

OPT Portal Website Timeline(Aug, 11 2024 to Sept 6 , 2024)

Week 1 (August 11 - August 16)

Stage 1: Planning and Design

Objective: Lay the groundwork for the application by understanding requirements and creating initial designs.

- **August 12 (Monday): Requirements Document**
 - Backend Team: Identify user roles (Admin, Student, OPT Coordinator) and their permissions.
 - Frontend Team: Define functional requirements (e.g., document submission, approval workflows, notification systems).
 - UI/UX Team: Define non-functional requirements (e.g., security, scalability, performance).
- **August 13 (Tuesday):**
 - Backend Team: Detail user stories and use cases.
 - Frontend Team: Design MongoDB schema with collections: Users, Documents, Submissions, Notifications, Logs.
 - UI/UX Team: Define relationships between collections.
- **August 14 (Wednesday):**
 - Backend Team: Draft initial schema models.
 - Frontend Team: Outline RESTful API endpoints for CRUD operations.
 - UI/UX Team: Define request and response formats for each endpoint.
- **August 15 (Thursday):**
 - Backend Team: Specify authentication and authorization mechanisms.
 - Frontend Team: Create wireframes/mockups for each user role's interface using Figma.
 - UI/UX Team: Design Admin Dashboard for user and document management.
- **August 16 (Friday):**
 - Backend Team: Design Student Dashboard for document submission and status tracking.
 - Frontend Team: Design OPT Coordinator Dashboard for document review and approval.
 - UI/UX Team: Gather feedback and iterate on designs.

Week 2 (August 19 - August 23)

Stage 2: Setup and Basic Implementation

Objective: Establish the development environment and start basic backend and frontend development.

- **August 19 (Monday): Development Environment Setup**
 - Backend Team: Set up local development environment (Node.js).
 - Frontend Team: Set up local development environment (React).
 - UI/UX Team: Configure cloud environment on AWS (EC2, S3, RDS).
- **August 20 (Tuesday):**
 - Backend Team: Install necessary tools and dependencies.
 - Frontend Team: Initialize Git repositories for backend and frontend.
 - UI/UX Team: Define branch strategies (e.g., main, develop, feature branches).
- **August 21 (Wednesday):**
 - Backend Team: Set up CI/CD pipelines using GitLab CI/CD or GitHub Actions.
 - Frontend Team: Set up initial Node.js project structure.
 - UI/UX Team: Create initial API endpoints for user authentication and document submission.
- **August 22 (Thursday):**
 - Backend Team: Test endpoints using Postman or similar tools.
 - Frontend Team: Set up initial React project structure with routing and state management.
 - UI/UX Team: Implement initial components: Login, Dashboard, Document List.
- **August 23 (Friday):**
 - Backend Team: Connect frontend with backend APIs for authentication and document data.
 - Frontend Team: Continue implementing initial components.
 - UI/UX Team: Ensure responsive design and user-friendly UI.

Week 3 (August 26 - August 30)

Stage 3: Core Development and Testing

Objective: Develop core functionalities, integrate frontend with backend, and perform thorough testing.

- **August 26 (Monday): Database Integration**
 - Backend Team: Connect the application with MongoDB.
 - Frontend Team: Test basic CRUD operations for Users and Documents collections.
 - UI/UX Team: Ensure database connection stability and security.
- **August 27 (Tuesday):**
 - Backend Team: Develop API endpoints for user authentication (registration, login).
 - Frontend Team: Develop API endpoints for document submission and management.
 - UI/UX Team: Implement basic business logic and error handling.

- **August 28 (Wednesday):**
 - Backend Team: Implement Login component with authentication flow.
 - Frontend Team: Implement Dashboard component to display document list.
 - UI/UX Team: Fetch and display data from backend APIs.
- **August 29 (Thursday):**
 - Backend Team: Ensure responsive design and user-friendly UI.
 - Frontend Team: Test basic CRUD operations for Users and Documents collections.
 - UI/UX Team: Secure API endpoints with authentication middleware.
- **August 30 (Friday):**
 - Backend Team: Implement Notification component for updates and alerts.
 - Frontend Team: Integrate frontend with backend APIs.
 - UI/UX Team: Test application responsiveness and cross-browser compatibility.

Week 4 (September 2 - September 6)

Stage 4: Finalization and Launch

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

- **September 2 (Monday): Security Enhancements**
 - Backend Team: Implement secure communication using HTTPS.
 - Frontend Team: Implement data encryption for sensitive information.
 - UI/UX Team: Secure API endpoints with authentication and authorization.
- **September 3 (Tuesday):**
 - Backend Team: Conduct User Acceptance Testing (UAT) with actual users (Admin, Students, OPT Coordinators).
 - Frontend Team: Gather feedback on usability, functionality, and performance.
 - UI/UX Team: Address any issues or improvements suggested by users.
- **September 4 (Wednesday):**
 - Backend Team: Optimize application performance for speed and efficiency.
 - Frontend Team: Implement caching strategies for frequently accessed data.
 - UI/UX Team: Optimize database queries and API responses.
- **September 5 (Thursday):**
 - Backend Team: Deploy the optimized application on AWS with scalability options enabled.
 - Frontend Team: Provide comprehensive documentation and training materials for all user types.
 - UI/UX Team: Officially launch the application and monitor its performance.
- **September 6 (Friday):**
 - Backend Team: Monitor application performance post-launch.
 - Frontend Team: Collect user feedback for further improvements.
 - UI/UX Team: Ensure post-launch support and updates