Capstone Project Part-2

 Q.1) Write Agile Manifesto?

Ans.1) Agile manifesto are the values and principles to be considered while working in agile. It is a document that outlines 4 basic values and 12 principles of Agile.

It is not only considered for scrum projects but it is used in all frameworks of agile such as XP, Lean, Kanban.

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|   **AGILE MANIFESTO**1. **Individuals & interactions** over processes & tools.
2. **Working products** over comprehensive documentation.
3. **Customer collaboration** over contract negotiation.
4. **Responding to feedback** over following a plan
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|   **AGILE PRINCIPLES**1. Our highest priority is to satisfy the customer through early and continuous delivery.
2. Welcoming change in requirements even late in the development.
3. Developing working products frequently.
4. Business people & development team must work together daily.
5. Build projects around motivated individuals and trust them to get the job done.
6. The most effective & efficient method of conveying information is face to face communication.
7. Working products is the primary measure of progress.
8. Maintain sustainable pace indefinitely.
9. Give continuous attention to technical excellence.

10.) Simplicity-the art of maximizing the amount of work done is essential 11.) Self organize team. 12.) Teams must reflect & adjust to become effective. |
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Q.2) Write minimum 40 User stories and their Acceptance Criteria along with their BV and CP ?

Ans.2) Sprint-1

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| User stories no:- 1 | Tasks:- 2 | Priority:- Highest |
| AS A DELIVERY BOYI WANT REGISTER FOR SCRUM FOODSSO THAT I CAN DELIVER ORDERS |
| BV:- 500 | CP:- 02 |
| ACCEPTANCE CRITERIA: -Registration screenText boxes for user name, Password, Nation ID, Mobile no, Email,Address,Phone number.Click on register button.Send successful notification to the user. |

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| User stories no:- 2 | Tasks:- 2 | Priority:- Highest |
| AS A RESTAURANT OWNERI WANT TO VIEW ORDERSSO THAT I CAN VIEW THE LIST OF ORDERS |
| BV:- 500 | CP:- 02 |
| ACCEPTANCE CRITERIA: -View orders, Display list of orders in the tabular form. |

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| User stories no:- 3 | Tasks:- 2 | Priority:- Highest |
| AS A CUSTOMERI WANT TO ADD THE ADDRESSSO THAT I CAN GET THE ORDERS TO MY ADDRESS |
| BV:- 500 | CP:- 02 |
| ACCEPTANCE CRITERIA: -Text box to enter.Business rules within radius of 5 km. |

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| User stories no:- 4 | Tasks:- 2 | Priority:- Highest |
| AS A CUSTOMERI WANT TO SELECT THE PAYMENT MODESO THAT I CAN MAKE PAYMENT OF MY CHOICE |
| BV:- 500 | CP:- 03 |
| ACCEPTANCE CRITERIA: -Display payment mode, radio buttons to select payment modes, payment button.Business rule. Can select only one payment mode |

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| User stories no: - 5 | Tasks: - 2 | Priority: - Highest |
| AS AN ADMINI WANT TO VIEW THE RESTAURANTSSO THAT I CAN APPROVE THEIR REGISTRATION |
| BV: - 500 | CP: - 02 |
| ACCEPTANCE CRITERIA: -List of restaurants, select restaurants, verify restaurants table, verify restaurants details, approve button, reject button, notification to the restaurant. |

