**CAPSTONE PROJECT 2:**

**Question 1 – write Agile Manifesto**?

Agile Manifesto is what are the values and Principles to be considered while working in Agile.

It is nothing but a document that outlines the 4 basic Values of Agile and 12Principles of Agile.

It’s not only for Scrum but also for all the frameworks that come under Agile like scrum, XP, kanban.

**Four main Values:**

* Individuals and interactions over processes and tools
* Working software over comprehensive documentation
* Customer collaboration over contract negotiation
* 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. Business people 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 conversation.

7. Working software is the primary measure of progress.

8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.

9. Continuous attention to technical excellence and good design enhances agility.

10. Simplicity--the art of maximizing the amount of work not done--is essential.

11. The best architectures, requirements, and designs emerge from self-organizing teams.

12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behaviour accordingly

**Question 2 – User Stories- Acceptance Criteria-BV-CP:**

Write minimum 40 User stories and their Acceptance Criteria along with their BV and CP?

Answer:

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

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| --- | --- | --- |
| User Story No :2 | Tasks:2 | Priority: Highest |
| AS A RESTAURANT OWNERI WANT TO VIEW ORDERS SO THAT I CAN VIEW THE LIST OF ORDERS |
| BV:500 | CP:02 |
| ACCEPTANCE CRITERIA View Order, Display List of orders in the tabular Form |

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| User Story No :3 | Tasks:2 | Priority: Highest |
| AS A CUSTOMERI WANT TO ADD THE ADDRESS SO THAT I CAN GET THE ORDER TO MY ADDRESS |
| BV:500 | CP:02 |
| ACCEPTANCE CRITERIA Text Box to enter. Business Rules: Within the radius of 5 km |

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

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| User Story No :5 | Tasks:2 | Priority: Highest |
| AS AN ADMIN I WANT TO VIEW THE RESTAURANTS SO THAT I CAN APPROVE THEIR REGISTRATION |
| BV:500 | CP:02 |
| ACCEPTANCE CRITERIA List of restaurant, select Restaurants, verify restaurant details, approve button, reject button, notification to the restaurant |

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| --- | --- | --- |
| User Story No :6 | Tasks:2 | Priority: Highest |
| AS ACUSTOMER I WANT TO VIEW THE PRICE SO THAT I CAN ORDER THE FOOD |
| BV:50 | CP:1 |
| ACCEPTANCE CRITERIA 1. Display price in the list of menu items |

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| --- | --- | --- |
| User Story No :7 | Tasks:2 | Priority: Low |
| AS A CUSTOMER I WANT TO VIEW THE CONTACT NUMBER OF DELIVERY BOY SO 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 Story No :8 | Tasks:2 | Priority: Medium |
| AS A RESTAURANT OWNER I WANT TOPROVIDE TIME SLOTS SO 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 Story No :9 | Tasks:2 | Priority: Highest |
| AS A Business OWNER I WANT TO VIEW RESTAURANT REVENUE REPORT SO THAT I CAN VIEW THE RESTAURANT’S REVENUE |
| BV:200 | CP:03 |
| ACCEPTANCE CRITERIA Select Reports, Select Revenue Reports ,Select to and from date, Select Region (can select all), Generate Report Download Report in EXCEL |

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| --- | --- | --- |
| User Story No :10 | Tasks:3 | Priority: Highest |
| AS A REG ADMIN I WANT TO MANAGE REGIONAL RESTAURANTS, SO THAT, I CAN TRACK THE PERFORMANCE OF REGIONAL RESTAURANTS. |
| BV:200 | CP:03 |
| ACCEPTANCE CRITERIA CLICK ON PERFORMANCE OF RESTAURANTS SELECT FROM DATE TO DATE CLICK ON GENERATE REPORT WHICH INCLUSES RESTAURANTS ID, NAME, REVENUE CLICK ON DOWNLOAD REPORT SHOULD BE IN EXCEL |

