# **CAPSTONE PROJECT 2**

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| **Question 1 – write Agile Manifesto – 8 Marks** |

### **Agile Manifesto – 4 Core Values**

1. **Individuals and Interactions over Processes and Tools**
   * Effective collaboration and communication among team members, stakeholders, and customers are prioritized over rigid processes and tools.
2. **Working Software over Comprehensive Documentation**
   * Delivering a functional product is more important than excessive documentation that slows down development.
3. **Customer Collaboration over Contract Negotiation**
   * Continuous engagement with customers ensures their needs are met, rather than strictly adhering to predefined contracts.
4. **Responding to Change over Following a Plan**
   * Agile teams embrace change and adapt to evolving business requirements rather than rigidly sticking to a fixed plan.

### **12 Agile Principles**

1. **Customer Satisfaction through Early and Continuous Delivery**
   * Deliver valuable software frequently to meet customer expectations.
2. **Welcome Changing Requirements, Even Late in Development**
   * Agile processes harness change to provide a competitive advantage.
3. **Deliver Working Software Frequently**
   * Release working versions in short iterations (weeks rather than months).
4. **Collaboration Between Business Stakeholders and Developers**
   * Frequent and effective communication ensures project success.
5. **Build Projects Around Motivated Individuals**
   * Provide the support and trust needed to drive high performance.
6. **Face-to-Face Conversation is the Most Effective Communication Method**
   * Direct interactions improve understanding and reduce misunderstandings.
7. **Working Software is the Primary Measure of Progress**
   * Functioning, usable software is the key indicator of project success.
8. **Sustainable Development Pace**
   * Teams should work at a pace they can maintain indefinitely.
9. **Continuous Attention to Technical Excellence and Good Design**
   * Quality code and efficient design improve agility.
10. **Simplicity – Maximizing Work Not Done** 
    * Avoid unnecessary complexity and focus only on essential tasks.
11. **Self-Organizing Teams Deliver the Best Results**

* Empower teams to make decisions for better efficiency and innovation

1. **Regular Reflection and Adjustment**

* Teams continuously evaluate their performance and make improvements

**Question 2 – User Stories- Acceptance Criteria-BV-CP – 40 Marks**

**Write minimum 40 User stories and their Acceptance Criteria along with their BV and CP**

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| **User Story No**: 1 | **Tasks**:2 | | **Priority** : Highest |
| AS A CUSTOMER  I WANT TO REGISTER IN SCRUM FOODS  SO THAT I CAN PLACE FOOD ORDERS | | | |
| **BV**:500 | | **CP**:2 | |
| **Acceptance Criteria**  Registration Screen  Text Boxes for User Name, Password, Nation ID, Mobile No, Email, Address, Phone Number.  Click on Register Button.  Send Successful Notification to the user | | | |

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| **User Story No**: 2 | **Tasks**:3 | | **Priority** : Highest |
| AS A RESTAURANT OWNER  I WANT TO REGISTER  SO THAT I CAN LIST MY RESTAURANT AND MENU | | | |
| **BV**:500 | | **CP**:3 | |
| **Acceptance Criteria**  Registration form, validation, document upload for verification, approval notification. | | | |

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| **User Story No**: 3 | **Tasks**:2 | | **Priority** : Highest |
| AS A DELIVERY BOY  I WANT TO REGISTER  SO THAT I CAN DELIVER FOOD | | | |
| **BV**:500 | | **CP**:2 | |
| **Acceptance Criteria**  Registration form with ID verification, approval status update. | | | |

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| **User Story No**: 4 | **Tasks**:2 | | **Priority** : Highest |
| AS A CUSTOMER  I WANT TO LOG IN  SO THAT I CAN ACCESS MY ACCOUNT | | | |
| **BV**:400 | | **CP**:2 | |
| **Acceptance Criteria**  Email/password input, login button, error handling for incorrect credentials. | | | |

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| **User Story No**: 5 | **Tasks**:3 | | **Priority** : High |
| AS A CUSTOMER  I WANT TO RESET MY PASSWORD  SO THAT I CAN RECOVER MY ACCOUNT | | | |
| **BV**:300 | | **CP**:2 | |
| **Acceptance Criteria**  Forgot password link, email verification, new password input, and confirmation message. | | | |

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| **User Story No**: 6 | **Tasks**:2 | | **Priority** : High |
| AS A RESTAURANT OWNER  I WANT TO ADD MENU ITEMS  SO THAT CUSTOMERS CAN ORDER FOOD | | | |
| **BV**:500 | | **CP**:3 | |
| **Acceptance Criteria**  Add/edit/delete menu items, upload images, set prices, save confirmation. | | | |

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| **User Story No**: 7 | **Tasks**:3 | | **Priority** : High |
| AS A RESTAURANT OWNER  I WANT TO VIEW AND MANAGE ORDERS  SO THAT I CAN FULFILL THEM | | | |
| **BV**:500 | | **CP**:3 | |
| **Acceptance Criteria**  View order list, update status (pending, preparing, ready, delivered) | | | |

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| **User Story No**: 8 | **Tasks**:2 | | **Priority** : Medium |
| AS A RESTAURANT OWNER  I WANT TO VIEW CUSTOMER REVIEWS  SO THAT I CAN IMPROVE MY SERVICE | | | |
| **BV**:400 | | **CP**:2 | |
| **Acceptance Criteria**  Display customer reviews and ratings, filter by date. | | | |

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| **User Story No**: 9 | **Tasks**:3 | | **Priority** : HIGH |
| AS A CUSTOMER  I WANT TO SEARCH FOR RESTAURANTS BASED ON LOCATION  SO THAT I CAN ORDER NEARBY | | | |
| **BV**:500 | | **CP**:3 | |
| **Acceptance Criteria**  Search bar, location-based filtering, display results. | | | |

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| **User Story No**: 10 | **Tasks**:3 | | **Priority** : HIGH |
| AS A CUSTOMER  I WANT TO BROWSE MENU ITEMS  SO THAT I CAN SELECT MY DESIRED FOOD | | | |
| **BV**:500 | | **CP**:3 | |
| **Acceptance Criteria**  Display restaurant menu, food images, prices, availability status. | | | |

