Question 1 – write Agile Manifesto – 8 Marks

Answer 🡪

The Agile Manifesto has four core values:

* **Individuals and interactions over processes and tools**

People are the drivers of the development process, and they respond to business needs in real time.

* **Working software over comprehensive documentation**

Agile de-emphasizes the documentation of the development process.

* **Customer collaboration over contract negotiation**

The customer is an important collaborator throughout the development process.

* **Responding to change over following a plan**

Agile teams accept that they will need to adjust the plan as they learn more about the product.

12 Agile Manifesto principles: -

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 to the shorter timescale
4. Businesspeople and developers must work together daily throughout the project.
5. Build projects around motivated individuals. Give them the environment and support they need and trust them to get the job done.
6. The most efficient and effective method of conveying information to and within a development team is face-to-face 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 – 40 Marks
Write minimum 40 User stories and their Acceptance Criteria along with their BV and CP

Answer 🡪

SPRINT-1

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| User Story No: 1 | Tasks: 2 | Priority: HIGHEST |
| AS A NEW CUSTOMERI WANT TO REGISTER,SO THAT I CAN LOGIN AND ORDER THE FOOD |
| BV: 50 | CP: 02 |
| ACCEPTANCE CRITERIARegistration ScreenText Boxes for Username, Password, Nation ID, Mobile No, Email, Address, Phone Number.Click on the Register Button.Display Successful Message on the Same Screen  |

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| User Story No: 2 | Tasks: 3 | Priority: HIGHEST |
| AS A CUSTOMER I WANT TO LOGINSO THAT I CAN SEARCH FOR THE FOOD ITEMS AND ORDER THE FOOD |
| BV: 20 | CP: 05 |
| ACCEPTANCE CRITERIA:Login ScreenText Boxes for Username, PasswordText box for forgot username, passwordAfter successful loginView List of Restaurants, their Menu, Display List of Food Items in the tabular Form |

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| User Story No: 3 | Tasks: 3 | Priority: HIGHEST |
| AS A CUSTOMER I WANT TO VIEW THE LIST OF RESTAURANTSSO THAT I CAN SEARCH, VIEW THE RESTAURANTS AND ITS MENU AND ORDER THE FOOD |
| BV: 50 | CP: 8 |
| ACCEPTANCE CRITERIA:Home ScreenList of Restaurants in 3\*3 tabular formatText boxes displaying food item name, quantity, price, discount offer etc. |

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| User Story No: 4 | Tasks: 3 | Priority: HIGHEST |
| AS A CUSTOMER I WANT TO ADD THE LIST OF FOOD ITEMS IN MY CARTSO THAT I CAN PROCEED TO CHECKOUT AND ORDER THE FOOD |
| BV: 40 | CP: 2 |
| ACCEPTANCE CRITERIA:Home ScreenList of Restaurants in 3\*3 tabular formatText boxes displaying their discount offers, food items, price of food itemsDisplaying an ADD button below each food items to add them in my Cart. |

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| User Story No: 5 | Tasks: 3 | Priority: HIGHEST |
| AS A CUSTOMER I WANT TO SEE RESTAURANTS AS PER CATEROGYSO THAT I CAN ORDER THE FOOD AS PER MY CHOICE |
| BV: 30 | CP: 5 |
| ACCEPTANCE CRITERIA:Home ScreenList of Restaurants in 3\*3 tabular formatA Separate Section called Categories Displaying a Various Categories of restaurants serving different categories of food items such as Veg, Non-Veg, Jain food, South Indian Foods. |

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| User Story No: 6 | Tasks: 3 | Priority: HIGHEST |
| AS A CUSTOMER I WANT TO RECEIVE THE DISCOUNTS OFFER NOTIFICATIONSSO THAT I CAN SAVE ONEY ON ORDER |
| BV: 40 | CP: 5 |
| ACCEPTANCE CRITERIA:Home ScreenList of Restaurants in 3\*3 tabular formatText Box Displaying Discounts offers Receiving the notification on my mobile screen displaying restaurant name and Discount offer. |

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| User Story No: 7 | Tasks:2 | Priority: HIGHEST |
| AS A CUSTOMERI WANT TO SELECT THE PAYMENT MODESO THAT I CAN MAKE PAYMENT OF MY CHOICE |
| BV: 70 | 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: 8 | Tasks:2 | Priority: LOW |
| AS A CUSTOMERI WANT TO VIEW THE CONTACT NUMBER OF THE DELIVERY BOY SO THAT I CAN CONTACT THE DELIVERY BOY FOR THE STATUS |
| BV: 50 | CP: 2 |
| Acceptance Criteria:Display delivery boy mobile numberDisplay delivery boy name in tracking fieldDisplay delivery boy picture |

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| User Story No: 9  | Tasks:2 | Priority: LOW |
| AS A DELIVERY BOYI WANT TO LOGINSO THAT I CAN VIEW THE ORDERS AND DELIVERED THEM. |
| BV: 50 | CP: 1 |
| Acceptance Criteria:Delivery Boy Home pageList of Today’s Order with all the DetailsButton to Accept or Reject the Order. |