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| User stories no: - 6 | Tasks: - 2 | Priority: - LOW |
| AS A CUSTOMERI WANT TO VIEW THE PRICESO THAT I CAN ORDER THE FOOD |
| BV: - 50 | CP: - 01 |
| ACCEPTANCE CRITERIA: -1. Display price in the list of menu items.
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| User stories no: - 7 | Tasks: - 2 | Priority: - LOW |
| AS A CUSTOMERI WANT TO CONTACT NUMBER OF THE DELIVERY BOYSO THAT I CAN CONTACT DELIVERY BOY FOR THE STATUS |
| BV: - 50 | CP: - 01 |
| ACCEPTANCE CRITERIA: -1. Display delivery boy mobile number.
2. Display delivery boy name in tracking field.
3. Display delivery boy picture
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| User stories no: - 8 | Tasks: - 2 | Priority: - MEDIUM |
| AS A RESTAURANT OWNERI WANT TO PROVIDE THE TIME SLOTSSO THAT CUSTOMER CAN CHECK OPENING AND CLOSING HOURS |
| BV: - 100 | CP: - 02 |
| ACCEPTANCE CRITERIA: -1. Click on restaurant dashboard
2. Add from time to time
3. Click on submit
4. Display updated successfully
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| User stories no: - 9 | Tasks: - 2 | Priority: - HIGH |
| AS A BUSINESS OWNERI WANT TO VIEW RESTAURANT REVENUE REPORTSO THAT I CAN VIEW THE RESTAURANT REVENUE |
| BV: - 200 | CP: - 03 |
| ACCEPTANCE CRITERIA: -1. Select reports
2. Select revenue reports
3. Select to and from date
4. Select region (can select all)
5. Generate report
6. Download reports in Excel
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| User stories no: - 10 | Tasks: - 2 | Priority: - HIGH |
| AS A REG ADMIN.I WANT TO MANAGE REGINOL RESTAURANTS,SO THAT,I CAN TRACK THE PERFORMANCE OF REGINOL RESTAURANTS. |
| BV: - 200 | CP: - 03 |
| ACCEPTANCE CRITERIA: -1. Click on performance of restaurants
2. Select from data to date
3. Click on generate report which includes restaurants ID, Name, Revenue
4. Click on download report should be in Excel.
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| User stories no: - 11 | Tasks: - 2 | Priority: - MEDIUM |
| AS AN ADMINI WANT TO SEE THE REGIONAL REVENUE REPORTS,SO THAT I CAN VIEW THE REGIONAL PERFORMANCE |
| BV: - 100 | CP: - 03 |
| ACCEPTANCE CRITERIA: -1. Select the regional dropdown
2. View performance of each rest of the region in tabular form which includes rest. Name, revenue generated
3. Download in Excel or PDF
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| User stories no: - 12 | Tasks: - 2 | Priority: - HIGH |
| AS A CUSTOMERI WANT TO CHAT WITH THE REG ADMINSO THAT I CAN REQUEST FOR REFUND |
| BV: - 200 | CP: - 02 |
| ACCEPTANCE CRITERIA: -1. BR-All mandatory
2. Text box fields
3. Display order IDs
4. Text box for field description
5. Submit button
6. Generate Issue ID
7. Display successful
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| User stories no: - 13 | Tasks: - 2 | Priority: - HIGH |
| AS A CUSTOMERI WANT TO BROWSE NEARBY RESTAURANTSSO THAT I CAN ORDER THE FOOD |
| BV: - 200 | CP: - 02 |
| ACCEPTANCE CRITERIA: -1. Each restaurant search displays its name, cuisine type and rating.
2. This list can be sorted by distance and rating.
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| User stories no: - 14 | Tasks: - 2 | Priority: - HIGH |
| AS A CUSTOMERI WANT TO BROWSE RESTAURANTS AND THEIR MENUSO THAT I CAN ORDER THE FOOD |
| BV: - 200 | CP: - 02 |
| ACCEPTANCE CRITERIA: -1. The menu includes dish names, prices and description
2. Show the restaurant is open or close
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| User stories no: - 15 | Tasks: - 1 | Priority: - HIGH |
| AS A CUSTOMERI WANT TO BROWSE FOR SPECIFIC DISHES AND CUISINESSO THAT I CAN FIND A PLACE FOR ORDER FOOD |
| BV: - 200 | CP: - 02 |
| ACCEPTANCE CRITERIA: -1. App displays relevant restaurants and dishes matching their query.
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| User stories no: - 16 | Tasks: - 1 | Priority: - HIGH |
| AS A CUSTOMERI WANT TO FILTER RESTAURANTS SO THAT I CAN ORDER FOOD BASED ON REVIEWS |
| BV: - 200 | CP: - 02 |
| ACCEPTANCE CRITERIA: -1. Filter restaurants by cuisine type and dietary options(veg, non veg)
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| User stories no: - 17 | Tasks: - 1 | Priority: - HIGH |
| AS A CUSTOMERI WANT TO TRACK MY ORDERSO THAT I KNOW THE TIME DELIVERY |
| BV: - 200 | CP: - 02 |
| ACCEPTANCE CRITERIA: -1. App displays real time updates on their order status
2. Display estimated time of delivery
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| User stories no: - 18 | Tasks: - 1 | Priority: - HIGH |
| AS A CUSTOMERI WANT TO RATE & REVIEW THE RESTAURANTSO THAT I CAN RATE & REVIEW AFTER ORDERING FOOD |
| BV: - 200 | CP: - 02 |
| ACCEPTANCE CRITERIA: -1. App displays reviews from other users which helps in making decisions.
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| User stories no: - 19 | Tasks: - 1 | Priority: - HIGH |
| AS A CUSTOMERI WANT SAVE FAVOURITE RETAURANTS AND DISHESSO THAT I CAN ORDER FROM MY FAVOURITES |
| BV: - 200 | CP: - 02 |
| ACCEPTANCE CRITERIA: -1. Accept my list of favourites for future orders
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| User stories no: - 20 | Tasks: - 1 | Priority: - HIGH |
| AS A CUSTOMERI WANT TO PAST ORDER HISTORYSO THAT I CAN ORDER AGAIN |
| 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 stories no: - 21 | Tasks: - 3 | Priority: - HIGH |
| AS A CUSTOMERI WANT TO RECEIVE NOTIFICATIONSSO THAT I CAN RECEIVE UPDATES |