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| **User Story No**: 11 | **Tasks**:2 | | **Priority** : HIGH |
| AS A CUSTOMER  I WANT TO ADD ITEMS TO THE CART  SO THAT I CAN PLACE AN ORDER | | | |
| **BV**:500 | | **CP**:3 | |
| **Acceptance Criteria**  Add/remove items, quantity adjustment, total price calculation. | | | |

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| **User Story No**: 12 | **Tasks**:3 | | **Priority** : Medium |
| AS A CUSTOMER  I WANT TO APPLY DISCOUNT COUPONS  SO THAT I CAN GET A BETTER DEAL | | | |
| **BV**:400 | | **CP**:3 | |
| **Acceptance Criteria**  Enter coupon code, validate, apply discount, error handling. | | | |

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| **User Story No**: 13 | **Tasks**:2 | | **Priority** : HIGHEST |
| AS A CUSTOMER  I WANT TO PLACE AN ORDER  SO THAT I CAN RECEIVE MY FOOD | | | |
| **BV**:400 | | **CP**:3 | |
| **Acceptance Criteria**  Order summary, payment method selection, confirmation page. | | | |

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| **User Story No**: 14 | **Tasks**:3 | | **Priority** : HIGHEST |
| AS A CUSTOMER  I WANT TO SELECT A PAYMENT MODE  SO THAT I CAN PAY CONVENIENTLY | | | |
| **BV**:500 | | **CP**:3 | |
| **Acceptance Criteria**  Display payment modes (card, UPI, COD), select one, payment confirmation | | | |

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| **User Story No**: 15 | **Tasks**:3 | | **Priority** : HIGH |
| AS A CUSTOMER  I WANT TO SAVE MY PAYMENT DETAILS  SO THAT I CAN MAKE FUTURE PAYMENTS FASTER | | | |
| **BV**:300 | | **CP**:3 | |
| **Acceptance Criteria**  Secure card storage, tokenization, delete saved cards option. | | | |

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| **User Story No**: 16 | **Tasks**:4 | | **Priority** : HIGHEST |
| AS A CUSTOMER  I WANT TO TRACK MY ORDER IN REAL-TIME  SO THAT I KNOW WHEN IT WILL ARRIVE | | | |
| **BV**:500 | | **CP**:4 | |
| **Acceptance Criteria**  Display live location tracking, estimated time, delivery boy details. | | | |

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| **User Story No**: 17 | **Tasks**:3 | | **Priority** : HIGH |
| AS A DELIVERY BOY  I WANT TO VIEW AND ACCEPT NEW ORDERS  SO THAT I CAN DELIVER THEM | | | |
| **BV**:500 | | **CP**:3 | |
| **Acceptance Criteria**  Order list, accept/reject button, status updates. | | | |

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| **User Story No**: 18 | **Tasks**:2 | | **Priority** : HIGH |
| AS A DELIVERY BOY  I WANT TO UPDATE THE DELIVERY STATUS  SO THAT THE CUSTOMER KNOWS THE PROGRESS | | | |
| **BV**:400 | | **CP**:2 | |
| **Acceptance Criteria**  Update order to picked-up, on-the-way, delivered. | | | |

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| **User Story No**: 19 | **Tasks**:3 | | **Priority** : Medium |
| AS A DELIVERY BOY  I WANT TO UPDATE THE DELIVERY STATUS  SO THAT THE CUSTOMER KNOWS THE PROGRESS | | | |
| **BV**:500 | | **CP**:3 | |
| **Acceptance Criteria**  Chat interface, message history, automated responses. | | | |

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| **User Story No**: 20 | **Tasks**:2 | | **Priority** : Medium |
| AS A CUSTOMER  I WANT TO PROVIDE FEEDBACK ON MY ORDER  SO THAT I CAN RATE MY EXPERIENCE | | | |
| **BV**:400 | | **CP**:2 | |
| **Acceptance Criteria**  Star rating, comments box, submit button. | | | |

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| **User Story No**: 21 | **Tasks**:3 | | **Priority** : HIGH |
| AS AN ADMIN  I WANT TO GENERATE SALES REPORTS  SO THAT I CAN ANALYZE BUSINESS PERFORMANCE | | | |
| **BV**:500 | | **CP**:3 | |
| **Acceptance Criteria**  Select date range, filter by restaurant, download PDF/Excel. | | | |

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| **User Story No**: 22 | **Tasks**:3 | | **Priority** : HIGH |
| AS A BUSINESS OWNER  I WANT TO VIEW REVENUE REPORTS  SO THAT I CAN TRACK EARNINGS | | | |
| **BV**:500 | | **CP**:3 | |
| **Acceptance Criteria**  Revenue breakdown by restaurant, export option. | | | |

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| **User Story No**: 23 | **Tasks**:3 | | **Priority** : MEDIUM |
| AS A CUSTOMER  I WANT TO ADD MULTIPLE DELIVERY ADDRESSES  SO THAT I CAN RECEIVE FOOD AT DIFFERENT LOCATIONS | | | |
| **BV**:300 | | **CP**:3 | |
| **Acceptance Criteria**  Multiple address input fields, select default address. | | | |

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| **User Story No**: 24 | **Tasks**:2 | | **Priority** : HIGH |
| AS A DELIVERY BOY  I WANT TO VIEW THE CUSTOMER'S DELIVERY INSTRUCTIONS  SO THAT I CAN PROVIDE A BETTER SERVICE | | | |
| **BV**:400 | | **CP**:3 | |
| **Acceptance Criteria**  View additional delivery instructions, notes from the customer. | | | |

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| **User Story No**: 25 | **Tasks**:3 | | **Priority** : MEDIUM |
| AS A RESTAURANT OWNER  I WANT TO SET OPENING HOURS  SO THAT CUSTOMERS KNOW WHEN WE ARE OPEN | | | |
| **BV**:400 | | **CP**:2 | |
| **Acceptance Criteria**  Set start and end times, save updated hours. | | | |

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| **User Story No**: 26 | **Tasks**:3 | | **Priority** : LOWEST |
| AS A CUSTOMER  I WANT TO CANCEL MY ORDER BEFORE IT'S DISPATCHED  SO THAT I CAN CHANGE MY MIND | | | |
| **BV**:200 | | **CP**:2 | |
| **Acceptance Criteria**  Cancel button, notification, refund handling. | | | |

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| **User Story No**: 27 | **Tasks**:2 | | **Priority** : HIGH |
| AS A CUSTOMER  I WANT TO ADD A TIP FOR THE DELIVERY BOY  SO THAT I CAN APPRECIATE GOOD SERVICE | | | |
| **BV**:400 | | **CP**:3 | |
| **Acceptance Criteria**  Tip option in payment process, custom amount, summary update. | | | |

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| **User Story No**: 28 | **Tasks**:3 | | **Priority** : LOW |
| AS A REGIONAL ADMIN  I WANT TO MANAGE DELIVERY BOYS  SO THAT I CAN ASSIGN ORDERS TO THEM | | | |
| **BV**:400 | | **CP**:3 | |
| **Acceptance Criteria**  View list of delivery boys, assign orders, update status. | | | |

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| **User Story No**: 29 | **Tasks**:3 | | **Priority** : HIGH |
| AS AN ADMIN  I WANT TO APPROVE RESTAURANT REGISTRATIONS  SO THAT ONLY AUTHORIZED RESTAURANTS CAN JOIN | | | |
| **BV**:400 | | **CP**:3 | |
| **Acceptance Criteria**  View list of delivery boys, assign orders, update status. | | | |

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| **User Story No**: 30 | **Tasks**:2 | | **Priority** : HIGH |
| AS A DELIVERY BOY  I WANT TO RECEIVE ORDER NOTIFICATIONS  SO THAT I CAN ACCEPT JOBS ON TIME | | | |
| **BV**:400 | | **CP**:3 | |
| **Acceptance Criteria**  Push notifications, in-app alert. | | | |

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| **User Story No**: 31 | **Tasks**:4 | | **Priority** : MEDIUM |
| AS A CUSTOMER  I WANT TO VIEW THE DELIVERY BOY'S NAME AND PICTURE  SO THAT I CAN IDENTIFY THEM | | | |
| **BV**:300 | | **CP**:2 | |
| **Acceptance Criteria**  Display delivery boy’s name and picture on tracking page. | | | |

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| **User Story No**: 32 | **Tasks**:3 | | **Priority** : LOW |
| AS A CUSTOMER  I WANT TO SEE RESTAURANT OPENING HOURS  SO THAT I CAN ORDER AT THE RIGHT TIME | | | |
| **BV**:200 | | **CP**:2 | |
| **Acceptance Criteria**  Display operating hours on restaurant menu page. | | | |

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| **User Story No**: 33 | **Tasks**:2 | | **Priority** : HIGH |
| AS A CUSTOMER  I WANT TO RECEIVE ORDER UPDATES  SO THAT I KNOW THE PROGRESS OF MY FOOD | | | |
| **BV**:500 | | **CP**:3 | |
| **Acceptance Criteria**  Status updates via push notifications and SMS. | | | |

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| **User Story No**: 33 | **Tasks**:2 | | **Priority** : HIGH |
| AS A CUSTOMER  I WANT TO RECEIVE ORDER UPDATES  SO THAT I KNOW THE PROGRESS OF MY FOOD | | | |
| **BV**:500 | | **CP**:3 | |
| **Acceptance Criteria**  Status updates via push notifications and SMS. | | | |

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| **User Story No**: 34 | **Tasks**:3 | | **Priority** : MEDIUM |
| AS A CUSTOMER  I WANT TO SHARE MY ORDER EXPERIENCE ON SOCIAL MEDIA  SO THAT OTHERS CAN SEE | | | |
| **BV**:300 | | **CP**:2 | |
| **Acceptance Criteria**  Share button for Facebook, Twitter, and Instagram. | | | |

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| **User Story No**: 35 | **Tasks**:2 | | **Priority** : HIGH |
| AS A REGIONAL ADMIN  I WANT TO VIEW REGION PERFORMANCE REPORTS  SO THAT I CAN TRACK SUCCESS | | | |
| **BV**:500 | | **CP**:3 | |
| **Acceptance Criteria**  Select region, generate report with revenue data. | | | |

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| **User Story No**: 36 | **Tasks**:3 | | **Priority** : MEDIUM |
| AS A CUSTOMER  I WANT TO VIEW ESTIMATED DELIVERY TIME  SO THAT I KNOW WHEN MY ORDER WILL ARRIVE | | | |
| **BV**:400 | | **CP**:3 | |
| **Acceptance Criteria**  Display estimated time of delivery on order page. | | | |

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| **User Story No**: 37 | **Tasks**:2 | | **Priority** : HIGH |
| AS AN ADMIN  I WANT TO VIEW CUSTOMER FEEDBACK  SO THAT I CAN IMPROVE THE SERVICE | | | |
| **BV**:500 | | **CP**:3 | |
| **Acceptance Criteria**  View and filter feedback, reply option for customers. | | | |

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| **User Story No**: 38 | **Tasks**:2 | | **Priority** : LOW |
| AS A CUSTOMER  I WANT TO SEE THE RESTAURANT'S LOCATION ON A MAP  SO THAT I CAN KNOW WHERE IT IS | | | |
| **BV**:200 | | **CP**:2 | |
| **Acceptance Criteria**  Display map with restaurant location and address. | | | |

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| **User Story No**: 39 | **Tasks**:2 | | **Priority** : HIGH |
| AS A BUSINESS OWNER  I WANT TO VIEW FINANCIAL REPORTS  SO THAT I CAN TRACK OVERALL REVENUE | | | |
| **BV**:500 | | **CP**:3 | |
| **Acceptance Criteria**  Generate financial report (sales, revenue, expenses). | | | |

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| **User Story No**: 40 | **Tasks**:3 | | **Priority** : MEDIUM |
| AS A DELIVERY BOY  I WANT TO VIEW MY DELIVERED ORDERS  SO THAT I CAN TRACK MY WORK HISTORY | | | |
| **BV**:300 | | **CP**:2 | |
| **Acceptance Criteria**  View past orders, order details, payment received. | | | |

**Question 3– What is epic? Write 2 epics – 5 Marks**A **epic** is a large user story or a collection of related user stories that represents a significant feature or functionality. Epics are high-level, often spanning multiple sprints or iterations, and they provide a way to organize and prioritize work in a product backlog.

**Epic 1: Restaurant Ratings and Reviews**

As a user, I want to view ratings and reviews for restaurants on FoodExpress, so that I can make informed decisions about where to order food from.

As a user, I want to provide ratings and reviews for restaurants on FoodExpress, so that I can share my experiences with other users and contribute to the community.

**Acceptance Criteria:**

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

**Epic 2: Scheduled Orders**

As a user, I want to schedule food orders in advance on FoodExpress so that I can plan meals ahead of time and avoid last-minute hassles.

As a user, I want to have the flexibility to choose specific delivery time slots for scheduled orders on FoodExpress

Acceptance Criteria

* Users can select a future date and time for placing a scheduled order.
* Users can choose from available delivery time slots during the day, evening, and night.
* Users can browse and order from all available restaurants during the scheduled order placement.
* Users can modify or cancel scheduled orders within a specified timeframe.
* Users receive reminders and notifications regarding their scheduled orders, including order confirmation and upcoming delivery alerts.
* Delivery executives receive clear instructions about scheduled orders and prioritize them accordingly.
* The system handles scheduled orders seamlessly, ensuring timely delivery and accurate order fulfilment

**Question 4 –What is the difference between BV and CP – 2 Marks**

| **Aspect** | **Business Value (BV)** | **Customer Priority (CP)** | **Complexity Points (CPX)** |
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| **Definition** | Represents the overall value that a user story or feature brings to the business or organization. | Represents the importance and urgency of a user story or feature from the perspective of the customer or end user. | Represents the technical difficulty and effort required to implement a feature or user story. |
| **Purpose** | Measures the impact on revenue generation, cost savings, or alignment with strategic objectives. | Determines how critical a feature is to the customer experience, based on needs and expectations. | Helps assess the complexity of development tasks to plan effort and resources effectively. |
| **Techniques Used** | MoSCoW (Must-have, Should-have, Could-have, Won't-have), Currency Notes technique. | Planning Poker. | Complexity-based estimation using Fibonacci series (1, 2, 3, 5, 8, 13, etc.). |
| **Evaluation Criteria** | Potential revenue impact, cost savings, alignment with business strategy. | User feedback, market demand, and critical user needs. | Number of dependencies, architectural impact, risk, and level of effort required. |
| **Focus Area** | Business profitability, market expansion, and operational efficiency. | Enhancing user experience, convenience, and addressing pain points. | System architecture, integrations, and development difficulty. |
| **Example of High BV** | A feature that introduces a new revenue stream or significantly reduces operational costs. | A feature that drastically improves customer experience, such as real-time order tracking. | A feature requiring multiple integrations, significant database refactoring, or new technology adoption. |
| **Decision Authority** | Stakeholders, product owners, and business analysts. | Customers, end users, and market research data. | Development team, architects, and technical leads. |
| **Impact on Prioritization** | Features with high BV are prioritized if they contribute to long-term business success. | Features with high CP are prioritized if they meet urgent customer demands. | Features with high CPX require additional planning and technical risk assessment. |
| **Scope of Influence** | Business strategy, financial benefits, and market positioning. | Direct user satisfaction and retention. | Affects development timelines, technical debt, and engineering efforts. |

**Question 5 –Explain about Sprint– 5 Marks**

**Sprint in Agile Methodology**

A Sprint is a **time-boxed iteration** in Scrum where the Scrum Team works to complete a set of prioritized tasks from the Product Backlog to deliver a usable **product increment**. It typically lasts 1 to 4 weeks and follows a structured process to ensure continuous improvement and product delivery. Below are the key aspects of a Sprint:

**1. Time-Boxed Duration**

* A Sprint has a fixed length, typically 1 to 4 weeks, depending on the project’s complexity and team preference.
* This time-boxing ensures predictability, regular feedback, and a steady delivery pace.
* Once a Sprint starts, its duration cannot be extended.

**2. Defined Goal**

* Each Sprint has a Sprint Goal, which is a clear, concise objective that the team aims to achieve by the end of the Sprint.
* The goal is defined during Sprint Planning and serves as a guide for the team.
* The goal aligns with business objectives and delivers value to stakeholders.

**3. Sprint Planning**

* This is the first event in a Sprint, where the Scrum Team, including the Product Owner, Scrum Master, and Developers, decide:
* What work will be done (selected from the Product Backlog).
* How the work will be done (technical approach, responsibilities).
* The Product Owner presents high-priority items, and the development team estimates effort using techniques like Planning Poker.
* The result is the Sprint Backlog, a list of tasks for the Sprint.

**4. Daily Stand-up Meetings**

* Also known as the Daily Scrum, it is a 15-minute time-boxed meeting held every day.
* The Development Team discusses:
* What was completed yesterday?
* What will be done today?
* Any blockers or challenges
* This keeps the team aligned and helps in early problem detection.

**5. Development and Testing**

* The Development Team works on tasks defined in the Sprint Backlog.
* Work follows Agile best practices such as:
* Pair programming
* Test-Driven Development (TDD)
* Continuous integration and deployment (CI/CD)
* Testing is continuous, ensuring that code is reviewed, validated, and ready for release.

**6. Incremental Delivery**

* At the end of a Sprint, a working increment of the product is delivered.
* This increment is usable, tested, and potentially shippable.
* The Product Owner decides whether to release it immediately or refine it in upcoming Sprints.
* Incremental delivery ensures faster feedback and reduced risks.

**7. Sprint Review and Retrospective**

**Sprint Review:**

* Held at the end of the Sprint, where the team demonstrates the increment to stakeholders.
* Stakeholders provide feedback, which may lead to backlog adjustments.

**Sprint Retrospective:**

* A session where the team reflects on:
* What went well
* What could be improved
* Action items for future improvement
* The focus is on continuous improvement in team performance and efficiency.

**8. Backlog Refinement**

* An ongoing process where the Product Owner and team refine the Product Backlog by:
* Breaking down large user stories (Epics) into smaller, manageable tasks.
* Prioritizing items based on business value and effort.
* Clarifying requirements to ensure the team understands the work.
* This helps ensure that future Sprint Planning is efficient and smooth.

**Sprints enable continuous, iterative product development with rapid feedback and value delivery. By following these structured events, teams maintain alignment, productivity, and adaptability, ensuring successful project execution.**

**Question 6 – Explain Product backlog and sprint back log– 5 Marks**

| **S. No** | **Product Backlog** | **Sprint Backlog** |
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| 1 | Contains everything needed to accomplish the **project vision**. | Contains everything needed to **fulfill the Sprint goal**. |
| 2 | **Owned by the Product Owner**. | **Owned by the Development Team**. |
| 3 | Contains **requirements, defects, and tasks**. | A **subset** of the Product Backlog, prioritized for the Sprint. |
| 4 | **Everyone** contributes to the Product Backlog. | Only the **Development Team** contributes to the Sprint Backlog. |
| 5 | The **Product Backlog Refinement meeting** is held to refine and update backlog items. | The **Sprint Planning meeting** is used to refine Sprint Backlog items. |
| 6 | The **Product Owner** manages backlog evolution throughout the product lifecycle. | No changes are allowed to the Sprint Backlog **once the Sprint starts**. |
| 7 | Uses **Release Burndown** metrics to track progress. | Uses **Sprint Burndown** metrics to track progress. |
| 8 | **Estimation is done at the user story level**. | **Estimation is done at the activity or task level**. |
| 9 | **Daily Stand-up meetings do not discuss Product Backlog items**. | **Daily Stand-up meetings discuss the Sprint Backlog** in alignment with the Sprint Goal. |

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

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

An impediment log, also known as an issue log or obstacle log, is a document or tool used in Agile software development to track and manage obstacles, bottlenecks, or any factors that impede the progress of a project or team.

**Impediment 1: Delays in Restaurant On boarding Approvals**

| **Log ID** | **1** |
| --- | --- |
| **Description** | Slow approval process for new restaurant partners. |
| **Impact** | Fewer restaurant options, slower expansion of the platform. |
| **Priority** | High (affects business growth). |
| **Assigned To** | Admin and Business Owner. |
| **Status** | Open. Approval workflow is being revised to speed up onboarding. |
| **Action Taken** | Admin team is reducing the approval process from five steps to three, with automated verification. |
| **Resolution** | The new approval system is expected to launch in two weeks. |

**Impediment 2: Payment Gateway Issues Causing Failed Transactions**

| **Log ID** | **2** |
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| **Description** | Customers unable to complete transactions due to payment gateway errors. |
| **Impact** | Loss of sales and customer frustration. |
| **Priority** | High (direct impact on revenue and user experience). |
| **Assigned To** | IT Team and Payment Vendor. |
| **Status** | Open. IT team is investigating the issue with the payment vendor. |
| **Action Taken** | Developers are troubleshooting errors and working with the vendor to fix transaction failures. Alternative payment methods suggested in the meantime. |
| **Resolution** | Temporary workarounds in place while a permanent fix is being developed. |

**Impediment 3: App Performance Issues During Peak Hours**

| **Log ID** | **3** |
| --- | --- |
| **Description** | Slow loading times and app crashes during peak hours. |
| **Impact** | Poor user experience and potential customer loss. |
| **Priority** | Medium. |
| **Assigned To** | Development Team. |
| **Status** | Open. The issue has been identified, and performance optimizations are in progress. |
| **Action Taken** | Developers are analyzing logs, optimizing backend infrastructure, and scaling server resources. |
| **Resolution** | The updated backend infrastructure will be deployed in the next sprint to improve app stability. |

**Impediment 4: Inconsistent Real-Time Order Tracking**

| **Log ID** | **4** |
| --- | --- |
| **Description** | Customers receiving incorrect or delayed real-time tracking updates. |
| **Impact** | Misleading delivery times, leading to customer dissatisfaction. |
| **Priority** | Medium. |
| **Assigned To** | Development and Operations Team. |
| **Status** | Open. The tracking algorithm has a known bug, and an update is being tested. |
| **Action Taken** | Developers have identified the issue and are testing an improved tracking system before deployment. |
| **Resolution** | Fix will be deployed in the next app update. |

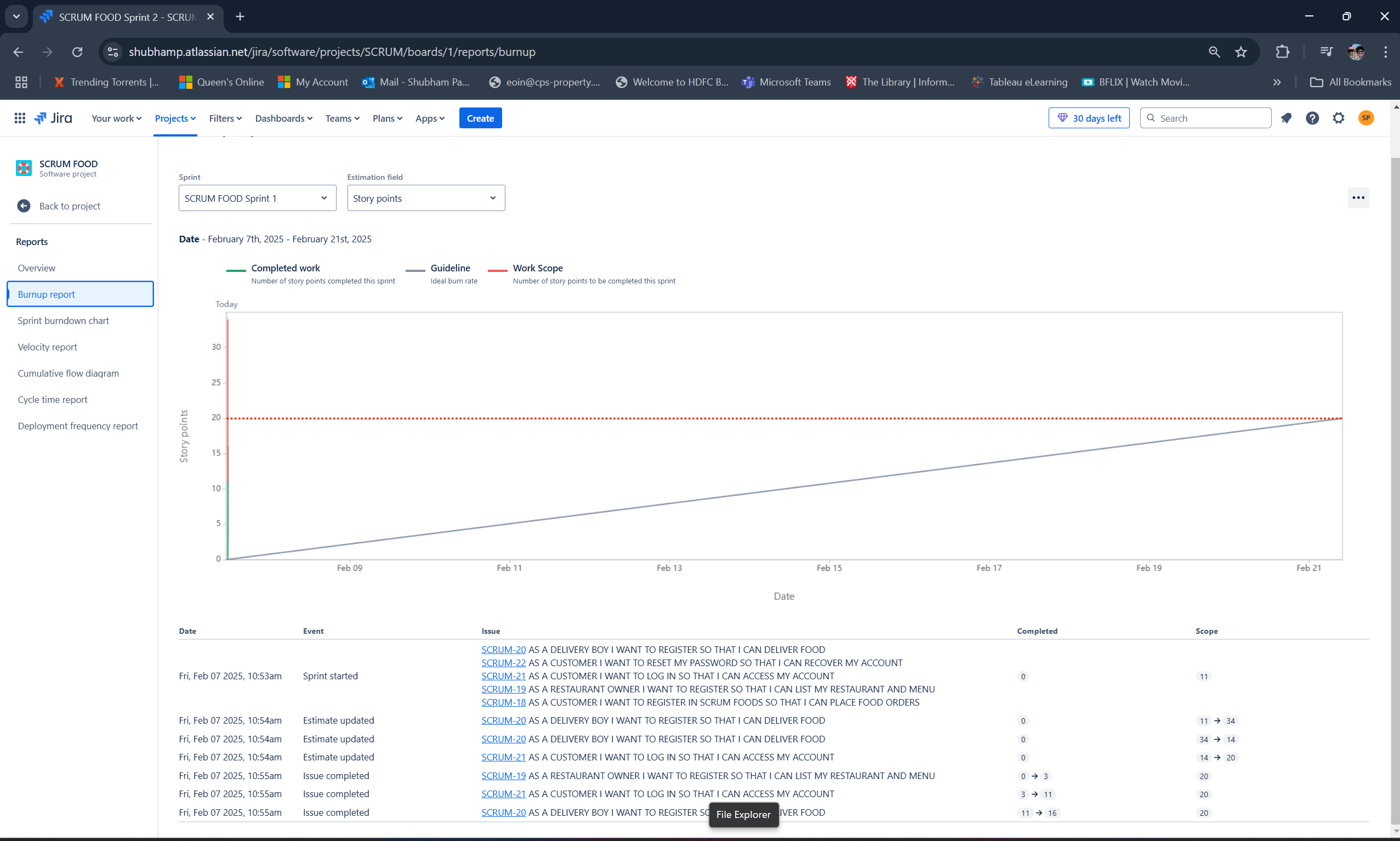
**Question 8 – Explain Velocity of the Team – 1 Marks   
velocity refers to the measure of the amount of work a development team can complete during a sprint.**

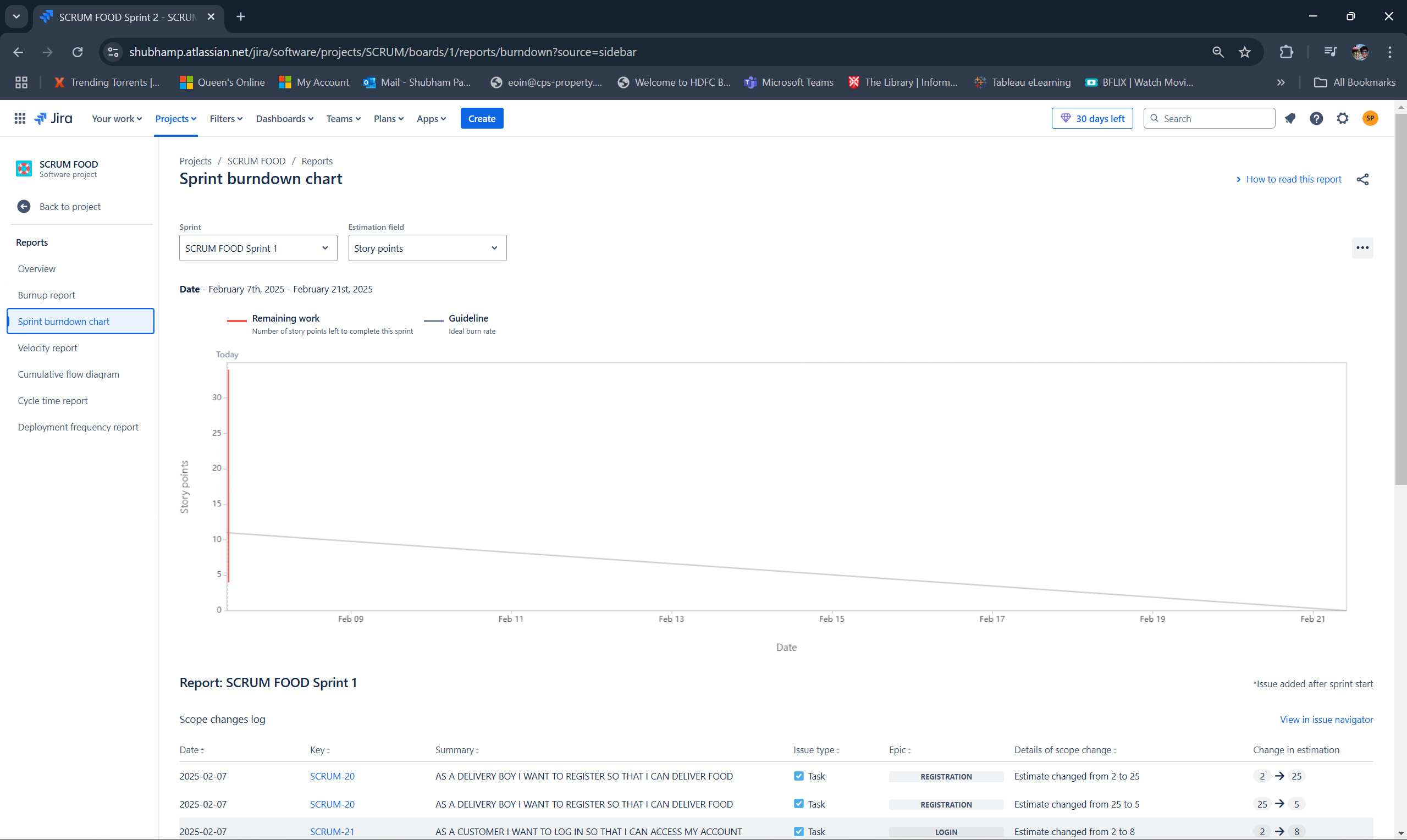
**The calculation of velocity is performed by the development team itself, as they are responsible for estimating the effort required to complete each user story or backlog item.**

**How is it calculated?**

* **Story Point Estimation**
* **Tracking Completed Work**
* **Summing Story Points**

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

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Question 10 – Explain about Product Grooming – 2 Marks**

* **Product grooming, also known as backlog grooming or refinement, is an important activity in Agile software development that involves reviewing, prioritizing, and refining items in the product backlog.**
* **The goal of product grooming is to ensure that the backlog is well-prepared, organized, and ready for implementation in upcoming sprints.**
* **It is typically a collaborative effort involving the product owner, development team, and other relevant stakeholders  
  How Product Grooming is Conduct**

**1. Setting the Context:** Product owner sets goals, aligns team on priorities, and gathers stakeholder input.

**2. Backlog Review:** Review and update backlog items, remove unnecessary ones, and discuss new additions.

**3. Prioritization:** Rank backlog items based on business value (BV), customer priority (CP), and dependencies.

**4. Refinement & Estimation:** Break down large tasks, refine user stories, and estimate effort using techniques like Planning Poker.

**5. Dependency Analysis:** Identify and resolve dependencies between backlog items and teams.

**6. Acceptance Criteria:** Define clear criteria for completion to ensure alignment between development and testing.

**7. Backlog Grooming Meetings:** Conducted regularly to keep the backlog refined and ready for sprint planning.This process ensures a well-structured backlog, reducing uncertainty and improving sprint efficiency. 🚀

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

**Role of Scrum Master and Product Owner**

| **Criteria** | **Product Owner** | **Scrum Master** |
| --- | --- | --- |
| **Nature of Work** | Collaborates with stakeholders and brings the vision of a product into the backlog. | Ensures the Scrum framework is followed and helps the team deliver a quality product. |
| **Responsibilities** | Responsible for completing the project on time and acts as an intermediary between the development team and customers. | Acts as a team coach and maintains the quality of the product. |
| **Accountability** | Responsible for the product backlog, timely completion, and providing updates to clients and stakeholders. | Accountable for the overall quality of the project and updating management. |
| **Reporting** | Reports to top management and clients. | Reports to top management about team efficiency and product quality. |
| **Qualities** | Strong communication, leadership, creativity, critical thinking, and a sharp mind. | Deep understanding of Scrum, ability to lead without authority, and strong coaching skills. |

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

**Meetings conducted in Scrum project**

**Sprint Planning:**

* This meeting occurs at the beginning of each sprint andinvolves the entire Scrum team.
* The product owner shares the prioritized product backlog items, and the development team collaborates to select the items they will work on during the sprint.
* The team also defines the sprint goal and creates a sprint backlog, which outlines the specific tasks required to complete the selected backlog items.

**Daily Stand-up (Daily Scrum):**

* This short daily meeting, typically lasting 15 minutes, involves the development team.
* Each team member shares their progress since the last stand-up, discusses any impediments or challenges they are facing, and communicates their plan for the day.
* The focus is on coordination, transparency, and identifying any potential roadblocks.

**Sprint Review:**

* At the end of each sprint, the sprint review meeting takes place.
* The development team presents the work completed during the sprint to the stakeholders, including the product owner and possibly customers or users.
* The team demonstrates the functionality or features implemented and gathers feedback.
* The purpose is to assess progress, gather input, and determine potential adjustments to the product backlog.

**Sprint Retrospective:**

* Immediately following the sprint review, the sprint Retrospective occurs.
* It is a dedicated session for the Scrum team to reflect on the sprint, identify what went well and areas for improvement, and discuss potential adjustments to their processes.
* The focus is on continuous learning, adaptation, and enhancing team effectiveness.

**Optional or as-needed meetings in Scrum**

**Backlog Grooming (Refinement):** This meeting involves the product owner and development team and focuses on reviewing, refining, and estimating backlog items for upcoming sprints. It ensures that the backlog is well-prepared and ready for implementation.

**Release Planning:** This meeting occurs at the start of a project or major release and involves the product owner, development team, and stakeholders. It aims to discuss and plan the high-level scope, timeline, and goals for the project or release.

**Ad hoc meetings:** These meetings may be scheduled as needed to address specific topics or issues, such as resolving impediments, discussing technical challenges, or conducting additional planning or collaboration sessions.

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

**Sprint Size**: The sprint size refers to the length or duration of a sprint in Scrum. A sprint is a time boxed period during which the development team works to deliver a potentially shippable product increment. The sprint size is determined during the project planning phase and typically ranges from one to four weeks. The most common sprint duration is two weeks, but it can vary depending on the project's needs, complexity, and team dynamics.

**Scrum Team Size:** The Scrum team size refers to the number of individuals

who collaborate together to deliver the product increment in Scrum. The Scrum team is self-organizing and cross-functional, typically consisting of a product owner, a Scrum Master, and the development team. The recommended Scrum team size is small, ideally between five to nine members, to enable effective communication, collaboration, and flexibility. However, there are no strict rules regarding team size, and it may vary depending on the specific project requirements and organization.

**Question 14 – Explain DOR and DOD – 2 Marks**

**Definition of Ready (DoR)**

* **The Definition of Ready** defines the criteria that a user story must meet before it is considered ready to be included in a sprint. It ensures that the team has sufficient information and clarity about the user story, reducing the likelihood of misunderstandings or delays during the sprint.
* The user story has a clear and concise description, including the expected behaviour or functionality.
* The acceptance criteria for the user story are well-defined and agreed upon by the product owner and the development team.
* Any necessary design or wireframes related to the user story are available.
* The user story is appropriately sized or estimated in story points or other relevant units.
* Any dependencies or external resources needed for the user story are identified and accessible.

**Definition of Done-DoD**

* The Definition of Done outlines the criteria that a user story or any other backlog item must meet to be considered complete and ready for release. It establishes a shared understanding of what it means for work to be considered "done" and ensures that all necessary aspects, such as quality, testing, and documentation, are addressed.
* The code for the user story is implemented, reviewed, and merged into the main codebase.
* Automated tests are created and passing, ensuring that the implemented functionality functions correctly and does not introduce regressions.
* The user story is thoroughly tested and validated against the defined acceptance criteria.
* The user interface (UI) or user experience (UX) aspects related to the user story are implemented and reviewed.
* The user story is documented, including any relevant instructions, guides, or release notes.
* The product owner has reviewed and accepted the user story as meeting the expected requirements.

**Question 15 – Explain Prioritization Techniques and MVP – 3 Marks**

* **Prioritization Techniques** help teams determine the most important features or tasks to focus on first.   
  Some common techniques include:
  + **MoSCoW Method:** Categorizes tasks into Must-Have, Should-Have, Could-Have, and Won’t-Have.
  + **Kano Model:** Evaluates features based on customer satisfaction and necessity.
  + **Value vs. Effort Matrix:** Balances business value against implementation effort.
  + **RICE Scoring:** Ranks features based on Reach, Impact, Confidence, and Effort.
  + **Stack Ranking:** Orders features based on priority from highest to lowest.
* **Minimum Viable Product (MVP)** is the most basic version of a product that includes only essential features to satisfy early adopters.  
  The goal of an MVP is to:
  + Deliver core functionalities quickly.
  + Gather user feedback for future improvements.
  + Minimize time and cost before full-scale development.
  + Test market demand before investing in additional features.

**Question 16 – Difference between Business Analyst n Product Owner – 3 Marks**

| **Criteria** | **Business Analyst** | **Product Owner** |
| --- | --- | --- |
| **Role** | Analyzes business needs and translates them into requirements. | Defines product vision and ensures backlog aligns with business goals. |
| **Focus** | Focuses on gathering, documenting, and analyzing requirements. | Focuses on prioritizing and managing the product backlog. |
| **Stakeholder Interaction** | Works with internal teams, customers, and stakeholders to gather requirements. | Collaborates closely with stakeholders to shape the product vision. |
| **Decision Making** | Provides recommendations but does not make final product decisions. | Has authority to make decisions regarding product features and priorities. |
| **Ownership** | Responsible for defining and refining business needs. | Owns the product backlog and ensures alignment with business goals. |
| **Process Involvement** | Engages in requirement analysis and documentation. | Involved in Agile processes, backlog grooming, and sprint planning. |
| **Customer Focus** | Gathers user needs and translates them into functional requirements. | Prioritizes customer needs and ensures the product delivers value. |
| **Collaboration** | Works with development, testing, and business teams to refine requirements. | Works with development teams to refine, prioritize, and deliver product features. |
| **Key Deliverables** | Business requirement documents, process flows, and user stories. | Product roadmap, backlog items, and acceptance criteria. |
| **Approach** | Focuses on analysis and documentation. | Focuses on Agile methodology and product development. |

**[Your Name]**  
[Your Email] | [Your Phone Number] | [Your LinkedIn Profile] | [Your Location]**Professional Summary**

Results-driven **Product Owner** with **3+ years of experience** in Agile product development, backlog management, and stakeholder collaboration. Adept at defining product vision, prioritizing requirements, and ensuring alignment between business goals and customer needs. Strong expertise in Scrum, Agile methodologies, and cross-functional team coordination to deliver high-value products on time.

### **Key Skills & Competencies**

* Agile & Scrum Methodologies
* Product Backlog Management
* User Story Writing & Prioritization
* Stakeholder Communication & Management
* Sprint Planning & Execution
* Data-Driven Decision Making
* Product Roadmap Development
* Market & Competitor Analysis
* UX/UI Collaboration
* KPI & Metrics Analysis

### **Professional Experience**

#### **Product Owner**

[Company Name] – [Location] | [Dates of Employment]

* Defined and communicated **product vision** and roadmap, ensuring alignment with business goals and customer needs.
* Managed and prioritized **product backlog**, creating well-defined user stories, acceptance criteria, and epics.
* Conducted **stakeholder meetings**, gathering requirements and translating them into actionable development tasks.
* Collaborated with **development teams**, ensuring timely delivery of sprint goals and product increments.
* Led **sprint planning, backlog grooming, and sprint review meetings** to optimize workflow and team efficiency.
* Performed **competitive analysis and market research** to identify opportunities for feature enhancements.
* Implemented **KPIs and metrics tracking**, making data-driven decisions for product improvements.
* Worked closely with **UX/UI designers**, ensuring an intuitive and user-friendly product experience.
* Facilitated **customer feedback collection and A/B testing**, optimizing product performance and engagement.
* Ensured alignment with regulatory standards and compliance requirements.

#### **Associate Product Owner**

[Previous Company Name] – [Location] | [Dates of Employment]

* Assisted in managing and prioritizing the **product backlog**, refining user stories with clear acceptance criteria.
* Coordinated with **cross-functional teams** to ensure timely delivery of features and enhancements.
* Supported in defining **MVP (Minimum Viable Product)** scope and incremental feature releases.
* Participated in **daily stand-ups, sprint retrospectives, and sprint planning meetings** to drive Agile best practices.
* Conducted **user research and competitor benchmarking**, influencing product decisions and strategy.
* Created detailed **product documentation**, ensuring clarity for developers, testers, and stakeholders.

### **Education & Certifications**

* **Master of Business Administration (MBA)** – [University Name] | [Year]
* **Certified Scrum Product Owner (CSPO)** – Scrum Alliance | [Year]
* **Agile Product Management Certification** – [Certification Body] | [Year]