# Eduvance - Sprint1 Meeting Minutes

### March 01, 2025

### Meeting Details

• Project: Eduvance

• Facilitator: Fasi Tahir (Scrum Master)

• Attendees:

Name	Roll Number
Fasi Tahir (Scrum Master)	2022-CS-71
Wali Allah	2022-CS-86
Laiba Khan	2022-CS-70
Alishba Mazhar	2022-CS-74

### Agenda

#### 1. Sprint Planning

#### Sprint Length Discussion

- Alishba proposed a **1-week sprint**, while Fasi suggested a **2-week sprint** due to upcoming midterm exams.
- **Resolution:** Wali proposed dynamic sprint lengths per Agile methodology. The team agreed on a **2-week sprint**.

#### **Sprint 1 Scope Discussion**

- The team discussed the **core MVP features** and decided on Sprint 1 contents.
- Conflict: Alishba suggested excluding Non-Teaching Staff Management from Sprint 1. Wali argued it was essential.

• **Resolution:** The team agreed to include it but limit tasks due to midterms and technology adaptation.

#### Sprint 1 Tasks

#### 1. Authentication

- Epic: Login
  - US1: Login
  - US2: Logout
  - US3: Change Password by Admin

#### 2. User Management

- Epic: Student Management
  - US4: Add Student
  - US5: Update Student
  - US6: Delete Student
- Epic: Teaching Staff Management
  - US7: Add Teaching Staff
  - US8: Update Teaching Staff
  - US9: Delete Teaching Staff
- Epic: Non-Teaching Staff Management
  - US10: Add Non-Teaching Staff
  - US11: Update Non-Teaching Staff
  - US12: Delete Non-Teaching Staff

#### 3. Class Management

- Epic: Admin Class Management
  - US13: Add Classes
  - US14: Delete Classes
  - US15: Update Classes

#### 4. Course Management

- Epic: Admin Course Management
  - US16: Add Courses
  - US17: Delete Courses
  - US18: Update Courses
  - US19: Assign Courses to Teachers

#### Task Assignment

• Fasi: Authentication (Login, Logout, Change Password)

• Wali: Teaching

Non-Teaching Staff Management

• Laiba: Student Management

• Alishba: Admin Class Course Management

# 2. Attribute Selection Database Structure

#### Defined Tables Attributes

- Student Table: Name, DOB, CNIC, Contact Info, Address, Roll Number (auto-generated), Required Documents.
- Teacher Table: Name, CNIC, DOB, Contact Info, Employee Number (auto-generated), Experience, Subjects Assigned, Salary, Employment Type, Required Documents.
- Non-Teaching Staff Table: Similar to Teacher table but with Supervisor and Department fields.
- Course Table: Course Code, Course Name, Description, Status, Assigned Teachers.
- Classes Table: Class Name, Sections, Courses, Student Strength.

### 3. Strategies

### **Future Considerations**

- File Storage Options:
  - Wali: Virtual Machine (VM).
  - Fasi: GitHub repository.
- Student Roll Number Generation: Filter by class number and count students.

#### • Future Enhancements:

- Auto-generation of student/staff ID cards.
- Document verification before full system access.
- Aptitude Test Feature (planned for a future sprint).

### 4. Suggestions

### Miscellaneous Discussions

- Backlog Updates: Class Management added (Alishba).
- Scrum Board Documentation: Jira summary section suggested for screenshots (Alishba).
- Frontend Review: Prototype frontend demonstrated (Wali).

#### March 04, 2025

• Project: Eduvance

• Meeting Date: March 04, 2025

• Attendees:

Name	Roll Number
Fasi Tahir (Scrum Master)	2022-CS-71
Wali Allah	2022-CS-86
Laiba Khan	2022-CS-70
Alishba Mazhar	2022-CS-74

### Discussion Summary

Fasi asked Alishba about the work she did on Monday. Alishba reported her work:

- Task done: Designed initial UI for course management main page and started working on add course modal.
- **Issues:** Faced issues with the modal (popup form) for adding a course.
- Next to do: Finalize the UI page. If completed on time, start its backend.

Fasi asked Laiba about her work on Monday. Laiba reported:

- Task done: Fixed the UI issue for the manage student main page.
- Issues: Faced responsiveness issues when adding pseudo data for students. The logout button in the side dashboard moves down as more data is added.
- **Next to do:** Try to fix the issue and start integrating the backend.

