SOFTWARE REQUIREMENTS SPECIFICATION

for

INTERNSHIP MANAGEMENT SYSTEM

Version 1.0

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1 Introduction

1.1 Purpose

The Internship Management System (IMS) aims to streamline the management of internships offered by an organization, replacing manual processes with an automated, web-based solution. The system facilitates the application, selection, onboarding, and management of internships, including paid (organization-funded), paid (student-funded), and unpaid internships. The primary goal is to digitize and centralize internship-related data, ensuring efficient tracking of applications, selections, work progress, and completion.

1.2 Intended Audience and Reading Suggestions

This Software Requirements Specification (SRS) document is intended for developers, project managers, testers, and stakeholders at WEBEL. Developers should focus on the System Features and Functional Requirements sections for technical implementation details. Project managers and stakeholders can refer to the Introduction and Overall Description for project scope and objectives. Testers should review the Nonfunctional Requirements for performance and quality criteria. The document should be read sequentially for a comprehensive understanding, with the Glossary and Appendix providing additional context.

1.3 Project Scope

The Internship Management System provides a platform for managing the lifecycle of internships, including application submission, selection processes, onboarding, supervisor assignment, group formation, problem statement allocation, work progress tracking, and internship completion. The system supports three types of internships:

- **Paid by Organization**: Requires a written test and interview.
- **Paid by Student**: Free to apply without additional screening.
- **Unpaid**: Free to apply without additional screening.

The system will benefit applicants, internship coordinators, supervisors, and administrators by automating workflows, improving transparency, and reducing manual effort.

2 Overall Description

2.1 Product Perspective

The Internship Management System is a new, self-contained web application designed to replace manual internship management processes. It centralizes data storage and automates tasks such as application processing, candidate selection, and progress tracking, reducing paperwork and administrative overhead.

2.2 User Classes and Characteristics

The system supports the following user classes:

- **Applicants**: Individuals applying for internships, providing personal and academic details.
- **Coordinators**: Administrative staff managing applications, selections, and onboarding.
- **Supervisors**: Employees assigned to guide interns, monitor progress, and evaluate work.
- **Administrators**: Senior staff overseeing the system, assigning supervisors, and approving completions.

2.3 Product Functions

The Internship Management System includes the following key functions:

1. **Application for Internship**: Allows applicants to submit applications with required details, supporting different internship types.
2. **Selection Process**: Manages written tests and interviews for organization-paid internships and direct approvals for other types.
3. **Onboarding of Selected Intern(s)**: Facilitates document submission and orientation for selected interns.
4. **Assignment of Internship Supervisor**: Assigns supervisors to interns based on project needs.

5. **Formation of Group (if any)**: Enables grouping of interns for collaborative projects.
6. **Problem Statement Allocation**: Assigns specific tasks or projects to interns or groups.
7. **Work Progress**: Tracks and updates intern work progress through supervisor feedback.
8. **Internship Completion Module**: Manages completion certificates and performance evaluations.

2.4 Operating Environment

The system will operate as a web-based application, accessible on modern browsers (e.g., Chrome, Firefox, Edge) across operating systems such as Windows, macOS, and Linux. It will be hosted on a secure server with a relational database for data storage.

2.5 Design

The system design includes the following workflows:

- **Applicant Workflow**: Applicants register, submit applications, and track status. For organization-paid internships, they complete tests and interviews.
- **Coordinator Workflow**: Coordinators review applications, manage selection processes, and handle onboarding.
- **Supervisor Workflow**: Supervisors monitor intern progress, provide feedback, and evaluate deliverables.
- **Administrator Workflow**: Administrators assign supervisors, allocate problem statements, and approve completions.