| BV: - 200 | CP: - 02 |
| ACCEPTANCE CRITERIA: -1. Notification for order confirmation.
2. Notification for dispatch.
3. Notification for delivery
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| User stories no: - 22 | Tasks: - 3 | Priority: - MEDIUM |
| AS A CUSTOMERI WANT TO CONTACT CUSTOMER SUPPORTSO THAT I CAN SUBMIT QUERIES AND ISSUES |
| BV: - 200 | CP: - 02 |
| ACCEPTANCE CRITERIA: -1. Customer support section with contact information.
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| User stories no: - 23 | Tasks: - 2 | Priority: - HIGH |
| AS A BUSINESS OWNERI WANT TO RECEIVE AND MANAGE ORDERSSO THAT I CAN UPDATE ORDER STATUS |
| BV: - 200 | CP: - 02 |
| ACCEPTANCE CRITERIA: -1. Manage order status
2. Notify restaurants about incoming orders.
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| User stories no: - 24 | Tasks: - 2 | Priority: - HIGH |
| AS A RESTAURANT OWNERI WANT TO ACCESS TO CUSTOMER REVIEWSSO THAT I CAN VIEW AND RESPOND TO CUSTOMER REVIEWS  |
| BV: - 200 | CP: - 02 |
| ACCEPTANCE CRITERIA: -1. Owners can address feedbacks
2. Owners can improve their services
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| User stories no: - 25 | Tasks: - 1 | Priority: - MEDIUM |
| AS A CUSTOMERI WANT TO APPLY PROMOCODES AND DISCOUNTSSO THAT I CAN ORDER PRODUCTS AT LOWER PRICE |
| BV: - 200 | CP: - 02 |
| ACCEPTANCE CRITERIA: -1. Display active promocodes & discounts
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| User stories no: - 26 | Tasks: - 1 | Priority: - MEDIUM |
| AS A DELIVERY BOYI WANT TO VIEW THE ORDERSSO THAT I CAN ACCEPT THE ORDERS |
| BV: - 200 | CP: - 04 |
| ACCEPTANCE CRITERIA: -1. Order visibility
2. Real time updates
3. Order details
4. Ordering filtering & sorting
5. Order map view
6. Order navigation
7. Order completion and confirmation
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| User stories no: - 27 | Tasks: - 5 | Priority: - HIGH |
| AS A DELIVERY BOYI WANT TO LOGINSO THAT I CAN VIEW THE ORDER |
| BV: - 200 | CP: - 04 |
| ACCEPTANCE CRITERIA: -1. User authentication
2. Error handling
3. Password security
4. Muti-factor authentication
5. Compatibility and usability
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| User stories no: - 28 | Tasks: - 5 | Priority: - MEDIUM |
| AS A DELIVERY BOYI WANT TO VIEW FEEDBACKSSO THAT I CAN KNOW THE CUSTOMER FEEDBACKS |
| BV: - 200 | CP: - 04 |
| ACCEPTANCE CRITERIA: -1. Access to feedback system
2. Feedback visibility
3. Feedback sorting & filtering
4. Response mechanism
5. User support
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| User stories no: - 29 | Tasks: - 5 | Priority: - MEDIUM |
| AS AN ADMINI WANT TO VIEW FEEDBACKSO THAT I CAN KNOW THE CUSTOMER FEEDBACK |
| BV: - 200 | CP: - 04 |
| ACCEPTANCE CRITERIA: -1. Access to feedback system
2. Feedback visibility
3. Feedback sorting & filtering
4. Response mechanism
5. User support
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| User stories no: - 30 | Tasks: - 5 | Priority: - MEDIUM |
| AS A RESTAURANT OWNERI WANT TO VIEW FEEDBACKSSO THAT I CAN KNOW THE CUSTOMER FEEDBACKS |
| BV: - 200 | CP: - 04 |
| ACCEPTANCE CRITERIA: -1. Access to feedback system
2. Feedback visibility
3. Feedback sorting & filtering
4. Response mechanism
5. User support
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| User stories no: - 31 | Tasks: - 3 | Priority: - HIGH |
| AS AN ADMINI WANT TO KNOW THE ISSUESSO THAT I CAN RESOLVE THEM |
| BV: - 100 | CP: - 03 |
| ACCEPTANCE CRITERIA: -1. Display issues
2. Sorting and filtering of issues list
3. Editing & modifying the issues
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| User stories no: - 32 | Tasks: - 3 | Priority: - HIGH |
| AS A REGIONAL ADMINI WANT TO KNOW THE ISSUESSO THAT I CAN RESOLVE THEM |
| BV: - 100 | CP: - 03 |
| ACCEPTANCE CRITERIA: -1. Display issues
2. Sorting and filtering of issues list
3. Editing & modifying the issues
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| User stories no: - 33 | Tasks: - 6 | Priority: - HIGH |
| AS A RESTAURANT OWNERI WANT TO VIEW THE REVENUE GENERATEDSO THAT I CAN CALCULATE MY PROFITS |
| BV: - 200 | CP: - 04 |
| ACCEPTANCE CRITERIA: -1. Select reports
2. Select revenue reports
3. Select to and from date
4. Select region
5. Generate report
6. Download report in Excel
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| --- | --- | --- |
| User stories no: - 34 | Tasks: - 2 | Priority: - HIGH |
| AS A RESTAURANT OWNERI WANT TO KNOW THE DELIVERY BOYSO THAT I CAN VERIFY THE DELIVERY BOY |
| BV: - 200 | CP: - 04 |
| ACCEPTANCE CRITERIA: -1. ID proof
2. Punctuality & reliability
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| User stories no: - 35 | Tasks: - 2 | Priority: - LOW |
| AS A CUSTOMERI WANT TO VERIFY THE CONTACT OWNER OF THE DELIVERY BOYSO THAT I CAN CONTACT DELIVERY BOY FOR THE STATUS |
| BV: - 50 | CP: - 01 |
| ACCEPTANCE CRITERIA: -1. Display delivery boy mobile no.
2. Display delivery boy name in tracking field
3. Display delivery boy picture
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| User stories no: - 36 | Tasks: - 2 | Priority: - MEDIUM |
| AS A RESTAURANT OWNERI WANT TO PROVIDE TIME SLOTSSO THAT CUSTOMER CAN CHECK OPEMIN & CLOSING HOURS |
| BV: - 100 | CP: - 02 |
| ACCEPTANCE CRITERIA: -1. Click on restaurant dashboard
2. Add from time and to time
3. Click on submit
4. Display updated successfully
 |