Fasi asked Wali about his work on Monday. Wali reported:

- Task Done: Drafted the basic UI layout for all tasks on paper.
- **Issues:** No major issues encountered.

• Next to do: Start prototyping the UI.

Then Fasi reported his own work:

- Task Done: Designed the UI for the login page.
- Issues: Faced styling issues with the page.
- Next to do: Improve the UI and start working on the backend.

• Project: EduVance

• Meeting Date: March 05, 2025

• Attendees:

Name	Roll Number
Fasi Tahir (Scrum Master)	2022-CS-71
Wali Allah	2022-CS-86
Laiba Khan	2022-CS-70
Alishba Mazhar	2022-CS-74

### Meeting Discussion

#### Laiba's Report

• Task Done: Fixed the UI issue for the manage student main page.

• Issues: Struggled with fixing the issue but managed to solve it.

• Next to do: Start implementing the add student form.

• Feedback: Wali suggested adding filter and search functionality, and all members agreed.

#### Alishba's Report

• Task Done: Finalized the course creation main page and resolved issue with the add course modal.

• **Issues:** No particular issues faced.

• Next to do: Start the backend implementation for add student.

• Feedback: Same suggestion as Laiba's task.

#### Wali's Report

• Task Done: Implemented the drafted layout in the prototype.

• Issues: Faced issues with Tailwind's new version (v4), which introduced drastic command changes.

- **Next to do:** Finalize the UI of the teaching staff management main page.
- Feedback: Fasi suggested deciding a unified color theme, and Wali's selected color scheme was approved.

- Task Done: Finalized the login UI page.
- Issues: Due to exam preparation, unable to start the backend.
- Next to do: Start backend development for login.
- Feedback: Everyone liked the overall design.

• Project: EduVance

• Meeting Date: March 05, 2025

• Attendees:

Name	Roll Number
Fasi Tahir (Scrum Master)	2022-CS-71
Wali Allah	2022-CS-86
Laiba Khan	2022-CS-70
Alishba Mazhar	2022-CS-74

### Meeting Discussion

#### Wali's Report

• Task Done: Designed the teaching staff management main page.

• Issues: No particular issue faced.

• Next to do: Will design add and update form modals.

• Feedback: No particular feedback.

#### Alishba's Report

- Task Done: Worked on suggestions. Watched a tutorial for MongoDB Atlas, created a cluster and collection, and connected it with the backend.
- **Issues:** Faced an issue regarding MongoDB Atlas connectivity due to password in the connection string.
- Next to do: Start working on the controller for adding courses.

#### Laiba's Report

• Task Done: Added add and update student form modals.

• Issues: No particular issue faced.

• Next to do: Start working on backend for adding students.

- Task Done: Created a database on MongoDB Atlas, connected it with the backend, and started working on backend development.
- Issues: No particular issue faced.
- Next to do: Complete the controller for login functionality.

• **Project:** EduVance

• Meeting Date: March 05, 2025

• Attendees:

Name	Roll Number
Fasi Tahir (Scrum Master)	2022-CS-71
Wali Allah	2022-CS-86
Laiba Khan	2022-CS-70
Alishba Mazhar	2022-CS-74

### Meeting Discussion

#### Wali's Report

• Task Done: Finalized the update and add student modals.

• Issues: Faced an issue regarding the scrollbar setting, but fixed it.

• Next to do: As both teaching staff and non-teaching staff are almost the same, I will replicate this for non-teaching staff management.

#### Alishba's Report

- Task Done: Implemented controller and started working on route to connect frontend with backend.
- Issues: No particular issue.
- **Next to do:** Complete integration of frontend and backend, and start working on testing.

#### Laiba's Report

- Task Done: Watched a tutorial for MongoDB Atlas, created a cluster and collection, and connected it with the backend.
- Issues: Faced an issue regarding connectivity with MongoDB due to wrong configuration, but fixed it.
- Next to do: Start working on the controller for adding a student.

- Task Done: Implemented controller and integrated it with the frontend.
- Issues: Faced an issue regarding integration; user was present in the database, and database was connected, but query was returning null.
- Next to do: Fix the issue, implement JWT session, and start testing over the weekend.