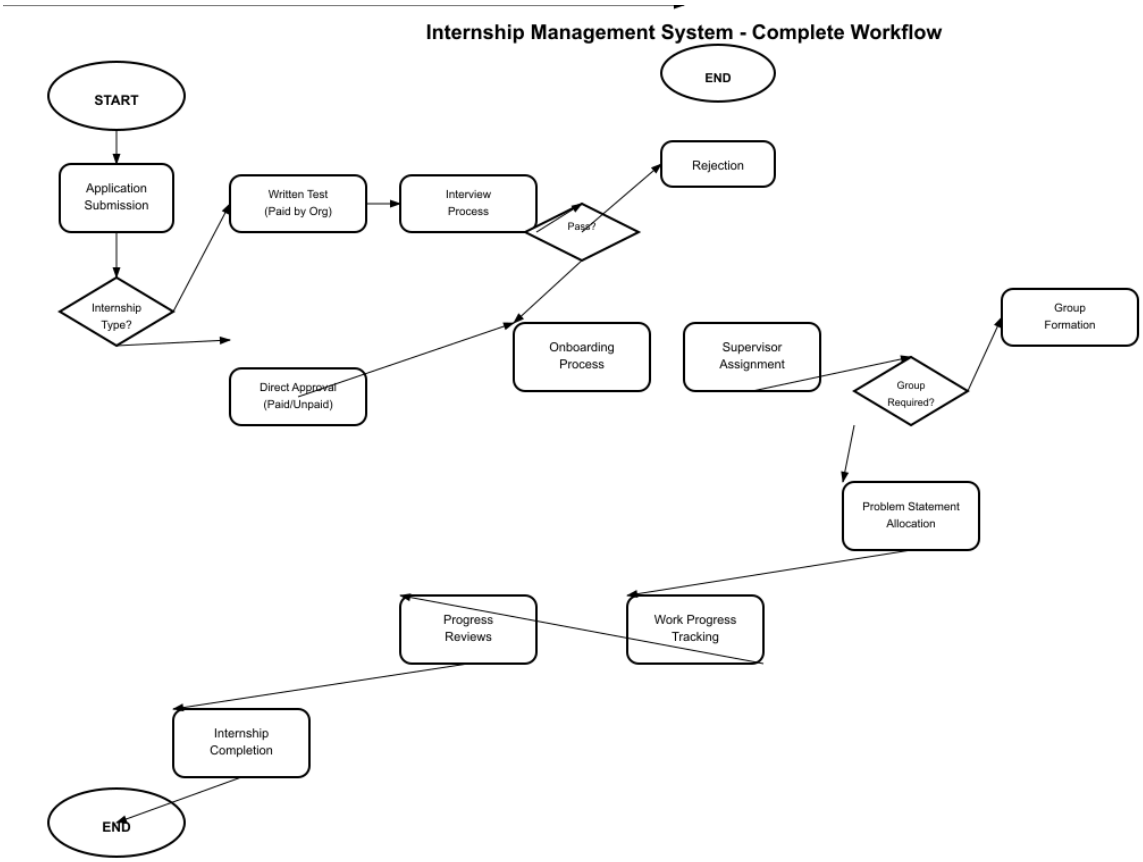

Figure 2.1: Complete Workflow for Internship Management System

3 System Features

3.1 Description and Priority

The Internship Management System includes the following prioritized features:

1. **Application Management (High Priority)**: Enables applicants to submit and track applications.
2. **Selection Process (High Priority)**: Automates screening for organization-paid internships and approves others.
3. **Onboarding Module (Medium Priority)**: Manages intern onboarding with document verification.
4. **Supervisor Assignment (Medium Priority)**: Assigns supervisors to interns or groups.
5. **Group Formation (Low Priority)**: Facilitates group creation for collaborative tasks.
6. **Problem Statement Allocation (Medium Priority)**: Assigns tasks to interns or groups.
7. **Work Progress Tracking (High Priority)**: Tracks intern progress via supervisor updates.
8. **Completion Module (Medium Priority)**: Issues certificates and records evaluations.

