drivers should have the option to initiate text messages or phone calls to customers directly from the app. Communication logs should be recorded and accessible to both the driver and restaurant for reference.		

User Story No: 29	Task: Electronic signatures	Priority: Highest
AS A DELIVERY DRIVER I WANT TO COLLECT ELECTRONIC SIGNATURES FROM CUSTOMERS TO COMPLETE THE TRANSACTION SO THAT I CAN CONFIRM SUCCESSFUL DELIVERY OF ORDERS		
BV: 500	CP: 13	

Acceptance Criteria: The app should prompt delivery drivers to confirm delivery by capturing the customer's electronic signature. Drivers should be able to mark orders as delivered and collect signatures directly on the app. Signed delivery confirmations should be stored securely and accessible for reference if needed.
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User Story No: 30	Task: Estimated delivery time	Priority: Medium
AS A CUSTOMER / USER I WANT TO BE NOTIFIED OF ESTIMATED DELIVERY TIMES AND RECEIVE UPDATES IF THERE ARE ANY DELAYS OR CHANGES TO MY ORDER STATUS SO THAT I CAN SET MY PREFERENCES		
BV: 200		CP: 3
Acceptance Criteria: The app should provide an estimated delivery time for each order based on restaurant preparation and delivery distance. Users should receive notifications if there are any changes to the estimated delivery time (e.g., delays due to traffic, order preparation time). Notifications should include revised delivery estimates and reasons for any delays.		

User Story No: 31	Task: Customizable boundaries for restaurants	Priority: Low
AS A RESTAURANT OWNER I WANT TO MANAGE MY DELIVERY AREAS AND SET DELIVERY ZONES WITH CUSTOMIZABLE BOUNDARIES SO THAT I CAN CONTROL WHERE I OFFER DELIVERY SERVICES		
BV: 100		CP: 2
Acceptance Criteria: The app should provide tools for restaurant owners to define delivery areas on a map with customizable boundaries. Restaurant owners should be able to set specific delivery zones based on postal codes, neighborhoods, or distance from the restaurant. Changes to delivery areas and zones should be reflected immediately in the app and restrict delivery options accordingly.		

User Story No: 32	Task: Data for restaurants	Priority: Low
AS A RESTAURANT OWNER I WANT TO VIEW ANALYTICS AND REPORTS ON ORDER VOLUME, SALES PERFORMANCE, AND CUSTOMER FEEDBACK SO THAT I CAN MAKE DATA-DRIVEN DECISIONS		
BV: 200		CP: 2

Acceptance Criteria: The app should provide comprehensive analytics dashboards for restaurant owners to track key performance metrics. Reports should include data on order volume, sales revenue, average order value, customer ratings, and feedback. Restaurant owners should be able to filter and analyse data over different time periods to identify trends and patterns.
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User Story No: 33	Task: Restaurants timing	Priority: Low
AS A RESTAURANT OWNER I WANT TO MANAGE MY RESTAURANT'S OPERATING HOURS AND UPDATE THEM DYNAMICALLY SO THAT APPLICATION REFLECTS CHANGES IN AVAILABILITY		
BV: 100		CP: 2
Acceptance Criteria: The app should allow restaurant owners to set their operating hours for each day of the week. Restaurant owners should be able to update operating hours in real-time to account for changes in opening or closing times. Changes to operating hours should be synchronized with the app's ordering system to prevent orders during closed hours.		

User Story No: 34	Task: User-wise tab to address	Priority: High
AS A CUSTOMER OR USER I WANT TO ADD THE ADDRESS SO THAT I CAN GET FOOD ON MY ADDRESS		
BV: 200		CP: 5
Acceptance Criteria: Once User want to address the food, it should be delivered to the given address		

User Story No: 35	Task: Feedback and Rating	Priority: High
AS A CUSTOMER OR USER I WANT TO ADD FEEDBACK AND RATING FOR THE ITEMS I PURCHASED SO THAT IT WILL BE ABLE TO GIVE MY OPINION		
BV: 100		CP: 2
Acceptance Criteria:		

App should be able to show the feedback and rating option where user can add review

User Story No: 36	Task: Restaurant revenue	Priority: Low
AS A RESTAURANT OWNER I WANT TO CHECK THE REVENUE DAY WISE SO THAT I CAN VIEW REVENUE GENERATED THROUGH SCRUM FOOD APP		
BV: 100	CP: 2	
Acceptance Criteria: Mention the list of order generated in a day; billing done; revenue generated; payment received; fetch in excel		

User Story No: 37	Task: Profile management	Priority: Medium
AS A USER		
I WANT TO MANAGE MY PROFILE INFORMATION SO THAT I EDIT MY PROFILE		
BV: 200		CP: 13
Acceptance Criteria:		
Should be able to add my contact details such as email address and phone number,		
Change my password securely, option to upload profile picture		

User Story No: 38	Task: Favorite restaurants	Priority: Low
AS A CUSTOMER / USER		
I WANT TO SAVE MY FAVOURITE RESTAURANTS FOR EASY ACCESS		
SO THAT I CAN QUICKLY REORDER FROM THEM		
BV: 200	CP: 3	
Acceptance Criteria:		
The app should allow users to add restaurants to their list of favorites.		
Users should be able to access their list of favorite restaurants from the app's main menu.		
Favorite restaurants should be displayed prominently with quick access to their menus and ordering options.		

