**Capstone Project – 2**

**Question 1:** write Agile Manifesto  
  
**Solution:** Agile is a light weight and can be implemented where faster delivery is required. This model does not require any documentation. As the documentation is not required the code itself forms a documentation.   
  
**Agile Manifesto:** Agile manifesto has 4 main values and 12 principles as follows:

**Four Main Values:**1. **Individuals and interactions over process and tools**:   
 > Agile prioritizes people (team members & stakeholders because effective communication and collaboration leads to better results)   
  
**2.** **Working software over comprehensive documentation**:  
 > While documentation is important, agile focuses on delivering functional software as the primary measures of the progress than expensive paperwork.  
  
**3. Customer collaboration over contract negotiation:  
 >** Agile encourages continuous collaboration with the customers and stakeholders to ensure that the product meets real time requirements.   
  
**4. Responding to change over following a plan:  
 >** Agile embraces change a natural part of the process, allowing teams to adjust priorities and improve based on feedback rather than adhering to the fixed plan.   
  
**Twelve Principles of Agile Software:**1. Satisfy the customer through early and continuous delivery of valuable software.   
  
2. Welcome changing requirements, even late in the development. Agile processes harness change for the customer’s competitive advantage.   
  
3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.

4. Business people and developers must work together daily throughout the project.

5. Build projects around motivated individuals, give them the environment and support they need and trust them to get the job done.

6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.

7. Working software is the primary measure of progress.

8. Agile processes promote sustainable development. The sponsors, developers and users should be able to maintain a constant pace indefinitely.   
  
9. Continuous attention to technical excellence and good design enhances agility.

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

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

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

**Question 2:** Write minimum 40 User stories and their Acceptance Criteria along with their BV and CP.  
  
**Solution:** User stories are a concise description of a user’s need for a product. A user story is an informal, general explanation of a software feature written from the perspective of an end user.  
  
**User Story 1: Tasks: 2 Priority: High**  
AS A DELIVERY BOY

I WANT TO REGISTER IN SCRUM FOODS

SO THAT I CAN DELIVER ORDERS

BV: 500 CP: 02

ACCEPTANCE CRITERIA  
  
Registration Screen  
Text boxes for user name, password, nation ID, mobile no, email, address, phone number  
Click on Register button  
Send successful Notification to the user

|  |  |  |
| --- | --- | --- |
| **User Story: 2** | **Tasks:2** | **Priority: High** |
| AS A RESTAURANT OWNER I WANT TO VIEW ORDERS SO THAT I CAN VIEW THE LIST OF ORDERS |  | |
| BV: 500 | CP: 2 | |
| ACCEPTANCE CRITERIA | | |
| View Orders, Display List of orders in the tabular form | | |
|  |

**User Story: 3 Tasks: 2 Priority: High**  
BV: 480 CP:03  
AS A CUSTOMER   
I WANT TO REGISTER IN SCRUM FOODS  
SO THAT I CAN PLACE ORDERS  
  
ACCEPTANCE CRITERIA  
> Registration Page  
> Text boxes for username, password, Email, Mobile No, Address  
> Sign-up Button  
> Confirmation / verification email sent.  
  
**User Story: 4 Tasks: 3 Priority: High**  
BV: 460 CP: 03  
AS A CUSTOMER  
I WANT TO BROWSE RESTAURANTS   
SO THAT I CAN CHOOSE MY FAVOURITE RESTAURANT  
  
ACCEPTANCE CRITERIA  
> Display All restaurants nearby  
> Search and filter option  
> Display selected restaurant and details  
  
**User story: 5 Tasks: 3 priority: High**BV: 460 CP: 03  
AS A CUSTOMER  
I WANT TO BROWSE FOOD MENUS   
SO THAT I CAN ORDER MY FAVOURITE ITEM  
  
ACCEPTANCE CRITERIA  
> Display categorised menu items  
> Search and Filter options  
> Display item details with price and availability  
  
**User story: 6 Tasks:3 Priority: High**BV: 450 CP: 03  
AS A CUSTOMER  
I WANT TO ADD ITEMS TO CART   
SO THAT I CAN RE-VIEW ITEMS AND CHECKOUT  
  
