Question 1 – write Agile Manifesto

Ans-

I.   Main Values-

1. Individuals and interactions over processes and tools

2. Working software over comprehensive documentation

3. Customer collaboration over contract negotiation

4. Responding to change over following a plan

II.   Principles of Agile Software

1. Satisfy the customer through early and continuous delivery of valuable software.

2. Welcome changing requirements, even late in developmen.t Agile processes harness change for the customer's competitive advantage.

3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.

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

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

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

7. Working software is the primary measure of progress.

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

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

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

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

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

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

Ans-

SPRINT-1

User Story No: 1	Tasks: 2	Priority: HIGHEST
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 No: 02	Tasks: 2	Priority: HIGHEST
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 Order, Display List of orders in the tabular Form		

User Story No: 3	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		

User Story No: 4	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		

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

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

User Story No:7	Tasks:2	Priority: LOW
AS A CUSTOMER I WANT TO VIEW THE CONTACT NUMBER OF DELIVERY BOY SO THAT I CAN CONTACT DELIVERY BOY FOR THE STATUS		
BV: 50	CP: 1	
Acceptance Criteria : 1. Display delivery boy mobile number 2. Display delivery boy name in tracking field 3. Display delivery boy picture		

User Story No: 8	Tasks:2	Priority: MEDIUM
AS A RESTAURANT OWNER I WANT TO PROVIDE TIME SLOTS SO 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 submit 4. Display updated successfully		

User Story No: 9	Tasks: 03	Priority: High

AS A REG ADMIN

I WANT TO MANAGE REGIONAL RESTAURANTS,

SO THAT, I CAN TRACK THE PERFORMANCE OF REGIONAL RESTAURANTS.

BV: 200	CP: 03

Acceptance Criteria :

CLICK ON PERFORMANCE OF RESTAURANTS SELECT FROM DATE TO DATE

CLICK ON GENERATE REPORT WHICH INCLUSES RESTAURANTS ID, NAME, REVENUE

CLICK ON DOWNLOAD REPORT SHOULD BE IN EXCEL

User Story No: 10	Tasks:2	Priority: HIGH

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

User Story No: 11	Tasks: 02	Priority: Medium

AS ADMIN

I WANT TO SEE THE REGIONAL REVENUE REPORTS, SO THAT I CAN VIEW THE REGIONAL PERFORMANCE

BV: 100	CP: 03

Acceptance Criteria :

Select regional dropdown

View performance of each rest of that region in tabular form which includes rest name, revenue, generated

Download in excel or PDF

User Story No: 12	Tasks: 02	Priority: High

AS A CUSTOMER

I WANT TO CHAT WITH REG ADMIN SO THAT I CAN REQUEST FOR REFUND

BV: 200	CP: 02

Acceptance Criteria :

1) BR-ALL MANDATORY

2) TEXT BOX FIELDS

3) DISPLAY ORDER ID

4) TEXT BOX,FOR DESCRIPTION

5) SUBMIT BUTTON

6) GENERATE ISSUE ID

7) DISPLAY SUCCESSFUL

User Story No: 13	Tasks: 02	Priority: High

AS A CUSTOMER

I WANT TO REGISTER IN

SCRUM FOODS

SO THAT I CAN PLACE AN ORDER

BV: 500	CP: 02

ACCEPTANCE CRITERIA :

Registration screen

Text boxes for user name, password, mobile no, email, address, phone number.

Click on register button.

Send successful notification to the user

User Story No: 14	Tasks: 02	Priority: High

AS A CUSTOMER

I WANT TO FIND NEARBY RESTAURANTS

SO THAT I CAN GET FOOD DELIVERED TO MY ADDRESS

BV: 500	CP: 02

ACCEPTANCE CRITERIA :

Search screen

Text box for search restaurant

Click on view restaurant name

View the restaurant details

User Story No: 15	Tasks: 02	Priority: High
AS A CUSTOMER I WANT TO VIEW RESTAURANTS MENU SO THAT I CAN ORDER MY FAVOURITE FOOD		
BV: 500	CP: 02	
ACCEPTANCE CRITERIA: 1. Display restaurants menu according to food type		

User Story No: 16	Tasks: 02	Priority: Medium
AS A CUSTOMER I WANT TO BE ABLE TO GIVE MY FEEDBACK AND RATING ON A SCALE OF 1 TO 5 SO THAT OTHER PEOPLE WILL GET BENEFIT WITH MY EXPERIENCE		
BV: 300	CP: 02	
ACCEPTANCE CRITERIA : Feedback Screen- Textbox for writing feedback. Rating scale to select rating from 1 to 5. Click ok to post feedback and rating.		

User Story No: 17	Tasks: 02	Priority: High
AS A CUSTOMER I WANT TO KNOW HOW MUCH TIME FOOD DELIVERY WILL TAKE SO THAT I KNOW HOW MUCH I HAVE TO WAIT		
BV: 500	CP: 02	
ACCEPTANCE CRITERIA : 1. Display your order status 2. Display time to reach order to your address 3. Display delivery boy's location so you can track your order		

User Story No: 18	Tasks: 02	Priority: High
AS A DELIVERY BOY I WANT TO VIEW ORDERS SO THAT I WILL GET TO KNOW HOW MANY ORDERS I HAVE TO DELIVER		
BV: 500	CP: 02	
ACCEPTANCE CRITERIA : 1. Login to Scrum Foods 2. Click on view orders 3. Display orders to delivery boy		

User Story No: 19	Tasks: 02	Priority: High
AS A DELIVERY BOY I WANT TO SELECT AND ACCEPT ORDERS SO THAT I CAN DELIVER THE ORDERS		
BV: 500	CP: 02	
ACCEPTANCE CRITERIA : 1. Login to Scrum Foods 2. Click on select order 3. Click on accept orders 4. Display accepted orders to delivery boy		

User Story No: 20	Tasks: 02	Priority: High
AS A DELIVERY BOY I WANT KNOW ORDER PICKUP AND DELIVERY SO THAT I CAN PICKUP THE ORDER AND DELIVER IT TO CORRECT LOCATION		
BV: 500	CP: 02	
ACCEPTANCE CRITERIA : 1. Login to Scrum Foods 2. Click on order pickup 3. Display restaurants name from where delivery boy can pickup orders 4. Display delivery address		

User Story No: 21	Tasks: 02	Priority: Low

AS A DELIVERY BOY

I WANT VIEW FEEDBACK

SO THAT I CAN FOCUS

ON IMPROVEMENTS

BV: 200	CP: 02

ACCEPTANCE CRITERIA :

1.Login to Scrum Foods

2.Click on view feedback

3.Display feedback to delivery boy

User Story No: 22	Tasks: 02	Priority: High

AS A RESTAURANT OWNER

I WANT TO REGISTER IN SCRUM FOODS

SO THAT I CAN VIEW ORDERS

BV: 500	CP: 02

ACCEPTANCE CRITERIA :

Registration screen

Text boxes for user name, password, mobile no, email, address, phone number, restaurant name

Click on register button.

Send successful notification to the user

User Story No: 23	Tasks: 02	Priority: Medium

AS A RESTAURANT OWNER

I WANT TO DO VERIFICATION

OF DELIVERY BOY

SO THAT I CAN GIVE

ORDERS FOR DELIVERY TO HIM

BV: 300	CP: 02

ACCEPTANCE CRITERIA :

1. Login to Scum Foods

2. Click on verify delivery boy

3. Verify delivery boy then accept his request

User Story No: 24	Tasks: 02	Priority: High

AS A RESTAURANT OWNER

I WANT TO GET PAYMENT AND KNOW PAYMENT METHOD

SO THAT I WILL CONFIRM ORDER

BV: 500	CP: 02

ACCEPTANCE CRITERIA :

1.View payment method

2. Accept payment

3. Verify payment

4. Confirm order

User Story No: 25	Tasks: 02	Priority: Medium

AS A RESTAURANT OWNER

I WANT VIEW FEEDBACK

SO THAT I CAN FOCUS

ON IMPROVEMENTS

BV: 300	CP: 02

ACCEPTANCE CRITERIA :

1.Login to Scrum Foods

2.Click on restaurant name

3. Click on view feedback

4.Display feedback to restaurant owner

User Story No: 26	Tasks: 02	Priority: High

AS A ADMIN

I CAN LOGIN TO SCRUM FOODS

SO THAT I CAN MANAGE RESTAURANTS

BV: 500	CP: 02

ACCEPTANCE CRITERIA :

Login screen

Text boxes for user name, password

Click on login button.

Send login successful notification to the user

User Story No: 27	Tasks: 02	Priority: Medium

AS A ADMIN

I CAN MANAGE REGIONAL ADMIN

SO THAT I CAN KEEP TRACK OF RESTAURANTS REGIONWISE

BV: 300	CP: 02

ACCEPTANCE CRITERIA :

1. Select regional dropdown

2. View admin list for each region

3. Add, update, view, delete details of regional admin accordingly.

User Story No: 28	Tasks: 02	Priority: Medium

AS A ADMIN

I WANT TO VIEW FEEDBACK

SO THAT I CAN FOCUS

ON IMPROVEMENTS

BV: 300	CP:02

ACCEPTANCE CRITERIA :

1.Display customer feedback to admin

User Story No: 29	Tasks: 02	Priority: High

AS A ADMIN

I WANT TO APPROVE/REJECT

RESTAURANTS

SO THAT I CAN MANAGE RESTAURANTS

BV: 500	CP:02

ACCEPTANCE CRITERIA :

1. Display Restaurants list

2. Select restaurants

3. Verify details of restaurants

4. Approve button to accept the restaurant

5. Reject button to reject the restaurant

User Story No: 30	Tasks: 02	Priority: Medium

AS A ADMIN

I WANT TO RESOLVE ISSUES

SO THAT BUSINESS WILL WORK SMOOTHLY

BV: 300	CP:02

ACCEPTANCE CRITERIA :

1. View issues of various restaurants, customers and regional admin in chat section of application

2. Try to solve the issues by providing solution in chat section of application

User Story No: 31	Tasks: 02	Priority: High
AS A REGIONAL ADMIN I CAN LOGIN TO SCRUM FOODS SO THAT I CAN MANAGE REGIONAL RESTAURANTS		
BV: 500	CP:02	
ACCEPTANCE CRITERIA : Login screen Text boxes for user name, password Click on login button. Send login successful notification to the user		

User Story No: 32	Tasks: 02	Priority: Medium
AS A REGIONAL ADMIN I CAN MANAGE REGIONAL DELIVERY BOYS SO THAT I CAN KEEP TRACK OF DELIVERY BOYS		
BV: 300	CP:02	
ACCEPTANCE CRITERIA : 1. Display names of regional delivery boys 2. View details of delivery boys 3. Manage delivery boys to the regional restaurants		

User Story No: 33	Tasks: 02	Priority: High
AS A REGIONAL ADMIN I CAN VIEW REGIONAL REVENUE SO THAT I CAN TRACK PROGRESS OF REGIONAL RESTAURANTS		
BV: 500	CP:02	
ACCEPTANCE CRITERIA : 1. Select Reports 2. Select Revenue Reports 3. Select to and from date 4. Select Region 5. Generate Report Download Report in EXCEL		

User Story No: 34	Tasks: 02	Priority: High
AS A REGIONAL ADMIN I CAN VIEW PAYMENT MADE TO REGIONAL RESTAURANT SO THAT I CAN KEEP TRACK OF REVENUE GENERATED		
BV: 500	CP:02	
ACCEPTANCE CRITERIA : 1. List of Restaurants 2. Select Restaurant 3. Select Payment 4. View payment details 5. Generate Report Download Report in EXCEL		

User Story No: 35	Tasks: 02	Priority: High

AS A CUSTOMER

I WANT TO FILTER RESTAURANTS BY CUISINE AND/OR RESTAURANT TYPE (CAFÉ, PUB ETC) SO THAT I CAN NARROW DOWN MY LIST

BV: 500	CP:02

ACCEPTANCE CRITERIA :

1. List of Restaurants Type

2. Display Restaurant names in each type

3. Select Restaurant of your choice

User Story No: 36	Tasks: 02	Priority: Low

AS A CUSTOMER

I WANT TO BE ABLE TO REPEAT MY PREVIOUS ORDERS (WITH OR WITHOUT MODIFICATIONS)

SO THAT I CAN ORDER FOOD

AT THE CLICK OF A BUTTON

BV: 200	CP:01

ACCEPTANCE CRITERIA :

1. View previous orders

2. Select order and view details

3. View order, edit order

4. Click on repeat order

User Story No: 37	Tasks: 02	Priority: High

AS A Business Owner

I CAN LOGIN TO SCRUM FOODS

SO THAT I CAN MANAGE RESTAURANTS

BV: 500	CP: 02

ACCEPTANCE CRITERIA :

Login screen

Text boxes for user name, password

Click on login button.

Send login successful notification to the user

User Story No: 38	Tasks: 02	Priority: High

AS A BUSINESS OWNER

I CAN VIEW ALL REPORTS

SO THAT I CAN KEEP TRACK OF BUSINESS

BV: 500	CP: 02

ACCEPTANCE CRITERIA :

1. View Reports List

2. Select Report Type

3. Select to and from date

4. Select Region (can select all)

5. Generate Report

6. Download Report in EXCEL

User Story No: 39	Tasks: 02	Priority: High
AS A BUSINESS OWNER I CAN UPDATE PAYMENTS FOR RESTAURANTS SO THAT I CAN KEEP TRACK OF RESTAURANTS RECENT PAYMENTS		
BV: 500	CP: 02	
ACCEPTANCE CRITERIA : 1. Select restaurant region 2. View Restaurants list 3. Select restaurant name 4. Select to and from date 5. View recent payment 6. Edit/update payment details		

User Story No: 40	Tasks: 02	Priority: High
AS A BUSINESS OWNER I CAN UPDATE PAYMENTS FOR DELIVERY BOYS SO THAT I CAN KEEP TRACK OF DELIVERY BOYS RECENT PAYMENTS		
BV: 500	CP: 02	
ACCEPTANCE CRITERIA : 1. Select region 2. View delivery boys list 3. Select to and from date 4. View recent payment 5. Edit/update payment details of delivery boys		

Question 3. What is epic? write 2 epics.

Ans-

An epic is a set of related user stories. They are also considered a "really big user story." An epic is a large user story which is too big to fit into a sprint. This high-level story is usually split into smaller ones, each of which can be completed within a sprint. In that sense, an epic is a collection of user stories with a unified goal.

I. **Epic-Online ordering**

User stories

- As a user, I want to search nearby restaurants so that I can get food delivered to my address.

- As a user I want to add/remove multiple food items so that I can specify what I want to order.

- As a user I want to know how much time food delivery will take so that I know how much I have to wait.

- As a user I want to call the restaurant to check progress.

- As a user I want to have flexible online payment options so that I can choose any method of my choice.

II. **Epic: Rate/Review a Restaurant**

User Stories

- As a user I want to be able to rate my experience on various parameters such as food, delivery, payment, customer service using a scale of one(1) to five (5).

- As a user, I want to write my opinions on what I liked or what did not like.

- As a user, I would like to share my reviews on social media.

- As a user, I want to share photos along with my comments.

Question 4. What is the difference between BV and CP.?

Ans-

Sr. No	Business Value (BV)	Complexity Points (CP)
1.	BV is not the cost of Development or the complexity of the feature.	CP is also known as story points (SP).
2.	Business Value is how important is this feature (user story) to the business	CP is the effort required by the Scrum Developers to develop this feature (user story) using technology.
3.	BV is estimated by Scrum Currency Notes.	CP is estimated by using Poker cards.
4.	We provide Rs 1000, Rs 500, Rs 100, Rs 50, Rs 20 and Rs 10 Denominations	We provide pokers with values "?", 1,2,3,5,8,13,20,40,100 and BIG.
5.	These estimations are done by the Stakeholders(clients).	These estimations are done by the Scrum developers by giving CP to user stories.
6.	If difficult values are selected by the stakeholders, then discussions will happen, and they agree to one BV value to that user story.	If difficult values are selected by the Scrum Developers, then discussions will happen, and they agree to one CP value to that user story.

Question 5. Explain about Sprint

Ans-

What is sprint Duration: 2 Weeks - Your sprint Value = 1

Scrum is a subunit of Sprint.

What is scrum Duration: 1 day – Your scrum Value=4

 PBI: Product Backlog Item

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

 WIP: Work In Progress

Sprint Backlog

PBI	Tasks	WIP	Done
10	20	2	8

Scrum Team : Project resources are grouped as Scrum teams which comprises of BAs, Developers, Testers. Each Team size will on average be 7-8, Scrum Master-1, Product owner-1

Sprint: A sprint is a scrum-based agile methodology concept that is similar to an iteration. A sprint is time boxed to deliver a specific set of user stories and produce working features within a set time period. During sprint planning, the business customer or product owner specifies the user story priority and the development team commits to the scope for a given sprint. During a sprint, user stories can be removed from the sprint scope, but new stories cannot be added; this allows project teams to focus on the goals of the sprint and deliver rapidly.

This is the period that team decides to   deliver their objective. Normally a sprint period will be 2 weeks but may extend to 4 weeks

Meetings:

Sprint Planning Meeting -This happens at the beginning of each sprint and team decides on what they will be delivering in the sprint.

Daily Scrum Meeting - This happens each day where team will just answer 3 questions:

1) What did u do today?

2) what will u do tomorrow?

3) Are there any impediments that is slowing or stopping u?

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.

Sprint Retrospective Meeting - This happens at the end of the sprint where team will answer these 3 questions:

l) What went well in the sprint?

2) what did not go well?

3) What are the required areas of improvements in next sprint?

Burn down chart

A burn down chart is a graphical view of the remaining work left versus the time in an iteration. A project backlog or hours can be expressed on the vertical axis, while time is indicated on the horizontal axis. A burn down chart is often used to determine when work will be completed on a project or an iteration.

Question 6. Explain Product backlog and sprint backlog.

Ans-

I. **Product Backlog-**

1. Before a project begins, the Product Owner creates a list of features to add to the project. Software development teams call this list the Product Backlog. The Product Backlog should break down the tasks necessary for each item on the list. The Product Backlog should also give teams a place to document how much time the tasks on the Backlog might take.

2. The Product Backlog gives teams a place to understand the dimensions of the entire project. It helps them visualize how they will tackle the tasks ahead of them. It helps the Product Owner to organize and prioritize their thoughts and wishes. The team uses the dynamic Product Backlog to keep track of problems to fix in future Sprints.

3. The Product Backlog, as an element of Agile, is not set. Flexibility and change must play a key role in any Product Backlog. Bugs or errors might add items to the Backlog. Software development teams will drop completed items from the Product Backlog. The Product Backlog is a living document. The Product Backlog likely grows during certain parts of the software development project. It should begin to shrink as the project nears completion.

4. The Product Backlog usually contains at least some of the following items:

    a. Bugs – Problems testers or team members have flagged.

    b. User stories – features needed in the software development project. User stories should be explained in plain language from the end user's perspective.

    c. Tasks – general work the Scrum team needs to complete.

II.   Sprint Backlog-

   i.   The sprint backlog is a subset of the product backlog. The sprint backlog comes from the product backlog, but it contains only the product backlog items that can be completed during each agile sprint. Think of it as the marching orders for the team as they go off on their short sprint.

   ii. The complexity of the project will determine the sprint backlog, but overall, the idea is to dedicate the team only to those tasks that can be completed during the sprint. Of course, if it is a complex project the sprint backlog can also grow in complexity and length.

   iii. Unlike the product backlog, though, the sprint backlog is unchanged during the period of the sprint. It can be changed, but only during the sprint planning meeting. Once agreed upon, the items and steps to complete them are frozen for the length of the sprint.

Question 7. What is impediments log? write 2 impediments.

Ans-

1. All challenges faced by the team will be logged in this impediments log. Impediments are barricades, hurdles or obstacles.

2. Anything that prohibits the team from doing work is considered an impediment.

3. The Scrum Master is responsible for tracking, monitoring and ensuring that impediments are removed.

4. All Scrum Team members are responsible for continually identifying impediments for discussion during the Daily Stand-up Meeting. If for some reason an impediment does not disappear in a timely manner, this would indicate that the root causes have not been identified.

5. The Sprint Retrospective is another place for impediments that reoccur. It is important to understand that the Scrum Master is not solely responsible for the removal of impediments. The team should work together to remove impediments that can be easily resolved and provide assistance with any additional support that may be required.

6. There are two main types of impediments, **organizational** and **team** related and they need different types of handling.

   - **Team Impediments –** issues that the team can solve without needing external assistance. However, the team may need internal assistance from management. These types of impediments would include but are not limited to:

     o Changes to the way that the team works

     o Reminders for when a specific problem re-occurs

     o The need for tools or workflows that can make team's work easier

     o Internal measures put in place for the team to avoid repeating a prior error

   - **Organizational Impediments –** issues that are dependent on others to solve. These issues include but are not limited to:

     o Slow internet

     o Issues with obtaining input from other teams or divisions

     o Lack of training

7. Impediments that are identified daily are generally very small and can be quickly resolved. This may include sending a simplifying email and/or getting assistance from a Scrum Team member.

8. The bigger impediments are most likely to be identified during the Retrospective meetings and require a level of dedication to be removed. These types of impediments are added to the Sprints for resolution.

9. Impediments that are identified by the team are added to the Product Backlog for prioritization and processing. Large items that are not able to be addressed quickly are addressed in later Sprints.

10. Organizational impediments added to the Impediments Log are prioritized and addressed on an ongoing basis. Both team and organizational impediments are reviewed after each Sprint in the Retrospective meeting.

11. There is a distinct difference between **blockers** and **impediments**. A blocker impacts a single task and an impediment hinders overall progress.

Impediment 1- Usage of Balsamiq Software

Impediments Log Field	Description
Impediment Description	Team is using Balsamiq software for the first time.
Importance of Impediment Resolution	Major
Action suggested to be taken	Training should be given on usage of Balsamiq software.
Owner	Design Team
Due date of when it must be resolved	15/09/2021
Release that impediment was identified in	GHST54637

Impediment 2- Server environment is not set

Impediments Log Field	Description
Impediment Description	Server environment is not set up yet.
Importance of Impediment Resolution	Blocker

Action suggested to be taken	Server environment should be set up as early as possible.
Owner	Mr. Kalpesh V.
Due date of when it must be resolved	11/11/2021
Release that impediment was identified in	EST74637

Impediments 3- Need a release plan

Impediments Log Field	Description
Impediment Description	There is need to create a release plan
Importance of Impediment Resolution	Critical
Action suggested to be taken	Release plan should be need to create for that urgent meeting should be conducted between Product Owner, Scrum Team and Stakeholders.
Owner	Mr. Anuj B.
Due date of when it must be resolved	15/09/2021
Release that impediment was identified in	TESTRELEASE637

Question 8. Explain velocity of the Team.

Ans-

1. Velocity is a key Scrum metric that measures the amount of work a team can deliver during a sprint.

2. During Sprint planning, a team's velocity is used to determine the number of product backlog items to tackle. Based on this, both the amount of work and a delivery date can be estimated. At the end of the sprint, the actual velocity will be used in the calculator for the next one.

3. Calculation of Velocity-

First, each user story must be assigned a number of story points.

SPRINT 1		
User Stories	Completed	Story Points
User Story 1	Yes	6
User Story 2	No	4
User Story 3	Yes	8

SPRINT 2		
User Stories	Completed	Story Points
User Story 4	Yes	2

User Story 5	Yes	4
User Story 6	Yes	4
Total Completed:10		

SPRINT 3		
User Stories	Completed	Story Points
User Story 7	Yes	6
User Story 8	Yes	6
User Story 9	No	2
Total Completed:12		

Three sprints gives the Scrum master enough data to calculate sprint velocity, which is calculated by taking the average story points of completed user stories for the last three sprints:

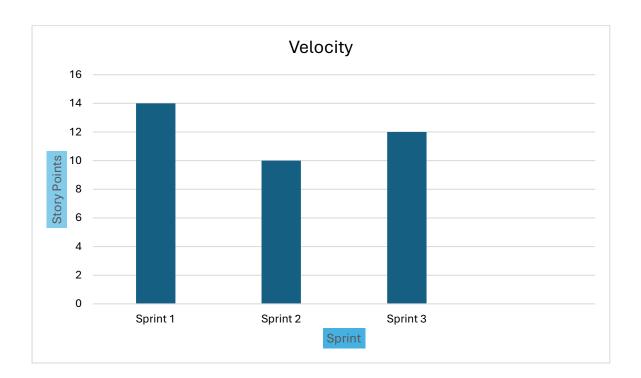| **Sprints**	**Story Points**

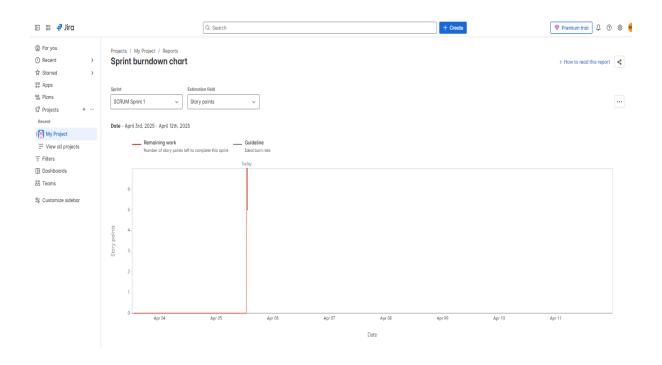|	
Sprint 1	14
Sprint 2	10
Sprint 3	12
Average	12

Velocity Chart-

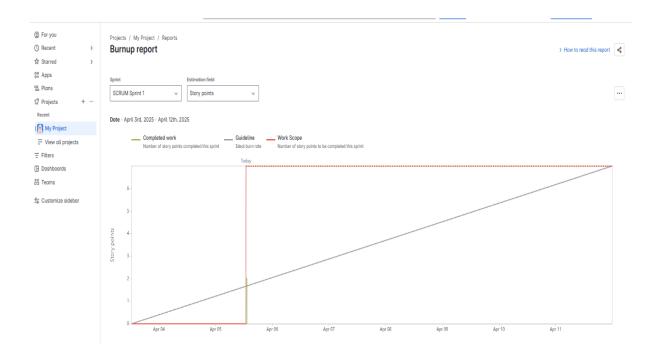Question 9 – Draw Sprint Burn Charts and Product Burn Down Charts

Ans-

- **Sprint burndown chart**: to track the amount of work left in a particular sprint (a 2-week iteration). It's also known as a release burndown chart

- **Product burndown chart**: to track the amount of work left in the **entire** project

Sprint Burndown Chart-

Product Burndown Chart-

Question 10. Explain about Product Grooming.

Ans-

1. Grooming (or refinement) is a meeting of the Scrum team in which the product backlog items are discussed and the next sprint planning is prepared.

2. Product grooming is critical in product management because it means keeping the backlog up to date and getting backlog items ready for upcoming sprints.

3. Backlog grooming is often named pre-planning. The product owner and team representatives arrange it in the mid-sprint time. In this case, planning and refinement meetings alternate but happen on the same day each week. That provides an effective rhythm for the entire team.

4. The grooming involves splitting big items into smaller ones, rewriting backlog items to be more expressive, deleting obsolete or no more need items, and so on.

5. Product owners should always keep the backlog tidy. Regular involving team members is optional.

6. Product owners identify user stories based on priorities for the next sprint planning. Groomed Scrum backlog helps to streamline sprint planning meetings to avoid stretching them for hours.

7. Key advantages of product backlog refinement:

   - Removing uncertainty and unknown facts of user stories increase the product's efficiency.

   - It assists to avoid rework in development and testing.

   - Backlog grooming identifies the dependencies within the team and helps to foresee risks.

   - Permanent grooming meetings save time for the development team for further discussion during the sprint cycle because they give clarity to developers and testers about the requirements.

   - Successful grooming leads to effective sprint planning.

   - The grooming process gives product owners, managers, or business analysts more chances to enhance the requirements with more information if it's required.

Question 11. Explain the roles of Scrum Master and Product Owner

Ans-

I. **Scrum Master-**

1. Scrum Masters are part of the Scrum team trinity, which includes the Scrum Master, product owner, and the team. Scrum Masters play their part by making sure the Scrum approach is being implemented during product or software development.

2. The Scrum process is based on the Scrum framework, and the framework is designed using an agile methodology. Scrum Masters make sure that the entire team is familiar with the Scrum Guide, Scrum methodology, and all the Scrum events.

3. In some cases, Scrum Masters also lead team processes with practices such as Kanban. Using these methods, they ensure delivery of all problem, request, incident, and enhancement capabilities. Scrum Masters also have to fulfil cross-departmental coordination roles. These roles may include Change Coordinator and Release Coordinator, among others.

4. Furthermore, Scrum masters continually work to increase team efficiency and recommend changes to the product vision, roadmap, and backlog. They help the development team and engineering teams develop faster and more efficient processes.

5. The role of the Scrum Master is more of an oversight role. Therefore, they need to be aware of all agile practices, deliverables, and daily Scrum activities. They also usually have a Scrum Master Certification from a reputable organization.

6. Following are the roles of Scrum Master-

a) The Scrum Master manages the Scrum process while coordinating with the Scrum team.

b) They facilitate the development, engineering, and Scrum team by helping them improve their processes for increased efficiency.

c) Scrum Masters arrange daily stand-up meetings and facilitate other meetings, demos, and decision-making processes.

d) They also help the product owner create and maintain the product backlog. They help make the sprint backlog ready for the next sprint.

e) Scrum Masters also conduct sprint retrospective meetings and help facilitate sprint planning meetings.

f) Roles of Scrum Masters don't change much, but one thing always remains constant – they help remove impediments in the product process that hinder project success.

II.   Product Owner-

1. The product owner role is another part of the Scrum team. Product owners are responsible for utilizing the agile development approach to make sure the right product completes development. A large part of their job involves meticulous planning. For that planning, they need a clear vision that emphasizes the value of the product.

2. As a result, product owners develop the product vision using user stories, research, and product and business requirements.

3. The Scrum product owner also manages the product backlog. The backlog includes all the past and current features of a product. It also lists down any changes that were made along the way. Product backlog management makes up a large part of their job description. It's essential to keep the product backlog items updated to ensure that the correct product is released.

4. Furthermore, they're the first ones to get the release date. While product owners can't single-handedly control the release of a product, they can call for the enactment, pause, or cancelation of the release.

5. Another part of their job is sprint planning and project management. You can consider sprints as product prototypes. Sprints help determine whether a feature is right for the product, whether changes need to be made, and whether the product is ready for release.

6. Product owners make sure successful products make it to the market by developing a fool proof vision, roadmap, and product strategy.

7. The following are the roles of product owners-

a) The product owner attends sprint demos, sprint planning meetings, and daily Scrums.

b) They develop the product vision, form deadlines, and define feature priorities.

c) Product owners have to fulfil their Scrum roles by continually communicating with the Scrum master.

d) Product owners also help determine the right release date and contents for products.

e) They manage the product backlog and develop it from scratch. They're responsible for adding product backlog items, user stories, and any other necessary changes.

f) Out of the user stories, product owners define the epics and communicate them to the development team.

g) They are responsible for prioritizing the user stories with the help of team members.

h) Product owners also have to analyse and prioritize product features using sprint reviews and other similar methods.

Question 12. Explain all meetings conducted in Scrum Project.

Ans-

1. Sprint Planning Meeting

i. At the beginning of every Sprint, Sprint planning meeting is held. Usually, the entire team is expected to be present during this meeting, including the product owner and the Scrum master.

ii. The goal of this meeting is to develop realistic Sprint backlog and define the highest priority tasks which need to be done during the length of each Sprint. The product owner is responsible for explaining the backlog items to the development team and open discussion is expected from both ends to clear all kinds of ambiguities.

iii. During the meeting, team members also communicate the amount of work they can complete in a particular timeframe, so basically, at the end of this meeting, development team comes back with a Sprint goal, as well as a Sprint Backlog.

2. Daily Scrum Meeting

i. Daily Scrum meeting, or daily stand-ups as many people call them, are short 15 minutes meetings which occur on daily basis. They are typically held at the same time and same place every day and are strictly timeboxed to no longer than 15 minutes. This ensures the discussion to stay light, relevant, and quick.

ii.   It's highly imperative that only task-statuses and hindrances are discussed during the daily Scrum meeting and other long planning related discussions are left for some other time.

iii.   So, what exactly happens during these short meetings? Well, there's essentially a three questions agenda which is presented before each team member to get an overview of the task progress.

iv.   These questions are:

- What did you accomplish yesterday?

- What are you working on today?

- Are there any impediments in your way?

V. These questions are an excellent source of gaining insights about the work progress and how everyone is coming along with the development work. They also help the Scrum master in facilitating the smooth workflow by removing the impediments.

3. Sprint Review Meeting

i.   At the end of each Sprint, a Sprint Review meeting is held. The core objective of this meeting is to demonstrate the functionality of the product and what has been achieved during a particular Sprint. Generally, product owner, Scrum Master, and other stakeholders are present to review the product.

ii.   The product performance is also measured against the original Sprint goals developed during the Sprint planning meeting to oversee any major changes that are there or that are needed to be made.

4. Sprint Retrospective Meeting

i.   Sprint retrospective meeting- as the name suggests- is solely held with a fundamental purpose of reviewing what went right and wrong during a Sprint. The meeting brings forth a great opportunity for the entire development team to reflect back on the work and what improvements are needed to be made.

ii.   Retrospective meetings usually require minimum preparation time as they are merely a 'lesson learned' type of exercise, with a thorough analysis of what should be done in future.

5. Backlog Refinement Meeting

i.   The last type of Scrum meetings is the backlog refinement meeting, also known as the product backlog grooming. Mostly, product backlog items need refinement for the next Sprint, to make the team understand them better for successful execution.

ii. In backlog refinement meeting, the backlog items are categorized and prioritized after a technical discussion with the team to make sure that the team understands what exactly are the deliverables and what are the requirements.

iii. Conducting backlog refinement meeting reduces the need for a long Sprint planning meeting and gives the team a chance to reflect on the backlog items before fully committing to the Sprint goals.

Question 13. Explain Sprint size and Scrum size.

Ans-

I. Sprint size-

i. This is the actual time the scrum team that is the development team works on the increments. 2 weeks is the typical sprint time.

ii. However, the sprint time varies between 1 week to 1 month. The sprint time should be shorter for complex projects, and it contains multiple sprints. All the events such as planning to retrospective happen during the sprint.

iii. The project complexity, agile maturity of the team, company and stakeholders as well as customer priorities play a role in defining the sprint length.

iv. Smart and matures scrum teams always go after the 2week Sprint Length. It is considered to be the ideal sprint length.

v. But then, you should identify what works best for the team. 4 or more than 4 weeks for one sprint is never advisable.

vi. Advantages of 2 weeks Sprint-

- 2week cycles create and maintain a sense of urgency within the scrum team.

- Backlog refinement improves to ensure stories are broken down enough to be covered within 2 weeks.

- Clarity of the product backlog ensures robust sprint planning thus pre-emptively addressing facts that might cause delay or derail the product itself.

- Customer and product owners are well-engaged.

- Customer feedback and reviews are prompt leading to all round clarity of the product vision.

- Scrum Teams gain better understanding of the user stories and customer requirements.

- If sprint lengths are of 4 weeks then chances of the teams losing focus or wandering away is higher.

- Issues may be skirted to not address until absolutely required which is the exact opposite of agile scrum.

- Also if you vary the sprint length with every other sprint, then the team isn't disciplined or self-organized enough.

- Random occurrences are ok, but ideally your Sprint Length must remain same.

- Sprint review and retrospectives are far more meaningful when you have 2 week sprints.

- Scope creep can be prevented with shorter sprints.

- Scrum team's performance becomes consistent with a predictable sprint velocity which sets the tone for the project end date.

- The key here is, there is improved certainty around the project's completion on time and with quality.

II. Scrum size

1. A typical scrum team must possess all the required skills to carry out the tasks efficiently. It must ensure that the productivity and the quality of the products are not compromised.

2. The optimum size for the scrum team is around 7 to 18 members with varying skill sets and large enough to accomplish the tasks comfortably and small enough to share, communicate, and collaborate effectively.

3. The size should neither be very small nor large as both have its own consequences as mentioned below.

i. Small team - The limitations of a small team are, if 1 or 2 resources are absent then it will impact them considerably. To solve this, each member of the small team must have expertise beyond their work skills.

ii. Bigger team – Always will cause a chaos and hence in situations where there is a large project and the scrum team is more than 10 members then you can form a multiple scrum team. With scrum, we can manage large and complex projects of any size and technically challenging portfolios.

Question 14. Explain DOR and DOD

Ans-

DOD (Definition of Done)

1. The DOD is usually a short document in the form of a checklist, that defines when a product backlog item (i.e. user story) is considered "done". It has various rationales and various ways to explain it:

- You need a **common definition of what "done"** (= "this user story is finished") **means**. Otherwise, it will mean something else for every person on the team.

- All your **non-functional requirements** reside in the DoD.

- A **general list of acceptance criteria** to be added to every story's specific acceptance criteria.

- Many **improvements** you find in your retrospectives end up in the DoD.

2. Most teams start with no or a very simple DoD. They then add to the DoD after each sprint as needed. Keep in mind: "done" in an agile project means **"no more work needs to be done before shipping"**. So, if someone says "the feature is done, but it only needs to be integrated, tested, deployed, ..." it would NOT be considered "done" in an agile sense!

3. The best **check whether something is "done" is to simply ship it**! If you can ship it, it's really done; if you cannot ship it, simply do the work missing before you can ship it to make it "done". *you don't need to actually ship it, but you need to make believable that you could*.

4. A typical DOD might look like this example:

- Automated tests are written and all tests are green

- Code is refactored and reviewed

- Code is integrated with master branch

- Deployed to staging environment

- Translated into English and German

5. A concise definition of done will help you deliver quality, keep your slate clean and react flexibly to changing requirements.

II.DOR = Definition of Ready

1. The DOR is the little cousin of the DOD. It is a checklist of what needs to be done to a product backlog item **before the team can start implementing it** in the next sprint. You can view the definition of ready as the "DOD" the Product Owner has to fulfil so that the Development Team accepts the story in the Sprint Planning meeting.

2. *DOR is NOT part of the Scrum Guide* — and that is for good reason. The DOR should not be used as a phase gate for Sprint Planning or as a way push away responsibility! It should rather be a guideline for the team of what needs to be done during backlog refinement.

3. Most teams start out with an empty DOR and add to it as needed.

4. A typical DOR might look like this example:

- PO and Dev Team need to have talked about the story at least once

- Story must have clear business value

- Effort needs to be estimated

- Story must be broken down enough to fit a single sprint

- Story needs at least one acceptance criterium.

Question 15. Explain Prioritization Techniques and MVP.

Ans-

I. MoSCoW

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

2. MoSCoW stands for must, should, could and would:

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

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

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

d) W - Would like to have this requirement later, but it won't be delivered this time

II.MVP-

1. A minimum viable product, or MVP, is a product with enough features to attract early-adopter customers and validate a product idea early in the product development cycle. In industries such as software, the MVP can help the product team receive user feedback as quickly as possible to iterate and improve the product.

2. Because the agile methodology is built on validating and iterating products based on user input, the MVP plays a central role in agile development.

3. Purpose of a Minimum Viable Product-

    i. The purpose of an MVP : It is the version of a new product that allows a team to collect the maximum amount of validated learning about customers with the least amount of effort.

    ii. A company might choose to develop and release a minimum viable product because its product team wants to:

    - Release a product to the market as quickly as possible

    - Test an idea with real users before committing a large budget to the product's full development

    - Learn what resonates with the company's target market and what doesn't

    iii. In addition to allowing your company to validate an idea for a product without building the entire product, an MVP can also help minimize the time and resources you might otherwise commit to building a product that won't succeed.

Question 16. Difference between Business Analyst and Product Owner.

Ans-

1.Who is a Business Analyst

i. Business analysts are experts who form an interface between clients of different divisions and IT specialists. Business analysts work with executives from various departments to identify business issues and offer technological solutions.

ii. Apart from that, business analysts also keep track of existing company operations, make organizational changes, and design software systems.

2.What does a Business Analyst Do

i. Business analysts analyse and communicate business-related trends and data-driven solutions to the management.

ii. Business analysts play an important role in helping companies make data-driven business decisions through constant evaluations and recommendations.

iii. Business analysts identify the areas of improvements and suggest actionable that are in alignment with the business goals.

3.Who is a Product Owner

i. Product owners are crucial to the overall success of a project. These professionals interact directly with the business to obtain project-related information to justify why specific features are implemented.

ii. These professionals also contribute to the product's vision excluding the technical aspects. They act as a business-side voice and a single point of contact for getting alignment, clarifying questions, reaching consensus, and driving decisions.

4.What does a Product Owner Do?

i. A product owner takes care that each product delivers maximum value to the user. A product owner forms the core of any product development cycle. They maintain the backlog based on the evolving needs of the project and prioritize the needs and requirements of the project.

ii. They are also responsible for identifying the key areas of improvement and supporting the product design sprint. Apart from defining the product vision and strategies, they also perform the role of a business strategist, project manager, and development team lead.

5.Product Owner's Job Role-

i. Product owners are the head of an Agile team. They evaluate the work done by the team members of Scrum.

ii. Scrum generates software for product development. Scrum professionals assess the software and make sure that the software matches the functionality and attributes of the product to attain maximum efficiency.

iii. Product owners are also responsible for conducting time-to-time meetings to achieve high performance, fulfil project deadlines, identify product challenges, determine product road maps, and complete client targets and objectives.

6.Business Analyst's Job Role:

i. Business analysts are versatile and perform a wide range of tasks in various disciplines. The role of a Business Analyst varies with different sectors and organizations. A business analyst in a technical team, for example, is in charge of monitoring and upgrading systems, while a business analyst in a sales team is in charge of addressing customer issues and gathering feedback.

ii. The profile of a business analyst encompasses several different job titles including data analyst, enterprise analyst, business consultant, marketing analyst, product manager, requirements manager, system analyst, and many more.

Product Owner	Business Analyst
Manage and prioritize the backlog of products	Identify areas for improvement and put technical solutions in place
Assess the progress of product development at each iteration	Modernize and automate existing systems
Transform product managers' strategies into development tasks	Provide management and other teams with a plan of action
Maintain contact with developers to address questions	Collaborate with clients, IT department, and management personnel
Assess significant changes while ending a sprint	Ensure cost-effectiveness and resource allocation
Assist in the coordination of product and development	Project management and performance monitoring
Learn about the market and customer needs	Obtain information from a variety of stakeholders to provide valuable reports
Act as a primary liaison	Analyse current business processes and devise improvement solutions
Be involved in Scrum, Sprint reviews, retrospective meetings, and Sprint planning on a daily basis	Keep track of corporate processes and anticipate future needs or problems

Question 17. Prepare a sample resume of 3 yrs exp Product owner.

Ans-

JANHAVI BORHADE

PRODUCT OWNER

Email: Janhavi.borhade@gmail.com
Phone: 9028175182

OBJECTIVE

3 years of professional experience as a Product Owner successfully executing projects in domains such as e-Commerce, Banking and Insurance Strong understanding of systems- undertaken documentation of process flows, order management Analyzing existing systems and business models to ensure contingency and workarounds around system failures.

SKILLS

C, C++, SQL, MS Access, MS SQL Server, Rational Clear Quest, HP ALM, Microsoft Visio.

WORK EXPERIENCE

Product Owner

Infosys (January 2021 – March 2022)

- The project was primarily to support and maintain website functionality across all of the company's eCommerce properties.

- Responsible for prioritizing the backlog, creating and accepting user stories.

- Led a cross-functional team comprised of internal employees and external contractors.

- Led the building, maintenance and re/prioritizing the Program Backlog into stories for implementation based on user value and time.

- Responsible for communicating project status to business stakeholders.

- Gathered business requirements from various departments to ensure the data is migrated to work with the new systems and the downstream applications.

- Facilitated release planning, sprint planning, and retrospectives and responsible for creating tasks and writing stories in JIRA.

Product Owner

TCS (January 2019- December 2020)

- Shevaun Tarski Technical Writer Worked with stakeholders and a Scrum development team to produce and maintain multiple projects.

- Internal development Scrum team Prioritized bug reports, feature requests, and developer improvements.

- Worked with stakeholders to identify their needs.

- Coordinated with Product Owners of other development teams.

- Worked with stakeholders and the development teams to write accurate user stories.

- Worked with Technical Writer to identify documentation needs (internal and user-facing).

- Documented release plans, product workflows, and processes.

EDUCATION

- Master's in Commerce (2019-2021)- Savitribai Phule Pune University, Pune

- Bachelor's in Commerce (2016-2019)- Savitribai Phule Pune University,Pune