• **Project:** EduVance

• Meeting Date: March 10, 2025

• Attendees:

Name	Roll Number
Fasi Tahir (Scrum Master)	2022-CS-71
Wali Allah	2022-CS-86
Laiba Khan	2022-CS-70
Alishba Mazhar	2022-CS-74

### Meeting Discussion

#### Wali's Report

• Task Done: Replicated the UI successfully.

• Issues: No particular issue faced.

• Next to do: Will start working on backend for adding teaching staff.

#### Alishba's Report

• Task Done: Completed the backend for adding courses.

• Issues: The data was not adding to the database but fixed it.

• Next to do: Will start working on updating courses.

#### Laiba's Report

- Task Done: Added the add student controller and integrated it with the backend.
- **Issues:** Faced issues with routes (CORS) and picture uploading but fixed them.
- Next to do: Will start working on backend for updating students.

- Task Done: Fixed the issue, implemented JWT session, and tested functionality.
- Issues: No particular issue faced.
- Next to do: Suggested adding authorization for different admin roles. Everyone agreed, and the task was added to Jira.

• Project: EduVance

• Meeting Date: March 11, 2025

• Attendees:

Name	Roll Number
Fasi Tahir (Scrum Master)	2022-CS-71
Wali Allah	2022-CS-86
Laiba Khan	2022-CS-70
Alishba Mazhar	2022-CS-74

### Meeting Discussion

#### Wali's Report

- Task Done: Started working on Add staff (teaching and non-teaching). Set up MongoDB Atlas and Cloudinary for document management. Started backend development in JavaScript.
- Issues: Faced issues related to API endpoints and mistakenly created the backend in .js format instead of .ts format.
- **Next to do:** Convert Backend to TypeScript and implement updating and deleting staff.

#### Alishba's Report

- Task Done: Completed the backend for updating and deleting courses.
- Issues: Initially deleted courses from the database but later realized from teammates that data should not be deleted, only the active status should be tracked. Fixed the issue.
- **Next to do:** Test the course update and delete functionality and start working on adding class functionality UI.

#### Laiba's Report

• Task Done: Integrated the backend API for updating student records.

- Issues: Initially, there was a connectivity issue between 'server.js' and the frontend. After resolving that, updating data caused a blank page to appear.
- **Next to do:** Finalize the update functionality.

- Task Done: Fixed authentication issues where a user was able to bypass login by changing the URL.
- **Issues:** Found that after logging in as a student, a user could change the URL and access the admin dashboard.
- **Next to do:** Fix the authentication issue and start working on authorization.

• Project: EduVance

• Meeting Date: March 12, 2025

• Attendees:

Name	Roll Number
Fasi Tahir (Scrum Master)	2022-CS-71
Wali Allah	2022-CS-86
Laiba Khan	2022-CS-70
Alishba Mazhar	2022-CS-74

### Meeting Discussion

#### Wali's Report

- Task Done: Fixed the issue and converted the files to .ts, and added staff (teaching and non-teaching) successfully.
- Issues: Faced multiple challenges during the conversion process. Encountered difficulties starting the 'server.ts' file due to dependency conflicts.
- Next to do: Implement API for updating staff details (Teaching + Non-Teaching), implement API for deleting staff from the database, add proper error handling and status codes, and test update & delete APIs.

#### Alishba's Report

- Task Done: Completed testing and UI of class management.
- Issues: Realized that all backend should be in TS but had done it in JS. Resolved the issue by converting all code to TS.
- **Next to do:** Work on backend for adding, updating, and deleting class functionality.

#### Laiba's Report

- Task Done: Completed the update functionality and started working on the backend for deleting student records.
- **Issues:** While implementing the delete functionality, user data was not being removed along with the student record.
- **Next to do:** Complete the delete functionality.

#### Fasi's Report

- Task Done: Fixed the issue and completed authentication, implemented logout functionality by removing the token assigned during login, started working on reset password functionality.
- Issues: Facing issue in sending email for resetting the password.
- **Next to do:** Implement email sending for password reset and work on authorization.

• Project: EduVance

• Meeting Date: March 13, 2025

• Attendees:

Name	Roll Number
Fasi Tahir (Scrum Master)	2022-CS-71
Wali Allah	2022-CS-86
Laiba Khan	2022-CS-70
Alishba Mazhar	2022-CS-74

### Meeting Discussion

#### Wali's Report

• Task Done: Implemented API for fetching all staff (teaching and non-teaching) records. Added filtering options (by role, department, etc.). Implemented update & delete functionality.

