

# Kanban Board Project Week 6 Deliverable

**Week 6 (September 16 - September 20, 2024)**

**Stage 4: Finalization and Launch**

**Objective:** Finalize the application with security enhancements, user feedback integration, and prepare for launch.

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## Backend Team

### September 16-17: Security Enhancements

- **Task 1: Implement HTTPS for Secure Communication**
    - Ensure all communication between the client and server is secured using HTTPS.
    - Set up SSL/TLS certificates on the server for encrypted data transmission.
    - Test secure communication across all environments.
  - **Task 2: Data Encryption**
    - Encrypt sensitive data (e.g., passwords, user data) stored in the database using encryption algorithms like AES.
    - Ensure secure storage and retrieval of encrypted data.
  - **Task 3: Secure API Endpoints**
    - Secure all API endpoints by enforcing strict authentication and authorization policies.
    - Apply role-based access control (RBAC) to ensure only authorized users (Admin, Project Managers, Volunteers) can perform specific actions.
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### September 18: User Acceptance Testing (UAT)

- **Task 1: UAT with Admin, Project Managers, and Volunteers**
    - Conduct testing sessions with actual users (Admins, Project Managers, Volunteers) to assess the system's functionality.
    - Gather feedback on user experience, functionality, and performance.
  - **Task 2: Address Feedback**
    - Based on user feedback, identify areas that need improvement.
    - Make necessary updates and bug fixes to address any issues raised during UAT.
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## September 19: Performance Optimization

- **Task 1: Optimize Application Performance**
    - Analyze and optimize API response times, database queries, and application logic for improved performance.
    - Implement caching strategies for frequently accessed data to minimize database load.
  - **Task 2: Scalability**
    - Review the application's scalability options and prepare for handling increased user load post-launch.
    - Test the scalability of the application on Google Cloud Platform (GCP).
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## September 20: Final Deployment and Launch

- **Task 1: Final Deployment**
    - Deploy the final version of the application on Google Cloud Platform (GCP).
    - Set up GCP services (Compute Engine, Cloud Storage, Cloud SQL, Cloud CDN) for the production environment.
    - Ensure proper configuration of environment variables and deployment scripts.
  - **Task 2: Documentation and Training Materials**
    - Prepare comprehensive documentation for users (Admin, Project Managers, Volunteers).
    - Include detailed instructions on how to use key features, manage tasks, and troubleshoot common issues.
  - **Task 3: Official Launch and Monitoring**
    - Officially launch the application and monitor its performance in real-time.
    - Collect initial feedback from users post-launch for future improvements.
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## Frontend Team

### September 16-17: Security Enhancements

- **Task 1: Secure Authentication Flow**
  - Ensure that the login and authentication mechanisms are secured with HTTPS.
  - Test the user login flow to ensure proper handling of encrypted data and secure token storage.
- **Task 2: Secure User Data**
  - Implement frontend encryption for sensitive data before transmitting it to the backend.
  - Verify secure transmission and handling of sensitive user information.

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## September 18: UAT Preparation

- **Task 1: Finalize Frontend Components**
    - Ensure all frontend components (Dashboard, Task Board, Comments) are fully functional for UAT.
    - Test the responsiveness and user-friendliness of the application across different devices and screen sizes.
  - **Task 2: Gather User Feedback**
    - Work with the UI/UX team to gather user feedback on the overall design and usability.
    - Implement any final UI/UX improvements based on UAT feedback.
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## September 19: Performance Optimization

- **Task 1: Frontend Optimization**
    - Optimize frontend performance by minimizing load times, reducing the size of assets (CSS, JavaScript, images), and enabling lazy loading.
    - Test the application's speed and responsiveness to ensure optimal performance.
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## September 20: Final Touches and Launch

- **Task 1: Deployment Preparation**
    - Ensure the frontend is correctly connected to the backend and ready for final deployment.
    - Prepare a production build of the React application for deployment on GCP.
  - **Task 2: Post-Launch Monitoring**
    - Monitor the frontend's performance post-launch.
    - Address any immediate user issues or feedback.
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## UI/UX Team

### September 16-17: Final Design Adjustments

- **Task 1: UI Enhancements**
  - Collaborate with the frontend team to implement any final UI tweaks for improved usability.
  - Ensure that the design is consistent and user-friendly across all components.
- **Task 2: Accessibility and Usability Testing**

- Perform accessibility testing to ensure the application complies with WCAG standards.
  - Make final adjustments to enhance the user experience, ensuring the application is intuitive for all user roles.
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### **September 18: UAT Support**

- **Task 1: UAT Feedback Collection**
    - Assist in conducting user acceptance testing with actual users.
    - Collect feedback on design elements, user flow, and visual appeal.
    - Suggest any UI/UX improvements based on user feedback.
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### **September 19-20: Finalization and Design Documentation**

- **Task 1: Prepare Design Documentation**
    - Create comprehensive design documentation, including guidelines for future development and design consistency.
    - Provide insights into design decisions made during the project.
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### **Summary of Week 6 Deliverables (September 16 - September 20, 2024)**

- **Backend Team:** Security enhancements, user acceptance testing, performance optimization, and final deployment.
- **Frontend Team:** Secure authentication flow, UAT preparation, frontend performance optimization, and final launch.
- **UI/UX Team:** Final design adjustments, UAT support, accessibility testing, and preparation of design documentation.