Sprint 4 Planning Document

Sprint Duration: 10th February 2025 - 23rd February 2025

Total Story Points: 18 (Each member: 3 story points, Total members: 6)

Sprint Goals & Objectives

The primary objective of this sprint is to enhance application functionality by completing feature development, backend unit testing, documentation, and integrating necessary DevOps tools for monitoring and logging.

Sprint Backlog

1. Feature Development:

- Wednesday's Wicked Adventure home page is functional.

- Home page contains contact information, Park details, ride details and fare

- Park booking system is implemented and working.

- Selecting and booking the parks, add to the cart.

- Bookings are stored on the cart successfully.

- Remove single park or all parks added to the cart. Redirect to booking page from the cart to add any items if needed, payment button to proceed with payment module.

- Users can proceed from cart to payment module.

    - Stripe payment, accept payment and show successful or failure booking status.

2. Backend Development & Testing:

- Backend unit test cases for booking module (admin and user) achieve 80%+ coverage.

    - Test cases on booking fields like number of adults, children, number of rides (at least one ride)

3. DevOps Integration:

- SonarQube integrated with CI pipeline.

    - SonarCloud project is configured with the correct project key and token.
        - GitHub repository is linked to SonarCloud.

- A `.github/workflows/sonarcloud.yml` file is created, and triggers `push` and `pull request` events.
- Code is analyzed using Sonar Cloud's default rules (bugs, vulnerabilities, code smells, and test coverage).

- Documentation for SonarQube integration is completed.

4. Documentation:

- User/Admin login.

- Booking system.

- Unit test cases for admin and user.

- Documentation on Cross-plane, Helm, and ArgoCD is completed.

5. Deployment & Monitoring:

- Application prototype is deployed and tested in EKS Cluster.

- Application should be accessible on DNS name.

- Datadog successfully implemented for monitoring logs and metrics.

- Shows memory, CPU usage.

Training Sessions

Date	Topic	Trainer
13th Feb	Kubernetes	Jayakumar
14th Feb	MongoDB	Tony
18th Feb	Datadog	Tony

Definition of Done

- Here's the **definition of done** for the tasks:

1. Feature Development:

- **Home Page**: Contains contact info, park details, ride details, and fare; fully functional.
- **Park Booking**: Users can select, book parks, and add them to the cart.
- **Cart Functionality**: Users can remove parks, clear the cart, and proceed to booking page.
- **Payment**: Stripe integration works; users can successfully complete payments with success or failure status shown.

2. Backend Development & Testing:

- **Unit Tests**: 80%+ coverage for booking module (admin and user), covering booking fields (adults, children, rides).

3. DevOps Integration:

- **SonarCloud**: Proper project key, token configured. GitHub linked. Workflow triggers on push & pull request.
- **SonarCloud Analysis**: Runs with default rules, and passes quality gate (no critical issues).
- **Documentation**: Complete steps for SonarCloud integration in GitHub Actions.

4. Documentation:

- **User/Admin Login**: Clear login documentation for user/admin.
- **Booking System**: Full description of the booking flow, including cart and payment.
- **Unit Test Cases**: Documentation of admin/user test cases.
- **Cross-Plane, Helm, ArgoCD**: Full deployment documentation.

5. Deployment & Monitoring:

- **EKS Deployment**: App deployed and accessible via DNS.
- **Datadog**: Memory and CPU usage metrics captured; logs monitored.