Software Design Document: Internship Application System

1. Introduction

The Internship Application System connects students with internship opportunities posted by company HR representatives. It helps students find and apply for internships while enabling HR professionals to manage postings and review applications.

2. System Overview

The system consists of these main modules:

* User Management (Authentication/Profiles)
* Company/HR Management
* Internship Postings
* Application Processing
* Notification System

3. Module Details

3.1 User Management

* **Main Job**: Handles all user authentication and profile management
* **Data**: User credentials, roles (Student/HR/Admin), and profile information
* **Components**: User, Role, Student, Hr, and Admin entities

3.2 Company/HR Management

* **Main Job**: Manages company information and HR user accounts
* **Data**: Company details, HR profiles and their company associations
* **Components**: Company and Hr entities with related services

3.3 Internship Postings

* **Main Job**: Creates and manages internship opportunities
* **Data**: Internship details (title, description, requirements, status)
* **Components**: Internship entity with status tracking

3.4 Application Processing

* **Main Job**: Handles student applications and status updates
* **Data**: Application records, status changes, timestamps
* **Components**: Application entity with status lifecycle

3.5 Notification System

* **Main Job**: Alerts students about application updates
* **Data**: Notification messages and read status
* **Components**: Notification entity with read tracking

4. Component Interactions

* HR users create internships → Students view and apply → System creates application record
* When HR updates application status → Notification system alerts student
* Admin can manage all entities through admin interfaces
* Authentication system validates users before any actions

5. User Interface Description

Key Screens:

**Student Interface:**

* Dashboard: Shows active internships and application statuses
* Internship View: Detailed posting with apply button
* Applications: List of all submissions with current status
* Notifications: Updates about application changes

**HR Interface:**

* Internship Management: Create/edit postings
* Applications Dashboard: View and filter submissions
* Application Review: Detailed view with status update options

**Admin Interface:**

* User Management: CRUD operations for all users
* System Monitoring: Analytics and reporting

**Common Screens:**

* Login/Registration: Standard auth flow with role-based redirect
* Profile Management: Edit personal and account information