3.2 Functional Requirements

The system will be developed using:

- **Back-End**: Python (Django framework) for robust server-side logic.
- **Front-End**: React with JavaScript for an interactive user interface.
- **Database**: PostgreSQL for reliable data storage and management.

The system will support user authentication, role-based access, and data validation to ensure secure and accurate operations.

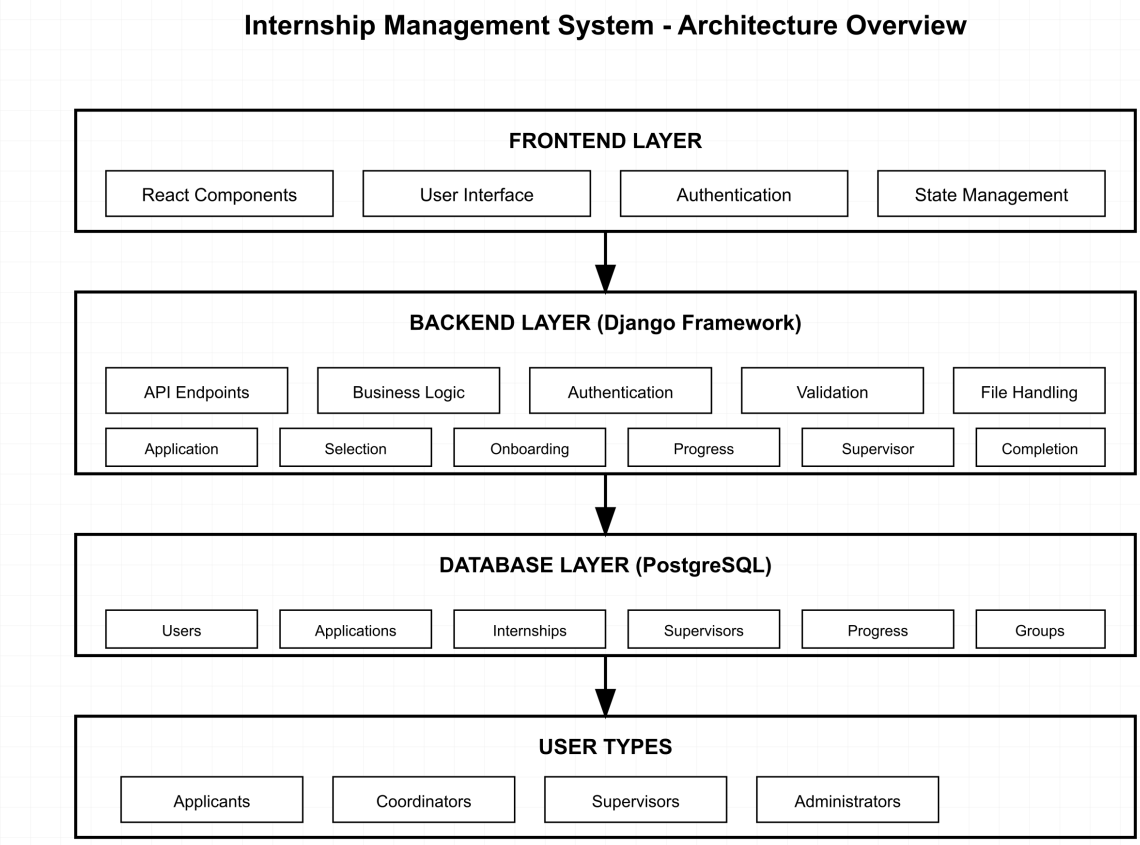

Figure 3.1: System Architecture Diagram

4 Other Nonfunctional Requirements

4.1 Performance Requirements

The system must handle up to 1,000 concurrent users with response times under 2 seconds for standard operations. It should process application submissions and progress updates efficiently, even during peak usage.

4.2 Security Requirements

- Only registered users with valid credentials can access the system.
- Role-based access control ensures users can only perform authorized actions.
- Data encryption (e.g., HTTPS, SSL) protects sensitive information during transmission.