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| --- | --- | --- |
| User Story No :11 | Tasks:2 | Priority: Medium |
| AS ADMIN I WANT TO SEE THE REGIONAL REVENUE REPORTS, SO THAT I CAN VIEW THE REGIONAL PERFORMANCE |
| BV:100 | CP:03 |
| ACCEPTANCE CRITERIA Select regional dropdown View performance of each rest of that region in tabular form which includes rest name, revenue, generated Download in excel or PDF |

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| --- | --- | --- |
| User Story No :12 | Tasks:2 | Priority: High |
| AS A CUSTOMER I WANT TO CHAT WITH REG ADMIN SO THAT I CAN REQUEST FOR REFUND |
| BV:200 | CP:02 |
| ACCEPTANCE CRITERIA 1)BR-ALL MANDATORY 2) TEXT BOX FIELDS 3)DISPLAY ORDER ID 4) TEXT BOX,FOR DESCRIPTION 5) SUBMIT BUTTON 6)GENERATE ISSUE ID 7)DISPLAY SUCCESSFUL |

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| User Story No :13 | Tasks:2 | Priority: High |
| AS A HUNGRY USERI WANT TO BROWSE NEAR BY RESTUARANTSSO THAT I CAN ORDER THE FOOD |
| BV:200 | CP:02 |
| ACCEPTANCE CRITERIA 1)Each restaurant entry displays its name, cuisine type, and rating2)This list can be sorted by distance or rating |

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| --- | --- | --- |
| User Story No :14 | Tasks:2 | Priority: High |
| AS A CUSTOMER I WANT TO BROWSE DIFFERENT RESTUARANTS AND MENUSSO THAT I CAN FIND A PLACE TO ORDER FOOD |
| BV:200 | CP:02 |
| ACCEPTANCE CRITERIA 1)The menu includes dishes, prices and descriptions2)Show the restaurant is open or closed |

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| --- | --- | --- |
| User Story No :15 | Tasks:1 | Priority: High |
| AS A CUSTOMERI WANT TO BROWSE FOR SPECIFIC DISHES AND CUISINESSO THAT I CAN FIND A PLACE TO ORDER FOOD |
| BV:200 | CP:02 |
| ACCEPTANCE CRITERIA App displays relevant restaurant and dishes matching the query |

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| User Story No :16 | Tasks:1 | Priority: High |
| AS A CUSTOMERI WANT TO FILTER RESTAURANTSSO THAT I CAN FIND PLACE TO ORDER FOOD |
| BV:200 | CP:02 |
| ACCEPTANCE CRITERIA Filter restaurants by cuisine type and dietary options(vegan, veg, nonveg, egg) |

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| User Story No :18 | Tasks:1 | Priority: High |
| AS A USER I WANT TO RATE AND REVIEW RESTUARANTSSO THAT I CAN RATE AND REVIEW THE RESTUARANTS I HAVE VISITED |
| BV:200 | CP:02 |
| ACCEPTANCE CRITERIA Can see reviews from other users to help me make dining decisions |

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| --- | --- | --- |
| User Story No :19 | Tasks:1 | Priority: High |
| AS A USER I WANT TO SAVE FAVOURATE RESTUARANTS AND DISHESSO THAT I CAN ORDER FROM MY FAVOURITIES |
| BV:200 | CP:02 |
| ACCEPTANCE CRITERIA Access my list of favourites easily for future orders |

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| User Story No :20 | Tasks:1 | Priority: High |
| AS A USER I WANT TO VIEW PAST ORDER HISTORYSO THAT I CAN ORDER AGIAN |
| BV:200 | CP:02 |
| ACCEPTANCE CRITERIA Can see the details such as order items, total cost and order data |