• Issues: No particular issue faced.

• Next to do: Final testing & debugging.

#### Alishba's Report

• Task Done: Completed the backend of class functionality.

• Issues: Faced issue in handling multiple tables as course code is needed in class adding functionality and faced difficulty in accessing course code in class adding functionality but resolved it.

• Next to do: Testing of functionalities.

### Laiba's Report

• Task Done: Implemented the delete functionality.

- **Issues:** Faced multiple connection issues and problems related to the 'dist' folder. As a result, user credentials were not properly deleted or updated while handling deletions and updates.
- Next to do: Will fix these issues and do final testing.

- Task Done: Implemented the sending of email notifications and authorization.
- Issues: In email notification faced the issue that it was giving an error of wrong credentials, found out that we need app passwords for that, so fixed it.
- Next to do: Test the authorization by trying to bypass it.

#### Conclusion

Fasi concluded the meeting by adding that on Friday (tomorrow) we will have a retrospective meeting and team members should write all the issues faced during the sprint and provide feedback on leadership. These will be discussed in the retrospective meeting.

### Retrospective Meeting

• Project: EduVance

• Meeting Date: March 14, 2025

• Attendees:

Name	Roll Number
Fasi Tahir (Scrum Master)	2022-CS-71
Wali Allah	2022-CS-86
Laiba Khan	2022-CS-70
Alishba Mazhar	2022-CS-74

### 4 L's - Retrospective Feedback

#### Alishba's Report

**Liked:** Daily standups helped me to solve issues more easily. The transparency of project progress motivated me to complete tasks on time.

**Learned:** Learned a new technology stack and the importance of project management, specifically task division.

**Lacked:** We lacked proper communication, which caused issues in the database schema.

**Longed for:** I wish for better communication about the database schema in the next sprint planning.

#### Fasi's Report

**Liked:** The team environment was motivating, and everyone completed their tasks on time.

**Learned:** Learned about hierarchical task division (epics, user stories, tasks, subtasks) and how it improves efficiency. Also, learned a lot about authentication and authorization.

**Lacked:** We lacked a proper plan. Due to miscommunication about feature implementation, a lot of extra work was required.

**Longed for:** In future sprints, we should identify overlapping tasks and address them in sprint meetings and standups.

#### Laiba's Report

**Liked:** Work management was effective with daily task division, preventing overload.

**Learned:** Learned a new programming language (TypeScript).

**Lacked:** Lack of communication led to work conflicts. Also, faced challenges adapting to new technologies.

**Longed for:** During standups, we should not only discuss completed and upcoming tasks but also explain how we plan to implement them to avoid conflicts.

#### Wali's Report

**Liked:** Roles were not fixed (backend/frontend), giving everyone an equal opportunity to learn.

Learned: Learned a new technology stack.

**Lacked:** We didn't conduct proper research on best practices for implementation.

**Longed for:** I wish to structure the sprint backlog so that we finish tasks within the first week, reserving the second week for testing, debugging, and refining our work.

# Eduvance -Sprint2 Meeting Minutes

• Date: March 17, 2025

#### • Attendees:

- Wali Allah (2022-CS-86) Scrum Master
- Fasi Tahir (2022-CS-71)
- Alishba Mazhar (2022-CS-74)
- Laiba Khan (2022-CS-70)

#### • Agenda:

- Task distribution for the sprint
- Discussion on integration and feature improvements
- Bug tracking and resolution
- Database schema discussion for the next sprint

### **Key Points Discussed**

#### 1. New Column Addition

• A new column "To Be Integrated" will be added to track pending integrations.

#### 2. Branch Creation & Task Distribution

Each member has been assigned specific tasks for the sprint:

#### • Fasi:

- Integration
- Teacher course view

#### • Wali:

- Course material upload
- Add time slot while adding a teacher during staff addition

#### • Alishba:

- Mark attendance for staff/non-teaching staff

#### • Laiba:

- Mark attendance for students

#### 3. Feature Enhancements & Discussion

- Staff Attendance System:
  - Late arrivals will be marked with a red line.
  - In and out times will be recorded to help with salary management.

#### • Teacher Attendance Automation:

- Teacher time slots will be recorded during staff addition.
- This will help in automatically checking if a teacher is late.

