**Sprint Goal:**1. The integration of the frontend with the backend for completing the user and admin login for this sprint.  
2. Jest test suites for the backend admin and user login pages.  
3. CI pipeline for building the Docker image and running npm tests for admin and user login pages.  
4. Docker registry will be integrated with ArgoCD image updater.  
5. Analysis and understanding of Datadog.

**Sprint Duration:**Jan 30, 2025 - Feb 9, 2025

**Sprint Capacity:**18 story points (3 story points/team member)

**Backlog Items (User Stories):**

**1. Title: Fixing admin login integration issue with frontend**

**Description:** Fixing all integration bugs with the front end regarding admin login.

**2. Title: CI Pipeline setup**

**Description:** To set up a CI pipeline using GitHub Actions so that whenever changes are pushed or a pull request is opened, the application code is automatically built, tested, and validated.

**3. Title: Setup CI Pipeline - Documentation**

**Description:** Document the setup made for the continuous integration pipeline through GitHub Actions and describe how application code is automatically built, tested, and validated.

**4. Title: Unit Test for UserLogin Page in Wednesday's Wicked Adventures**

**Description:** Handle status codes properly with respect to authentication-related actions so the API responses remain straightforward and consistent.

**5. Title: API integration for Forgot password**

**Description:** Integrate a functionality for password reset by sending the link or OTP to the registered email of a user. Success or failure notification is also needed, and after a successful reset, redirect the users to the login page. Handle error cases for invalid requests, link expiration, or password mismatch.

**6. Title: Error fixes in frontend and backend integration for user login (backend fixes)**

**Description:** Track the errors and fixes from the backend Node.js file for integration.

**7. Title: ArgoCD - Docker registry integration**

**Description:**

* Argo CD should pull images from Docker Hub.
* Automatic deployment should occur upon a new image push.
* Deployment should sync correctly in Argo CD.

**8. Title: API Integration for Admin Signup**

**Description:** Allow the admin to register a user with details like first name, last name, email, password, and confirm password. Provide notifications in case of incomplete details or if the email already exists. Redirect the user to the login page after successful registration.

**9. Title: API Integration for Admin Login**

**Description:** Integrate the admin login API with the frontend. The admin should be able to input their email and password to log in. A notification popup should display success or failure messages based on the API response. Proper handling of authentication, error messages, and logging for tracking login attempts.

**10. Title: Datadog Test Implementation**

**Description:** Explore and implement Datadog’s key features relevant to the project. Set up basic monitoring and logging, demonstrate its functionality, and document key learnings.

**Task Breakdown:**

**1. JIRA-41: Fix admin login integration issue with frontend  
 Estimated Effort:** [2 Story Points]  
 **Assigned Team Member:** Karthika

**2. JIRA-18: Setup CI pipeline using GitHub Actions**

**Estimated Effort:** [2 Story Points]  
 **Assigned Team Member:** Darshan

**3. JIRA-21: Document the process of setting up the CI pipeline  
 Estimated Effort:** [1 Story Point]  
 **Assigned Team Member:** Darshan

**4. JIRA-34: Introduce status code handling for authentication actions  
 Estimated Effort:** [1 Story Point]  
 **Assigned Team Member:** Sumathi

**5. JIRA-41: Implement Password Reset feature  
 Estimated Effort:** [1 Story Point]  
 **Assigned Team Member:** Sriram

**6. JIRA-43: Bug fix for backend integration for end-user login  
 Estimated Effort:** [1 Story Point]  
 **Assigned Team Member:** Sumathi

**7. JIRA-44: Integrate Docker registry with ArgoCD  
 Estimated Effort:** [3 Story Points]  
 **Assigned Team Member:** Jayakumar

8**. JIRA-46: Integrate admin signup API  
 Estimated Effort:** [1 Story Point]  
 **Assigned Team Member:** Sriram

9**. JIRA-47: Integrate admin login API with the frontend  
 Estimated Effort:** [1 Story Point]  
 **Assigned Team Member:** Sriram

**10. JIRA-33: Perform a Datadog test and set up monitoring  
 Estimated Effort:** [3 Story Points]  
 **Assigned Team Member:** Tony Joshua

**Dependencies:** None

**Risk Profile:**

1. **User and Admin Login Integration:**API endpoints may not be complete or could have unexpected bugs.
2. **Jest Test Suites for Backend Admin and User Login:**Poor test coverage or unstable test cases might slow progress.
3. **CI Pipeline for Docker Image Build and NPM Testing:**CI pipeline might fail due to incorrect configurations or issues with dependencies.
4. **Integrating Docker Registry with ArgoCD Image Updater:**Integration issues between Docker registry and ArgoCD may lead to deployment failures.
5. **Datadog Analysis and Setup:**Steep learning curve may result in delays.

**Definition of Done:**

1. **User and Admin Login Functionality (Frontend Integrated with Backend):**
   * User and admin can log in successfully with valid credentials.
   * Proper error messages are displayed for invalid credentials.
   * Frontend UI is integrated with backend API for both user and admin logins.
   * Security best practices followed for password hashing.
2. **Jest Test Suites for Backend Admin and User Login Pages:**
   * Unit tests for all major authentication flows.
   * At least 80% test coverage achieved.
   * All test cases pass without failures.
3. **CI Pipeline for Docker Image Build and NPM Testing:**
   * CI pipeline configured and functional.
   * Docker image builds automatically on commits.
   * NPM tests executed in the pipeline.
   * CI pipeline execution completes without failures.
   * CI setup documentation and troubleshooting instructions available.
4. **Integrating Docker Registry with ArgoCD Image Updater:**
   * Docker images pulled automatically from the registry.
   * ArgoCD updates deployments with new images.
   * Versioning and rollback tested.
   * Integration testing in non-production environment.
5. **Datadog Setup and Analysis:**
   * Datadog monitoring and logging implemented.
   * Key learnings documented.
   * Findings and potential use cases shared with the team.