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| User stories no: - 37 | Tasks: - 3 | Priority: - HIGH |
| AS A CUSTOMER I WANT RECEIVE NOTIFICATIONSO THAT I RECEIVE UPADTES |
| BV: - 200 | CP: - 02 |
| ACCEPTANCE CRITERIA: -1. Notifications for order confirmation
2. Notifications for dispatch
3. Notification for delivery
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| User stories no: - 38 | Tasks: - 1 | Priority: - HIGH |
| AS A CUSTOMERI WANT TO VIEW THE ORDERSO THAT I CAN CANCEL IT |
| BV: - 50 | CP: - 01 |
| ACCEPTANCE CRITERIA: -1. Order history
2. Method of cancellation
3. Refund policy
4. Time frame
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| User stories no: - 39 | Tasks: - 1 | Priority: - HIGH |
| AS A CUSTOMERI WANT TO ACCESS TO MULTIPLE PAYMENT GATEWAYSSO THAT I CAN MAKE THE PAYMENTS FOR ORDER |
| BV: - 50 | CP: - 01 |
| ACCEPTANCE CRITERIA: -1. Display multiple payment gateways
2. Method of payments
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| User stories no: - 40 | Tasks: - 2 | Priority: - HIGH |
| AS A REGIONAL ADMINI WANT TO TRACK THE DELIVERYSO THAT I CAN VIEW THE STATUS OF DELIVERY |
| BV: - 100 | CP: - 03 |
| ACCEPTANCE CRITERIA: -1. Real time tracking
2. Security and data privacy
3. User friendly interface
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Q.3) What is epic? Write 2 epics ?