#### 4. Bug Tracking & Fixes

- Alishba: Fix Section table issues
- Wali: Add time slot functionality
- Laiba: Fix student's document addition using Cloudinary
- Wali: Remove the "Assign Subject" option from the Teacher module
- Laiba: Add student email to the User table
- Wali: Add User ID in the Teacher table
- Laiba: Implement automatic update of boys' and girls' strength upon student addition
- Laiba: Ensure section strength updates when a student is added
- Laiba: Add a new MongoDB collection with hardcoded data for now
- Alishba: Add Class ID in the Course table

#### 5. Database Schema Discussion for Next Sprint

- Section Schema:
  - Class ID
  - Section Name
  - Strength (Boys/Girls)
- New Table: Teacher Assignment Table
  - Section ID
  - Teacher ID
  - Course ID
  - Time Slot (to be recorded during teacher assignment)
- Workflow of Alishba for Teacher Assignment Table:
  - Course selection  $\rightarrow$  Section selection  $\rightarrow$  Teacher assignment  $\rightarrow$  Entry in the Teacher Assignment Table
- Class Table Schema:
  - Class Name
  - Session
  - Timetable
  - High Scorers

#### **Action Items**

- Resolve identified bugs.
- Implement the discussed tasks as per the distribution.
- Begin working on the new database schema for the upcoming sprint in next meeting.

• Project: EduVance

• Meeting Date: March 18, 2025

• Attendees:

Name	Roll Number
Fasi Tahir	2022-CS-71
Wali Allah (Scrum Master)	2022-CS-86
Laiba Khan	2022-CS-70
Alishba Mazhar	2022-CS-74

### Meeting Discussion

#### Wali's Report

- Task Done: Fixed the bug where the Object ID of the User was not being stored in the Staff table. Ensured proper linking between User and Staff.
- Issues: Faced issues with Object ID references and database constraints while updating the Staff table.
- **Next to do:** Test the fixes thoroughly and verify data consistency in related tables.

#### Laiba's Report

- Task Done: Started fixing the previous sprint's issues and bugs. A major issue was fetching class and section IDs due to incorrect API responses.
- Issues: API-related issues caused fetching failures.
- Next to do: Reimplement the "Add Student" functionality by creating separate tables for sections and classes. Then, move on to fixing the "Delete Student" bugs.

#### Alishba's Report

- Task Done: Fixed the bug in the Section table that was left unresolved in Sprint 1.
- Issues: Faced difficulties creating the Section table and mapping it with the Class table, but resolved them.
- **Next to do:** Fix another bug related to Course Management functionality.

#### Fasi's Report

- Task Done: Designed UI for the Course view interface.
- Issues: No particular issue.
- Next to do: Waiting for the resolution of other issues before integrating functionalities. Meanwhile, will start working on the Course view backend.

Project: EduVance

• Meeting Date: March 19, 2025

• Attendees:

Name	Roll Number
Fasi Tahir	2022-CS-71
Wali Allah (Scrum Master)	2022-CS-86
Laiba Khan	2022-CS-70
Alishba Mazhar	2022-CS-74

### Meeting Discussion

#### Wali's Report

- Task Done: Completed testing and verification for storing the User Object ID in the Staff table. Designed the UI and backend for adding a time slot while assigning a teacher in staff addition and implemented form validation.
- **Issues:** Faced minor issues with API response formatting and resolving duplicate entries in the database.
- **Next to do:** Start working on the course material upload feature by setting up the UI and basic file selection functionality.

#### Laiba's Report

- Task Done: Fixed bugs in the "Delete Student" functionality and started working on the "Update Student" feature.
- **Issues:** Faced multiple issues with data retrieval, class ID fetching, and incorrect username/password updates.
- Next to do: Continue working on resolving these issues.

#### Alishba's Report

• Task Done: Fixed the Course Management bug by adding 'classID' in the Course table for proper input handling and teacher assignment.

- Issues: Encountered issues with packages and routes, particularly fetching sections and teachers due to API problems.
- **Next to do:** Begin UI development for teaching and non-teaching staff attendance.

- Task Done: Integrated the management functionalities for teaching staff, non-teaching staff, authentication, and authorization.
- **Issues:** Encountered multiple package and route issues during integration.
- **Next to do:** While waiting for bug fixes, will implement the backend for viewing courses.