4.3 Software Quality Attributes

The system will prioritize usability, reliability, and maintainability. Regular testing (unit, integration, and user acceptance) will ensure functionality and performance. The user interface will be intuitive, with clear navigation for all user types.

4.4 Business Rules

- Applicants for organization-paid internships must complete a written test and interview.
- Student-paid and unpaid internships have open applications without screening.
- Supervisors must submit progress updates at least biweekly.
- Completion certificates are issued only after supervisor approval.

5 Other Requirements

The system requires regular maintenance to accommodate new internship types or workflow changes. Future enhancements may include analytics for intern performance and integration with external HR systems.

6 Appendix

6.1 Data Flow Diagram

A data flow diagram (DFD) illustrating the flow of information between applicants, coordinators, supervisors, and administrators is shown below:

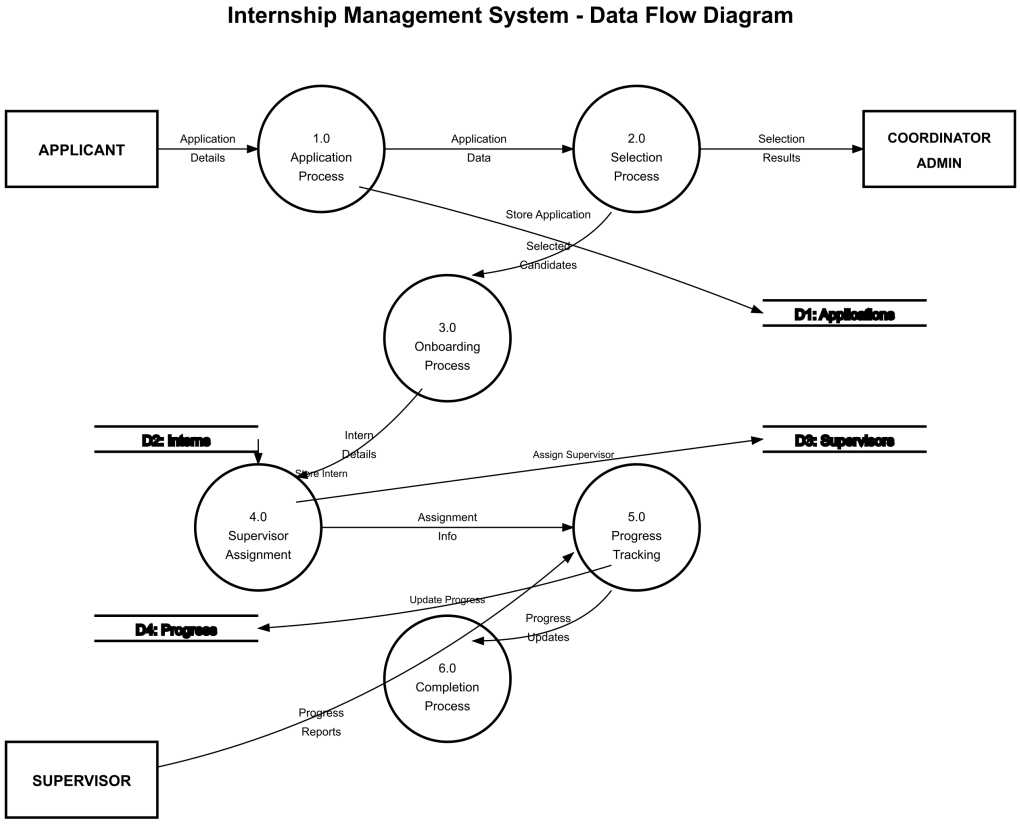

Figure 6.1: Data Flow Diagram for Internship Management System

6.2 User Interface Mockups

Mockups for key interfaces are provided below:

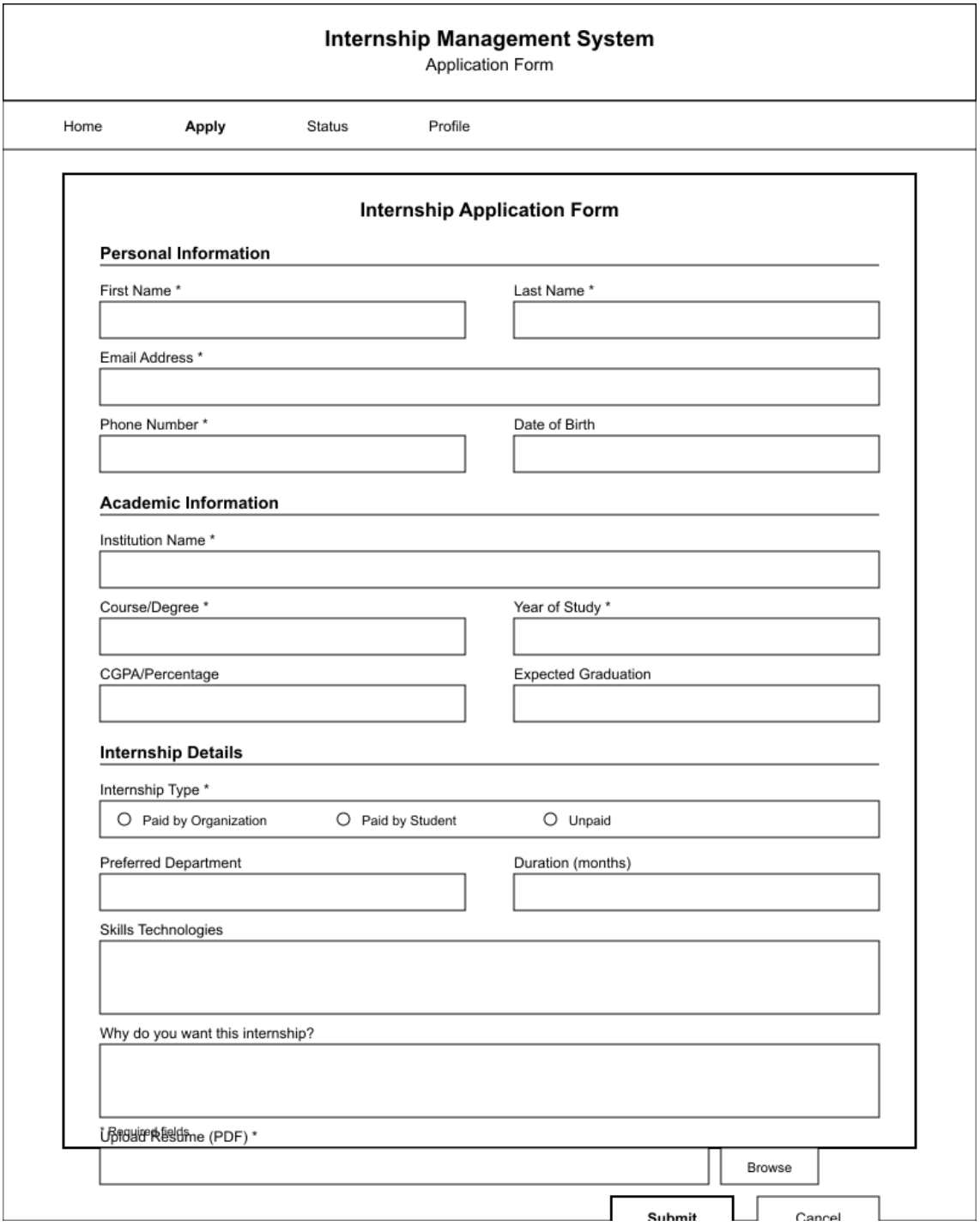

Figure 6.2: Wireframe for Internship Application Form

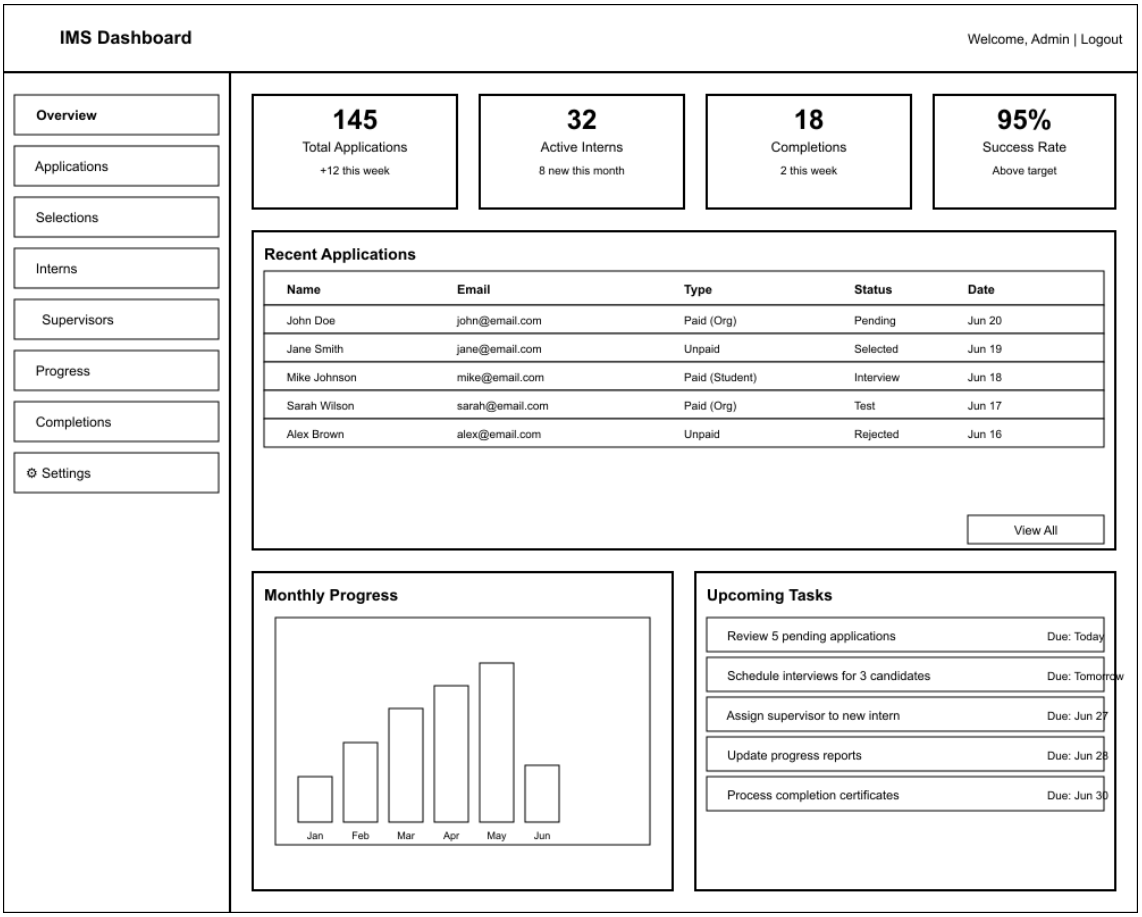

Figure 6.3: Wireframe for Supervisor Progress Dashboard

7 Glossary

- **IMS**: Internship Management System, the web-based application described in this document.
- **Applicant**: An individual applying for an internship.
- **Coordinator**: Administrative staff managing internship processes.
- **Supervisor**: An employee guiding and evaluating interns.
- **Administrator**: Senior staff overseeing system operations.
- **Problem Statement**: A specific task or project assigned to an intern or group.