User Story No: 39	Task: Schedule Food Orders	Priority: Low
AS A CUSTOMER OR USER		
I WANT TO SCHEDULE FOOD ORDERS FOR FUTURE DELIVERY		
SO THAT I CAN PLAN MEALS IN ADVANCE		
BV: 200	CP: 2	
Acceptance Criteria:		

The app should allow users to select a future date and time for their food delivery. Users should be able to schedule orders for delivery within the restaurant's operating hours. Scheduled orders should be confirmed and processed automatically at the specified time.

User Story No: 40	Task: Push notifications for delivery agent	Priority: Highest
AS A DELIVERY DRIVER I WANT TO RECEIVE PUSH NOTIFICATIONS FOR NEW ORDER ASSIGNMENTS AND UPDATES TO ORDER STATUS SO THAT I CAN STAY INFORMED WHILE ON THE GO		
BV: 200		CP: 5
Acceptance Criteria: The app should send push notifications to delivery drivers whenever a new order is assigned to them. Drivers should receive notifications for changes in order status (e.g., order confirmed, out for delivery, delivered). Notifications should include relevant order details such as customer address, contact information, and special instructions.		

Question 3– What is epic? Write 2 epics.

Answer- Epic is a set of related user stories. This is also known as larger user stories. Epic is usually difficult to complete in a single run or iteration. So, they are broken down into pieces, to manage more feasibly. An epic is a significant piece of work that will strategically add value to your product and business.

These epics represent high-level initiatives or features that require significant effort and may involve multiple teams or stakeholders. They serve as a starting point for breaking down work into smaller, manageable tasks and prioritizing them based on business value and dependencies.

Here are two examples of epics:

Integration with Third-Party Payment Gateway

Description:

This epic involves integrating the application with a third-party payment gateway to facilitate secure online transactions for purchasing products or services.

Features:

Research and select a suitable third-party payment gateway provider based on business requirements and compatibility.

Implement client-side payment forms and UI components for capturing payment details and user input.

Configure secure communication protocols (e.g., HTTPS) and encryption mechanisms to protect sensitive payment data during transmission.

Develop API endpoints for handling payment requests, including processing payments, handling callbacks, and managing transaction status.

Benefits: Secured online payment which will help the business.

Delivery Tracking Epic:

Description: This epic focuses on enhancing the delivery tracking features within the food delivery application.

Features:

Real-time Order Tracking: Implement real-time order tracking to allow users to track the status of their orders from placement to delivery.

Live Location Updates: Provide users with live location updates for delivery drivers, allowing them to see the driver's current location and estimated arrival time.

Delivery Notifications: Send push notifications or SMS alerts to users at key delivery milestones, such as order preparation, dispatch, and arrival.

Benefits: Improved delivery tracking capabilities increase transparency and trust, leading to higher customer satisfaction and repeat business.

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

Answer-

Business Values (BV)	Complexity Points (CP)
Business value refers to the benefit or worth that a particular project, feature, or task provides to the organization or its stakeholders.	CP is the effort to be taken by scrum developer to develop the feature using technology.

This is generally estimated by scrum currency notes. It is provided by clients/stakeholders.	CP is calculated by poker cards by developer.
It represents the tangible or intangible benefits that justify investing resources (time, money, effort) into a specific project or task.	It is a unitless measure that allows teams to compare and estimate the effort required for different tasks or user stories, regardless of the time or resources needed.
BV is given to features based on importance.	Effort is time taken to solve the complexity and write the codes.
This is estimated by the scrum currency note. Like 10 Rs, 20Rs, 100 Rs note etc. format	This is estimated by using poker cards. The values are given in 1,2,3....10 numbers format.

Question 5 –Explain about Sprint

Answer-

- The sprint process in Agile methodologies, particularly in Scrum, follows a structured series of steps to ensure efficient planning, execution, and delivery of work within a fixed time frame.
- This is the period that the team decides to deliver their objective. Normally a sprint period will be for 2 weeks but may extend to 4 weeks.
- A sprint is a short, time-boxed period when a scrum team works to complete a set amount of work.
- The scrum team has a scrum master, a product owner, and developers, who are accountable for turning the selection of the work into an increment of value during a sprint.

Here's an overview of the sprint process:

Sprint Planning:

Purpose: The sprint planning meeting kicks off each sprint and serves to define the goals, scope, and deliverables for the upcoming iteration.