Project: EduVance

• Meeting Date: March 20, 2025

• Attendees:

Name	Roll Number
Fasi Tahir	2022-CS-71
Wali Allah (Scrum Master)	2022-CS-86
Laiba Khan	2022-CS-70
Alishba Mazhar	2022-CS-74

### Meeting Discussion

### Wali's Report

- Task Done: Designed and implemented the UI for course material upload, allowing users to select files.
- **Issues:** Faced UI alignment and validation issues while handling different file formats.
- **Next to do:** Integrate the backend API to store and retrieve course materials.

#### Laiba's Report

- Task Done: Resolved previous issues related to class name vs. class ID conflicts in data retrieval.
- Issues: Faced conflicts between displaying class names and handling IDs for fetching sections.
- Next to do: Start designing the UI for marking student attendance.

#### Alishba's Report

- Task Done: Designed the UI for teaching and non-teaching staff attendance.
- Issues: No particular issue.
- **Next to do:** Begin backend development for the staff attendance module.

- Task Done: Implemented and tested the backend for viewing courses.
- Issues: No particular issue.
- **Next to do:** Integrate management functionalities for courses, classes, students, and course assignments.

Project: EduVance

• Meeting Date: March 24, 2025

• Attendees:

Name	Roll Number
Fasi Tahir	2022-CS-71
Wali Allah (Scrum Master)	2022-CS-86
Laiba Khan	2022-CS-70
Alishba Mazhar	2022-CS-74

### Meeting Discussion

#### Wali's Report

- Task Done: Integrated the backend API for course material upload, ensuring proper file storage and retrieval.
- **Issues:** Encountered difficulties with large file uploads and UI progress tracking.
- Next to do: Retrospective Meeting.

#### Laiba's Report

- Task Done: Completed the UI for marking student attendance.
- Issues: No particular issue.
- **Next to do:** Will work on the backend for attendance marking in the next sprint. Retrospective Meeting.

#### Alishba's Report

- Task Done: Implemented backend functionality for teaching and non-teaching staff attendance.
- **Issues:** Faced issues with overlapping database tables and route conflicts.
- Next to do: Retrospective Meeting.

- Task Done: Integrated functionalities for course management, class management, student management, and course assignments.
- **Issues:** Faced issues with route conflicts and managing overlapping classes.
- Next to do: Retrospective Meeting.

### Retrospective Meeting – Sprint 2

Project: EduVance

• Meeting Date: March 21, 2025

• Attendees:

Name	Roll Number
Fasi Tahir	2022-CS-71
Wali Allah (Scrum Master)	2022-CS-86
Laiba Khan	2022-CS-70
Alishba Mazhar	2022-CS-74

#### Alishba's Feedback

#### DOs:

- Use the "To Be Integrated" column in Jira to track pending tasks efficiently.
- Set aside dedicated time for reviewing database schema changes before development starts.

#### DON'Ts:

- Don't leave debugging sessions unstructured; planned sessions help resolve API issues faster.
- Avoid making last-minute schema changes without prior discussion.

#### Fasi's Feedback

#### DOs:

- Maintain structured task assignments for better coordination.
- Ensure proper version control to prevent package and route conflicts.

#### DON'Ts:

- Don't ignore API documentation; unclear endpoints slow down integration.
- Avoid jumping into implementation without planning backend structure properly.

#### Laiba's Feedback

#### DOs:

- Use the bug-tracking system systematically to manage and resolve issues efficiently.
- Ensure UI updates are in sync with backend changes before deployment.

#### DON'Ts:

- Don't skip data validation, especially for class IDs, to prevent backend conflicts.
- Avoid making changes in the live environment without proper testing.

#### Wali's Feedback

#### DOs:

- Maintain clear communication about integration challenges and solutions.
- Assign dedicated time for testing before sprint completion.

#### DON'Ts:

- Don't push last-minute fixes without proper testing and validation.
- Avoid assuming all tasks will integrate smoothly without intermediate testing.

### **Action Items for Next Sprint**

- 1. **Improve API Documentation** Assign a member to maintain updated API documentation.
- 2. **Pre-development Schema Review** Conduct a discussion before implementing schema changes.
- 3. **Dedicated Debugging Sessions** Allocate specific time slots during standups for debugging.
- 4. **Structured Testing Week** Reserve the last sprint week for thorough testing and fixes.