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| --- | --- | --- |
| User Story No :21 | Tasks:3 | Priority: High |
| AS A USERI WANT TO RECEIVE NOTIFICATIONSSO THAT I CAN RECEIVE UPDATES |
| BV:200 | CP:02 |
| ACCEPTANCE CRITERIA Notifications for order confirmationNotification for dispatchNotification for delivery |

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| --- | --- | --- |
| User Story No :22 | Tasks:1 | Priority: Medium |
| AS A CUSTOMER I WANT TO CONTACT CUSTOMER SUPPORTSO THAT I CAN SUBMIT QUERIES OR ISSUES |
| BV:200 | CP:02 |
| ACCEPTANCE CRITERIA Customer support section with contact information |

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| User Story No :23 | Tasks:2 | Priority: High |
| AS A RESUARANT OWNERI WANT TO RECEIVE AND MANAGE ORDERSSO THAT I CAN UPDATE ORDER STATUS |
| BV:200 | CP:02 |
| ACCEPTANCE CRITERIA Manage order statusNotify restaurant’s about incoming orders |

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| --- | --- | --- |
| User Story No :24 | Tasks:2 | Priority: High |
| AS A RESTAURANT OWNER I WANT TO ACCESS TO CUSTOMER REVIEWSSO THAT I CAN VIEW AND RESPOND TO CUSTOMER REVIEWS |
| BV:200 | CP:02 |
| ACCEPTANCE CRITERIA Owners can address feedbackOwners can improve their services |

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| --- | --- | --- |
| User Story No :25 | Tasks:1 | Priority: Medium |
| AS A CUSTOMER I WANT TO APPLY PROMOCODES AND DISCOUNTSSO THAT I CAN ORDER AT LOWER PRICE |
| BV:100 | CP:04 |
| ACCEPTANCE CRITERIA Activate promo codes |

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| --- | --- | --- |
| User Story No :26 | Tasks:7 | Priority: High |
| AS A DELIVERY BOYI WANT TO VIEW THE ORDERSSO THAT I ACCEPT THE ORDER |
| BV:200 | CP:04 |
| ACCEPTANCE CRITERIA 1)Order visibility2)Real-time updates3)Order details4)Order filtering and sorting5)Order map view6)Order navigation7)Order completion and confirmation |

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| --- | --- | --- |
| User Story No :27 | Tasks:5 | Priority: High |
| AS A DELIVERY BOYI WANT TO LOGINAO THAT I CAN ACCEPT THE ORDER |
| BV:200 | CP:04 |
| ACCEPTANCE CRITERIA User AuthenticationError handlingPassword securityMulti-factor authenticationCompatibility and usability |

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| --- | --- | --- |
| User Story No :28 | Tasks:5 | Priority: Medium |
| AS A DELIVERY BOYI WANT TO VIEW FEEDBACKSO THAT I CAN KNOW THE CUSTOMERS FEEDBACK |
| BV:200 | CP:04 |
| ACCEPTANCE CRITERIA 1)Access to feedback system2)Feedback Visibility3)Feedback sorting and filtering4)Response Mechanism5)User Support |

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| --- | --- | --- |
| User Story No :29 | Tasks:5 | Priority: Medium |
| AS A ADMINI WANT TO VIEW FEEDBACKSO THAT I CAN KNOW THE CUSTOMERS FEEDBACK |
| BV:200 | CP:04 |
| ACCEPTANCE CRITERIA 1)Access to feedback system2)Feedback Visibility3)Feedback sorting and filtering4)Response Mechanism5)User Support |

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| User Story No :30 | Tasks:5 | Priority: Medium |
| AS A RESTAURANT OWNERI WANT TO VIEW FEEDBACKSO THAT I CAN KNOW THE CUSTOMERS FEEDBACK |
| BV:200 | CP:04 |
| ACCEPTANCE CRITERIA 1)Access to feedback system2)Feedback Visibility3)Feedback sorting and filtering4)Response Mechanism5)User Support |