Participants: The entire Scrum team, including the product owner, Scrum master, and development team members, participates in the planning meeting.

Activities:

- Product Owner presents the prioritized items from the product backlog.
- The team collaboratively selects a subset of backlog items to work on during the sprint, based on their capacity and the sprint goal.
- The selected backlog items are broken down into smaller tasks, and effort estimates are provided by the development team.
- The team commits to delivering the selected work items by the end of the sprint.

Sprint Execution:

Purpose: The development team works on implementing the selected backlog items, focusing on delivering the agreed-upon functionality or value.

Activities:

- Development team members self-organize to work on the tasks they committed to during sprint planning.
- Daily Stand-up meetings (or daily scrums) are held to synchronize the team, discuss progress, identify any impediments or risks, and plan the day's work.
- The development team collaborates closely with the product owner and stakeholders to clarify requirements, gather feedback, and ensure alignment throughout the sprint.

Sprint Backlog

In this, requirements are taken from product backlog.

It includes scrum board. It is as below:

Parameters	Story	To Do	In Progress	To Verify	Done
Meaning	Product backlog	Sprint backlog	Currently working	Under testing	100% working

Sprint Review:

Purpose: At the end of the sprint, the team holds a sprint review meeting to demonstrate the completed work to stakeholders and gather feedback.

Participants: The entire Scrum team, along with stakeholders such as customers, end-users, or business representatives, participates in the review meeting.

Activities:

- The development team showcases the completed features or functionality that were implemented during the sprint.
- Stakeholders provide feedback on the demonstrated work, ask questions, and suggest improvements or changes.
- The product owner reviews the completed work against the sprint goal and accepts or rejects the delivered increments.

Sprint Retrospective:

Purpose: Following the sprint review, the team conducts a sprint retrospective meeting to reflect on the sprint process, identify strengths and areas for improvement, and make adjustments for future sprints.

Participants: The entire Scrum team participates in the retrospective meeting.

Activities:

- The team reflects on what went well during the sprint (successes) and what could have been improved (challenges).
- Discussions focus on identifying actionable improvements to enhance team collaboration, productivity, and quality.
- Action items are identified, and commitments are made to implement changes or experiments in the next sprint.

Repeat:

After the retrospective, the team begins a new sprint, repeating the process from sprint planning to sprint review and retrospect.

The cycle of sprint planning, execution, review, and retrospective continues iteratively, with each sprint building on the lessons learned from previous iterations and delivering incremental value to stakeholders.

Question 6- Explain Product backlog and sprint backlog.

Answer-

Product Backlog and Sprint Backlog are two essential artifacts in Scrum, an Agile framework for managing complex projects. The Product Backlog represents the entire scope of work for the product, while the Sprint Backlog contains the subset of work selected for implementation during a specific sprint. Here's an explanation of each:

Product Backlog:

- Definition: The Product Backlog is a prioritized list of all the desired features, enhancements, bug fixes, and other requirements for a product. It represents the single source of truth for everything that needs to be done to deliver a successful product.
- Ownership: The Product Backlog is owned and managed by the Product Owner, who is responsible for continuously refining and prioritizing it based on input from stakeholders, market changes, and the team's capacity.
- Dynamic: The Product Backlog is a living document that evolves over time as new insights emerge and priorities change.
- Prioritized: Items in the Product Backlog are ordered based on their importance and value to the product and its stakeholders. Higher-priority items are typically closer to the top of the backlog.
- Detailed: Each item in the Product Backlog should be described with enough detail to facilitate estimation and implementation. However, the level of detail may vary based on the item's priority and proximity to implementation.

- Purpose: The Product Backlog serves as a roadmap for the product, guiding the team's work and ensuring that they focus on delivering the highest-priority items that provide the most value to the stakeholders.

Sprint Backlog:

- Definition: The Sprint Backlog is a subset of the Product Backlog that contains the set of tasks, user stories, or backlog items selected by the development team for implementation during a specific sprint.
- Ownership: The Sprint Backlog is owned and managed by the development team. During the sprint planning meeting, the team selects the items from the Product Backlog that they believe they can complete within the sprint and commits to delivering them.
- Time-bound: The Sprint Backlog is limited to the duration of a single sprint. It represents the work the team plans to complete during that time frame.
- Dynamic: While the Sprint Backlog is fixed for the duration of the sprint, it can evolve as new insights emerge or as the team discovers additional work that needs to be done.
- Visible: The Sprint Backlog is typically represented visually, such as on a physical or digital task board, where team members can see the status of each task and track progress throughout the sprint.
- Purpose: The Sprint Backlog serves as a plan for the sprint, outlining the specific tasks and deliverables the team will work on to achieve the sprint goal. It provides transparency, focus, and accountability during the sprint.