ACCEPTANCE CRITERIA  
> Add items to cart button available  
> View cart option  
> Proceed to checkout option  
 **User Story: 7 Tasks: 1 Priority: High**  
BV: 460 CP: 03  
AS A CUSTOMER  
I WANT EDIT OPTION IN CART  
SO THAT I CAN EDIT QUANTITY OR REMOVE ITEMS  
  
ACCEPTANCE CRITERIA  
> Update quantity or remove items option  
  
**User Story: 8 Tasks:3 Priority: High**BV: 500 CP: 04  
AS A CUSTOMER  
I WANT TO CHANGE OR EDIT ADDRESSES  
SO THAT I CAN PLACE ORDER TO ANYPLACE  
  
ACCEPTANCE CRITERIA  
> Select address or add new address option  
> Save address button  
> Deliver to this address option  
  
**User Story: 9 Tasks: 3 Priority: High**BV: 500 CP: 04  
AS A CUSTOMER   
I WANT TO PLACE AN ORDER  
SO THAT I CAN RECEIVE FOOD AT MY PLACE  
  
ACCEPTANCE CRITERIA  
> Select Delivery Address  
> Pay for the order  
> Confirm order and receive confirmation  
  
**User Story: 10 Tasks: 3 Priority: High**BV: 500 CP: 03  
AS A CUSTOMER  
I WANT TO HAVE DIFFERENT PAYMENT METHODS  
SO THAT I CAN CHOOSE THE METHOD TO PAY  
  
ACCEPTANCE CRITERIA  
> Different payment method options  
> Proceed to pay  
> Payment confirmation

**User Story: 11 Tasks: 3 Priority: High**BV: 480 CP: 03  
AS A CUSTOMER  
I WANT TO TRACK MY ORDER  
SO THAT I KNOW THE ORDER STATUS AND LOCATION  
  
ACCEPTANCE CRITERIA  
> Live tracking system with estimated delivery time  
> Notifications for order status updates  
> Contact option for delivery agent  
  
**User Story: 12 Tasks: 3 Priority: High**BV: 400 CP: 02  
AS A CUSTOMER  
I WAN TO CANCEL MY ORDER   
SO THAT I CAN AVOID UNNECESSARY PURCHASE  
  
ACCEPTANCE CRITERIA  
> Cancel order option  
> Refund policy and confirmation  
> Cancellation confirmation   
  
**User story: 13 Tasks: 3 Priority: Medium**BV: 400 CP: 03  
AS A CUSTOMER  
I WANT TO RATE AND REVIEW MY ORDERS  
SO THAT I CAN SHARE MY EXPERIENCE

ACCEPTANCE CRITERIA  
> Rating system (1 – 5 stars)  
> Write your review option  
> Submit button and confirmation popup  
  
**User Story: 14 Tasks: 3 Priority: High**BV: 500 CP: 04  
AS A RESTAURANT OWNER  
I WANT TO REGISTER MY RESTAURANT  
SO THAT I CAN RECEIVE ORDERS FROM CUSTOMER  
  
ACCEPTANCE CRITERIA  
> Registration page with text boxes for the details  
> Upload menu items and price  
> Approval notification after verification  
  
**User Story: 15 Tasks: 3 Priority: High**BV: 480 CP: 03  
AS A RESTAURANT OWNER  
I WANT TO RECEIVE ORDER NOTIFICATION  
SO THAT I CAN PREPARE FOOD TO CUSTOMERS  
  
ACCEPTANCE CRITERIA  
> Instant notification when an order is placed  
> Display order details with delivery time  
> Option to accept or reject order  
  
**User Story: 16 Tasks: 2 Priority: High**BV: 460 Cp: 03  
AS A RESTAURANT OWNER  
I WANT TO GIVE AN OPTION AS COOKING INSTRUCTIONS  
SO THAT CUSTOMERS CAN LEAVE COMMENT FOR FOOD  
  
ACCEPTANCE CRITERIA  
> Write cooking instructions text box  
> call or leave message to restaurant option  
  
**User Story: 17 Tasks: 3 Priority: High**BV: 470 CP: 03  
AS A DELIVERY AGENT  
I WANT TO ACCEPT DELIVERY REQUESTS  
SO THAT I CAN PICKUP AND DELIVER THE FOOD  
  
ACCEPTANCE CRITERIA  
> Order request notification  
> Accept or reject option  
> Display customer details and delivery address  
  