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| User Story No :31 | Tasks:3 | Priority: High |
| AS A ADMINI WANT TO KNOW THE ISSUESSO THAT I CAN RESOLVE THEM |
| BV:100 | CP:03 |
| ACCEPTANCE CRITERIA 1)Display issue section2)Sorting and filtering of issues list3)Editing and modifying the issues |

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| --- | --- | --- |
| User Story No :32 | Tasks:3 | Priority: High |
| AS A REGIONAL ADMINI WANT TO KNOW THE ISSUESSO THAT I CAN RESOLVE THEM |
| BV:200 | CP:04 |
| ACCEPTANCE CRITERIA 1)Display issue section2)Sorting and filtering of issues list3)Editing and modifying the issues |

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| --- | --- | --- |
| User Story No :33 | Tasks:6 | Priority: High |
| AS A RESTAURANT OWNERI WANT TO VIEW REVENUE GENERATEDSO THAT I KNOW RESTUARNTS REVENUE |
| BV:200 | CP:04 |
| ACCEPTANCE CRITERIA Select reportsSelect revenue reportsSelect to and from dateSelect region (can select all)Generate reportDownload report in excel |

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| --- | --- | --- |
| User Story No :34 | Tasks:2 | Priority: High |
| AS A RESTAURANT OWNERI WANT TO KNOW DELIVERY BOYSO THAT I VERIFY THE DELIVERY BOY |
| BV:200 | CP:04 |
| ACCEPTANCE CRITERIA ID proofPunctuality and reliability |

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| --- | --- | --- |
| User Story No :35 | Tasks:2 | Priority: Low |
| AS A CUSTOMER I WANT TO VIEW THE CONTACT NUMBER OF DELIVERY BOYSO THAT I CAN CONTACT DELIVERY BOY FOR THE STATUS |
| BV:50 | CP:01 |
| ACCEPTANCE CRITERIA Display delivery boy mobile number Display delivery boy name in tracking fieldDisplay delivery boy picture |

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| User Story No :36 | Tasks:2 | Priority: Medium |
| AS A RESTAURANT OWNERI WANT TO PROVIDE TIME SLOTSSO THAT CUSTOMER CAN CHECK OPENING AND CLOSING HOURS |
| BV:100 | CP:02 |
| ACCEPTANCE CRITERIA Click on restaurant dashboardAdd from time to timeClick on submitDisplay updated successfully |

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| User Story No :37 | Tasks:3 | Priority: High |
| AS A USERI WANT TO RECEIVE NOTIFICATIONSSO THAT I CAN RECEIVE UPDATES |
| BV:200 | CP:02 |
| ACCEPTANCE CRITERIA Notification for order confirmationNotification for dispatchNotification for delivery |

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| --- | --- | --- |
| User Story No :38 | Tasks:1 | Priority: Medium |
| AS A CUSTOMERI WANT TO CINTACT CUSTOMER SUPOORTSO THAT I CAN SUBMIT QUERIES OR ISSUES |
| BV:200 | CP:02 |
| ACCEPTANCE CRITERIA Customer support section with contact information |

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| --- | --- | --- |
| User Story No :39 | Tasks:4 | Priority: Medium |
| AS A CUSTOMERI WANT TO VIEW THE ORDERSO THAT I CAN CANCEL IT |
| BV:100 | CP:03 |
| ACCEPTANCE CRITERIA Order statusMethod of cancellationRefund policyTime frame |

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| --- | --- | --- |
| User Story No :40 | Tasks:4 | Priority: High |
| AS A REGIONAL ADMINI WANT TO TRACK THE ORDERSO THAT I CAN VIEW THE STATUS OF DELIVERY |
| BV:100 | CP:03 |
| ACCEPTANCE CRITERIA Real time trackingSecurity and data privacyUser friendly interface |

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

Business Value and Complexity Points

Epic is a collection of user stories that represents a significant feature or functionality. Once we identify the epic we place it in product backlog.