Question 7 – What is impediments log? write 2 impediments – 5 Marks

Answer-

An impediments log is a tool used in Agile project management, particularly in Scrum, to track and manage obstacles or impediments that are hindering the progress of the team. It serves as a centralized repository for capturing, documenting, and addressing issues that are impacting the team's ability to deliver value. Here's how it works:

Impediments Log:

- The impediments log is typically maintained by the Scrum Master, although it can be accessible to the entire team.
- It contains a list of impediments or obstacles that are preventing the team from achieving their sprint goals or delivering value to the customer.
- Each impediment is documented with details such as a description of the issue, its impact on the project, the date it was identified, and any actions taken or planned to resolve it.
- The log is regularly reviewed and updated during sprint planning, daily stand-ups, and sprint retrospectives to ensure that impediments are addressed promptly and effectively.

- By maintaining an impediments log, the team can identify recurring issues, track progress on resolution efforts, and improve their overall efficiency and effectiveness.

Two examples of impediments:

1. Stakeholder Disengagement:

- Description: Stakeholders are not actively involved, leading to unclear requirements and frequent changes.
- Impact: Delays, misalignment, and rework due to unclear expectations.
- Resolution: Facilitate communication, encourage feedback, and involve stakeholders in planning and reviews.

2. Technical Dependencies:

- Description: Dependencies on external systems or technologies cause delays and integration issues.
- Impact: Missed deadlines, project risks, and compromised quality.
- Resolution: Prioritize independent tasks, collaborate to address dependencies early, and implement fallback strategies.

Question 8 – Explain Velocity of the Team – 1 Marks

Answer-

- Velocity in the context of Agile and Scrum refers to the measure of work completed by team during a specific time period, typically a sprint.
- It represents the amount of effort expended by the team in delivering potentially shippable increments of the product.
- Velocity is usually measured in story points, a relative estimation of the effort required to complete a user story or a task. Story points are assigned based on factors like complexity, uncertainty, and effort required for implementation.
- Actual velocity is calculated by dividing the total Story Points completed by the team by the number of Sprints.
- For instance, if the Scrum Team has finished a total of 80 points over 4 Sprints, then the actual velocity of the team would be 20 points per Sprint $80 / 4 = 20$

Question 9 – Draw Sprint Burn Charts n Product Burn Down Charts– 3 Marks

Answer-

Sprint Burndown Chart

A Sprint Burndown Chart is a visual representation used in Agile and Scrum methodologies to track the progress of work during a sprint. It helps the Scrum Team, including the Product Owner, Scrum Master, and Development Team, to monitor the completion of tasks and understand if the team is on track to achieve the sprint goal.

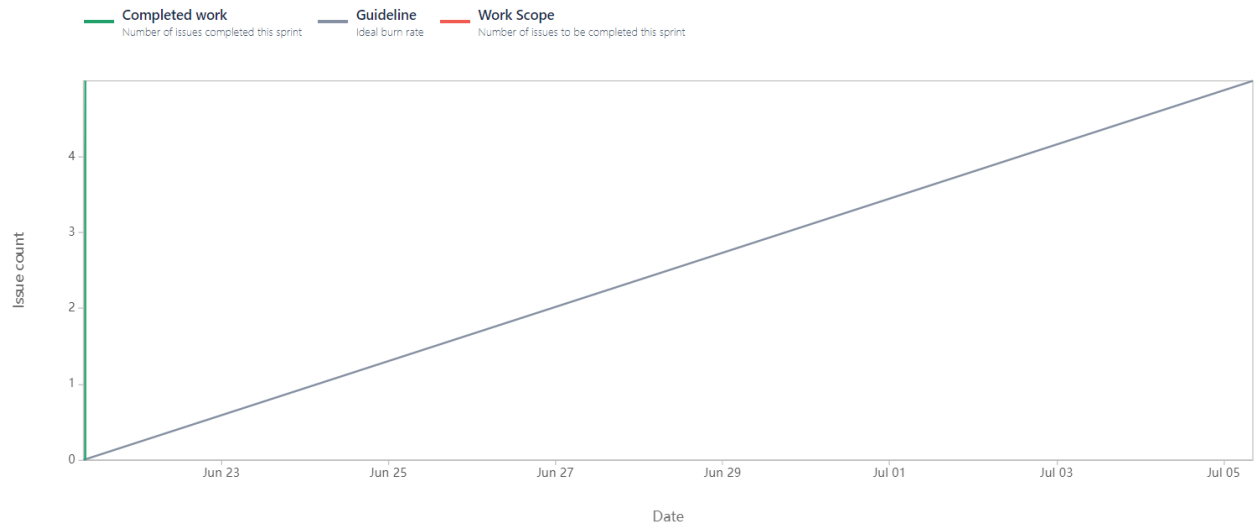
It is drawn as below.

Time Axis: The horizontal axis represents time, usually in days or hours, throughout the duration of the sprint.

Work Remaining Axis: The vertical axis represents the amount of work remaining to be completed in the sprint. This is often measured in story points, ideal days, or tasks.