**User Story: 18 Tasks: 3 Priority: Medium**BV: 400 CP: 02  
AS A CUSTOMER  
I WANT TO SAVE MY FAVOURITE RESTAURANTS  
SO THAT I CAN ACCESS THEM QUICKLY  
  
ACCEPTANCE CRITERIA  
> Favourite button right beside restaurant name  
> View and manage favourite list  
> Quick access to favourite restaurants from profile  
  
**User Story: 19 Tasks: 3 Priority: High**BV: 450 CP: 03  
AS A CUSTOMER   
I WANT TO SCHEDULE AN ORDER  
SO THAT I CAN GET FOOD DELIVERED AT A SPECIFIC TIME

ACCEPTANCE CRITERIA

> Option to choose delivery date and time.  
> Order placed in scheduled orders list.  
> Notification before scheduled delivery.  
  
**User Story: 20 Tasks: 3 Priority: High**BV: 460 CP: 03  
AS A CUSTOMER  
I WNA TO VIEW ORDER HISTORY  
SO THAT I CAN REORDER MY FAVOURITE ITEMS EASILY  
  
ACCEPTANCE CRITERIA  
> Order history tab / page  
> Reorder button from previous orders  
> Detailed view of past orders  
  
**User Story: 21 Tasks: 03 Priority: Medium**BV: 420 CP: 02  
AS A RESTAURANT OWNER  
| WANT TO UPDATE MY MENU IN REAL-TIME  
SO THAT CUSTOMERS SEE ACCURATE INFORMATION  
  
ACCEPTANCE CRITERIA  
> Menu Management option  
> Add, edit or remove items  
> update availability status for items in the menu  
  
**User Story: 22 Tasks: 3 Priority: High**BV: 430 CP: 02  
AS A DELIVERY BOY  
I WANT TO SEE MY EARNINGS SUMMARY  
SO THAT I CAN TRACK MY INCOME  
  
ACCEPTANCE CRITERIA  
> Earnings dashboard  
> Breakdown of completed deliveries and earning  
> Export option for complete income reports  
  
**User Story: 23 Tasks: 3 Priority: High**BV: 470 CP: 03  
AS A CUSTOMER  
I WANT TO PAY USING WALLET BALANCE  
SO THAT I CAN MAKE QUICK PAYMENTS  
  
ACCEPTANCE CRITERIA  
> Add money to wallet option  
> Pay using wallet balance  
> View transaction history|  
  
**User Story: 24 Tasks: 3 Priority: High**BV: 480 CP: 03  
AS A CUSTOMER  
I WANT TO GET REFUNDS TO MY WALLET  
SO THAT I CAN USE IT FOR FUTURE ORDERS  
  
ACCEPTANCE CRITERIA  
> Refund credited to wallet for cancelled orders  
> Waller balance updates instantly  
> Notification for successful refund  
  
**User Story: 25 Tasks: 3 Priority: High**BV: 460 CP: 03  
AS A RESTAURANT OWNER  
I WANT TO VIEW SALES REPORTS   
SO THAT I CAN ANALYSE MY BUSINESS PERFORMANCE  
  
ACCEPTANCE CRITERIA:  
> Generate sales reports  
> View daily, weekly and monthly sales  
> Export report option for complete detailed information  
  
**User Story: 26 Tasks: 4 Priority: High**BV: 500 CP: 03  
AS AN ADMIN  
I WANT TO VIEW THE RESTAURANTS  
SO THAT I CAN APPVOVE / REJECT THEIR REGISTRATION  
  
ACCEPTANCE CRITERIA  
> List of restaurants registered  
> Select Restaurant to verify the details  
> Approve or Reject button  
> Notification sent to the restaurant  
  
**User Story: 27 Tasks: 2 Priority: Low**BV: 50 CP: 01  
AS A CUSTOMER  
I WANT TO VIEW THE PRICE OF AN ITEM  
SO THAT I CAN ORDER THE FOOD  
  
ACCEPTANCE CRITERIA  
> Display price in the list of menu items  
  
**User Story: 28 Tasks: 4 Priority: Medium**BV: 100 CP: 02  
AS A RESTAURANT OWNER  
I WANT TO PROVIDE RESTAURANT TIMINGS  
SO THAT CUSTOMERS CAN CHECK OPENING AND CLOSING HOURS  
  
ACCEPTANCE CRITERIA  
> Restaurant dashboard  
> Add Opening and Closing Timings  
> Submit button  
> Updated successfully popup  
  
