**Capstone Project 2 – Agile-Scrum**

1. **Write Agile Manifesto.**

The **Agile Manifesto** was created by a group of software developers in 2001. It outlines the principles and values of Agile development, focusing on delivering value to customers through collaboration, flexibility and iterative progress.

 **Manifesto for Agile Software Development:**

We are uncovering better ways of developing software by doing it and helping others do it.

**Four 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.

**12 Principles Behind the Agile Manifesto:**

1. **Customer satisfaction** 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**, with a preference for shorter timescales (weeks rather than months).
4. **Business stakeholders 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.
13. **Write minimum 40 User stories and their Acceptance Criteria along with their BV and CP.**

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| 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  |

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| User Story No: 2 | 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  |

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| 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  |

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| 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  |

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

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

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

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| User Story No: 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  |

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| User Story No: 9 | 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  |

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| User Story No: 10 | 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: 3 |
| Acceptance Criteria: CLICK ON PERFORMANCE OF RESTAURANTS SELECT FROM DATE TO DATE CLINCK ON GENERATE REPORT WHICH INCLUSES RESTAURANTS ID, NAME, REVENUE CLICK ON DOWNLOAD REPORT SHOULD BE IN EXCEL  |

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| User Story No: 11 | Tasks: 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  |

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| 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  |

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| User Story No: 13 | Tasks: 03 | Priority: HIGH |
| AS A CUSTOMER I WANT TO SEARCH FOR SPECIFIC DISHESSO THAT I CAN QUICKLY FIND WHAT I AM CRAVING |
| BV: 100 | CP: 03 |
| Acceptance Criteria: 1) RELEVANT DISHES/RESTAURANTS APPEAR WITHIN 2 SECONDS OF TYPING |

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| User Story No: 14 | Tasks: 02 | Priority: MEDIUM |
| AS A CUSTOMER I WANT TO FILTER RESTAURANTS BY RATINGS, DELIVERY TIME OR CUISINESO THAT I CAN NARROW DOWN MY CHOICES. |
| BV: 100 | CP: 05 |
| Acceptance Criteria: 1) FILTERS INSTANTLY UPDATE VISIBLE RESULTS |

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| User Story No: 15 | Tasks: 03 | Priority: MEDIUM |
| AS A CUSTOMER I WANT TO READ REVIEWS AND RATINGSSO THAT I CAN CHOOSE RELIABLE ONES |
| BV: 50 | CP: 03 |
| Acceptance Criteria: 1) USER SEES AT LEAST 5 VERIFIED REVIEWS PER RESTAURANT |

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| User Story No: 16 | Tasks: 03 | Priority: MEDIUM |
| AS A CUSTOMER I WANT TO ADD FOOD ITEMS TO A CARTSO THAT I CAN BUILD MY ORDER BEFORE CHECKOUT |
| BV: 500 | CP: 03 |
| Acceptance Criteria: 1) SELECTED ITEM APPEARS IN THE CART WITH CORRECT QUANTITY |

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| User Story No: 17 | Tasks: 03 | Priority: MEDIUM |
| AS A CUSTOMER I WANT TO CUSTOMIZE ORDERS (EG: EXTRA CHEESE, NO ONIONS)SO THAT I CAN GET IT THE WAY I LIKE IT |
| BV: 100 | CP: 03 |
| Acceptance Criteria: 1) CUSTOMIZATIONS APPEAR IN ORDER SUMMARY AND INVOICE |

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| User Story No: 18 | Tasks: 03 | Priority: HIGH |
| AS A CUSTOMER I WANT TO APPLY PROMO CODESSO THAT I CAN GET DISCOUNTS ON MY ORDER |
| BV: 100 | CP: 03 |
| Acceptance Criteria: 1) VALID PROMO CODES APPLY CORRECT DISCOUNT AND UPDATE TOTAL |

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| User Story No: 19 | Tasks: 03 | Priority: MEDIUM |
| AS A CUSTOMER I WANT TO GET ORDER STATUS NOTIFICATIONSSO THAT I CAN STAY INFORMED |
| BV: 100 | CP: 03 |
| Acceptance Criteria: 1) USER RECEIVES PUSH OR IN-APP UPDATES FOR KEY EVENTS |

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| User Story No: 20 | Tasks: 03 | Priority: HIGH |
| AS A DELIVERY PARTNER I WANT TO SEE AVAILABLE DELIVERY JOBS NEAR MESO THAT I CAN PICK THEM |
| BV: 100 | CP: 03 |
| Acceptance Criteria: DELIVERY PARTNER SEES JOBS WITHIN 10 KM AND CAN CLAIM ONE |

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| User Story No: 21 | Tasks: 03 | Priority: HIGH |
| AS A DELIVERY PARTNER I WANT TO GET OPTIMIZED ROUTES TO THE RESTURANT AND CUSTOMERSO THAT I CAN DELIVER EFFICIENTLY |
| BV: 100 | CP: 05 |
| Acceptance Criteria: BEST ROUTE IS SHOWN BASED ON TRAFFIC AND DISTANCE |

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| User Story No: 22 | Tasks: 03 | Priority: HIGH |
| AS A DELIVERY PARTNER I WANT TO UPDATE ORDER STATUS (PICKUP, DELIVERED)SO THAT MY CUSTOMERS STAY INFORMED |
| BV: 100 | CP: 03 |
| Acceptance Criteria: STATUS CHANGES REFLECT IN USER AND RESTAURANT VIEW |

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| User Story No: 23 | Tasks: 03 | Priority: MEDIUM |
| AS A DELIVERY PARTNER I WANT TO VIEW DELIVERY HISTORY AND EARNINGSSO THAT I CAN TRACK MY PERFORMANCE |
| BV: 500 | CP: 02 |
| Acceptance Criteria: DELIVERIES ARE LISTED WITH CUSTOMER, TIME AND PAYMENT INFO |

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| User Story No: 24 | Tasks: 03 | Priority: MEDIUM |
| AS A DELIVERY PARTNER I WANT TO VIEW DELIVERY HISTORY AND EARNINGSSO THAT I CAN TRACK MY PERFORMANCE |
| BV: 100 | CP: 02 |
| Acceptance Criteria: DELIVERIES ARE LISTED WITH CUSTOMER, TIME, AND PAYMENT INFO |

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| User Story No: 25 | Tasks: 03 | Priority: HIGH |
| AS AN ADMINI WANT TO VERIFY AND ONBOARD NEW RESTAURANTSSO THAT I CAN KNOW WHAT RESTAURANTS ARE LISTED |
| BV: 100 | CP: 03 |
| Acceptance Criteria: ONLY APPROVED RESTAURANTS APPEAR IN USER LISTINGS |

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| User Story No: 26 | Tasks: 03 | Priority: HIGH |
| AS AN ADMINI WANT TO MONITOR SYSTEM UPDATESO THAT I CAN KNOW WHAT RESTAURANTS ARE LISTED |
| BV: 500 | CP: 05 |
| Acceptance Criteria: ADMIN IS NOTIFIED WITHIN 60 SECONDS OF AN OUTAGE OR CRASH |

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| User Story No: 28 | Tasks: 03 | Priority: MEDIUM |
| AS AN ADMINI WANT TO HANDLE USER REPORTS OR COMPLAINTS SO THAT THE CUSTOMERS CAN STAY INFORMED  |
| BV: 100 | CP: 03 |
| Acceptance Criteria: ADMIN CAN RESPOND, RESOLVE AND CLOSE COMPLAINTS WITH LOGS |

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| User Story No: 29 | Tasks: 03 | Priority: HIGH |
| AS AN ADMINI WANT TO SEND REAL TIME NOTIFICATIONS SO THAT THE CUSTOMERS CAN STAY UPDATED ABOUT THEIR ORDER STATUS |
| BV: 500 | CP: 05 |
| Acceptance Criteria: NOTIFICATIONS REACH USERS WITHIN 5 SECONDS OF TRIGGER |

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| User Story No: 30 | Tasks: 03 | Priority: HIGH |
| AS AN ADMINI WANT TO **RECOMMEND RESTAURANTS BASED ON USER PREFERENCES AND HISTORY**SO THAT THE CUSTOMERS CAN GET A PERSONALIZED EXPERIENCE |
| BV: 100 | CP: 08 |
| Acceptance Criteria: PERSONALIZED SUGGESTIONS SHOWN WITH >80% MATCH ACCURACY |

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| User Story No: 31 | Tasks: 03 | Priority: HIGH |
| AS A RESTAURANT OWNERI WANT TO MANAGE MY MENU ITEMS SO THAT I CAN ADD, EDIT OR REMOVE DISHES |
| BV: 100 | CP: 05 |
| Acceptance Criteria: MENU CHANGES REFLECT IN USER APP WITHIN 1 MINUTE |

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| User Story No: 32 | Tasks: 03 | Priority: HIGH |
| AS A RESTAURANT OWNERI WANT TO SET ITEM AVAILABILITY (EG: OUT OF STOCK)SO THAT USERS DON’T ORDER UNAVAILABLE FOOD  |
| BV: 100 | CP: 03 |
| Acceptance Criteria:UNAVAILABLE ITEMS ARE HIDDEN OR GREYED OUT IN THE MENU |

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| User Story No: 33 | Tasks: 03 | Priority: HIGH |
| AS A RESTAURANT OWNERI WANT VIEW AND MANAGE INCOMING ORDERSSO THAT I CAN PREPARE THEM ON TIME  |
| BV: 500 | CP: 05 |
| Acceptance Criteria:RESTAURANT RECEIVES REAL-TIME ORDER ALERTS AND CAN MARK PROGRESS |

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| User Story No: 34 | Tasks: 03 | Priority: MEDIUM |
| AS A RESTAURANT OWNERI WANT TO **UPDATE ESTIMATED DELIVERY TIMES**SO THAT CUSTOMERS HAVE ACCURATE EXPECTATIONS  |
| BV: 100 | CP: 02 |
| Acceptance Criteria:USERS SEE ESTIMATED DELIVERY TIME BEFORE PLACING ORDER |

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| User Story No: 35 | Tasks: 03 | Priority: MEDIUM |
| AS A RESTAURANT OWNERI WANT TO **TRACK DAILY PAYMENTS AND EARNINGS** SO THAT I CAN MANAGE MY BUSINESS BETTER  |
| BV: 100 | CP: 03 |
| Acceptance Criteria:OWNER CAN SEE DAILY/WEEKLY TOTALS AND DOWNLOAD REPORTS |

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| User Story No: 36 | Tasks: 03 | Priority: MEDIUM |
| AS A RESTAURANT OWNERI WANT TO RESPOND TO CUSTOMER REVIEWSSO THAT I MAINTAIN A GOOD REPUTATION  |
| BV: 100 | CP: 02 |
| Acceptance Criteria:OWNER CAN RESPOND ONCE PER REVIEW AND VIEW REPLY HISTORY |

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| User Story No: 37 | Tasks: 03 | Priority: MEDIUM |
| AS A CUSTOMER OR RETURNING USERI WANT TO SEE MY PAST ORDERSSO THAT I CAN REORDER MY FAVORITES EASILY |
| BV: 50 | CP: 05 |
| Acceptance Criteria:* 1. EACH RESTAURANT SHOWS ESTIMATED DELIVERY WINDOW
	2. TIME ADJUSTS BASED ON LOCATION AND RESTAURANT LOAD
	3. TIME IS SHOWN AGAIN DURING CHECKOUT
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| User Story No: 38 | Tasks: 03 | Priority: MEDIUM |
| AS A CUSTOMER OR RETURNING USERI WANT TO SEE MY PAST ORDERSSO THAT I CAN REORDER MY FAVORITES EASILY |
| BV: 50 | CP: 05 |
| Acceptance Criteria:1. EACH RESTAURANT SHOWS ESTIMATED DELIVERY WINDOW
2. TIME ADJUSTS BASED ON LOCATION AND RESTAURANT LOAD
3. TIME IS SHOWN AGAIN DURING CHECKOUT
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| User Story No: 39 | Tasks: 04 | Priority: HIGH |
| AS A SYSTEM ADMINI WANT TO CREATE, EDIT AND ASSIGN USER ROLES (ADMIN, RESTAURANT, CUSTOMER, DELIVERY PARTNER)SO THAT I CAN MANAGE ACCESS LEVELS SECURELY ACROSS THE PLATFORM  |
| BV: 100 | CP: 08 |
| Acceptance Criteria:* ADMIN CAN ASSIGN ROLES TO ANY USER
* PERMISSIONS ARE ENFORCED BASED ON ROLES
* ALL CHANGES ARE LOGGED WITH USER ID, TIME AND ACTION
* UI ALLOWS FILTERING BY ROLE
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| User Story No: 40 | Tasks: 03 | Priority: MEDIUM |
| AS A SYSTEM ADMINI WANT TO RESET PASSWORDS FOR USERS WHO CAN’T ACCESS THEIR ACCOUNTSSO THAT I CAN HELP USERS REGAIN ACCESS SECURELY  |
| BV: 100 | CP: 03 |
| Acceptance Criteria:* PASSWORD RESET MUST REQUIRE ADMIN AUTHENTICATION
* TEMPORARY PASSWORD EXPIRES IN 24 HOURS
* USER CAN SET A NEW PASSWORD AFTER LOGIN
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1. **What is epic? Write 2 epics.**

EPIC is the set of user stories or the big user story consisting the number of small user stories to complete the mile stone known as EPIC.

EPIC can be said as the set of user stories completed to achieve one task.

1. Registration

As a customer, I want to register in scrum food app so that I can login and place order.

 2. Login

As a customer, I want to login to scrum food so that I can order the food and make payment.

1. **What is the difference between BV and CP.**
* **BV -**

BV stands for business value which is given by the client according to the importance of task. Business Value is how important is this feature (user Story) to the Business. This is estimated by Scrum Currency Notes. We provide Rs 1000. Rs 500, Rs 100, Rs 50, Rs 20 and Rs 10 Denominations.

* **CP -**

CP is also known as Complexity Points or Story Points (SP). CP is the effort required by the Scrum Developers to develop this feature (user story) using technology. Efforts include time taken to solve the complexity and write the code. CP is estimated by the Scrum Developers by using Poker cards. We provide pokers with values “?”, 1, 2, 3, 5, 8, 13, 20, 40, 100 and BIG. The main difference between the BV and CP is that the BV value is decided or given by the client according to the importance or the priority of task to be performed. However, the CP value is identified or given by the development team according to the efforts needed to perform the tasks.

1. **Explain about Sprint.**

Sprints are time boxed iterations of a continuous project development cycle—short repeatable phases that last between one and four weeks. Sprints lie at the core of Agile and Scrum methodologies, an approach that takes large, complex product development projects and breaks them down into smaller, more manageable pieces.

**What is Sprint Duration:**

A **Sprint** is a time-boxed iteration in Scrum where a team works to deliver a potentially shippable product increment.
✅ **Typical Duration:** 2 Weeks (though it can be 1–4 weeks depending on the team/project).

**Your Sprint Value:** Think of it as the goal or outcome of the sprint. It's usually a **"Sprint Goal"**, such as:
**🟢 Example:** "Implement user login functionality" or "Improve website performance by 20%"

**What is Scrum Duration:**

**Scrum Duration** refers to a **Daily Scrum** (also called the Daily Stand-up), which is a short, daily meeting.

✅ **Typical Duration:** **15 minutes** (not a full day)
👉 **Your Scrum Value:** The **purpose** or **value** of this daily meeting. It's typically:
**🟢 Example:** "To inspect progress toward the Sprint Goal and adapt the plan as needed."

| **Concept** | **Duration** | **Value (Purpose/Outcome)** |
| --- | --- | --- |
| **Sprint** |  2 Weeks | Sprint Goal (example: "Deliver feature X", "Fix 10 critical bugs”) |
| **Daily Scrum** |  15 Minutes (Daily) | Progress Check & Plan Update |

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| **PBI** | **TASKS** | **WIP** | **DONE** |
| Registration | **3** | **2** | **1** |
| Login | 2 | 2 | 0 |
| Add Restaurants | 3 | 2 | 1 |
| Order Food | 3 | 0 | 3 |
| Make Payment | 3 | 3 | 0 |
| Track Delivery | 3 | 3 | 0 |
| Customer Feedback | 3 | 3 | 0 |

**6. Explain Product backlog and sprint back log**.

 **✅** Product Backlog

* The **Product Backlog** is a **master list of all the work** that needs to be done for a product.
* It’s maintained by the **Product Owner**.
* Items in the product backlog are called **Product Backlog Items (PBIs)** — these can be features, bug fixes, technical tasks, or research.
* It’s **dynamic** — new items can be added and existing ones can change as the project evolves.
* Items are **prioritized** based on business value, customer needs, risk, or dependencies.
* It’s a **living document** and is continuously refined (called **Backlog Grooming or Refinement**).

📌 Think of it as a **to-do list for the entire product**.

**✅ Sprint Backlog**

* The **Sprint Backlog** is a **subset** of the Product Backlog.
* It includes the items that the team commits to completing **during a specific Sprint** (a time-boxed period, usually 1–4 weeks).
* It’s created during the **Sprint Planning meeting**.
* It’s owned and managed by the **Development Team**.
* The team breaks down PBIs into smaller tasks during this stage.

📌 Think of it as a **short-term action plan** for the sprint.

**Difference at a Glance**

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| Aspect |  Product Backlog | Sprint Backlog |
| Scope | Entire product | One sprint |
| Owner | Product Owner | Development Team |
| Content | Features, bugs, tasks, ideas | Selected user stories & tasks for sprint |
| Timeline | Long-term vision | Short-term (sprint duration) |
| Changes during Sprint | Allowed | Generally, not allowed |

**7. What is impediments log? Write 2 impediments.**

 **Impediments Log:**

An **Impediments Log** is a **record of all the obstacles or issues** that are blocking or slowing down the progress of the Scrum team.
These are problems that **can't be solved immediately** and often require help from outside the team (e.g., management, stakeholders, or other departments).

* It’s usually **maintained by the Scrum Master**, whose role includes removing these impediments.
* The log helps in **tracking**, **prioritizing**, and **resolving** these blockers.
* Keeping an updated impediments log improves **transparency** and helps the team stay **focused**.

**Example Impediments:**

1. **Lack of access to testing environment**

 QA engineers can't start testing because the staging environment credentials are not working, and IT hasn’t responded yet

1. **Unclear requirements from the Product Owner**

User stories are vague or missing acceptance criteria, so the development team can’t start working without clarification.

**8. Explain Velocity of the Team (Velocity – How many CP is covered in this sprint).**

**Team Velocity** is a measure of the amount of work a team can complete during a **single sprint** (usually 1–4 weeks in Agile/Scrum). It helps in **predicting how fast** a team can deliver features or stories.

* **How is it Measured?**

Usually measured in:

* **Story points**
* **Work items**
* **Hours** (less common)

**Example**: If a team completes **30 story points** worth of work in Sprint 1, **28 points** in Sprint 2, and **32 points** in Sprint 3, their **average velocity** is:
(30 + 28 + 32) ÷ 3 = **30 story points per sprint**

* **Why is Velocity Important?**
* Helps in **sprint planning** 🗓️
* Predicts **delivery timelines** 📊
* Identifies **team productivity trends** 📈
* Supports **realistic commitments**
* **Important Notes**
* It’s **team-specific** – not for comparing across teams!
* It **improves over time** as the team gels.
* Affected by vacations, team changes, or technical blockers.

**9. Draw Sprint Burn Charts n Product Burn Down Charts.**

* **Sprint Burn Chart (aka Sprint Burndown Chart)**

**Purpose:**
Tracks the amount of work remaining in a **single sprint**.

**What it shows:**

* Progress of the **team** during the sprint (usually 1-4 weeks long).
* How much work is left each day (often measured in story points, hours or tasks).
* Whether the team is on track to complete the sprint goals by the end.

**X-axis:** Time (Sprint duration – usually in days)
**Y-axis:** Remaining work (e.g., story points)

**Example Insight:**
If the line is above the ideal burndown line, the team may be falling behind. If it's below, they're ahead of schedule.

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* **Product Burn Down Chart**

**Purpose:**
Tracks the amount of work remaining in the **entire product backlog** over time.

**What it shows:**

* Progress of the **project or product** across multiple sprints (aka release burndown).
* Whether the team is on track to deliver the full product within the desired timeframe.

**X-axis:** Time (multiple sprints or weeks)
**Y-axis:** Total remaining product backlog items (or story points)

**Example Insight:**
This gives stakeholders a big-picture view of overall progress and whether the release or milestone will be met.



**10. Explain about Product Grooming.**

**Product Grooming** is the **ongoing process** of reviewing, updating, and prioritizing the items in the **Product Backlog** to keep it clean, clear, and ready for upcoming sprints.

It helps ensure the backlog is:

* **Well-organized**
* **Up-to-date**
* **Prioritized**
* And that items are **detailed enough** for the development team to work on.

**Key Activities During Grooming:**

1. **Clarifying Requirements**
	* Discussing items with the Product Owner to better understand the user stories, goals, and acceptance criteria.
2. **Prioritizing Items**
	* Reordering backlog items based on business value, urgency, dependencies, and team capacity.
3. **Breaking Down Large Items**
	* Splitting big features (epics) into smaller, manageable user stories or tasks.
4. **Estimating Effort**
	* The team might give rough estimates (story points or time) for upcoming items.
5. **Removing Outdated Items**
	* Getting rid of things that are no longer relevant.

**Who Participates?**

* **Product Owner** (leads the grooming)
* **Scrum Master** (facilitates the session if needed)
* **Development Team** (provides input, asks questions, estimates work)

**When and How Often?**

* Usually done **once per sprint** (or more, depending on the pace of the project)
* Often takes **5–10% of the team’s total sprint time**

**Why is Grooming Important?**

* Keeps the team **aligned and focused**
* Prepares backlog items for **sprint planning**
* Reduces surprises and **saves time during planning meetings**
* Improves the **flow of work**

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

**Scrum Master:**

 The Scrum Master is accountable for establishing Scrum as defined in the Scrum Guide. They do this by helping everyone understand Scrum theory and practice, both within the Scrum Team and the organization. The Scrum Master is accountable for the Scrum Team’s effectiveness. They do this by enabling the Scrum Team to improve its practices, within the Scrum framework. The day-to-day activity of a Scrum Master involves servant leadership where they are involved in performance planning, coaching, self- organization, removing obstacles, resolving conflicts and serving the team. He also ensures project success by assisting the product owner and the team in using the right Scrum processes for creating the end product and establishing the Agile principles.

**Product Owner:**

 The [Product Owner](https://www.knowledgehut.com/agile-management/cspo-certification-training) is accountable for maximizing the value of the product resulting from the work of the Scrum Team. The Product Owner is one person, not a committee. The Product Owner may represent the needs of many stakeholders in the Product Backlog. Those wanting to change the Product Backlog can do so by trying to convince the Product Owner. The first responsibility of the product owner is customer satisfaction and this they carry out by ensuring that customer requirements are given priority and there is transparency between development team and stakeholders. The product owner guarantees stakeholder satisfaction by ensuring product success, and building a product which meets business requirements. He interacts with the users and customers, Stakeholders, the Development team and the Scrum Master to deliver a successful product.

 The Product Owner and the Scrum Master are both invaluable members of a Scrum project team, as they build the perfect relation with the development team and strive to deliver the best results.

**12. Explain all Meetings Conducted in Scrum Project.**

 **✅ 1. Sprint Planning**

**When:** At the start of each Sprint
**Participants:** Scrum Team (Product Owner, Scrum Master, Developers)
**Purpose:**

* To define **what** can be delivered in the Sprint (Sprint Goal)
* Decide **how** the work will be achieved
**Key Inputs:**
* Product Backlog (prioritized by the Product Owner)
* Team capacity
* Past performance or velocity
**Output:** A **Sprint Backlog** (selected Product Backlog items + plan)

**✅ 2. Daily Scrum (Stand-up)**

**When:** Every day during the Sprint (15 minutes max)
**Participants:** Developers (Scrum Master and Product Owner may attend but not required)
**Purpose:**

* To synchronize the team
* Quickly inspect progress toward the Sprint Goal
* Plan the next 24 hours of work
**Typical Questions Asked:**
1. What did I do yesterday?
2. What will I do today?
3. Are there any blockers?

**✅ 3. Sprint Review**

**When:** At the end of the Sprint
**Participants:** Scrum Team + Stakeholders
**Purpose:**

* To inspect the Increment (work done during the Sprint)
* Get feedback from stakeholders
* Adapt the Product Backlog if needed
**Output:** Adjusted Product Backlog and possible future improvements

**✅ 4. Sprint Retrospective**

**When:** After the Sprint Review, before the next Sprint Planning
**Participants:** Scrum Team only
**Purpose:**

* Reflect on how the Sprint went (people, process, tools)
* Identify what went well, what didn’t, and what could be improved
* Create action items for improvement
**Output:** Concrete improvement steps for the next Sprint

**✅ 5. Backlog Refinement (also known as Product grooming)**

**When:** Regularly during the Sprint (often weekly)
**Participants:** Product Owner, Developers (Scrum Master optional)
**Purpose:**

* Clarify and break down Product Backlog items
* Add details, estimates, and priorities
* Prepare items for future Sprints
**Output:** A well-groomed and prioritized Product Backlog

**Summary Table**

|  |  |  |  |
| --- | --- | --- | --- |
| **Scrum Meeting** | **Frequency** | **Purpose** | **Who attends** |
| Sprint Planning  | Start of Sprint | Plan Sprint Goal & work | Scrum Team |
| Daily Scrum | Daily | Sync Team, inspect progress | Developers |
| Sprint Review | End of Sprint | Demo work, gather feedback | Scrum Team + Stakeholders |
| Sprint Retrospective | End of Sprint | Improve team processes | Scrum Team |
| Backlog Refinement | Ongoing | Prepare Product Backlog items | PO + Developers |

1. **Explain Sprint Size and Scrum Size.**

🧭 1. **Sprint Size (aka Sprint Duration)**

**Definition:**
The **Sprint Size** refers to the **length or duration of a Sprint** — how long the development team has to complete a set of work.

🔹 Typical Sprint Sizes:

* **1 week** – Very fast-paced, quick feedback loop
* **2 weeks** – Most common (sweet spot for many teams)
* **3-4 weeks** – Used for complex projects or larger deliverables

💡 Things to Consider:

* Sprint size should be **consistent** (same length every time)
* Shorter Sprints = faster feedback + more frequent releases
* Longer Sprints = more time for complex features, but slower feedback

🚫 What NOT to do:

* Don’t change Sprint size frequently — it breaks rhythm and predictability
* Don’t extend a Sprint to finish "just one more thing" — it goes against Scrum principles

👥 2. **Scrum Team Size**

**Definition:**
The **Scrum Team Size** refers to the number of people on the team that works together during Sprints.

🔹 Scrum Team Structure (based on Scrum Guide):

* **Product Owner (PO)** – defines and prioritizes work
* **Scrum Master (SM)** – facilitates the process and removes blockers
* **Developers** – do the actual work (coding, testing, design, etc.)

🔸 Recommended Size:

* **Total Scrum Team size:** Typically, **10 or fewer**
* **Developers only:** **3–9 people** (ideal size for productivity and communication)

💡 Why this size?

* Small enough to stay nimble and communicate easily
* Big enough to get meaningful work done in a Sprint
* Larger teams are usually split into multiple Scrum Teams (with a shared PO)

**Summary Table**

|  |  |  |
| --- | --- | --- |
| **Aspect** | **Sprint Size** | **Scrum Team Size** |
| What it means | Length of a Sprint | Number of people in the Scrum Team |
| Typical Value | 1–4 weeks | 5–10 people (3–9 Developers) |
| Affects | Planning, delivery rhythm | Communication, velocity, collaboration |
| Should be... | Fixed and consistent | Small, cross-functional, self-managing |

1. **Explain DOR and DOD.**

**Definition of Ready (DoR)**

**What is it?**
The **Definition of Ready** is a **checklist of criteria** that a Product Backlog Item (PBI) must meet **before** the team can pull it into a Sprint.

Think of it as:

“Is this user story well-prepared and understood enough for us to start working on it?”

📋 Typical DoR Criteria:

* The item is **clearly defined** (well-written user story)
* **Acceptance Criteria** are defined
* **Dependencies** are identified/resolved
* **Effort is estimated**
* The item is **small enough** to be completed in a Sprint
* Team **understands** what needs to be done

🧠 Why it matters:

* Prevents confusion during Sprint
* Ensures work is well-prepared
* Reduces rework and wasted time

**Definition of Done (DoD)**

**What is it?**
The **Definition of Done** is a **checklist of conditions** that must be met for a Product Backlog Item (or the Sprint itself) to be considered **complete**.

Think of it as:

“Is this user story really done — done done?”

📋 Typical DoD Criteria:

* Code is written and peer-reviewed
* Unit tests are written and passed
* Code is merged to the main branch
* Feature is tested (QA approved)
* Documentation is updated (if needed)
* Deployed to staging or production-ready

🧠 Why it matters:

* Ensures **quality and consistency**
* Aligns team on what “done” means
* Helps avoid incomplete or buggy features

**Summary Table**

|  |  |  |
| --- | --- | --- |
| **Aspect** | **Definition of Ready (DoR)** | **Definition of Done (DoD)** |
| When Used | Before work starts | After work is completed |
| Purpose | Ensure item is ready to begin | Ensure item is truly complete |
| Focus On | Clarity, completeness of requirement | Quality, completeness of delivery |
| Example Question | "Can we start this?" | "Can we deliver this?" |

1. **Explain Prioritization Techniques and MVP.**

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

 **Product level:**

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

 **Tasks level:**

 Specify which work items must be completed and in what sequence during the software product development cycle. Types of Agile Prioritisation Techniques.

 **Types of Agile Prioritisation Techniques:**

**MoSCoW Agile Prioritization Techniques**

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

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

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

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

W: Will not. Represents a demand that stakeholders have decided will not be executed in a particular release but will be addressed in the future.

After categorizing the needs into four groups, they are rated in order of priority within each category.

**Priority Poker**

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

**Cost of Delay**

This Agile prioritization technique is a concept that assists you in determining the amount of money you risk losing if certain features are unavailable. Essentially, you are putting yourself in the path of those who are combating fires. As a result, it is a proactive struggle to guarantee that there are no money-bleeding situations.

You may estimate how urgent they are by calculating how much money the organization would lose every day if the feature or job is delayed. As a consequence, you will have a well-planned timetable that will contribute to total budget savings. As a result, this prioritizing strategy is motivated only by financial considerations and has nothing to do with user experience or customer happiness

 Although these factors may be considered when calculating the Cost of Delay, they are not the primary goal of these Agile prioritization methods. The benefits of employing this priority technique in conjunction with others would be both financially and emotionally justifiable.

**Conclusion:**

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

**MVP:**

(Minimum Viable Product), the Core of the Agile Methodology. An MVP is a concept from agile scrum that refers to a product that has just enough features to satisfy the needs of early customers and, more importantly give them something to provide feedback on to shape the future of the product. **MVP** is the **simplest version of a product** that can be released to test a concept, get user feedback, and validate assumptions **with minimum effort and cost**.