Ans.3) Epic typically refers to a large, high-level requirement or initiative that is too broad or complex to be completed in a Sigle development cycle or iteration. Epics are often broken down into smaller, more manageable units call user story.

Epic.1:- User authentication and profile management:

This epic focuses on creating a seamless user experience for account creation, login and profile management functionalities.

User Story:

As a new user, I want to create an account using my email or social media credentials.

As a registered user, I want to login securely with my credentials.

As a user, I want to edit my profile information such as name ,contact details and address .

As a user, I want to view my order history and save favourite restaurants for quicker ordering.

As a use, I want to reset my password in case I forget it.

**Expectance criteria**; User can register with valid email address or social media account.

Login functionality securely authenticate the user.

User can update their profile information and view order history.

Password reset functionality follows security best practises.

Changes to profile information reflect accurately in the app.

**Epic.2**- Ordering and Delivery Management;

This epic involves the core functionally of browsing restaurants, placing orders and managing deliveries

**User Story:** As a user, I want to browse restaurants by cuisine type, location and rating

As a user, I want to view restaurants menu, Including item description, prices and images.

As a user, I want to add items to my cart and proceed to checkout for payment.

As a user, I want to track the status of my order in real time from to preparation to delivery.

 As a delivery boy, I want to receive notifications for new orders, navigate to the customer location and mark orders as delivered.

**Expectance Criteria:**

Users can search and filter restaurants based on various criteria.

Restaurant’s menu display items details and prices accurately.

Users can add item to the cart, adjust quantities, proceed to checkout seamlessly.

Real time order tracking provides updates and order status, estimated delivery time and location of the delivery drivers.

Delivery boys receive timely notifications for new orders and can update orders status after delivery.

Q.4) What is the difference between BV and CP?

Ans.4) Business Value and critical path are two important concepts in project management, particularly in the context of scheduling and prioritization.

**Business value (BV):**

BV refers to the quantifiable worth or benefit that a project or task brings to an organization. It is often expressed in financial terms but can also include non-financials factor like customer satisfaction, brand reputation, strategic alignment.

When prioritizing tasks or projects, those with higher BV are typically given precedence since they contribute directly to the organisation goals and bottom line.

BV helps stakeholders make informed decisions about resource allocation, project scope and risk management by focusing efforts on activities that generate the most value.

**Critical Path (CP):-**

CP refers to the sequence of tasks in a project that determines the minimum amount of time required to complete the project.

It identifies the longest sequence of dependant tasks and determines the shortest possible duration for completing the project.

Tasks on the critical path are crucial because any delay in them will directly impact the overall project timeline. Non-technical tasks can be delayed without affecting the project’s completion date(though they may still impact other aspects like resource utilization or dependencies).

CP analysis helps project managers identifies which tasks are more critical to project success and where resources should be allocated to ensure timely completion.

Q.5) –Explain about Sprint?

Ans.5) **SPRINT**: - In the context of a 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 the development team. Sprint is a core concept in the in agile methodologies, such as scrum, which emphasises in flexibility, collaboration and delivering value to the customer in shorter cycles

Here are some key characteristics of Sprint: -

1. **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 method for development and planning.
2. **Goals & Objectives**: - At the beginning of each sprint, the development team along with the stakeholders, selects a set of user stories, features or tasks to work on during that sprint. These items are collectively referred as sprint backlog.
3. **Planning**: - During sprint planning, the development team breaks down the select items from the product backlog into smaller tasks and estimates the effort required for each task. The team commit to complete these tasks within the sprint duration.
4. **Daily Stand-ups**: - Throughout the sprint, the team holds daily stand-up meeting (also known as daily scrum) to discuss progress, obstacles, plans. Each team member shares what they’ve accomplished, what they’re working on and any challenges they’re facing, these meetings foster better communication and collaboration.
5. **Development**: - The development work on the tasks identifies in the sprint backlog. They collaborate closely, often using technique like pair programming and frequent code reviews to ensure high quality work.
6. **Testing**: - Testing is an integral part of sprint. Automates test are run to validate the code changes, and manual testing may be done to ensure the quality of software.
7. **Reviews and Demo**: - At the end of the sprint, the development team conducts a sprint review & demo. They showcase the completed work to stakeholders, gathering feedback and validation. This helps ensure that the delivered features align with expectations.
8. **Retrospective**: - Following the review & demo, the team held a sprint retrospective. Thet reflect what went well during the sprint, what could be improved and actions o be taken in next sprint. The retrospective encourages continuous improvement.
9. **Incremental development**: - Each sprint results in a potentially shippable product increment, a new version of the software is available after each sprint, with additional features and improvements.
10. **Adaptability**: - Agile methodologies emphasises on adaptability, and the ability to respond to changing requirements. If new priorities emerge, adjustments can be made in subsequent sprints. Sprints allow development team to iteratively deliver value to customers and stakeholders in a controlled and predictable manner, by breaking down the work into manageable chunks and continuously seeking feedbacks. In agile teams can enhance collaboration, reduce risks and improve the overall quality f the software being developed.