**User Story: 29 Tasks: 3 Priority: High**BV: 200 CP: 03  
AS A REGIONAL ADMIN  
I WANT TO MANAGE REGIONAL RESTAURANTS  
SO THAT I CAN TRACK THE PERFORMANCE OF REGIONAL RESTAURANTS  
  
ACCEPTANCE CRITERIA  
> Click on performance of restaurants  
> Select From Data and To Date  
> Click on generate report  
> Export report option for detailed view  
  
**User Story: 30 Tasks: 2 Priority: High**BV: 100 CP: 02  
AS ADMIN  
I WANT TO SEE THE REGIONAL REVENUE REPORTS  
SO THAT I CAN VIEW THE REGIONAL PERFORMANCE  
  
ACCEPTANCE CRITERIA  
> Select regional dropdown  
> View performance of each restaurant   
> Export report option   
  
**User Story: 31 Tasks: 2 Priority: High**BV: 200 CP: 02  
AS A CUSTOMER  
I WANT TO CHAT TO REGIONAL ADMIN  
SO THAT I CAN REQUEST FOR REFUND

ACCEPTANCE CRITERIA  
> BR- All mandatory  
> Text box fields  
> Display Order ID  
> Text box for description  
> Submit button  
> Generate issue ID  
> Display Successful  
  
**User Story: 32 Tasks: 2 Priority: Medium**BV: 400 CV: 03  
AS A DELIVERY AGENT  
I WANT TO HAVE AN OPTIMISED ROUTE SUGGESTION FOR MULTIPLE DELIVERIES  
SO THAT I CAN COMPLETE MY ORDERS FASTER  
  
ACCEPTANCE CRITERIA  
> Faster route suggestion option  
  
**User Story: 33 Tasks: 2 Priority: Medium**BV: 480 CP: 03  
AS A CUSTOMER   
I WANT PERSONALIZED RECOMMENDATIONS ON PREVIOUS ORDERS  
SO THAT IT BECOMES EAY FOR ME TO ORDER  
  
ACCEPTANCE CRITERIA  
> The system should suggest food items based on past orders  
> Recommendations should prioritize frequently ordered items and restaurants  
  
**User Story: 34 Tasks: 3 Priority: High**BV: 500 CP: 04  
AS AN ADMIN  
I WANT TO MONITOR AND MANAGE ONGOING DELIVERIES IN REALTIME  
SO THAT I CAN ENSURE SMOOTH OPERATION  
  
ACCEPTANCE CRITERIA  
> Admin should see all active, completed and pending deliveries in real-time.  
> Admin should be able to assign / reassign orders to delivery partners.  
> The system should flag delayed deliveries for admin intervention  
  
**User Story: 35 Tasks: 3 Priority: High**BV: 480 CP: 03  
AS A CUSTOMER  
I WANT TO BE ABLE TO REQUEST CONTACTLESS DELIVERY  
SO THAT I CAN RECEIVE MY FOOD WITHOUT DIRECT INTERACTION  
  
ACCEPTANCE CRITERIA  
> Customer should have an option to select “Contactless Delivery” at checkout  
> Delivery partners should receive notification to leave the order at the door  
> User should be notified when the food has been dropped off.  
  
**User Story: 36 Tasks: 3 Priority: High**BV: 400 CP: 02  
AS A CUSTOMER   
I WANT TO HAVE A SECURE AND SEAMLESS PAYMENT PROCESS  
SO THAT I CAN PAY CONVIENTLY  
  
ACCEPTANCE CRITERIA  
> User should be processed securely using encrypted protocols.  
> User should receive instant confirmation via SMS / Email  
> The system should handle  
  
**User Story: 37    Tasks: 3    Priority: High**

BV: 390    CP: 03  
AS A CUSTOMER  
I WANT TO BE ABLE TO CHAT WITH THE DELIVERY PARTNER  
SO THAT I CAN GIVE SPECIFIC DELIVERY INSTRUCTIONS IF NEEDED

ACCEPTANCE CRITERIA

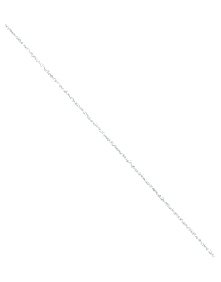
> Users should have a chat option available once the order is out for delivery.  
> The chat should be accessible via the order tracking page.  
> Delivery partners should receive real-time notifications for new messages.  
  