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| User Story No: 10  | Tasks:2 | Priority: LOW |
| AS A DELIVERY BOYI WANT TO GO VIEW THE FEEDBACKSO THAT I CAN MAKE IMPROVEMENT |
| BV: 50 | CP: 1 |
| Acceptance Criteria:Display Delivery Boy Home PageGoto View Feedback Section Display the feedback according to the Orders Accepted  |

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| User Story No: 11  | Tasks:2 | Priority: LOW |
| AS A DELIVERY BOYI WANT TO VIEW RAISE ISSUES  SO THAT ADMIN DEPARTMENT CAN SOLVE THE ISSUES |
| BV: 50 | CP: 2 |
| Acceptance Criteria:Display Delivery Boy Home PageGoto Raised Issues Section Display Issues Raised and in front on that the status of it. |

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| User Story No: 12 | Tasks:2 | Priority: HIGHEST |
| AS A DELIVERY BOYI WANT TO VIEW DELIVERY REPORTS AND REVENUE GENERATEDSO THAT I CAN IMPROVE MY PERFORMANCE |
| BV: 500 | CP: 3 |
| ACCEPTANCE CRITERIADeliver Report section, Revenue Generated button |

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| User Story No: 13 | Tasks:2 | Priority: MEDIUM |
| AS A DELIVERY BOYI WANT TO REGISTERSO THAT I CAN LOGIN TO VIEW THE ORDERS |
| BV: 20 | CP: 5 |
| Acceptance Criteria:Registration ScreenText Boxes for Username, Password, Nation ID, Mobile No, Email, Address, Phone Number.Click on the Register Button.Display Successful Message on the Same Screen |

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| User Story No: 14 | Tasks:2 | Priority: MEDIUM |
| AS A REGIONAL ADMINI WANT TO VIEW THE MANAGE SECTIONSO THAT I CAN MANAGE THE DELIVERY BOYS AND RESTAURANT |
| BV: 30 | CP: 1 |
| Acceptance Criteria:Display Regional Admin DashboardClick on ManageShow Two Ratio Button for selecting Manage Delivery Boys and Restaurants Click on any of the two optionsDisplay the List of Delivery BoysDisplay the List of Restaurants We can see add, remove, get revenue option for selection |

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| User Story No: 15 | Tasks:2 | Priority: MEDIUM |
| AS A REGIONAL ADMINI WANT TO VIEW ISSUESSO THAT THEY CAN BE RESOLVED ON TIME |
| BV: 50 | CP: 3 |
| Acceptance Criteria:1. Display Regional Admin dashboard
2. Click on View Active Issues
3. Click on submit
4. We will get a Detailed List of Active Issues in a table format.
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| User Story No: 16 | Tasks:2 | Priority: MEDIUM |
| AS A REGIONAL ADMINI WANT TO VIEW REFUNDSSO THAT I CAN UPDATE TO CUSTOMERS AND KEEP A TRACK OF THEM  |
| BV: 100 | CP: 5 |
| Acceptance Criteria:1. Display Regional Admin dashboard
2. Click on View Refunds
3. We will get a Detailed List of all the Refunds which are pending and Successfully Refunded.
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| User Story No: 17 | Tasks:2 | Priority: MEDIUM |
| AS A BUSINESS OWNER I WANT TO LOGINSO THAT I CAN MANAGE BY BUSINESS |
| BV: 30 | CP: 3 |
| Acceptance Criteria:Display Login WindowText box showing login id and passwordAfter successful LoginDisplay the Admin Dashboard |
| User Story No: 18 | Tasks:2 | Priority: MEDIUM |
| AS A BUSINESS OWNER I WANT UPDATE PAYMENTS FOR RESTAURANTS AND DELIVERY BOYSSO THAT OWNER CAN MANAGE THEIR BUSINESS |
| BV: 40 | CP: 3 |
| Acceptance Criteria:Display Business Owner DashboardTwo options for selecting Restaurants and Delivery boys Display Update Payment Option |
| User Story No: 19 | Tasks:2 | Priority: MEDIUM |
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| BV: 30 | CP: 5 |
| Acceptance Criteria:Display Business Owner DashboardTwo options for selecting Issue and ReportsOwner can get a detailed list of Issues and reports |
| User Story No: 20 | Tasks:2 | Priority: MEDIUM |
| AS A CUSTOMERI WANT TO CHAT WITH REG ADMINSO THAT I CAN REQUEST FOR REFUND |
| BV: 10 | CP: 2 |
| Acceptance Criteria:1) BR-ALL MANDATORY2) TEXT BOX FIELDS3) DISPLAY ORDER ID4) TEXT BOX, FOR DESCRIPTION5) SUBMIT BUTTON6) GENERATE ISSUE ID7) DISPLAY SUCCESSFUL |

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| User Story No: 21 | Tasks:2 | Priority: MEDIUM |
| AS ADMINI WANT TO SEE THE REGIONAL REVENUE REPORTS,SO THAT I CAN VIEW THE REGIONAL PERFORMANCE |
| BV: 20 | CP: 3 |
| Acceptance Criteria:Acceptance Criteria:Select regional dropdownView performance of each rest of that region in tabular form which includesrest name, revenue, generatedDownload in excel or PDF |