The sprint burndown chart shows

- Total efforts
- Amount of efforts remaining
- Number of days in sprint and days past
- Ideal trend
- Current trend

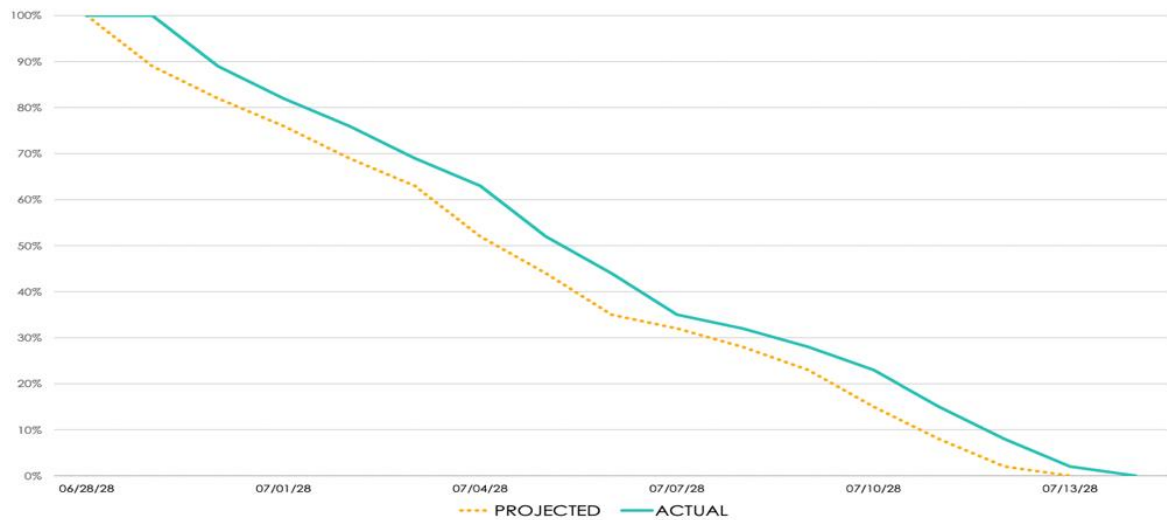


PROJECT BURNDOWN CHART

PROJECT TITLE	PROJECT MANAGER	DATE	VERSION NO.	PROJECT ID
		00/00/0000	1.0	

User to complete only non-shaded cells in the tables below. Burndown data and chart will populate automatically.

BURNDOWN CHART



TASK INVENTORY

Task ID	DESCRIPTION	WEIGHT (%)
1	Product Planning	11%
2	Project Definition	7%
3	Product Prototyping	6%
4	Initial Designs	7%
5	Validation and Testing	6%
6	Alpha Product Version	11%
7	Beta Product Version	8%
8	Validation and Testing	9%
9	Beta Testing	3%
10	Final QA	4%
11	Product Release	5%
12	User Research	8%
13	Customer Feedback	7%
14	Next Iteration	6%
15	Next Iteration QA	2%
APPLIED WEIGHT % MUST EQUAL 100 >		100.00%

TASK COMPLETION LOG

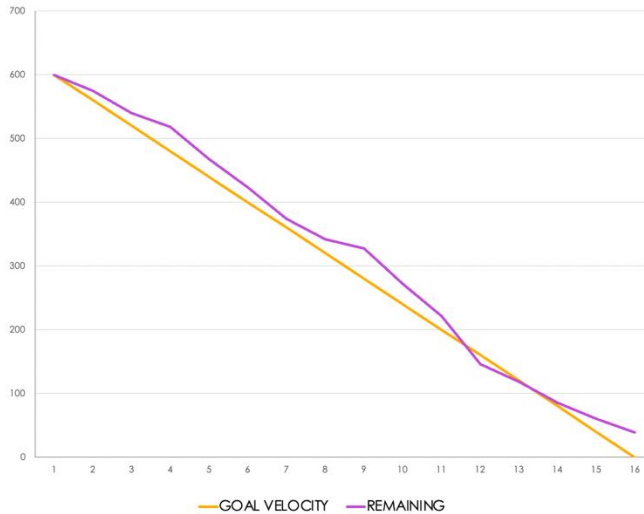
DATE	PROJECTED			ACTUAL			TASK COMPLETION (%)	
	Task ID	DATA	CUMULATIVE	Task ID	DATA	CUMULATIVE	PROJECTED	ACTUAL
06/28/28		0%			0%		100%	100%
06/29/28	1	11%	11%		0%	0%	89%	100.0%
06/30/28	2	7%	18%	1	11%	11%	82%	89.0%
07/01/28	3	6%	24%	2	7%	18%	76%	82.0%
07/02/28	4	7%	31%	3	6%	24%	69%	76.0%
07/03/28	5	6%	37%	4	7%	31%	63%	69.0%
07/04/28	6	11%	48%	5	6%	37%	52%	63.0%
07/05/28	7	8%	56%	6	11%	48%	44%	52.0%
07/06/28	8	9%	65%	7	8%	56%	35%	44.0%
07/07/28	9	3%	68%	8	9%	65%	32%	35.0%
07/08/28	10	4%	72%	9	3%	68%	28%	32.0%
07/09/28	11	5%	77%	10	4%	72%	23%	28.0%
07/10/28	12	8%	85%	11	5%	77%	15%	23.0%
07/11/28	13	7%	92%	12	8%	85%	8%	15.0%
07/12/28	14	6%	98%	13	7%	92%	2%	8.0%
07/13/28	15	2%	100%	14	6%	98%	0%	2.0%
07/14/28		0%	100%	15	2%	100%	#N/A	0.0%