Q.6) – Explain Product backlog and sprint back log?

Ans.6) Product backlog: - The product backlog is prioritized list of all desired work on the project. It serves as the single source of requirements for any changes to be made to the product.

Ownership: -

The Product backlog is owned by Product owner, who is responsible for maximizing the value of the product and ensuring that the team is working on the most valuable items.

Content: -

The items in the product backlog can include new features, enhancements, technical work etc. And any other work that adds value the product. These items are typically expressed as user stories, epics or other forms of requirements, and they are prioritized based on their value to the product.

The Product backlog provides a long-term view of the work to be done on the product, covering multiple releases and iterations. It helps guide the overall direction and strategies of the product, allowing the team to plan and adapt as necessary to meet the business requirements.

Sprint Backlog: - The Sprint backlog is the subset of product backlog that contains the work selected for the current sprint.

It represents the plan for how the team will achieve the sprint goal and deliver a potentially shippable product increment by the end of the sprint.

Ownership:

The Sprint backlog is owned by the development team, who are responsible in selecting the items from the product backlog, breaking them down into tasks and completing the work during the sprint.

Content:

The Sprint backlog typically include user stories or other product backlog items that has been decomposed into smaller and actionable tasks.

These tasks are estimated, assigned to team members and tracked through the sprints to ensure progress towards the sprint goal.

The Sprint backlog provides the short-term view of the work to be done during the current sprint, typically covering a time frame of 1 to 4 weeks.

It helps the team focus on the immediate priorities and commitment to the sprints, allowing for flexibility and adaptation as they work towards the sprint goal.

Q.7) What is impediments log? write 2 impediments?

Ans.7) The impediments log is typically maintained by the scrum master, although it is accessible to the entire team.

It contains all obstacles and impediments that are hurdle in teams progress towards a goal. Each impediment is discussed briefly including details such as impact on the team, who is affected, and any potential solution or actions needed to resolve this. The log is updated regularly during sprint retrospective, daily stand-ups meeting, whenever new impediments arise.

The Scrum master is responsible in facilitating the discussions around impediments prioritizing them based on their severity and impact and working with team to find solution.

**Impediments on Scrum Food Delivery App**: -

1. **Vendor API integration delay**:

Description: - The development team is facing issue in integrating the vendor API into the app, which is essential for real time meu updates and order processing.

Impact: - Without the API integration the app functionality is limited, affecting user experience and potentially leading to customer dissatisfaction.

Resolution: - The scrum master collaborates with the vendor team and development team to expedite the API integration process, explore alternatives solutions or adjusts the sprint backlog to focus on other high priority tasks while awaiting the integration.

1. **Network connectivity issues for delivery users**: -

Decription: - Delivery boys using the app report intermittent network connectivity issues, causing delay in receiving orders and updating order status.

Impact: - The network connectivity issue disrupt the smooth operation of the delivery process, leading to delays in order deliveries and potentially impacting customer dissatisfaction.

Resolution: - The development investigates the root cause of the network connectivity issues, work on app network communication protocols and implements offline functionality to allow delivery users to continue working even in low or no network connectivity areas.

Q.8) Explain Velocity of the Team?

Ans.8) Velocity of The Team:

 Velocity refers to the measure of the amount of work a development team can do in single sprint. The calculation of the velocity is performed by the development team itself, as they are 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 is a relative measure of complexity rather than a fixed unit time. Team members assign story points based on their understanding of their work involved, considering factors like complexity, efforts and uncertainty.

The actual time a story point represents vary from team to team. For some, it might equate hours to hours, while for others, it might represent days. It’s important to establish a consistent baseline within the team so that the story points 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 specific time frame, usually a sprint or iteration.

1. Identify completed stories: At the end of sprint or iteration, review the user stories or tasks that were completed and accepted as done.
2. 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.
3. 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 teams capacity and helps the future sprint planning and estimation.

Summing Story points: -Summing story points involve 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.

1. List Completed User stories: - Gather a list of user stories or tasks that have been completed during a specific sprint or iteration.
2. Identify story points values: - Each user story or tasks should have a story points value assigned to it during the estimation process. These values are usually relative such as 1,2,3,5,8,13 etc. Represents increasing levels of complexity & efforts.
3. Add Up Story Points 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 the story points provides a quantative measure of the work completed by the team during a sprint. The sum is often used to calculate the teams velocity, which helps in future sprint planning and estimation

Q.9) Draw Sprint Burn Charts n Product Burn Down Charts?