**User Story: 38 Tasks: 4 Priority: High**BV: 420 CP: 04  
AS A CUSTOMER   
I WANT TO REFER FRIENDS  
SO THAT I CAN EARN REWARDS AND SAVE MONEY ON MY ORDERS  
  
ACCEPTANCE CRITERIA  
> User should receive unique referral code / link to share with friends.  
> The referral reward should only be applied when the referred user places the order  
> User should be able to track the referral status  
> The system should prevent the referral fraud  
  
**User Story: 39 Taks: 3 Priority: Medium**BV: 360 CP: 03  
AS A CUSTOMER  
I WANT TO RECEIVE CUSTOMER PROMOTIONS BASED ON MY ORDER HISTORY  
SO THAT I CAN GET DISCOUNTS ON MY ORDERS  
  
ACCEPTANCE CRITERIA  
> The system should analyse order history to generate personalized offers  
> Offers should be visible on the homepage, checkout page and via push notifications  
> User should be able to apply the discount directly during the checkout  
  
**User Story: 40 Tasks: 4 Priority: High**BV: 500 CP: 04  
AS A CUSTOMER  
I WANT TO BE ABLE TO CUSTOMIZE MY ORDERS  
SO THAT I CAN ORDER FOOD ACCORDING TO MY PREFERENCES  
  
ACCEPTANCE CRITERIA  
> Restaurants should have an option enable mean customisation  
> User should be able to use customise option to edit the order  
> The additional cost should be able to clearly displayed before checkout page  
> Customization request should be notified to the restaurant instantly.  
  
**QUESTION 3:** What is epic? Write 2 epics  
  
**Solution:** An Epic is a set of related user stories. They are also considered as a really big user story.   
  
**EPIC 1: Secure & Seamless Payment Process**BV: 1500 CP: 12 Priority: High

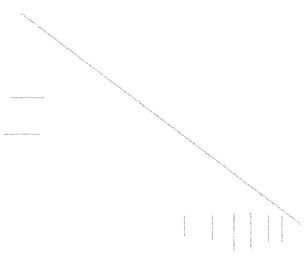
AS A CUSTOMER  
I WANT TO HAVE SAFE, FAST AND SEAMLESS PAYMENT PROCESS  
SO THAT I CAN PAY WITHOUT ANY ISSUES

**Big User Stories:  
1. Secure Payment Processing:** Ensure encrypted and OTP based transactions  
**2. Multiple Payment Methods:** User should have multiple payment option to choose from like UPI, COD, Card, Wallet, etc.  
**3.** **Instant Payment Confirmation:** User should get instant payment confirmation via SMS / Email.   
**4. Saved Payment Method:** Enables user to securely store the card information for quick payments.   
**5. Refund & Payment Failures:** Automatically retries failed transactions or process refunds.   
**6. Split Payment methods:** User can pay combining multiple payment methods for a single order.   
  
**ACCEPTANCE CRITERIA**  
> All payments should be processed using secure encryption protocols  
> Users should receive instant confirmation via SMS/email after a successful payment  
> Refunds should be automatically triggered for failed transactions.  
> Saved cards should require authentication before use  
> Split payments should allow users to combine two or more methods seamlessly  
  
  
**Epic 2: Contactless Delivery Handling**BV: 1400 CP: 13 Priority: High  
AS A CUSTOMER  
I WANT TO HAVE A CONTACTLESS DELIVERY OPTION  
SO THAT I CAN RECEIVE MY ORDER WITHOUT DIRECT CONTACT WITH DELIVERY AGENT  
  
**Big User Stories:  
1. Contactless Delivery selection:** Allows customer to select “Contactless Delivery” option.  
**2. Delivery Partner Notification:** Informs the delivery partner to leave the order at door as requested.   
**3. Photo Confirmation:** Delivery Partner requires to upload the photo proof for the correct delivery.  
**4. Customer Notification:** Sends notification to customer instantly once the delivery partner update as delivered  
**5. Safe Payment:** Ensures all contactless payment, prepaid orders  
**6. Delivery Partner Safety Guidelines:** Provides clear instructions to the delivery partner regarding contactless delivery.   
  
**ACCEPTANCE CRITERIA  
>** Users should have an option to select "Contactless Delivery" during checkout  
> Delivery partners should receive clear instructions for a contactless drop-off.  
> Customers should get a real-time notification with a photo confirmation when their order is delivered> Cash on delivery should be disabled for contactless orders to ensure minimal interaction  
  
**Question 4:** What is the difference between BV and CP  
  
**Solution:**   
**Business Value:** Business Value is not the cost of development or the complexity of the feature. Business Value is how important is the feature (user story) to the business. This is estimated by Scrum currency notes. We provide Rs. 1000, 500, 200, 100, 50, 20 & 10 denomination. These estimations are done by stakeholders (clients). If different values are selected by the stakeholders, then discussion will happen and they agree upon one business value to that user story.   
  
**Complexity Points:** Complexity Points is also known as Story Points. It 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. CP is estimated by the Scrum Developers by using poker cards. We provide pokers with values, “?”,1,2,3,4,5,8,13,20,40,100 and BIG. If the entire project development takes 200 points, then this user story coding effort will be .. how many points? … Thinking in this way, scrum developers will give CP to the user story. If different values are selected by the scrum developers, then discussion will happen and they agree to one CP value to that user story.   
  
**Question 5:** Explain about Sprint  
**Solution:  
SPRINT:** Sprint is the period that team decides to deliver their objective. Normally a sprint period will be for 2 weeks but may extend to 4 weeks. The goal of a sprint is to deliver a working increment of a product that adds value to the user.   
  
**Sprint Duration:   
>** Sprint duration will be for 2 weeks.  
> It may extend to 4 weeks in certain scenarios  
> The duration remains consistent across all sprint for predictability.   
  
**SCRUM:** Scrum is a subunit of sprint. This can be implemented either at the beginning of the project or when you sense that the project is falling behind the schedule. This model exercises full admin power.   
**TASK:** Task is the unit of work done by 1 developer in 1 scrum.   
**Sprint Backlog:** Sprint backlog is list of tasks, user stories, and work items from the product backlog that the development team commits to completing during a Sprint. It represents the scope of work for the Sprint and provides a clear roadmap for achieving the sprint goal.

|  |  |  |  |
| --- | --- | --- | --- |
| PBI | Task | WIP | Done |
|  |  |  |  |

**Question 6:** Explain Product backlog and sprint back log.  
**Solution:   
Product Backlog:** A product backlog is a prioritized list of all features, enhancements, bug fixes and tasks need to improve a product. It serves as the single source of work for the development team.

**Key Features:**1. Contains all user stories, features and tasks required for the product  
2. Items are prioritized based on the business value, urgency and dependencies.  
3. It is living document and emerges as new requirement emerge.   
4. The product owner is responsible for maintaining and refining the backlog.   
  
**Example:**1. As a customer I want to browse restaurants  
2. As a delivery boy I want to register to scrum foods so that I can deliver orders.  
  
**Sprint Backlog:** The Sprint backlog is a subset of product backlog that includes the specific tasks and user stories, the scrum teams commit the completing a single sprint. It is owned by the development team.   
  
**Key Features:**1. Contains only the selected items from the product backlog for the current sprint  
2. Includes the tasks need to be completed each backlog item  
3. It is fixed during the spring, meaning new items should not be added unless absolutely necessary.   
4. The team updates the progress daily during the daily scrum.   
  
**Example:**1. Implementation of user login and registration  
2. Designing restaurant listing page  
  
**Question 7:** What is impediments log? write 2 impediments  
**Solution:** An impediment log is an obstacle or a blocker that prevent the scrum team from progressing efficiently. These impediments can be technical issues, process inefficiencies, resources shortage, or any external dependencies. The scrum team is responsible   
  
**Example:**1. Technical Issues like API integration Failure  
2. Login Page Failure  
3. Delayed API response  
4. Resource constraints like lack of test devices etc.,  
  
> All the challenges faced by the team will be logged in to impediment log  
  
**Question 8:** Explain Velocity of the Team  
**Solution:** Velocity is the team at which the team complete the work within the timeframe. Also, known as how many complexity points covered during the current sprint.  
> It predicts how much work can team handle in the future sprints.   
> Velocity helps in sprint planning  
> Predicts project completion time  
> Improves workload estimation  
> Velocity is typically measured in Complexity points and can be calculated as mentioned below:   
 **Velocity = Total Complexity points completed in a sprint  
  
Question 9:** Draw Sprint Burn Charts and Product Burn Down Charts  
**Solution:   
Sprint Burndown:** Sprint burndown tracks progress within a single sprint. Shows the remaining work for the current sprint.   
> Helps team see if they are on track to complete the sprint goals.   
> This will be updated daily during the sprint meeting.   
  
**Product Burndown:** Product burndown tracks the progress for the complete or overall project. This shows the total remaining work for the entire product backlog.   
> Helps to predict when the project will be completed  
> This will be used for long-term project.   
  
**Charts:**  
  
**** 20 Sprint Burndown ChartComplexity  
points -->  
  
 10  
  
 Week 1 Week 2   
 Time --->

   
 Product Burndown Chart  
  
Complexity   
Points--- >  
  
  
  
 Sprint   
 1 2 3 4 5 6 7 8 9 10 11 12 13 14   
 Time---- > Sprints   
  
**Question 10:** Explain about Product Grooming  
**Solution:** Product Grooming is a continuous process where the product owner and the scrum team review, refine and prioritize the product backlog to ensure it is well organized and ready for upcoming Sprints.   
> Product Grooming is also known as Backlog Refinement.   
> It ensures backlog items are clear, detailed and prioritized.   
> Helps the team understand the requirements before the sprint planning  
> Identifies dependencies and risks in early stages.   
> Prevents sprint planning taking too long.



**Key Activities:**1. Review Backlog items  
2. Prioritize Items  
3. Breakdown Large stories  
4. Add or Remove items  
5. Estimate Complexity Points  
  
**Example:   
1.** Implement Payment system  
2. Add search function  
  
**Question 11:** Explain the roles of Scrum Master and Product Owner  
**Solution:   
Scrum Master:   
1.** Scrum Master will monitor the performance of the team within the sprint.   
2. Team will raise all their issues to the scrum master and scrum master will run to look for the answers.   
3. This role can be played by any person in the team, usually Business Analysts play this role.  
  
**Product Owner:**1. Product Owner decide what needs to be done in the project and will be responsible for how the product has to be.   
2. Product Owner regularly meets with the customers and the Business analysts.   
3. This role can be played by any Business Analyst or anyone who worked for end users for long time or customer him / her self.  
  
**Question 12:** Explain all Meetings Conducted in Scrum Project  
**Solution:   
Scrum:** Scrum is an iterative development methodology used to manage software projects. In scrum-based projects, there isn’t a specific product manager directing project team or tasks. The team is self-directed.  
> Scrum involves several meetings as follows:   
 **1. Sprint Planning Meeting:  
 >** This happens at the beginning of each sprint and team decides on what they will be delivering in the sprint.   
**2. Daily Scrum Meeting:** > This happens on each day where team will answer just 3 questions:   
 1. What did you do today?  
 2. What will you do tomorrow?  
 3. Are there any impediments that slowing or stopping you?

**3. Sprint Review Meeting:** > This happens at the end of the sprint where team will demo the completed stories to product owner and get it cleared.

**4. Sprint Retrospective Meeting:  
 >** This happens at the end of the sprint where team will answer these 3 questions:  
 1. What went well in the sprint?  
 2. What did not go well?  
 3. What the required Areas of Improvements for the next sprint?

**5. Product Grooming:** > This happens in the middle of the sprint or during the sprint to update, refine and prioritize the product backlog.

**Question 13:** Explain Sprint Size and Scrum Size  
**Solution:**

**Sprint Size:** The total amount of work a scrum team commits to complete in a single sprint.   
> Sprint size usually depends upon the complexity of the project or complexity points. For example, if the average complexity points per sprint is 15 then the sprint size should be close to 15 points.

**Scrum Size:** Project resources are grouped as scrum team which comprises of Business Analysts, Developers, Testers. Each team size will be an average of 7-8.

- 1 Product Owner  
 - 1 Scrum Master  
 - 3 Developers  
 - 2 Testers  
 - 1 UI/UX Designer

**Question 14:** Explain DOR and DOD  
**Solution:**   
**Definition of Ready (DOR):**  It ensures a user story is ready, well-defined and ready for development.   
> User story has clear description and acceptance criteria  
> The story is estimated   
> It is small enough to be completed in a single sprint  
> The product owner approved the story.   
  
**Example:** A user story like “I want to login” is not ready but,   
A user story like “As a customer I want to login so that I can order food” which is with clear description and acceptance criteria is READY.