2 Epics:

1. Rating and reviews:

As a user I want to view ratings and reviews for restaurants on scrum foods, so that I can make informed decisions about where to order food from.

As a user I want to provide ratings and reviews for restaurants on scrum foods, so that I can share my experiences with other users and contribute to the community.

1. Real time order tracking for food app:

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

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

As a customer, I want to track the location of my delivery.

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

Business value and Complexity points:

Business Value (BV):

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

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

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

Complexity points (CP):

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

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

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

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

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

Techniques used: Planning poker Planning poker: Planning Poker is a consensus-based technique commonly used in Agile and Scrum methodologies for estimating the effort or complexity of user stories or tasks.

**Question 5 –Explain about Sprint?**

What is sprint Duration: 2 Weeks - Your sprint value?

Scrum is a subunit of Sprint.

What is scrum Duration: 1 day – Your scrum Value?

PBI: Product Backlog Item

Task: Unit of Work done by 1 Developer in 1 Scrum

WIP: Work In Progress

Sprint Backlog

|  |  |  |  |
| --- | --- | --- | --- |
| PBI | Tasks | WIP | Done |
|  |  |  |  |

**Answer:**

**SPRINT:**

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

The key characteristics and components of a sprint are:

1. Time frame
2. Goals and objectives
3. Planning
4. Daily stand-ups
5. Development
6. Continuous integration
7. Testing
8. Review and demo
9. Retrospective
10. Incremental development
11. Adaptability

Sprints allow development teams to iteratively deliver value to customers and stakeholders in a controlled and predictable manner. By breaking down the work in to manageable chunks and continuously seeking feedback, Agile teams can enhance collaboration, reduce risk, and improve the overall quality of the software being developed.

**Question 6 – Explain Product backlog and sprint back log?**

**Sprint Planning Meeting:**

All 8 Scrum Developers will gather before the sprint starts and understand how many user stories, they can develop in 1 sprint (2 weeks), and move them from the product Backlog to the sprint Backlog. They take inputs from Sprint Retrospective meeting.

Scrum Meeting – Daily Stand-up Meeting End of every Scrum, Scrum Developers will participate in Scrum meeting. Here they must answer 3 Questions.

a. What task did you work in this scrum?

b. What task will you work on next scrum?

c. Any Challenges/impediments? When you will complete the user story?

**Answer:**

The Product Backlog is a dynamic, prioritized list of all the features, user stories, enhancements, bug fixes, and other work items that need to be addressed over the course of a project. It represents the entire scope of the product's development and is managed by the Product Owner. The Product Backlog is continually refined and updated based on feedback, changing requirements, and new insights. The Sprint Backlog is a subset of the Product Backlog that represents the work that the development team commits to completing during a specific time period called a "Sprint." A Sprint is a fixed-duration iteration, usually lasting two to four weeks, in which the team

The sprint backlog is a subset of the product backlog that represents the work that the development team commits to completing during a specific time period called a sprint.

A sprint is fixed duration iteration, usually lasting two to four weeks, in which the team works on a set of items from the product backlog. The sprint backlog is created during the sprint planning meeting, where the development team selects set of items to work on based on their capacity and the priorities set by the product owner.

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| S.NO. | Product Backlog | Sprint Backlog |
| 1 | Product owner owns | Development team owns |
| 2 | Contains requirements, tasks, and defects. | A subset of product backlog items defined as a priority by the product owner |
| 3 | Everyone contributes to the product backlog | Sprint planning meeting is to refine the sprint backlog items |
| 4 | Release burn down metric is used | Sprint burn down metric is used |
| 5 | Estimations is done at a user story level | Estimation is done at activity or task level |
| 6 | Daily stand up meeting does not discuss product backlog items | Daily stand up meeting discusses the sprint backlog in accordance with sprint goal |

**Question 7 – What is impediments log?**

**Write 2 impediments:**

Answer:

Impediments Log: All challenges faced by the team will be logged in this impediments log.

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

2 impediments:

* Delivery partner shortage in a specific region
* Technical issue causing intermittent order processing failure

|  |  |
| --- | --- |
| Login ID | 1 |
| DescriptionImpact | Delivery partner shortage in a specific regionDelay in order deliveries and increases customer dissatisfaction |
| Priority | High( due to its impact on customer experience) |
| Assigned to | Operations team and HR team |
| Status | Open |
| Action taken | The operations team is actively recruiting new delivery partners in the region. The HR team is working on fast-tracking the on-boarding process |
| Resolution | Delivery partner recruitment efforts are on-going and the HR team is streaming the on-boarding process to new hires. Regular updates are being provided are being provided in team meetings. |

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

**Question 8 – Explain Velocity of the Team?**

Velocity- How many CP is covered in this sprint

Team velocity in agile development:

Velocity is a measure of the amount of work a development team can complete during a sprint. It helps in understanding the team’s capacity and is a key metric for planning future sprints.

Key components:

Velocity definition:

* Represents the total completed work by the team in a sprint.
* Calculated by summing up the story points of all completed tasks.

Story point estimation:

Story points are a technique used in agile to estimate the effort required for a specific task or user story.

Tracking completed work:

* Total story points completed during the sprint.

Summing story points

Average velocity: Average amount of work done or completed across multiple sprints.

**Question 9 – Draw Sprint Burn Charts n Product Burn Down Charts?**

Sprint burn down chart:





Product burn down chart:



**Question 10 – Explain about Product Grooming?**

**Answer:**

Product Grooming is an essential process in Agile development which ensures that items in the product backlog are well understood, prioritized, and ready for development. This process supports efficient sprint planning and enables teams to deliver value effectively. It is also known as backlog grooming or refinement.

Steps involved in product grooming:

1. Setting the context:

The team and relevant stakeholders align on the projects overall goals and objectives.

This step provides clarity and sets the foundation for backlog refinement.

1. Backlog overview:

The product owner and development team review the product backlog which includes accessing user stories, tasks, and other backlog items.

Ensuring items are accurate, relevant, and up-to-date with project goals.

1. Prioritization:

Backlog items are prioritized based on value of the product and customer or user needs, this ensures the team focuses on delivering the most important work first.

1. Refinement and Estimation:

The backlog items are refined to provide clear and detailed descriptions. The team break down the user stories in to smaller tasks and discuss the technical requirements.

1. Dependency analysis:

Potential dependencies between backlog items are identified.

1. Defining acceptance criteria:

Clear acceptance criteria are established for each backlog item.

This reduces misunderstandings and ensures alignment on expectations.

1. Backlog grooming meeting:

Recurring meetings involve the product owner and development team collaborating on reviewing, prioritizing, and refining backlog items.

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

**Answer:**

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

**Question 12 – Explain all Meetings Conducted in Scrum Project?**

**Sprint Planning:**

This meeting kicks of each sprint, which is a time-boxed iteration of work, usually spanning 2-4 weeks. During this meeting, the Scrum team, including the Product Owner, Scrum Master, and Development Team, collaborates to determine which backlog items (user stories, features, etc.) will be worked on in the upcoming sprint. The team also breaks down these items into tasks and estimates the effort required.

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

Held daily during the sprint, this short meeting aims to facilitate quick and focused communication among team members. Each team member answers three key questions: What did I accomplish since the last stand-up? What will I work on until the next stand-up? Are there any obstacles or impediments in my way? This meeting helps keep everyone aligned and informed about the progress and challenges.

**Sprint Review:**

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

**Sprint Retrospective:**

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

**Backlog Refinement (Grooming):**

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

**Product Backlog Refinement:**

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

**Question 13 – Explain Sprint Size and Scrum Size?**

Sprint size:

In scrum, a sprint is a time-boxed iteration during which the development team works to deliver a potentially shippable product increment. The length of a sprint is called the “sprint duration” and is fixed throughout the project.