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| User Story No: 22 | Tasks:2 | Priority: MEDIUM |
| AS A Business OWNERI WANT TO VIEW RESTAURANT REVENUE REPORTSO THAT I CAN VIEW THE RESTAURANT’S REVENUE |
| BV: 10 | CP: 8 |
| 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: 23 | Tasks:2 | Priority: MEDIUM |
| As a REGIONAL ADMINI WANT TO VIE PAYMENT MADE TO THE REGIONAL RESTAURANTSSP THAT I CAN SEE THE REVENUE GENERATED |
| BV: 40 | CP: 5 |
| Acceptance Criteria:Goto Login pageDisplay Regional Admin DashboardView Payments OptionsDisplay a List of restaurants Names and AddressOption to Download in Excel and PDF. |

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| User Story No: 24 | Tasks:2 | Priority: MEDIUM |
| AS A DELIVERY BOYI WANT TO SEE PAYMENTSSO THAT I CAN MANAGE THEM |
| BV: 10 | CP: 5 |
| Acceptance Criteria:Goto Delivery Boy Login pageDisplay Payment COD Display a List of Customer Names and AddressOption to Download in Excel and pdf |
| User Story No: 25 | Tasks:2 | Priority: MEDIUM |
| AS A DELIVERY BOYI WANT TO RAISE ISSUESSO THAT I CAN GET ANY SOLUTION FOR THAT |
| BV: 20 | CP: 2 |
| Acceptance Criteria:Login to Delivery boy sectionGoto Raise Issue SectionText Box to write the issues and dropdown to select category of the Issue.Submit button |

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| User Story No: 26 | Tasks:2 | Priority: MEDIUM |
| AS A CUSTOMERI WANT TO TRACK THE ORDERSO THAT I CAN KNOW THE EXTACT TIMING AND LOCATION OF THE ORDER |
| BV: 30 | CP: 5 |
| Acceptance Criteria:LoginDisplay DashboardSelect on the option Track OrderA new page will open displaying the city map and current location on the map and approx. timing of the order delivery. |

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| User Story No: 27 | Tasks:2 | Priority: MEDIUM |
| AS A CUSTOMERI WANT TO GIVE FEEDBACK AND RATINGSSO THAT THE MANAGEMENT CAN IMPROVE THEM SELF |
| BV: 10 | CP: 2 |
| Acceptance Criteria:LoginDisplay DashboardAfter the Order gets DeliveredFeedback and Ratings textbox will be available for the same order.User can write their views and give ratings up-to 5 stars1 star – very poor quality5 start- superior quality |

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| User Story No: 28 | Tasks:2 | Priority: MEDIUM |
| AS A CUSTOMERI WANT TO CANCEL THE ORDERSO THAT IT SHOULD NOT GET DELIVERED |
| BV: 10 | CP: 3 |
| Acceptance Criteria:LoginDisplay DashboardSelect on the option Cancel Order A confirmation page will appearClick Yes and Order will get cancelNOTE: You cannot cancel the Order once it is Out for Delivery. |

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| User Story No: 29 | Tasks:2 | Priority: MEDIUM |
| AS A DELIVERY BOYI WANT TO SELECT AND ACCEPT ORDERSSO THAT I CAN GET PICK AND DELIVER THEM |
| BV: 10 | CP: 1 |
| Acceptance Criteria:Login to Delivery boy sectionGoto TODAY’S ORDER SectionA tabular List of Orders along with the menu, address, customer number will appear.In front of each order 🡪Two button will be provided 1. Accept Order 2. Skip the Order.After clicking the Accept Order Button – A Map will show the pickup point and delivery points. |
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| User Story No: 30 | Tasks:2 | Priority: MEDIUM |
| AS A DELIVERY BOYI WANT TO VIEW THE ORDERSSO THAT I CAN GET A SUMMARISED VIEW AND TAKE DECISIONS ON IT |
| BV: 20 | CP: 1 |
| Acceptance Criteria:Login to Delivery boy sectionGoto TODAY’S ORDER SectionA tabular List of Orders along with the menu, address, customer number will appear.Filter should be applied on Date, Orders Accepted. |

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| User Story No: 31 | Tasks:2 | Priority: MEDIUM |
| AS A DELIVERY BOYI WANT TO UPDATE THE STATUS OF THE ORDERSO THAT THE ORDERS GETS FINISHED AND IT WILL GET COUNTED IN MY DELIVERY REPORT LISTS. |
| BV: 50 | CP: 2 |
| Acceptance Criteria:Login to Delivery boy sectionGoto TODAY’S ORDER SectionAfter successful Delivery of the Accepted OrderCustomer will provide a 4-digit Pin that needs to be updated via delivery boyFor the confirmation of the Successful Delivery of that Order.A text box will be display namely – Order Pin After putting the pin there the order’s status will get updated as -Delivery successful. |

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| User Story No: 32 | Tasks:2 | Priority: MEDIUM |
| AS A DELIVERY BOYI WANT TO LOGOUTSO THAT NO OTHER PERSON GETS ACCESS OF MY ACCOUNT |
| BV: 30 | CP: 2 |
| Acceptance Criteria:A Logout sign will be displayedOn Clicking that buttonA Confirmation pop-up will appearAfter clicking on Yes, the User will be successfully Logged Out. |

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| User Story No: 33 | Tasks:2 | Priority: MEDIUM |
| AS A DELIVERY BOYI WANT TO PICK THE ORDER AND DELIVERSO THAT I CAN DELIVER IT TO CUSTOMER |
| BV: 20 | CP: 5 |
| Acceptance Criteria:Login to Delivery boy sectionGoto TODAY’S ORDER SectionA tabular List of Orders along with the menu, address, customer number will appear.In front of each order 🡪Two button will be provided 1. Accept Order 2. Skip the Order.After clicking the Accept Order Button In Two Textboxes will display the Pickup points and Delivery address.Also Show on Map Option will also be available for the ease of Delivery. |

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| User Story No: 34 | Tasks:2 | Priority: MEDIUM |
| AS A CUSTOMERI WANT TO LOGOUTSO THAT NO OTHER PERSON GETS ACCESS OF MY ACCOUNT |
| BV: 10 | CP: 2 |
| Acceptance Criteria:A Logout sign will be displayedOn Clicking that buttonA Confirmation pop-up will appearAfter clicking on Yes, the User will be successfully Logged Out. |

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| User Story No: 35 | Tasks:2 | Priority: MEDIUM |
| AS A RESTAURANT OWNERI WANT TO LOGOUTSO THAT NO OTHER PERSON GETS ACCESS OF MY ACCOUNT |
| BV: 30 | CP: 5 |
| Acceptance Criteria:A Logout sign will be displayedOn Clicking that buttonA Confirmation pop-up will appearAfter clicking on Yes, the User will be successfully Logged Out. |

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| User Story No: 36 | Tasks:2 | Priority: MEDIUM |
| AS A REGIONAL ADMINI WANT TO LOGOUTSO THAT NO OTHER PERSON GETS ACCESS OF MY ACCOUNT |
| BV: 40 | CP: 3 |
| Acceptance Criteria:A Logout sign will be displayedOn Clicking that buttonA Confirmation pop-up will appearAfter clicking on Yes, the User will be successfully Logged Out. |

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| User Story No: 37 | Tasks:2 | Priority: MEDIUM |
| AS A ADMINI WANT TO LOGOUTSO THAT NO OTHER PERSON GETS ACCESS OF MY ACCOUNT |
| BV: 40 | CP: 2 |
| Acceptance Criteria:A Logout sign will be displayedOn Clicking that buttonA Confirmation pop-up will appearAfter clicking on Yes, the User will be successfully Logged Out. |

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| User Story No: 39 | Tasks:2 | Priority: MEDIUM |
| AS A BUSINESS OWNERI WANT TO LOGOUTSO THAT NO OTHER PERSON GETS ACCESS OF MY ACCOUNT |
| BV: 30 | CP: 2 |
| Acceptance Criteria:A Logout sign will be displayedOn Clicking that buttonA Confirmation pop-up will appearAfter clicking on Yes, the User will be successfully Logged Out. |

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| User Story No: 40 | Tasks:2 | Priority: MEDIUM |
| AS A RESTAURANT OWNERI WANT VIW THE REVENUE GENERATED VIA APPSO THAT I CAN GET A SUMMARY ALL THE REVENUE, PROFIT, EXPENSES |
| BV: 50 | CP: 2 |
| Acceptance Criteria:Login pageDisplay Dashboard.Goto section -> FinancesIn that Goto Revenue generated sectionSelect Date range - click on Okay This will Display a List of all the Orders via restaurant for the selected Date range – the count of the orders, its price and the SUM of the Revenue Generated. |

Question 3– What is epic? Write 2 epics – 5 Marks

Answer 🡪

An agile epic is a body of work that can be broken down into specific tasks (called user stories) based on the needs/requests of customers or end-users

Epics are a helpful way to organize your work and to create a hierarchy. The idea is to break work down into shippable pieces so that large projects can get done and you can continue to ship value to your customers on a regular basis. Epics help teams break their work down, while continuing to work towards a bigger goal.
1. Improve Customer Service
 User stories for this epic could include: "Provide live chat as an option and "Respond to emails within 24 hours
2. App should Display Exclusive Deals, Discounts, Offers on the Home Page.

Question 4 –What is the difference between BV and CP

Answer 🡪

In Agile, **business value** refers to the **tangible benefits** and **impact that a project or product delivers to the organization, stakeholders, and customers, measured by factors like customer satisfaction, business impact, and resource efficiency.

How to measure value in Agile:**

* + **Customer/User Satisfaction:** Metrics include sales numbers, growth, and support calls.
	+ **Business Value:** Focus on the final value delivered to stakeholders and customers, ensuring that the delivered value meets customer needs.
	+ **Product Scope:** Consider features, functionalities, and requirements.

Complexity Points often used as "story points" in Agile project management **are measured by considering the effort, resources, and technical challenges associated with implementing a feature** and the **number of hours required to develop it, all related operational costs, the level of risk**, and the impact of bringing developers off different products or even from outside to complete the feature.
are **measured by assigning** a relative value **(like numbers from a Fibonacci sequence)
Planning Poker**

In Agile development, **the Fibonacci sequence (0, 1, 1, 2, 3, 5, 8, 13, 21, etc.)** helps teams **estimate the relative size and complexity of user stories**

Here's a more detailed explanation:

* **Story Points:**

Instead of estimating tasks in hours, Agile teams use story points, which are assigned based on the Fibonacci sequence.

* **Relative Sizing:**

The Fibonacci sequence encourages relative sizing, meaning teams focus on comparing the complexity of tasks rather than pinpointing exact time estimates.

* **Exponential Growth:**

The Fibonacci sequence's exponential growth (each number is about 60% larger than the previous) helps teams avoid over-analyzing smaller tasks and forces them to consider larger, more complex tasks more realistically.

* **Planning Poker:**

Teams often use "Planning Poker," a consensus-based estimation technique, where each member secretly chooses a card with a Fibonacci number representing their estimate, and then reveals them simultaneously.

* **Benefits:**
	+ **Improved Collaboration:** The Fibonacci sequence encourages team members to discuss and reach a consensus on the complexity of tasks.
	+ **Realistic Estimates:** By focusing on relative complexity, teams can create more realistic project plans.
	+ **Reduced Over-Analysis:** The non-linear nature of the Fibonacci sequence discourages excessive detail and helps teams focus on the bigger picture.
	+ **Better Communication:** The Fibonacci sequence provides a shared language for understanding the scope of work.

This demands research into users, their goals, their desired outcomes, and the financial benefits of implementing features.




Question 5 –Explain about Sprint– 5 Marks
Answer 🡪

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| Product Backlog | 1. Product Owner Makes a List 🡪 Scrum Master for Review
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| Sprint Planning  | 1. The Scrum Master
2. Scrum Product Manager
3. Scrum Team Members
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| Sprint Backlog |  |
| Sprint Start |  |
| Daily Scrum Calls (2 Weeks) |  |
| Sprint End  |  |
|  | Sprint Review - Product shown to Product Owner  |
|  | **Delivery of Incremental Product** **🡪 Stakeholders** |
| Sprint Retrospective | 1. The Scrum Master
2. Scrum Product Manager
3. Scrum Team Members
 |
|  | 1. The key takeaways from the sprint.
2. What things went well and what things didn’t?
3. What problems were faced during the sprint?
4. What other possible decisions could've been taken at that point.
5. Analysing the merits and demerits faced during the sprint.
 |
| Product Grooming /Backlog Refinement | 1. The Scrum Master
2. Scrum Product Manager
3. Scrum Team Members
4. Stakeholders
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In the context of Agile and Scrum methodologies, a sprint is a time-boxed iteration where a team works on a specific set of tasks to deliver a potentially shippable product increment, typically lasting one to four weeks.

Here's a more detailed explanation:

* **Time-boxed Iteration:**

Sprints are fixed-duration periods (e.g., 2-4 weeks) during which a team focuses on completing a specific set of work.

* **Agile and Scrum:**

Sprints are a core concept in Agile and Scrum frameworks, which are used to break down large projects into smaller, more manageable chunks.

* **Product Increment:**

The goal of each sprint is to deliver a potentially shippable increment of the product, meaning that the work completed during the sprint should be usable and valuable.

* **Sprint Planning:**

Before a sprint begins, the team, along with the Product Owner and Scrum Master, collaborates to plan the sprint, selecting tasks from the product backlog and determining how they will be completed.

* **Sprint Execution:**

During the sprint, the team works collaboratively to complete the planned tasks, using daily stand-up meetings (also known as daily scrums) to monitor progress and address any issues.

* **Sprint Review:**

At the end of the sprint, the team demonstrates the completed work to stakeholders, gathering feedback and adjusting for future sprints.

* **Sprint Retrospective:**

After the sprint review, the team holds a retrospective to reflect on the sprint, identify areas for improvement, and plan for future sprints.

* **Benefits of Sprints:**
	+ **Improved Project Management:** Sprints help teams manage complex projects by breaking them down into smaller, more manageable pieces.
	+ **Faster Delivery:** By focusing on delivering working software frequently, sprints accelerate the delivery of the product.
	+ **Adaptability to Change:** Sprints allow teams to adapt to changing requirements and feedback more easily, as they can incorporate changes into future sprints.
	+ **Increased Collaboration:** Sprints promote collaboration and communication among team members, as they work together to achieve a common goal.

Question 6 – Explain Product backlog and sprint back log

Answer 🡪
The product backlog is a dynamic, prioritized list of all the features, functions, requirements, enhancements, and fixes necessary for a project. It ensures that the agile team, including those in agile scrum roles, focuses on efficiently delivering the most value to the customer.

In agile methodology, the product backlog helps prioritize and organize project requirements and defines the project scope. Items in the product backlog are ranked based on their importance and urgency, and their organization involves breaking down large and complex projects into manageable tasks to tackle incrementally.

Example of a product backlog

In this example, the items’ positions in the list (from highest to lowest priority) are based on their business value and the urgency of stakeholder requirements.

**High priority (must have)**

These items are critical for the product’s success; teams must address them in upcoming sprints.

**1. User login functionality**:Allows users to log in to the application securely

* **Business value**: Essential for user authentication and personalization
* **Stakeholder**: Product owner

**2. E-commerce platform checkout process**: Helps users purchase items in their cart

* **Business value**: Directly affects revenue generation
* **Stakeholder**: Business development manager

**Medium priority (should have)**

These items improve the product but are less critical than high-priority items.

**1. Product recommendation engine**: Suggests products based on user behaviours and preferences

* **Business value**: Increases average order value through personalized recommendations
* **Stakeholder**: Marketing manager

**2. User profile customization**: Allows users to customize their profile settings

* **Business value**: Improves user satisfaction and engagement
* **Stakeholder**: Community manager

The **Sprint Backlog** is a curated list of items the development team commits to completing during a sprint. Its primary purpose is to break down the selected product backlog items into actionable tasks and provide a clear sprint plan. A sprint is a time-boxed iteration of work, and the items are typically user stories or tasks.

The sprint backlog starts with a **sprint planning meeting**, where the team selects tasks from the product backlog. The team refines and updates the backlog as work progresses. During the daily standup meeting, team members discuss their progress and impediments to their tasks, which helps keep the backlog updated and ensures the team remains on track to achieve the sprint’s objectives.

Example of a sprint backlog

Selected product backlog items for the sprint include the following:

1. **Redesign the checkout page**: Streamline the process and reduce cart abandonment rates.
2. **Implement a product recommendation algorithm**: Personalize product suggestions based on user browsing history.
3. **Optimize mobile responsiveness**: Ensure the e-commerce platform is fully functional on portable appliances.
4. **Bug fix the payment gateway timeout**: Address a critical issue where users experience timeouts during the payment process.
5. **What is Product Grooming?**

In Scrum, product grooming, also known as backlog refinement, is a collaborative process where the product owner, scrum team, and stakeholders **regularly review and refine the product backlog** to ensure **it's clear, prioritized, and ready for upcoming sprints.**

Here's a more detailed explanation:

* **Definition:**

Product grooming (or backlog refinement) is a regular activity in Scrum where the product backlog, a list of all the work items for the product, is reviewed and refined.

* **Purpose:**

The goal is to ensure the backlog is clear, relevant, and ready for upcoming sprints, meaning the items are well-defined, estimated, and prioritized.

* **Who participates:**
 The product owner, scrum team, and sometimes other stakeholders (business analysts or technical experts) participate in grooming sessions.
* **Key Activities:**
	+ **Prioritization:** Reordering items in the backlog based on value and importance.
	+ **Refinement:** Breaking down large user stories into smaller, more manageable tasks.
	+ **Estimation:** Estimating the effort required for each item in the backlog.
	+ **Clarification:** Discussing and clarifying user stories to ensure everyone has a shared understanding.
	+ **Removing Outdated Items:** Removing items that are no longer relevant or needed.
	+ **Adding New Items:** Adding new user stories based on new insights or requirements.
* **Add details**: Add details and acceptance criteria to ensure upcoming stories are well-defined
* **Assign estimates**: Assign or re-assign story points and estimates
* **Identify dependencies**: Identify dependencies and reduce risks related to backlog items.

Product backlog grooming is an ongoing process that can be **done once, twice, or more times per week**.
**Each session should last 1–2 hours**

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

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

Answer 🡪

In Agile software development, the definition of an Agile impediment is anything **that slows down or hinders** the productivity of a team, hence affecting the successful delivery of a product. Impediments are a normal occurrence in an Agile Scrum team and can occur at any time **due to the complexity and dynamics involved** in the product development process.

An impediment occurs in different forms.
1. It could be a **missing resource or a bug** that pops up during development or testing.
 2. Additional Agile impediment examples include **unresolved dependencies, a sick team member, business or customer-related roadblocks**.

Most Agile impediments **delay the progress of the project** at hand. In this case, the Scrum master is responsible for identifying, tracking, and removing impediments. At other times, the team members can also play a part in identifying impediments.

Question 8 – Explain Velocity of the Team – 1 Marks
Velocity – How many CP is covered in this sprint

Answer 🡪

Velocity is a measure of the amount of work a Team can tackle during a single Sprint and is the key metric in Scrum. Velocity is calculated at the end of the Sprint by totalling the Points for all fully completed User Stories.
To calculate the number of story points (CP) covered in a sprint, you can use the sprint velocity formula:

* **Sprint velocity**: Divide the total number of story points completed by the total length of the sprint in days.

Here are some steps you can take to calculate sprint velocity:

1. **Plan the sprint**: Assign points to each user story in the product backlog.
2. **List completed user stories**: Create a list of all the user stories that have been completed and approved.
3. **Check story points**: Make sure the story points assigned to each completed user story are correct.
4. **Sum points**: Add up the story points for all the completed user stories.

To get a more reliable measure of velocity for future sprints, you can calculate the average velocity over multiple sprints. This is helpful for new teams or teams that have changed in size or structure.  This information can help you assign the right people to the right tasks and ensure you have the resources you need.

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

Answer 🡪
SPRINT BURN DOWN CHART: -


PRODUCT BURN DOWN CHART -



Question 10 – Explain about Product Grooming – 2 Marks

Answer 🡪

Product backlog grooming, also known as product backlog refinement or backlog management, is a regular process that helps ensure a product backlog is up-to-date and ready for sprints. It involves reviewing and prioritizing backlog items and making sure they are ready to be committed to a sprint.

Question 11 – Explain the roles of Scrum Master and Product Owner – 3 Marks

Answer 🡪

* **Scrum Master**

The Scrum Master's role is to ensure the Scrum team follows Scrum principles and operates effectively. They facilitate the Scrum process, plan and lead meetings, and help the team overcome obstacles. The Scrum Master also helps the team self-organize, focus on outcomes, and manage blockers.
Scrum Master tasks is Creating and Onboarding Team, Facilitates communication between cross functional teams, information exchange between external groups and the project team.

* **Product Owner**

The Product Owner's role is to ensure the Scrum team aligns with the product's overall goals. They manage the product backlog, prioritize work, and represent the interests of stakeholders. The Product Owner also works closely with the development team to ensure the product meets customer needs.

Here are some other responsibilities of the Product Owner:

* **Defining acceptance criteria**: The Product Owner defines the criteria for what is considered "done" for product features.
* **Conducting market and user research**: The Product Owner incorporates market research and user testing feedback into the product development.
* **Planning sprints**: The Product Owner plays a key role in planning sprints or iterations.

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

Answer 🡪
 Scrum teams hold five types of meetings during the development of a product:

**Sprint planning**

The first meeting of a sprint, where the team reviews the backlog, sets goals, and plans work
During the meeting, the team should:

* Set a sprint goal consisting of a plan summary for the next sprint.
* Review a sprint product backlog that supports the set sprint goal and reviews the estimates.

The main advantage of sprint planning is that it gives teams the opportunity to start a new sprint with a better understanding of what tasks they will be handling for that sprint and the initial approach strategy.

**Daily Scrum**

A short meeting held daily to share progress, identify blockers, and plan work for the day
 The goal of these meetings is to briefly discuss task statuses and ensure the goals of the Scrum team and the product owner stay aligned. The Scrum Master often facilitates the daily stand-up meetings by asking three significant questions:

* What tasks did you manage yesterday?
* What jobs are you handling today?
* What hindrances are affecting your work?

Ideally, daily Scrums are planning meetings with brief, focused agendas. They should turn into an overview of each thing members plan to do, or listing off appointments and meetings. Recurring daily Scrum meetings give teams clear ways to align around what happens in the company, remove blockers, and plan daily work properly.

**Sprint review**

Held at the end of a sprint, where the team demonstrates the work completed and gathers feedback
A Sprint review should cover the following topics:

* Product demo - To exhibit accomplished tasks
* User stories - To confirm complete stories and discuss how to handle incomplete ones
* Product backlog– To assess and adjust the product backlog

The agenda can typically include other items such as housekeeping notes and a list of attendees.

**Sprint retrospective**

Held at the end of a sprint, where the team reviews what worked and didn't work, and how to improve in the future
During sprint retrospective meetings, the team reviews:

* What work was done well during the sprint
* Which projects didn't go as planned
* What should be improved for the next sprint

**Backlog refinement**

A meeting where the team prioritizes backlog items based on technical discussions about deliverables and their requirements
The purpose of the backlog refinement includes:

* Prioritizing backlog items
* Aligning backlog items with KPIs or OKRs
* Ensuring appropriate sizing of backlog items
* Adding more detail to backlog items

A well-refined agile backlog helps teams understand the difference between deliverables and requirements and makes sprint planning much easier since items are already well-defined and ready for building. The goal is to keep the running list as up-to-date and accurate as possible, along with clear details for the team.

Scrum meetings are a key component of the Scrum process, which is an agile framework that helps teams produce products faster by breaking large projects into smaller pieces. Each meeting serves a specific purpose and should be held at specific points during development

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

Answer 🡪

**Sprint size** is the length of a fixed-length development cycle in Scrum, while Scrum size is the number of people on a Scrum team **Scrum size**
A Scrum team is typically made up of 3–9 people. The ideal size depends on the project's size:

* **Small projects**: Usually have a Scrum team of 4 people, including a product owner, scrum master, and 2 developers
* **Large projects**: Usually have a Scrum team of 7 people, including a product owner, scrum master, and 5 developers
* **If the Scrum team is larger than 10 people**: It should be split into two connected teams

Question 14 – Explain DOR and DOD

Answer 🡪

DoR stands for Definition of Ready and DoD stands for Definition of Done:

* DoR

A checklist that determines if a task or user story is ready for a team to work on. DoR is used to ensure that product backlog items (PBIs) are well-understood and prepared before the team starts working on them.

* DoD

A checklist that determines when a task or user story is complete and ready to be accepted by users, consumers, or teams. DoD is used to ensure that a product meets quality standards and is ready to be released.

DoR is an optional tool that can help a scrum team identify when a PBI is ready to work on. DoD is part of scrum and is a crucial touchstone at the end of a sprint.

Some factors to consider when deriving DoR include: The nature of the project, The organization's coding standards, The business and functional requirements, Quality, and Non-functional requirements

Question 15 – Explain Prioritization Techniques and MVP

Answer 🡪

Minimum Viable Product or MVP is a development technique in which a new product is introduced in the market with basic features, but enough to get the attention of the consumers. The final product is released in the market only after getting sufficient feedback from the product's initial users.

**Description:**Minimum Viable Product or MVP is the most basic version of the product which the company wants to launch in the market. It could be a car, website, TV, or a laptop. By introducing the basic version to the consumers, companies want to gauge the response from prospective consumers or buyers.

This technique helps them in making the final product much better. With the help of MVP concept, the research or the marketing team will come to know where the product is lacking and or what are its strengths or weaknesses.