**Definition of Done (DOD):** It ensures that a user story is fully completed and meets the quality standards.  
> Code is written, reviewed and merged into the main branch.   
> All tests are passed  
> All features are tested by QA and meets the acceptance criteria  
> Documentation is updated  
  
**Example:** A story is not done when coded but not tested  
It is done when fully implemented, tested and deployed.

**Question 15:** Explain Prioritization Techniques and MVP  
**Solution:   
Prioritization Techniques:** Prioritization helps team decide which feature to develop first based value, effort and customer needs.

**MOSCOW Method:**> Must : Must have for the product function  
> Should : Important  
> Could: Good to have, not critical  
> Would / Wouldn’t : Not planned  
  
**KANO Mode:**Prioritizes features based on customer satisfaction  
> Basic Needs: User expect these features ( Login page, secure payments)  
> Performance Features: Faster, better, happier ( Faster Delivery)   
> Exciters: Unexpected features by the users ( Food personalized recommendations)  
  
**Value vs Effort Matrix:**> High Value, Low effort = Quick Wins (Highest Priority)  
> High Value, High Effort = Big Bets ( Plan carefully)   
> Low Value, Low Effort = Fill – ins (Do if time permits)  
> Low Value, High Effort = Time Wasters ( Avoid)   
  
**Minimum Viable Product (MVP):** The smallest version of the product with just enough features to test with early users and validate the data.   
  
> Speeds up time to market  
> Reduces risks by testing before development   
> Gathers real customers feedback  
> Save time and money

**Example:**Basic ordering system  
Online Payments  
Delivery Tracking  
  
**Question 16:** Difference between Business Analyst and Product Owner  
**Solution:   
Business Analyst:** A Business Analyst work with the technical team and acts as a bridge between stakeholders (Clients) and the technical team. BA is the face of the technical team to the client and client communication happens through business analyst. BA will elicit, analyse, communicate and validate requirements for changes for business process, policies and information systems in the existing business proves of the client. A Business Analyst understands the business problems and opportunities in the context of the requirements and recommends solutions that enable the organization to achieve the goals.  
  
**Responsibilities:**> Gathers and analyses business requirements  
> Acts as bridge between stakeholders and technical team  
> Creates detailed documentation (BRD, FRD etc.,)  
> Helps in impact analysis and feasibility study  
> Works across multiple projects or products.  
  
**Example:** BA gathers requirements for online ordering, researches competitor apps and prepares detailed specifications.  
  
**Product Owner:** Product owner decides what needs to be in the product and will be responsible for how the product has to be. PO will regularly interact with the customers and BAs. This role can be played by BA or anyone who worked for end user for long time or customer by self.

**Responsibilities:**> Owns and prioritizes the product backlog

> Defines and refines user stories with acceptance criteria  
> Works closely with scrum team for incremental delivery.   
> Ensures that the team is working on highest value features.  
  
**Example:** PO decides payment methods to be build first on customer feedbacks or requests.

**Question 17:** Prepare a sample Resume of 3yrs exp Product Owner  
**Solution:**   
**Name:** Akshay Kumar  
**Phone no:**   
**Email ID:**   
  
**Professional Summary:** Results-driven Product Owner with 2 years of experience in Agile – scrum environments. Skilled in backlog management, stakeholder collaboration, and delivering high-value product increments. Adept at translating business needs into actionable user stories and ensuring seamless product development.

**Skills:**1. Product Backlog Management  
2. Sprint Planning and Execution  
3. Agile – Scrum Methods  
4. Stakeholder Communication  
  
**Work Experience:   
Product Owner**ABC Company 2023-2025  
> Defined and prioritized product backlog to align with business goals.   
> Worked closely with scrum team and stakeholders to ensure smooth delivery.  
> Created detailed user stories and acceptance criteria for the project.   
> Conducted sprint planning, backlog grooming and review sessions.  
  
**Business Analyst**Business Company 2020-2023  
> Gathered business requirements and translated them into functional specifications.  
> Conducted stakeholder meeting and project scope.  
> Conducted elicitation techniques for the requirement gathering.

**Certification:**> Professional Certified Product Owner (PCPO) – 2023  
  
**Projects:  
>** Agriculture Farming Products (Agriculture Product e-commerce)  
> Scrum Foods (Online Food Delivery application)