**Sprint Burn-Up charts**:



**Sprint Burndown Charts**: -



Q.10) Explain about Product Grooming?

Ans.10) **Product Grooming**: - It is also known as backlog grooming and refinement, is an essential activity in agile methodology like Scrum. It involves preparing the product backlog or upcoming sprints by refining and prioritizing items to ensure they are ready for implementation.

**Purpose**: - The main goals of product grooming is to ensure that the product backlog contains well defined, prioritized and estimable items that are ready for implementation. It helps the product owner to get clear understanding of of the product vision, user needs and upcoming work, facilitating effective planning and execution.

The main activities involved are:

Reviewing & Prioritizing: - The product owner reviews the items in the product backlog.

Refining user stories: - User stories are refined such that they are clear, concise and actionable.

Estimation: -The development estimates the effort required to complete each backlog item using story points and techniques.

**Participants**:

Product Owner: -The product owner leads the product grooming sessions providing guidance on priorities and requirements.

Development team: -Developers, Testers actively participates in the grooming session to provide inputs, ask questions and clarify the requirements.

Stakeholders: -Relevant stakeholders may be invited to grooming session to share their insights, provide feedbacks.

**Frequency**:

Product grooming session is an ongoing process that occurs through the product development, typically at the start of each sprint.

The Benefits of product grooming are Improved planning, reduces risks, enhances collaboration and increases flexibility.

Q.11) Explain the roles of Scrum Master and Product Owner?

Ans.11) Scrum Master: -

 The Scrum master acts in a various different role such as:

Servant leader: -The Scrum master serves the scrum team by facilitating scrum events by removing impediments and hurdles.

Process Facilitator: -They serve as process facilitator it includes organising (Sprint Planning, Daily stand-ups, Sprint review, Sprint retrospective)

Obstacle Remover: - The Scrum master helps remove any impediments hindering the team progress. They address any issues within the team while coordinating with other teams or stakeholders.

Coach: - The Scrum master teaches the team about agile values, priniciples and their practices.

Product Owner:

Visionary: - The product owner is responsible for creating and communicating the vision for the product. They have a deep understanding of the market, customer needs and business goals

Stakeholder: - They represent the stakeholders and their interests give their feedbacks and prioritize the requirements.

Product backlog management: - The Product owner prioritizes the product backlog, all the list of work that needs to be done on the project.

Requirement refinement: - They work with Scrum team to refine the requirements such that the goals are clear, concise and easy to understand.

Decision maker: - The product owner makes decisions about what feature must be included in each sprint and what order they should follow. They have the authority to accept or reject the work done by the team.

Q.12) Explain all Meetings Conducted in Scrum Project?

Ans.12) **Sprint Planning**: - This meeting usually starts each Sprint. It is a time boxed iteration generally lasting for 2 to 4 weeks. This meeting includes the Scrum team, Scrum master, Product owner, Development team who collaborates to determine which backlog items to be worked on in the upcoming sprint.

**Daily Stand-ups**: - This is held daily during the sprint. It is a short meeting helps in facilitating quick and focused communication among team member. Each team member asks three questions: What did I accomplish since the last stand up? What will I work until the last stand up? Are there any impediments or obstacles I faced?

**Sprint Review**: - At the end of each sprint, the team member holds a review meeting with stakeholders to highlight the work they have completed during the sprint. The team demonstrates the potentially shippable product increment and gets their feedback.

**Sprint Retrospective**: - It is also held at the end of each sprint; the retrospective is dedicated time for the team to reflect on their processes and practices. The team discus what went well, what could be improved, and what changes they would like to make to enhance their efficiency and effectiveness.

**Backlog Refinement**: - During this session 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 refining the product backlog items, the team and product owner discusses on refining the requirements, prioritizing and any changes needed in the backlog items.

**Release Planning**: - This meeting usually starts at start of each release and involves product underdevelopment team and stakeholders. It aims to discuss high level scope, timeline and goals for the project.

Q.13) Explain Sprint Size and Scrum Size?

Ans.13)

**Sprint Size**:

In a Scrum a “Sprint” is a time boxed iteration during which development team work to deliver a potentially shippable product increment. Common sprint duration is 1 to 4 weeks. The choice of sprint duration depends upon factors such as team velocity, project complexity and business needs.