* **Prioritization techniques:**
The simple definition is that these techniques help you make better decisions about the order in which you should tackle things on your to-do list or your backlog.
Using a prioritization technique allows you to organize and rank activities or tasks systematically. And that order is based on their level of importance, urgency, or other relevant factors.
**1. MoSCoW**  An acronym for four prioritization categories that helps stakeholders understand the relative importance of each requirement
Must-have items are essential for the success of the product or project. There’s no debate (well, there might be, but …).
* Should-have items are also important but not critical to achieving success.
* Could-have items are nice-to-have elements but are also not essential for success.
* Won’t-have items are those that can and should be excluded and won’t jeopardize success.

 **2. Priority Poker** A prioritization model in agile product development that is derived from the game of cards
A planning poker session generally starts with meeting all the required stakeholders, including product owners, product managers, developers, UX designers, etc. Before starting this game, the team should agree on the numbering scheme used for the poker cards. In general, the product owner distributes the cards and reads out a user story in the backlog describing the specific software feature and how it provides value to the customer. Then the team reaches a consensus based on effort estimation by each team member.

**3.** **Value vs. effort**

* The value measures how the feature or task can benefit your product or business.
* The effort estimates the resources needed to complete the task or develop the feature.

If we keep it simple and rank each of these as low, medium, or high, assigning 1, 2, or 3 points to each categorization, we get a score for each feature or task. Plotting that score on the matrix will fall into one of the four quadrants: Quick Wins, Big Bets, Maybes, and Time Sinks.

1. **100 dollars test**This prioritization technique is best suited to use in a group setting, virtual or in-person. It involves each group member allocating dollars to indicate the relative importance of each task or feature to them.

The way it works is that each member of the team or group is given $100 of virtual money and a list of tasks or features. Each person splits their $100 across every item on the list, with the highest amount going to what they see as the most valuable feature or task.

By adding all the allocations together, the team leader should get a clear idea of the order in which the team thinks items should be prioritized.

Question 16 – Difference between Business Analyst n Product Owner

Answer 🡪

A business analyst (BA) and a product owner (PO) have different responsibilities and areas of expertise, even though they both play an important role in product development. Here are some of the main differences between the two roles:

* Focus:

A BA focuses on the technical aspects of product development, while a PO focuses on the business side and customer-related aspects.

* Decision-making:

A PO is often a decision-maker who determines the product's direction, while a BA focuses on analysis and recommendations.

* Relationship:

A PO focuses on users, while a BA has a closer relationship with stakeholders.

* Responsibilities:

A BA's responsibilities include evaluating business processes, identifying areas for improvement, and recommending organizational changes. A PO's responsibilities include managing the product backlog, translating product managers' strategies into development tasks, and learning about the market and customers' needs.

Both roles are essential for successful product development, effective communication, problem-solving, and client satisfaction.

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

Answer 🡪
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**SUMMARY**

Results Driven Business Analyst with 3 years of experience optimizing systems, automating workflows, and enhancing efficiency. Skilled in stakeholder management, client-driven solutions, and process improvement. Proven track record in increasing productivity, stability, and accuracy through data analysis and cross-functional collaboration.

**TECHNICAL SKILLS**

Business Requirements Document | Business Process Model and Notation| Data Analysis | SQL | MS-Excel |Tableau| Power BI | JIRA | Confluence| MS Visio | Agile Methodology | Balsamiq

**PROFESSIONAL EXPERIENCE**

Globe Flex Research India Pvt Ltd **June 2021 – Present** Jr. Business Analyst *Pune, India*

* Led a comprehensive analysis of the Research App, identifying **over 50 systemic errors** and improving application **stability by 25%.** Prioritized user feedback from 30+ users, increasing satisfaction **and aligning features with business goals.**
* Automated key workflows for research analysts, including blogs and earnings release trackers, resulting in a **10% reduction in TAT**. Streamlined processes to boost overall **team productivity and efficiency**.
* Facilitated cross-functional workshops with stakeholders to elicit business needs and define product requirements. Created a product roadmap to address pain points, **improving workflow efficiency by 10%.**
* Integrated historical and forecast commodity price data into the Research App, **enhancing user experience and data usability**. This resulted in a 2-hour reduction in manual work, contributing to higher data accuracy.
* Consolidated raw data into a unified format for seamless integration within the product, facilitating business analysis and **supporting informed decision-making**.
* Collaborated closely with development teams, designers, and stakeholders to align business requirements with the **product vision**. Created use cases and process models to ensure seamless execution of **product strategy.**
* Owned the end-to-end testing process for **system enhancements**, overseeing UAT and **ensuring on-time product launches** with a **100% user satisfaction rate** during rollout.
* Developed an Excel-based financial model using FactSet, enhancing the product's financial reporting capabilities by deriving a wider range of ratios across sectors.
* Utilized RDBMS and data analysis techniques to identify quarterly trends and reduce forecasting errors by 25%, improving the **accuracy of product financial projections**.
* Coordinated with global leads to design **UI mock-ups and business workflows using Visio**. Maintained database consistency and quality through continuous updates, ensuring alignment with the **product's technical strategy.**
* Delivered quality checks across sectors, providing actionable insights to global leads and **improving communication channels for product decision-making**.

**CERTIFICATIONS:**

* Power BI, Tableau - (public.tableau.com/app/profile/parimal.waghmare/vizzes)

**EDUCATION:**

* MBA – Finance | Indira Global Business School, Pune
* BE – Computer Science & Engineering | Sipna COET Amravati
 Parimal Sanjay Waghmare