**16. Difference between Business Analyst n Product Owner.**

|  |  |  |
| --- | --- | --- |
| **Aspect** | **Business Analyst (BA)** |  **Product Owner (PO)** |
| Main Focus | Understanding business needs, gathering & analysing requirements | Maximizing product value by managing the Product Backlog |
| Role Type | Support role (can exist in Agile or traditional) | Core Scrum role (official role in Scrum) |
| Decision-making Power | Usually advises decision-makers; doesn’t own the product | Has final say on what gets built and prioritized |
| Backlog Ownership | May help define and refine backlog items | Owns and is responsible for the Product Backlog |
| Customer Interaction | Often talks to stakeholders to gather input | Frequently interacts with both customers and stakeholders to define product vision |
| Team Interaction | Acts as a bridge between business and development teams | Works closely with the Scrum Team daily to guide delivery |
| Strategic vs Tactical | More tactical – focuses on gathering and clarifying requirements | More strategic – aligns product with business goals |
| Typical Work Includes | Writing user stories, process modelling, requirement analysis, documentation | Setting vision, prioritizing backlog, accepting/rejecting work, ROI management |

* **Product Owner = CEO of the product**
* Owns vision, value, and decisions
* **Business Analyst = Product Advisor or Translator**
* Helps clarify needs and write detailed specs
* **PO** focuses on what to build and why
* **BA** supports by helping define how features should behave (in detail)
* The BA might help break down complex items, gather user stories, or validate requirements—especially when the PO is overloaded

**Summary:**

**The PO owns the product. The BA supports its clarity.**

* In **Scrum**, the **Product Owner** is essential
* **BAs** may not be part of Scrum officially, but they can still play a **valuable supporting role** (especially on large teams)

**17. Prepare a sample Resume of 3yrs exp Product Owner.**

 **[Your Full Name]**

📍 [Your City, Country] | 📞 +91-XXXXXXXXXX | 📧 your.email@example.com | 🔗 LinkedIn: linkedin.com/in/yourname

🧑‍💼 **Professional Summary**

Certified and results-driven **Product Owner** with **3 years of experience** delivering customer-centric digital products using Agile/Scrum methodology. Proven expertise in backlog management, user story creation, stakeholder collaboration, and cross-functional team coordination. Adept at prioritizing features for maximum business value and customer satisfaction.

🛠️ **Key Skills**

* Agile / Scrum Methodology
* Product Backlog Management
* User Stories & Acceptance Criteria
* Sprint Planning & Reviews
* Roadmap Planning
* Stakeholder Communication
* Jira / Confluence / Trello
* Wireframing (Balsamiq, Figma)
* MVP Definition
* Data Analysis (Google Analytics, Excel)

💼 **Professional Experience**

**Product Owner**

**ABC Tech Solutions Pvt. Ltd., Bangalore**
Apr 2022 – Present
**Domain:** E-commerce Platform
**Team Size:** 8 Developers + QA + Scrum Master

* Managed and prioritized a dynamic product backlog for a B2C e-commerce web platform serving over 500K users
* Defined and refined user stories, ensuring clarity and alignment with customer needs and business goals
* Collaborated with UX designers to wireframe key product features and flows
* Led Sprint Planning, Review, and Retrospective sessions, contributing to 20% faster delivery of high-priority features
* Conducted regular backlog grooming and stakeholder reviews, resulting in a 90% stakeholder satisfaction rate
* Defined MVPs for new product modules, enabling quick market validation and feedback

**Associate Product Owner / Business Analyst**

**XYZ Innovations Pvt. Ltd., Hyderabad**
Jan 2021 – Mar 2022
**Domain:** SaaS (HRTech)
**Team Size:** 5 Developers + PO + QA

* Supported the Product Owner in backlog grooming, sprint planning, and user story documentation
* Created detailed functional specs, process flows, and mock-ups for the HR analytics module
* Interacted with internal stakeholders to gather and clarify requirements
* Improved team productivity by aligning development tasks with clear business outcomes
* Contributed to successful on-time delivery of 3 product releases

🎓 **Education**

**Bachelor of Technology (B.Tech) – Computer Science**
XYZ University, India | 2016 – 2020

📜 **Certifications**

* Certified Scrum Product Owner (CSPO) – Scrum Alliance
* Agile Fundamentals – Udemy / Coursera

🏆 **Achievements**

* Improved feature delivery cycle by 25% through better backlog prioritization and Sprint planning
* Recognized as “Product Champion” for Q4 2023 for leading the release of a high-impact feature set