**Scrum Team Size**:

The Scrum team size refers to the number of individuals who collectively contributes to the product development. The Scrum team mainly includes the Product owner, the development team and the Scrum master. The development team usually is responsible in creating a product increment. Scrum recommends to keep the size of the team in between 3 to 9 members to facilitate effective communication, collaboration and descion making.

Q.14) Explain DOR and DOD?

Ans.14) **Definition of Ready (DOR):** -The definition of ready outlines the criteria that the product backlog item (user stories, feature, tasks etc) should meet before they are ready to be taken into a sprint. The DOR ensures that the item is well defined, understood and prepared for efficient development. It commonly includes elements such as Clear decription, Dependencies identified, Estimable, Testable, minimal ambiguity.

**Definition of Define (DOD):** - The definition of done outlines the criteria that they met the product increment and can be considered potentially completed and shippable product increment. The specific criteria in the DOD can vary based on team standards, the nature of the product and the industry.

Q.15) – Explain Prioritization Techniques and MVP?

Ans.15) Prioritization techniques are methods the order in which tasks, features or items must be addressed in a project. This technique helps team to allocate resources effectively and focus on delivering the most valuable work first.

Some common prioritization techniques are:

**MOSCOW**; -This technique generally categorises items in Must have, should have, could have, Won’t have. categories. It helps clarify essential feature from those that are optional or lower priority.

**100 Dollar Test**: - It is also known as 100 point or weighted prioritization method which assigns a priority score to each item based on factors like business value, time sensitivity and risks. Item with higher scores is important to work on.

**Kano model:** - This model categorises features into basic needs, performance needs. It helps priortise items based how features impact user satisfaction.

**Relative prioritisation**: - Team compares items pairwise to determine which is more important. This helps in creating a relative ranking of item.

**Minimum Viable Product**: -An MVP is the smallest version of a product that includes just enough features to provide value to early adopters and gather their feedback. The MVP approach helps validate assumption, learn from users, and iteratively build upon a product foundation. It involves core functionality, Minimal features, testing hypothesis, iterative development.

Q.16) Difference between Business Analyst n Product Owner?

Ans.16)

|  |  |  |
| --- | --- | --- |
| **Aspect** | **Business Analyst** | **Product Owner** |
| Focus | Business processes & requirement analysis | Product vision, strategy and prioritizaton |
| Responsibilities | Analysing business needs and requirements-Documenting requirements, Faciliting communication between stakeholders, supporting solution design | Defining and communication product vision, priortising features and requirements, managing the product backlog, making descions on what to build next |
| Stakeholders Interaction | Interact with various stakeholders, including users, subject matter experts and development team. | Interacts with business users, customers, development teams and other buisnes unir |
| Descion making | Provides input into descion making regarding business solution | Makes decision about the product vision, direction, features and priorities. |
| Team colloboration | Collaborates closely with development team to ensure requirements are met | Collaborates with development team to ensure product backlog is clear. |
| Ownership | Typically, doesn’t not have ownership over product itself but over the analysis and requirements documentation | Has ownership over the product vision, strategy and backlog management |
| Role in Agile | Can play a role in Agile as a link between business stakeholders and development teams | Plays a major role in Agile process as the primary person to define and priotize the requirements and ensuring clearing the product backlog |

.Q17) Prepare a sample Resume of 3yrs exp Product Owner ?

Ans.17)

Mr. Kevin

Alabama, USA

801977XXXX

Kevin8019@gmail.com

**Objective:**

Dynamic and results-driven Product Owner with 3 years of experience in Agile software development environments. Having a track record of successfully leading cross-functional teams to deliver high-quality products that meet customer needs and drive business growth. Seeking to leverage my skills and expertise in a challenging Product Owner role.

**Professional Experience**:

 Product Owner

[Amazon], [Bangalore]

- Defined and communicated the product vision, strategy, and roadmap to stakeholders and development teams.

- Collaborated with stakeholders to gather and prioritize product requirements, ensuring alignment with business goals and customer needs.

- Managed the product backlog, prioritized user stories, and maintained a clear and actionable roadmap for development sprints.

- Worked closely with development teams to ensure that user stories were well-understood and delivered according to acceptance criteria and quality standards.

- Conducted user acceptance testing (UAT) and gathered feedback to iterate on product features and enhancements.

- Monitored product performance and conducted market research to identify opportunities for product improvements and innovation.

**Certification**:

Agile certified practioner

Certified Scrum Product Owner

**Education**:

Machicotes University/MTech (Informaton Technology)

I hereby state that the above given details are true to my knowledge.

Name:

Signature:

Date: