**Question 1 – Write Agile Manifesto**

Answer 1 –

Agile

* Agile is light weight and can be implemented where faster delivery is required.
* Agile no documentation is required.
* Customer retention since no documentation.
* Agile does not support scalability and extendibility

The Agile Manifesto, formally known as the "Manifesto for Agile Software Development," was created in 2001 by a group of software developers who sought a better approach to software development. The manifesto outlines four core values and twelve principles that guide the agile methodology. Here's the Agile Manifesto:

Four Main values of agile

* Individuals and interactions over processes and tools
* Working software over comprehensive documentation
* Customer collaboration over contract negotiation
* Responding to change over following a plan

12 Principles behind the Agile Manifesto

1. Our highest priority is to 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 for 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.

The Agile Manifesto emphasizes flexibility, collaboration, and delivering value to customers in an iterative and incremental manner. It has since been adopted beyond software development, influencing various industries and project management practices.

**Question 2 - User Stories- Acceptance Criteria-BV-CP - Write minimum 40 User stories and their Acceptance Criteria along with their BV and CP**

Answer 2 –

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| User Story No: 1 | Tasks: 2 | Priority: HIGHEST |
| As A Restaurant Owner I Want to View OrdersSo that I can view the list of orders |
| BV: 500 | CP: 1 |
| ACCEPTANCE CRITERIA:View Order, Display List of orders in the tabular from |

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| User Story No: 2 | Tasks: 2 | Priority: HIGHEST |
| As A CustomerI want to register in scrum foodsSo that I can deliver order |
| BV: 500 | CP: 2 |
| ACCEPTANCE CRITERIA: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: 3 | Tasks: 2 | Priority: HIGHEST |
| As A CustomerI Want to add the addressSo that I can get the order to my address |
| BV: 500 | CP: 1 |
| 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 browse different restaurants and menu So that I can find a place to order food |
| BV: 500 | CP: 2 |
| ACCEPTANCE CRITERIA:1) The menu includes dishes prices and descriptions2) Show the restaurant is open or closed |

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| User Story No: 5 | Tasks: 2 | Priority: HIGHEST |
| As A CustomerI want to browse contact customer supportSo that I can submit queries |
| BV: 500 | CP: 2 |
| ACCEPTANCE CRITERIA:1) The menu includes dishes prices and descriptions2) Show the restaurant is open or closed |

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| User Story No: 6 | Tasks: 2 | Priority: HIGHEST |
| As A CustomerI want to browse different restaurants and menu So that I can find a place to order food |
| BV: 500 | CP: 1 |
| ACCEPTANCE CRITERIA:Customer Support section with contact information |

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| User Story No: 7 | Tasks: 2 | Priority: HIGHEST |
| As A CustomerI want to browse nearby restaurants so that I can order foods |
| BV: 100 | CP: 1 |
| ACCEPTANCE CRITERIA:1) Each restaurant entry display its name, cuisine type and rating2) The list can be sorted by distance and rating |

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| User Story No: 8 | Tasks: 2 | Priority: HIGHEST |
| As A CustomerI want to browse for specific dishes and cuisineSo that I can find place to order food |
| BV: 100 | CP: 1 |
| ACCEPTANCE CRITERIA:App displays relevant restaurant and dishes matching the query |

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| User Story No: 9 | Tasks: 2 | Priority: HIGHEST |
| As A CustomerI want to browse for specific dishes and cuisineSo that I can find place to order food |
| BV: 500 | CP: 1 |
| ACCEPTANCE CRITERIA:App displays relevant restaurant and dishes matching the query |

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| User Story No: 10 | Tasks: 2 | Priority: HIGHEST |
| As A CustomerI want to filter restaurantsSo that I can find a place to order food |
| BV: 100 | CP: 2 |
| ACCEPTANCE CRITERIA:Filter restaurants by cuisine type and dietary options (vegan, veg, non- veg, egg) |

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| User Story No: 11 | Tasks: 2 | Priority: HIGHEST |
| As A CustomerI want to track my orderSo that I know the time of delivery |
| BV: 500 | CP: 3 |
| ACCEPTANCE CRITERIA:App show real time update on the order statusDisplay estimated delivery time |

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| User Story No: 12 | Tasks: 2 | Priority: HIGHEST |
| As A CustomerI want to receive and manage ordersSo that I can update order status |
| BV: 500 | CP: 2 |
| ACCEPTANCE CRITERIA:Manage Order statusNotify restaurant about incoming orders |