SIMPLE BURNDOWN CHART

PROJECT TITLE	PROJECT MANAGER	DATE	VERSION NO.	PROJECT ID
Title		00/00/0000	1.0	

DAY / SPRINT / ITERATION	Tasks	FEATURES / STORY POINTS GOAL	COMPLETE	GOAL VELOCITY	REMAINING
0		0	0	600	600
1		40	25	560	575
2		40	35	520	540
3		40	22	480	518
4		40	50	440	468
5		40	45	400	423
6		40	49	360	374
7		40	32	320	342
8		40	15	280	327
9		40	55	240	272
10		40	51	200	221
11		40	75	160	146
12		40	28	120	118
13		40	33	80	85
14		40	24	40	61
15		40	22	0	39

BURNDOWN



Product Burndown Chart

A Product Burndown Chart is a visual representation used in Agile and Scrum methodologies to track the progress of a product backlog over time. Unlike Sprint Burndown Charts, which focus on the completion of work within a single sprint, Product Burndown Charts track the overall progress of the product backlog across multiple sprints or iterations.

It is drawn as below.

Time Axis: Similar to the Sprint Burndown Chart, the horizontal axis represents time, usually in sprints, iterations, or weeks.

Work Remaining Axis: The vertical axis represents the amount of work remaining in the product backlog. This can be measured in story points, backlog items, or other units of work.

The product burndown chart shows

- Total story points or efforts in hours
- Amount of story points or efforts in hours remaining
- Number of days in sprint and days past
- Ideal trend
- Current trend

Question 10 – Explain about Product Grooming – 2 Marks

Answer-

formerly known as backlog grooming

1. Grooming is an open discussion between the development team and product owner. The user stories are discussed to help the team gain a better understanding of the functionality that is needed to fulfil a story. This includes design considerations, integrations, and expected user interactions.
2. Product Backlog grooming is a regular session where backlog items are discussed, reviewed, and prioritized by product managers, product owners, and the rest of the team. The primary goal of backlog grooming is to keep the backlog up-to-date and ensure that backlog items are prepared for upcoming sprints
3. When it comes to adaptation it is important to have feedback. However, sometimes feedback from sprint planning meeting cannot be addressed during the sprint.
4. Before the next sprint planning meeting, the team can get together to have an understanding about the product backlog which is coming.
5. If there are any issues with the upcoming items in product backlog so product grooming meeting is held. It is held during the sprint meeting.
6. Product owner might explain.
 - i. What is coming in next sprint.
 - ii. What is required to be done before sprint planning meeting.

7. Team reviews and provides input to product owner.
8. Not all scrum team members are required.

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

Answer-

Aspect	Product Owner	Scrum Master
Focus	Product vision and maximizing value.	Team performance and process adherence.
Main Concern	"What to build" and "Why".	"How to work effectively".
Stakeholder Interaction	Engages extensively with customers and stakeholders.	Facilitates team communication and shields them from distractions.
Authority	Has decision-making authority over the product.	Acts as a facilitator and coach without decision-making authority.
Role in Scrum	Defines the backlog and priorities.	Ensures Scrum framework is properly implemented.

Product Owner

1. The product owner is accountable for maximizing the value of the product resulting from the work of the scrum team. How this is done may vary widely across organizations, scrum teams, and individuals.
2. The product owner is also accountable for effective product backlog management, which includes:
 - i. Developing and explicitly communicating the product goal
 - ii. Creating and clearly communicating product backlog items
 - iii. Ordering product backlog items
 - iv. Ensuring that the product backlog is transparent, visible, and understood
3. The product owner may do the above work or may delegate the responsibility to others. Regardless, the product owner remains accountable.
4. For product owners to succeed, the entire organization must respect their decisions. These decisions are visible in the content and ordering of the product backlog, and through the inspectable increment at the sprint review.

5. The product owner is one person, not a committee. The product owner may represent the needs of many stakeholders in the product backlog. Those wanting to change the product backlog can do so by trying to convince the product owner.