Common sprint durations:

1. 1 to 4 weeks (can vary depending on project needs).
2. Shorter sprint duration encourages more frequent opportunities for feedback, adjustment, and adaption.
3. Longer sprint duration provides more time for development but may reduce the frequency of feedback.

Scrum size:

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

**Question 14 – Explain DOR and DOD?**

**Answer:**

**Definition of Ready (DOR):**

The Definition of Ready outlines the criteria that a product backlog item (user story, feature, task, etc.) should meet before it is considered ready to be taken into a sprint for development. The DOR ensures that the item is well-defined, understood, and prepared for efficient development. The specific criteria in the DOR can vary from team to team, but commonly include elements such as:

* Clear description and acceptance criteria: The item's requirements are clearly stated, and the conditions for its successful completion are well-defined.
* Dependencies identified: Any dependencies on external factors, teams, or resources are identified and addressed.
* Estimable: The team has enough information to provide a reasonable estimate of the effort required.
* Testable: It's possible to determine whether the item has been successfully implemented through testing.
* Minimal ambiguity: The item's details are clear, and any uncertainties are resolved.

**Definition of Done (DOD):**

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

* Code complete: All development work is finished, including coding, testing, and integration.
* Peer-reviewed: Code has been reviewed by other team members for quality and adherence to coding standards.
* Automated tests passed: Automated tests (unit tests, integration tests, etc.) have been successfully executed and passed.
* Functional requirements met: The item meets all specified acceptance criteria and functional requirements.
* Document updating: Any necessary documents, user guides, or technical documentation has been updated.

**Question 15 – Explain Prioritization Techniques and MVP?**

**Answer:**

**Prioritization Techniques:**

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

**MOSCOW:**

It is a prioritization technique used in business analysis and software development to reach a common understanding with stakeholders on the importance they place on the each delivery of the requirement- also known as MOSCOW prioritization or analysis.

M- Must have this requirement to meet the business needs.

S- Should have this requirement if possible, but project success does not rely on it.

C- Could have this requirement if it does not affect anything else in the project.

W- Would like to have this requirement later, but it won’t be delivered this time.

**100 Dollars test:**

The 100 Dollar Test is a prioritization technique that involves giving participants a hypothetical budget to allocate to ideas or tasks. It's also known as the 100-point method, the fixed sum method, or the fixed allocation method.

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

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

**Kano Model:**

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

**Relative Prioritization:**

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

**Buy a feature**: stakeholders are given a budget to ‘buy’ features, which helps prioritize features based on how much value they see in them.

**Minimum Viable Product (MVP):**

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

**Core Functionality:**

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

**Minimal Features:**

The MVP omits non-essential features to avoid unnecessary complexity and expedite development.

**Testing Hypotheses:**

The MVP tests assumptions and hypotheses about user behaviour, market demand, and product viability.

**Iterative Development:**

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

**Early value:** The MVP allows the product to be released faster, gaining valuable insights and attracting early adopters

**Question 16 – Difference between Business Analyst n Product Owner:**

**Answer:**

**Business Analyst:**

Aspect: Understanding the business needs process and requirements.

Requirements gathering: gathers and documented detailed business requirements.

Problem solving: identifies problems, in efficiencies and suggest improvements.

Communication: act as a liaison b/w stakeholders and development team.

Documentation: creates documentation of business rules, work flows, and requirements.

Scope definition: helps define scope of the project based on business needs.

Vision and strategy: focus specific project or process improvement.

Backlog management: not typically responsible for managing a product backlog.

Prioritization: does not have a primary role in prioritizing features.

Decision making: provides input but not responsible for final product decisions.

Iterative development: may or may not be involved in iterative development cycles.

Collaboration: collaborates with business stakeholders and development teams.

Acceptance: ensures business requirements are met.

Leadership and strategy: focuses on tactical solutions and improvements.

Continuous improvement: contributes to process improvements and business efficiency.

**Product Owner:**

Role focus: defines, prioritizes and convey requirements for the product.

Requirement gathering: creates user stories and defines product features.

Problem solving: drives the product vision, strategy and value proposition.

Communication: collaborates with stakeholders, customers, and the development team.

Documentation: manages product backlog and maintain clear user stories.

Scope definition: defines scope of product features and enhancements.

Vision and strategy: has a holistic vision for the product and its strategic direction.

Backlog management: manages and prioritizes the product backlog items.

Prioritization: prioritizes features based on business value, user needs, and market trends.

Decision making: makes final decisions on product features, enhancements, and priorities.

Iterative development: actively participate in sprint planning, reviews, and retrospectives.

Collaboration: collaborates closely with stakeholders, customers, and the development team.

Acceptance: ensures user stories meet acceptance criteria and align with product vision.

Leadership and strategy: focuses on strategic leadership and product direction.

Continuous improvement: incorporates user feedback for on-going product enhancement.

**Question 17 – Prepare a sample Resume of 3yrs experience Product Owner?**

**Ravi Kumar Potu**

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Email: pravikmr12@gmail.com

**SUMMARY:**

Results-oriented and highly motivated product owner with 3 years of experience in managing product development, gathering requirements, and driving product innovation. Proven track record in collaborating with cross-functional teams to deliver high-value products that meet business goals and exceed user expectations.Skilled in agile methodologies, backlog management, and customer-centric development.

**PROFFESIONAL EXPERIENCE:**

**Product Owner:**

ABC Technologies:

January 2024 to present

* Work directly with end users to capture and analyse challenges to their workflow.
* Provide key performance metrics to the Head of IT on the deliveries and benefits realization of change implementations.
* Prioritizes work within an agile team and maintain a backlog of future work for consideration/prioritization.
* Take responsibility for the development of on-going enhancements, create and prioritize user stores with the agile teams
* Own and drive backlog grooming and management, prioritize user stories, create acceptance criteria and drive testing and delivery.
* Work with Program Management and leadership to support new business.
* Maximizing the work of the development team.

**Junior Product Owner:**

XYZ Pvt ltd:

January 2022 to 2024

* Provide week-to-week tactical objectives to scrum team, and provide quick JIT decisions to system level questions and defect triage
* Possibly work with 3rd party system integrators to drive process on schedule and on budget
* Defining the road map and prioritizing the backlog of work to meet the vision in a timely manner to meet market and customer demands
* Drive and own backlog grooming and management, prioritize the iteration and drive acceptance testing and delivery of iteration.
* Relating & Networking
* Entrepreneurial & Commercial Thinking
* Track budget and delivery of engineering projects and releases

**EDUCATION:**

Bachelor of technology and science

JNTUH

Graduated: 2015

Product grooming, also known as backlog grooming or refinement, is an essential process in Agile

development. It ensures that items in the product backlog are well-understood, prioritized, and ready

for development. This process supports efficient sprint planning and enables teams to deliver value

effectivel

**SKILLS:**

Product Management: Backlog management, roadmap planning, user story creation, feature

prioritization

●Agile Methodologies: Scrum, Kanban, Sprint Planning, Retrospectives, Backlog Grooming

●Tools: JIRA, Trello, Asana, Confluence, Microsoft Office Suite, Figma

●Stakeholder Management: Requirement gathering, user feedback, cross-functional team

collaboration

●Communication: Strong verbal and written communication, presentation skills,

customer-focused mindse

Product management**:** backlog management, roadmap planning, user story creation, feature prioritization.

Agile methodologies: scrum, kanban, sprint planning, retrospective, backlog grooming.

Tools: JIRA, Microsoft office suite.

Stakeholder management: Requirement gathering, user feedback, cross functional team collaboration.

 Ravi Kumar P

 Hyderabad