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| User Story No: 13 | Tasks: 2 | Priority: HIGHEST |
| As A CustomerI want to rate and review restaurantSo that I can check the restaurant people have visited |
| BV: 500 | CP: 2 |
| ACCEPTANCE CRITERIA:Can see review from other user to help make a dining decision |
| User Story No: 14 | Tasks: 2 | Priority: HIGHEST |
| As A CustomerI want to receive notificationSo that I can receive updates |
| BV: 500 | CP: 2 |
| ACCEPTANCE CRITERIA:Notification for order confirmationNotification for dispatchNotification for delivery |

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| User Story No: 15 | Tasks: 2 | Priority: HIGHEST |
| As A CustomerI want to apply promo codesSo that I can order at lower price |
| BV: 500 | CP: 3 |
| ACCEPTANCE CRITERIA:Active Promo codes |

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| User Story No: 16 | Tasks: 2 | Priority: HIGHEST |
| As A CustomerI want to view past order historySo that I can order again |
| BV: 500 | CP: 1 |
| ACCEPTANCE CRITERIA:Can see the details such as order item, Total quantity and price |

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| User Story No: 17 | Tasks: 2 | Priority: HIGHEST |
| As A CustomerI want to access customer reviewsSo that I can respond to customer reviews |
| BV: 500 | CP: 2 |
| ACCEPTANCE CRITERIA:Owner can address feedbackOwners can improve their sale |

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| User Story No: 18 | Tasks: 2 | Priority: HIGHEST |
| As A Delivery BoyI want to update the Order statusSo that I can view and update the delivery statusAs a delivery boy I want to update the payment status for COD |
| BV: 500 | CP: 3 |
| ACCEPTANCE CRITERIA:Textbox for updating the feedback and status |

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| User Story No: 19 | Tasks: 2 | Priority: HIGHEST |
| As A Delivery boyI want to view the orderSo that I can accept the orders |
| BV: 500 | CP: 5 |
| ACCEPTANCE CRITERIA:1) Order visibility2) Real - time updates3) Order details4) Order filtering & sorting5) Order map view6) Order Navigation7) Order completion and confirmation |

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| User Story No: 20 | Tasks: 2 | Priority: HIGHEST |
| As A Delivery boyI want to loginSo that I can accept the orders |
| BV: 100 | CP: 3 |
| ACCEPTANCE CRITERIA:1-User authentication2-Password Security3-Multifactor authentication4-Error Handling |

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| User Story No: 21 | Tasks: 2 | Priority: HIGHEST |
| As a delivery boyI want to register in scrum foodsso that I can deliver orders |
| BV: 500 | CP: 2 |
| 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: 22 | Tasks: 2 | Priority: HIGHEST |
| As A Restaurant OwnerI Want To View OrdersSo That I Can View The List Of Orders |
| BV: 500 | CP: 2 |
| ACCEPTANCE CRITERIA:View Order, Display List of orders in the tabular Form |

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| User Story No: 23 | Tasks: 2 | Priority: HIGHEST |
| As A Customer I Want To Add The Address So That I Can Get The Order To My Address |
| BV: 500 | CP: 2 |
| ACCEPTANCE CRITERIA:Text Box to enter. Business Rules: Within the radius of 5 km |

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| User Story No: 24 | Tasks: 2 | Priority: HIGHEST |
| As A Customer I Want To Select The Payment Mode So That I Can Make Payment Of My Choice |
| BV: 500 | CP: 3 |
| 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: 25 | Tasks: 2 | Priority: HIGHEST |
| As An Admin I Want To View The Restaurants So That I Can Approve Their Registration |
| BV: 500 | CP: 2 |
| 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: 26 | Tasks: 2 | Priority: HIGHEST |
| As A customer I Want To View The Price So That I Can Order The Food |
| BV: 50 | CP: 1 |
| ACCEPTANCE CRITERIA:Display price in the list of menu items |

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| User Story No: 27 | Tasks: 2 | Priority: HIGHEST |
| As A Customer I Want To View The Contact Number Of Delivery Boy So That I Can Contact Delivery Boy For The Status |
| BV: 50 | CP: 1 |
| 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: 28 | Tasks: 2 | Priority: HIGHEST |
| As A Restaurant OwnerI Want To provide Time SlotsSo That Customer Can Check Opening And Closing Hours |
| BV: 100 | CP: 2 |
| ACCEPTANCE CRITERIA:1. Click on restaurant dashboard 2. Add from time to time 3. Click on submit4. Display updated successfully |

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| User Story No: 29 | 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: 3 |
| 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: 30 | Tasks: 2 | 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: 3 |
| ACCEPTANCE CRITERIA:Click on performance of restaurants select from date to date click on generate report which includes restaurants id, name, revenue click on download report should be in excel |

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| User Story No: 31 | Tasks: 2 | Priority: HIGHEST |
| As Admin I Want To See The Regional Revenue Reports, So That I Can View The Regional Performance |
| BV: 100 | CP: 3 |
| 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: 31 | Tasks: 2 | Priority: HIGHEST |
| As A Customer I Want To Chat With Reg Admin So That I Can Request For Refund |
| BV: 200 | CP: 2 |
| 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: 32 | Tasks: 2 | Priority: HIGHEST |
| As an AdminI Want to know the issuesSo that I can resolve them |
| BV: 500 | CP: 3 |
| ACCEPTANCE CRITERIA:1) Display issue section2) Sorting and filtering3) Editing & modifying the issues |

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| User Story No: 33 | Tasks: 2 | Priority: HIGHEST |
| As A Customer I Want To view the contact number of delivery boy So That I Can contact delivery boy for the order status |
| BV: 500 | CP: 2 |
| ACCEPTANCE CRITERIA:1-Display delivery boy number2-Display delivery boy name in tracking field3-Display delivery boy picture |

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| User Story No: 34 | Tasks: 2 | Priority: HIGHEST |
| As A Restaurant owner I Want To view revenue generated So That I Can view the restaurant revenue |
| BV: 500 | CP: 8 |
| ACCEPTANCE CRITERIA:1-Select reports2-Select from and to date3-Select revenue reports4-Select region5-Generate report6-Download report in excel |

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| User Story No: 35 | Tasks: 2 | Priority: HIGHEST |
| As A Restaurant owner I Want To know the delivery boy So That I Can verify the delivery boy person |
| BV: 500 | CP: 3 |
| ACCEPTANCE CRITERIA:ID ProofPunctuality and reliability |

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| User Story No: 36 | Tasks: 2 | Priority: HIGHEST |
| As A Restaurant owner I Want provide time slotSo That customer can check opening and closing hours |
| BV: 500 | CP: 3 |
| ACCEPTANCE CRITERIA:1-Click on restaurant dashboard2-Add from time – To Time3-click on submit4- Display updated successfully |

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| User Story No: 37 | Tasks: 2 | Priority: HIGHEST |
| As a customerI want to contact customer supportSo that I can submit queries or issues |
| BV: 500 | CP: 2 |
| ACCEPTANCE CRITERIA:Customer support section with contact information |

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| User Story No: 38 | Tasks: 2 | Priority: HIGHEST |
| As a customerI want to view the orderSo that I can cancel it |
| BV: 500 | CP: 2 |
| ACCEPTANCE CRITERIA:1-Order Status2-Method of cancellation3-Refund Policy4-Time Frame |

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| User Story No: 39 | Tasks: 2 | Priority: HIGHEST |
| As a regional adminI want to track the deliverySo that I can view the status of the delivery |
| BV: 500 | CP: 2 |
| ACCEPTANCE CRITERIA:1) Real time tracking2) Security & data privacy3) User friendly interface |

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| User Story No: 40 | Tasks: 2 | Priority: HIGHEST |
| As A customerI want to browse different restaurantSo that I can find a place to order the food |
| BV: 500 | CP: 2 |
| ACCEPTANCE CRITERIA:1) The menu includes dishes prices and descriptions 2) Show the restaurant is open or closed |

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

Answer 3

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

2 Epics

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

Acceptance Criteria

* Users can view average ratings and reviews for each restaurant on the restaurant’s details page
* Users can read detailed reviews and comments led by the other customers
* Users can sort and filter reviews based on criteria such as rating and relevance
* Users can rate the restaurants and leave a review after placing the order
* User can edit or delete their own reviews within a specified timeframe
* Reviews are displayed in a way that provides helpful insights to other users
* The rating and review system maintains the integrity and authenticity of user feedback

2. Epic: Real-Time Order Tracking for Food Delivery App Description: The real-time order tracking epic aims to provide users with a seamless and transparent experience by allowing them to track the status and location of their food orders in real-time. This feature enhances customer satisfaction, reduces support inquiries, and improves overall user engagement.

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

* Display the current status of the order, such as "order confirmed, ""preparing," "out for delivery," and "delivered."
* Provide real-time updates as the order progresses through various stages. As a customer, I want to track the location of my delivery.
* Integrate GPS or location services to show the delivery partner's real-time location on a map
* Allow customers to view the estimated me of arrival (ETA) based on the delivery partner's location. As a customer, I want to receive notifications for order updates.
* Send push notifications or SMS updates to inform customers about order confirmation, preparation, and delivery status changes.
* Provide delivery partner details, including name, contact information, and a profile picture. As a customer, I want to contact the delivery partner directly.
* Enable in-app chat or call functionality to allow customers to communicate with the assigned delivery partner.
* Ensure privacy by using masked phone numbers or secure messaging channels. As a customer, I want to view the delivery route.
* Display the delivery route on the map, showing the path the delivery partner will take to reach the destination.
* Allow customers to track the progress of the delivery in real-time along the route. As a customer, I want to provide feedback on the delivery experience
* Allow customers to rate the delivery partner and overall delivery experience after the order is delivered.
* Implement a feedback system with written comments to gather valuable insights. As a customer, I want to see estimated delivery time adjustments.
* Account for real-time traffic conditions and other factors that may affect the delivery time.
* Update the estimated delivery time accordingly and inform the customer promptly. As a customer, I want to have a seamless tracking experience across platforms.
* Ensure the real-time order tracking feature is available and consistent on all supported platforms (e.g., mobile app, web). As an admin, I want to monitor order tracking performance.
* Provide analytics and reporting on order tracking metrics, such as average delivery time and customer satisfaction ratings.
* Use data to identify areas for improvement and optimize the delivery process.

Ac**ceptance Criteria:**

**Real-Time Order Updates:**

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

**Order Location Tracking:**

The app should display the live location of the delivery driver while enroute to the user's address

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

**Estimated Delivery Time**

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

**Delivery Notifications:**

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

**Map Zoom and Interaction**

Users should be able to zoom in and out on the map to view the delivery driver's route more closely.

The map should support standard interactions, such as panning and rotating, to improve the user experience.

**Delivery Status History:**

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

**Accuracy and Reliability:**

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

The system should handle location updates efficiently, minimizing delay or inaccuracies

**Privacy and Security**

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

**Compatibility:**

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

**Opt-Out Option:**

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

**User Education:**

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

**Support for Multiple Orders:**

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

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

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

Answer 4

BV – Represents the tangible and intangible benefits that a product, service, or project delivers to the organization. It focuses on how the initiative contributes to achieving business goals, profitability, and competitive.BV stands for business value which is given by the client according to the importance of task. Business Value is how important is this feature (user Story) to the Business. This is estimated by Scrum Currency Notes. We provide Rs 500, Rs 100, Rs 50, Rs 20 and Rs 10 Denominations

CP - CP - CP is also known as Story Points (SP). CP is the effort required by the Scrum Developers to develop this feature (user story) using technology. Efforts include time taken to solve the complexity and write the code. Represents how customers perceive the value, quality, and experience of a product or service. It focuses on meeting or exceeding customer expectations and satisfaction. CP is estimated by the Scrum Developers by using Poker cards. We provide pokers with values “?”, 1, 2, 3, 5, 8, 13, 20, 40, 100 and BIG

The main difference between the BV and CP is that the BV value is decided or given the client according to the importance or the priority of task to be performed. However the CP value is identified or given by the development team according to the efforts needed to perform the tasks

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| **Aspect** | **Business Value (BV)** | **Customer Perception (CP)** |
| Perspective | Organization-centric. | Customer-centric. |
| Focus | Maximizing value for the business. | Creating a positive customer experience. |
| Primary Goal | Achieving business objectives (profit, growth). | Meeting/exceeding customer needs and expectations. |
| Measured By | Financial and operational metrics. | Customer feedback, satisfaction, and loyalty metrics. |
| Example Objective | Increasing revenue by 20% in a quarter. | Enhancing product usability to delight users. |

**Question 5 –Explain about Sprint**

Answer 5

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

Here are the key characteristics and components of a sprint

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

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

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

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

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

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

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

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

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

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

Adaptability: Agile methodologies emphasize adaptability and the ability to respond to changing requirements. If new priorities or insights emerge, adjustments can be made in subsequent sprints. Sprints allow development teams to iteratively deliver value to customers and stake holders in a controlled and predictable manner. By breaking down the work into manageable chunks and continuously seeking feedback, agile teams can enhance collaboration, reduce risk, and improve the overall quality of the software being developed

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| --- | --- | --- | --- |
| PBI | Task | WIP | Done |
| Registration | 3 | 2 | 1 |
| Login | 2 | 2 | 0 |
| Add Restaurant | 3 | 2 | 1 |
| Order Food | 3 | 0 | 3 |
| Make Payment | 3 | 3 | 0 |
| Track Delivery | 3 | 2 | 1 |
| Customer Feedback | 3 | 3 | 0 |

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

Answer 6

**Product Backlog**

The **Product Backlog** is a prioritized list of all the work that needs to be done for a product. It is essentially the roadmap of features, enhancements, bug fixes, and technical work required to develop or improve a product.

* **Owned By**: The **Product Owner** is responsible for maintaining and prioritizing the Product Backlog.
* **Structure**: Items in the backlog are known as **Product Backlog Items (PBIs)** and can include:
	+ Features or user stories
	+ Bug fixes
	+ Technical debt tasks
	+ Research or spikes
* **Dynamic Nature**: The Product Backlog is continuously updated based on feedback, market changes, and new requirements.
* **Prioritization**: The highest-value and most critical items are placed at the top, ensuring that the team works on the most important tasks first.

**Sprint Backlog**

The **Sprint Backlog** is a subset of the Product Backlog that consists of the tasks the development team commits to completing in a specific sprint (time-boxed iteration).

* **Owned By**: The **Development Team** is responsible for managing and delivering the Sprint Backlog.
* **Structure**: It includes:
	+ **Selected PBIs**: Specific items chosen from the Product Backlog for the sprint.
	+ **Tasks**: The breakdown of selected PBIs into smaller, actionable tasks.
* **Commitment**: The team commits to completing all the items in the Sprint Backlog during the sprint.
* **Flexibility**: While the goal of the sprint remains fixed, the Sprint Backlog may evolve as the team learns more or adjusts to unforeseen challenges.

**Question 7 – What is impediments log? Write 2 impediments**

Answer 7

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.

Impediments

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

Technical Blocker

* The development team needs access to a database, but the credentials haven’t been provided yet.
* Impact: Team cannot test or deploy features.
* Solution: Scrum Master escalates the issue to IT support for immediate resolution

Dependency on another Team

* The front-end team is waiting for API endpoints from the back-end team.
* Impact: Front-end development is delayed, affecting sprint goals.
* Delivery partner shortage in a specific region
* Technical issue causing intermittent order processing failure

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

Answer 8

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

Velocity – How many Complexity Points is covered in this sprint. Velocity of team is 8

**Question 9 – Draw Sprint Burn Charts and Product Burn down Charts**

Answer 9

**Sprint Burn Charts**

A Sprint Burn Chart is a visual tool in Agile (especially in Scrum) that helps track the progress of a sprint by showing how much work is remaining vs. completed over time. It helps teams stay on track and identify potential risks early.



**Product Burn down charts**

A Product Burndown Chart is a visual representation of the progress toward completing the entire product backlog in an agile project. It shows how much work remains over multiple sprints until the product is fully delivered



**Question 10 – Explain about Product Grooming**

Answer 10

Product grooming, also known as backlog grooming or refinement, is a crucial activity in Agile development that involves preparing and refining items in the product backlog to ensure they are well-understood, prioritized, and ready for development. Let's break down the process step by step:

* **Setting the Context**: At the beginning of the backlog grooming process, the team and relevant stakeholders come together to understand the overall goals and objectives of the project. This helps set the context for the work to be done and aligns everyone's understanding.
* **Backlog Review**: The product owner and the development team review the items in the product backlog. This involves assessing the user stories, tasks, and other items to ensure they are accurate, up-to-date, and skill relevant to the project's goals.
* **Refinement and Estimation**: In this step, the backlog items are refined to provide clear and detailed descriptions. The team breaks down user stories into smaller tasks and discusses the technical requirements. Estimation involves assigning story points or other sizing metrics to each item, indicating the relative effort needed for implementation.
* **Dependency Analysis**: The team examines potential dependencies between backlog items. Identifying and understanding dependencies helps in planning the order of implementation and managing potential bottle necks.
* **Acceptance Criteria**: Well-defined acceptance criteria are established for each backlog item. These criteria outline the conditions that must be met for the item to be considered complete and ready for delivery. Clear acceptance criteria help prevent misunderstandings and ensure a shared understanding of what is expected
* **Prioritization**: During backlog grooming, the team collaboratively prioritizes the backlog items based on their value to the product and the needs of the users or customers. This helps ensure that the most important and valuable work is addressed first.
* **Backlog Grooming Meetings**: These are recurring meetings where the product owner and the development team come together to perform the activities mentioned above. These meetings often occur before sprint planning sessions to ensure that the upcoming sprint back log is well-prepared.

Backlog grooming is an iterative process that helps maintain a healthy and well-organized product backlog. It ensures that the development team always has a prioritized list of well-defined, estimated, and ready-to-develop items. This, in turn, supports the efficient planning and execution of sprints and helps the team deliver value to customers in a more predictable and effective manner

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

Answer 11

|  |  |  |
| --- | --- | --- |
| **Criteria** | **Product Owner** | **Scrum Master** |
| Nature of work | Collaborates with all the stakeholder and brings the vision of a product info the product backlog | Acts as team coach and is responsible for maintaining the quality of the product |
| Responsibilities | Responsible for completing the project on time. Acts as an intermediary between development team and the customers | Ensure the scrum framework is followed and helps the development team create a quality product |
| Accountability | Responsible for project backlog and the timely completion of the product and for providing updates to the clients and 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 the quality of the product |
| Qualities | Communication and the leadership skills, creativity, critical thinking and a sharp mind are key assets for 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**

Answer 12

There are five types of scrum meetings held during the scrum process which are as follows.1. Sprint Planning Meeting2. Daily Scrum Meeting3. Sprint Review Meeting4. Sprint Retrospective Meeting5. Backlog Refinement Meeting

**Sprint Planning Meeting:**

This meeting begins with the Product Owner. In this meeting the PO explains their vision and how the team should go about completing this step of the project. During this meeting, team members decide the amount of work they can complete within the sprint. This is also when the team moves work from the Product Backlog to the Sprint Backlog. This step requires a lot of planning and can take several hours for the group to decide on a finalized Sprint.

**Daily Scrum Meeting:**

From the planning meeting, we move into the daily scrum meetings. Every single day for 15 minutes, the team gathers together to report any issues or progress on their tasks. Though brief, this meeting is an essential part of the scrum process. It is designed to keep all group members on track in a cohesive manner. Normally the Product Owner is present during all daily scrum meetings to assist in any way. 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?

**Sprint Review Meeting**

This meeting is used to showcase a live demonstration of the work completed. During this meeting the Product Owner, Scrum Master and stakeholders are present to review the product and suggest changes or improvements.

They will see the Velocity – How many CP is covered in this Sprint Burn down Chart.

**Sprint Retrospective Meeting:**

This meeting is held to facilitate a team’s reflection on their progress. The team speaks openly about their organizational concerns and teamwork. During this meeting, dialogue should remain friendly, non- judgmental and impartial. This review session is a key part of team building and development and it’s also very important for future scrum projects. In this meeting team will discuss about Challenges faced and come up with lessons learnt. We can use these lessons learnt in Sprint planning meeting to select user stories for the next sprint.

**Backlog Refinement Meeting:**

Last, is the backlog refinement meeting. In this meeting, team members focus on the quality and skill of the work involved during the sprints. This meeting is necessary for the business owners to connect with the development team and is used to assess the quality of the final product. This meeting involves important reflection on the team backlogs.

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

Answer 13

Sprint Size The whole concept of sprint is to identify User stories that the scrum team would work on and complete within a specific sprint duration. Typically known as the sprint length. Sprints can be of 1, 2, 3 or 4 weeks long at the max. Anything beyond 4 weeks is never agile scrum project management.

Scrum Size: Scrum Team size can 8 to 10 people.

1. Product Owner

2. Scrum Master

3. Developers 8

**Question 14 – Explain DOR and DOD**

Answer 14

The definition of Ready DOR The product owner could work together with the team to define an artefact called “the Definition of Ready” (DOR) for ensuring that items at the top of the backlog are ready to be moved into a sprint so that the development team can confidently commit and complete them by the end of a sprint.

The term “Definition of Ready” isn’t described in the Scrum Guide similar to the user stories and the Acceptance Criteria embedded in it. Perhaps, you may consider the Definition of Ready is an integral part of the backlog refinement activity, instead of using the Definition of Ready as a sequential and phase-gate checklist. Backlog refinement is an ongoing process, therefore it’s not restricted to an event but considered an activity.

**Definition of Done: DOD**

The definition of Done is structured as a list of items, each one used to validate a user story or PBI, which exists to ensure that the Development Team agree about the quality of work they’re attempting to produce. It serves as a checklist that is used to check each Product Backlog Item (aka PBI) or User Story for completeness. Items in the definition of “Done” are intended to be applicable to all items in the Product Backlog, not just a single User Story. It can be summarized as following:

DoR and DoD are practices that are needed while improving a product. To ensure that the product meets customer expectations, certain features and ideas have to be added to it from time to time, and defining the criteria for the features to be added is absolutely necessary and that's when the DoR and DoD come into play.

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

Answer 15 Prioritization of requirements is an important aspect of all software development approaches, but it is especially important in agile software development. When we talk about some of the Product Owner's activities in Scrum products, such as "Ordering items in the Product Backlog to best achieve mission and objectives", "Demonstrate what the Scrum Team would work on next", and "Streamlining the quality of the work the Developers performs", we are actually talking about workload prioritization. All we're attempting to do is prioritize the issues in the backlog. In essence, we are attempting to discover the user's priority tasks and rank them accordingly, while also taking into account certain additional characteristics. For example, we may utilize five priority factors to rank user stories, such as the importance users place on product vision, urgency, time restrictions, technical difficulty, and stake holder interests. Projects must be correctly prioritized for both the overall project objectives and the individual activities that will fulfil the objectives in order to be successful. As a result, we address the prioritizing issue on two levels:

Product level: Evaluate which elements of the product might contribute more to the project's major aims.

Tasks level: Specify which work items must be completed and in what sequence during the software product development cycle.

Types of Agile Prioritisation Techniques

**MoSCoW Agile Prioritization Techniques**

MoSCoW analysis is a business analyst prioritizing approach advocated in the IIBA BABOK and derived from the DSDM (dynamic software development method). According to this strategy, a collection of needs or user stories should be divided into four categories:

M: Must. Describes a criterion that must be met in the final solution for it to be judged successful.

S: Should. Represents a high-priority component that, if feasible, should be included in the solution. This is frequently a vital criterion, but it can be met in other ways if absolutely required.

C: Could. Describes a criterion that is desirable but not required. If time and resources allow, this will be added.

W: Will not. Represents a demand that stakeholders have decided will not be executed in a particular release but will be addressed in the future. After categorizing the needs into four groups, they are rated in order of priority within each category.

**Priority Poker**

Priority poker is a simple design game for ranking objects in order of importance. Priority poker is named from the fact that it is quite similar to arranging poker (a technique for evaluating the costs of the user stories widely used in Agile development projects).Before the game begins, the moderator collects all of the individuals who need to be engaged in the prioritizing process, such as stakeholders, product managers, strategists, programmers, domain experts, and sometimes even consumers. The moderator must also prepare a list of tasks to prioritize as well as a collection of priority cards to distribute to each player. The volume of cards in this set is determined by how many degrees of priority are useful in this specific instance. In certain circumstances, a 5 point scale (e.g., very high priority, high priority, medium priority, low priority, very low priority), a 3 point scale (e.g., high urgency, medium urgency, low urgency), or even a 10 point scale may be used. The number of cards matches to the scale's numbers. The supervisor then reviews a piece of functionality (user story). Each participant selects the card that they believe represents the best ranking for that assignment and sets it face down on the table. After each player has made their selection, all of the cards are turned over at the same time. The disparities are addressed, and the game continues until the estimations are roughly equal

**Cost of Delay**

This Agile prioritization technique is a concept that assists you in determining the amount of money you risk losing if certain features are unavailable. Essentially, you are putting yourself in the path of those who are combating fires. As a result, it is a proactive struggle to guarantee that there are no money-bleeding situations. You may estimate how urgent they are by calculating how much money the organization would lose every day if the feature or job is delayed. As a consequence, you will have a well-planned timetable that will contribute to total budget savings. As a result, this prioritizing strategy is motivated only by financial considerations and has nothing to do with user experience or customer happiness. Although these factors may be considered when calculating the Cost of Delay, they are not the primary goal of these agile prioritization methods. The benefits of employing this priority technique in conjunction with others would be both financially and emotionally justifiable.

Conclusion: These Agile prioritization methods are critical components of project planning and management. You may wind up losing a lot of money on the project if you don't have appropriate agile prioritization techniques in place. Furthermore, the initiative may have little influence on the intended clients. As a result, it is critical to employ an objective prioritizing grading system that adds to the success of an agile product development project.

 MVP (Minimum Viable Product), the Core of the Agile Methodology. An MVP is a concept from agile scrum that refers to a product that has just enough features to satisfy the needs of early customers and, more importantly, give them something to provide feedback on to shape the future of the product.

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

Answer 16

**Product Owner**

The Product Owner has a vision of the product keeping the domain/industry experience and the market need. Their job is to ensure that the product meets the market and stakeholder needs; they conduct market analysis followed by an enterprise SWOT analysis to come up with the product vision.

The PO also works on the go-to-market strategy for the product. The PO tries to leverage their experience in the domain, need of the market, the industry or the domain, the organization's market position, and the customer expectation of the product.

Critical Responsibilities for Product Owner

* Market Analysis
* Analysis of market need/demand
* Availability of similar products in the market
* Underserved customer needs
* Potential trends in synergy with current offerings.
* Enterprise Analysis
* SWOT analysis
* Due diligence on the market opportunity
* Product offering decision based on the due diligence report
* Product Vision and Roadmap
* Product vision keeping the need analysis in mind
* Product roadmap with high-level features and timeline
* Managing Product Features
* Managing stakeholder expectations and prioritizing needs
* Prioritization of the epics, stories, and features based on criticality and ROI involved
* Managing Product Backlog
* Prioritization of user stories
* Reprioritization based on stakeholders' needs
* Epics planning
* Managing Overall Iteration Progress
* Sprint progress review
* Reprioritization of sprints and epics if needed
* Sprint retrospectives with Business Analyst

Business Analyst:

As we know, Business Analysts are the change-makers, problem solvers, questioners, facilitators, the bridge between the users/stakeholders and the Agile team. They question assumptions and requirements, assess the needs, find gaps, and work closely with the stakeholders/SMEs to detail the requirements, features, user stories, and understand/elicit the requirements

They work closely with the Product Owners to manage the user stories and epics.

* Requirements modelling and elicitation
* Data flow diagrams
* Business rules
* Dependency mapping
* Smooth execution of the sprints
* Requirements clarification to the team
* Maintaining the dependency map and the traceability matrix.
* Facilitation support for users in UAT
* Requirements elicitation
* Modelling
* Requirements walkthroughs
* Requirements workshops
* Acceptance criteria

Critical Responsibilities for Business Analysts

* Managing User Stories
* Prioritizing the user stories
* Clearing the impediments if any
* Detailing the Requirements as per the Stakeholders’ Needs and Expectations
* Requirements elicitation
* Business rules
* Modelling
* Requirements walkthroughs
* Requirements workshops
* Acceptance criteria
* Clarifying the details of requirements with stakeholders
* Coordinating with the development team to get the stories developed
* Day to day support in requirements clarifications and business rules
* SPOC for the agile team for all requirements related queries
* Impact Analysis for Changes
* Maintaining the traceability matrix and dependencies.
* Components mapping
* Impact analysis for changes
* Work closely with the PO on the Sprint Execution
* A representative of the PO in the Agile team in clarifying questions and issues.
* Assists the PO in managing the sprint and the product backlog
* Take a lead role in the sprint retrospectives

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

Answer 17

Rohit Sarnaik

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Objective Motivated and forward-thinking product owner with 3+ years of experience. Eager to support team with leadership and guidance over a wide range of product development efforts. In previous roles reduced the delivery time by20% and was able to coordinate 95% of product completion in line with the company roadmap.

Work Experience

Agile Product Owner

Deutsche Bank Pune 2017

* Acted as liaison between business, sales and IT teams to refine the product and incorporate features based on market demands.
* Partnered with IT and product leadership to drive and manage the solution development process and ensure the product team understands the direction and vision.
* Collaborated with teams to discover and deliver the best solution to the market presented by the product team lead and the business.
* Created and maintained the solution vision, roadmap, and backlog of work through the project's life cycle.
* Translated features into user stories within the team’s backlog while managing, ranking, and prioritizing this backlog to reflect stakeholder’s requirements.
* Key achievement - Effectively negotiated sprint goals with the team, which resulted in slashing delivery time by 20% in a single quarter.

Scrum Product Owner

* Collaborated with stakeholders to understand business problem statements and convert them into user stories.
* Articulated product vision and user stories in a way clearly understandable to development teams.
* Managed backlog of user stories for 2 products simultaneously.
* Established user story acceptance criteria and refined stories with Scrum teams.
* Created Sprint Release Plans with input from development teams.
* Applied agile methods and processes to promote a disciplined and transparent project management process.
* Key achievement - Planned and estimated 2-week sprints in a realistic yet time-efficient manner that allowed the teams to deliver 97% of the MVP according to the company roadmap.

Education

* B.Sc., Computer Science Pune

Key Skills

* Conceptual skills
* User-centered design processes
* Design quality standards
* Service and product design methodologies
* Agile and Scrum
* Conducting design sprints
* User validation
* Analytical skills
* Collaboration and teamwork
* Communication

Certifications

* Certified SAFe® Product Owner