Scrum Master

The scrum master is accountable for establishing scrum as defined in the scrum guide. They do this by helping everyone understand scrum theory and practice, both within the scrum team and the organization. The Scrum Master is like a coach or facilitator for the Scrum team. Their main responsibility is to ensure that the team follows the Scrum framework and principles.

The scrum master is accountable for the scrum team's effectiveness. They do this by enabling the scrum team to improve its practices, within the scrum framework.

The scrum master serves the scrum team in several ways, including:

- Coaching the team members in self-management and cross-functionality
- Helping the scrum team focus on creating high-value increments that meet the definition of done
- Causing the removal of impediments to the scrum team's progress
- Ensuring that all scrum events take place and are positive, productive, and kept within the time box

The scrum master serves the product owner in several ways, including:

- Helping find techniques for effective product goal definition and product backlog management
- Helping the scrum team understand the need for clear and concise product backlog items
- Helping establish empirical product planning for a complex environment
- Facilitating stakeholder collaboration as requested or needed

The scrum master serves the organization in several ways, including:

- Leading, training, and coaching the organization in its scrum adoption
- Planning and advising scrum implementations within the organization
- Helping employees and stakeholders understand and enact an empirical approach for complex work
- Removing barriers between stakeholders and scrum teams

Question 12 – Explain all Meetings Conducted in Scrum Project – 8 Marks

Answer-

In a Scrum project, several meetings are conducted throughout the development process to facilitate collaboration, communication, and progress tracking. Here are the key meetings conducted in a Scrum project.

Sprint Planning Meeting:

Purpose: This meeting marks the beginning of each sprint and is focused on planning the work to be completed during the sprint.

Participants: The entire Scrum team, including the Product Owner, Scrum Master, and development team members, attends the sprint planning meeting.

Activities: The Product Owner presents the prioritized items from the product backlog, and the team collaboratively selects the backlog items to be worked on during the sprint. The team breaks down selected items into smaller tasks and estimates the effort required to complete them.

Daily Stand-up Meeting (Daily Scrum):

Purpose: Daily stand-up meetings are brief, daily check-ins to synchronize the team, identify any impediments, and plan the day's work.

Participants: The development team members, Scrum Master, and Product Owner attend the daily stand-up.

Activities: Each team member answers three questions: What did I accomplish yesterday? What will I do today? Are there any obstacles in my way? The focus is on keeping the team aligned and addressing any issues that may arise.

Sprint Review Meeting:

Purpose: The sprint review meeting is held at the end of each sprint to demonstrate the completed work to stakeholders and gather feedback.

Participants: The entire Scrum team, along with stakeholders such as customers, end-users, or business representatives, participates in the sprint review.

Activities: The development team showcases the completed features or functionality that were implemented during the sprint. Stakeholders provide feedback, ask questions, and suggest improvements or changes. The Product Owner reviews the completed work against the sprint goal and accepts or rejects the delivered increments.

Sprint Retrospective Meeting:

Purpose: The sprint retrospective meeting occurs after the sprint review and is focused on reflecting on the sprint process, identifying strengths, areas for improvement, and making adjustments for future sprints.

Participants: The entire Scrum team participates in the retrospective meeting.

Activities: The team reflects on what went well during the sprint (successes) and what could have been improved (challenges). Discussions focus on identifying actionable improvements to enhance team collaboration, productivity, and quality. Action items are identified, and commitments are made to implement changes or experiments in the next sprint.

Question 13 – Explain Sprint Size and Scrum Size– 2 Marks

Answer-

Sprint Size

- Sprint size refers to the **duration of a sprint**, which is a time-boxed iteration during which the Scrum team works to complete a set of tasks, user stories, or features.
- The sprint size is **determined during the project planning phase** and **typically ranges from one to four weeks, with two weeks being the most common duration.**
- The **length of the sprint is chosen based on factors such as the project's complexity, the team's capacity, and the organization's needs and constraints.**
- Shorter sprints (e.g., one or two weeks) offer more frequent opportunities for feedback, iteration, and adaptation, while longer sprints (e.g., three to four weeks) may provide more stability and predictability in planning and execution

Scrum Size

- Scrum size usually refers to **the size of team members involved in the scrum**. There are three prioritized roles considered for the successful completion of scrum events.
- **Product owner (1 no. of person):** The Product Owner focuses on defining and prioritizing product features to maximize value and meet customer needs.
- **Scrum master (1 nos. of person):** The Scrum Master focuses on facilitating the Scrum process and removing impediments.
- **Development team (4 to 8 no. of person):** The development team develops the features with respect to user stories. They are committed to sprint goal and focused on delivery of value to customer.
- In general, Scrum teams are small and cross-functional, typically consisting of five to nine members. However, smaller teams may be nimbler and more cohesive, while larger teams may have more diverse skills and perspectives.
- The Scrum Guide recommends that smaller teams are generally more effective, as larger teams can lead to increased complexity, communication overhead, and coordination challenges.

Question 14 – Explain DOR and DOD – 2 Marks

Answer-

Definition of Ready (DOR)	Definition of Done (DOD)
Criteria for backlog items to be considered ready for sprint planning and Implementation.	Criteria for backlog items to be considered completed and ready for release.
Ensures that backlog items are sufficiently refined and understood before committing to a sprint.	Ensures that completed backlog items meet the team's quality standards and are ready for deployment.
The user story is clear	Code produced all to do items in the code completed
A user story is testable	Code commented, checked, and run against the current version in the source control
A user story is feasible	Peer-reviewed and meeting development standards
A user story is defined	Code builds without error
User story acceptance criteria is defined	Unit test is written and accepted
User story dependencies defined	Deployed to system test environment and passed system tests

Question 15 – Explain Prioritization Techniques and MVP – 3 Marks

Answer-

Prioritization techniques

Prioritization techniques are methods used to determine the order in which features or tasks should be addressed in a project based on their importance, value, and other factors. Some common prioritization techniques include:

MoSCoW Method: This technique categorizes requirements into four priority levels: Must have, should have, Could have, and won't have. It helps teams focus on the most critical features first.



M - Must have:

- Definition: Critical requirements that are non-negotiable. Without these, the project will fail or not be viable.
-

S - Should have:

- Definition: Important requirements that are not critical but add significant value. These are high-priority items, but the project can proceed without them in the short term.

C - Could have:

- Definition: Desirable requirements that are nice-to-have but not essential. These can be added if time and resources permit.

W - Won't have (this time):

- Definition: Requirements that are agreed upon as out of scope for the current iteration or project phase but may be revisited in the future.

Minimum Viable Product (MVP)

A minimum viable product (MVP) is the release of a new product (or a major new feature) that is used to validate customer needs and demands prior to developing a more fully featured product. To reduce development time and effort, an MVP includes only the minimum capabilities required to be a viable customer solution

A minimum viable product is a version of a product with just enough features to be usable by early customers who can then provide feedback for future product development. A focus on releasing an MVP means that developers potentially avoid lengthy and unnecessary work.

Question 16 – Difference between Business Analyst n Product Owner.

Answer-

Business Analyst (BA):

- Focus: Analyses business needs and processes.
- Responsibilities: Gathers and documents requirements, acts as a bridge between stakeholders and the development team.
- Skills: Requirements analysis, domain knowledge, communication.
- Stakeholder Management: Interacts with various stakeholders to gather and validate requirements.

Product Owner (PO):

- Focus: Defines the product vision and maximizes value.
- Responsibilities: Prioritizes features, owns the product backlog, and ensures alignment with business goals.
- Skills: Strategic thinking, decision-making, communication, leadership.
- Stakeholder Management: Represents the voice of the customer, works closely with stakeholders to gather feedback and validate requirements.

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

RESUME

Objective:

Dynamic and results-oriented Product Owner with 3 years of experience in Agile product development. Skilled in defining product vision, prioritizing features, and collaborating with cross-functional teams to deliver high-quality products. Seeking an opportunity to leverage my expertise in driving product innovation and maximizing customer value.

Skills:

- ✓ Product Vision and Strategy
- ✓ Requirements Elicitation and Analysis
- ✓ Agile Methodologies (Scrum)
- ✓ User Research and Personal Development
- ✓ Product Road-mapping and Prioritization

Experience Summary:

Product Owner

XYZ Technology Solutions, [Pune], [Jan 2023] - Present

- Defined product vision, strategy, and roadmap to align with business goals and customer needs.
- Prioritized features and user stories based on stakeholder input, market research, and business value.
- Created and maintained the product backlog, ensuring that it was up-to-date and reflected the latest priorities and requirements.
- Collaborated with development teams to deliver product increments, providing clarity on requirements and acceptance criteria.
- Conducted user acceptance testing (UAT) and gathered feedback from stakeholders to validate product functionality and usability.
- Facilitated sprint planning, daily stand-up meetings, sprint reviews, and retrospectives to drive continuous improvement and deliver value iteratively.
- Communicated product updates, progress, and decisions to stakeholders, fostering transparency and alignment across the organization.

Assistant Product Owner

APT Software Company, [Pune], [Dec 2020- Dec 2022]

- Assisted the Product Owner in defining product vision, strategy, and priorities.
- Supported backlog grooming and refinement sessions, clarifying requirements and acceptance criteria.
- Facilitated communication and collaboration between development teams, stakeholders, and external partners.
- Conducted market research and competitor analysis to identify emerging trends and opportunities for product improvement.
- Contributed to the development and maintenance of product documentation, including user stories, use cases, and product roadmaps.

Education:

- Master of Business Administration-IBS Pune- 2016-2018

Certifications:

- Certified Scrum Product Owner (CSPO)
- Agile Certified Practitioner (PMI-ACP)