

AlumTrak: JHCSC BSIT Alumni Employment Tracking and Reminder System



A Capstone Project

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1. INTRODUCTION

2. OVERALL DESCRIPTION

3. REQUIREMENTS SPECIFICATIONS

3.1 Functional Requirements

The functional requirements outline the specific functions and features the system must support:

1. User Registration and Login

- The system shall allow alumni to create an account using their email and a password.
- Alumni shall be able to log in to their accounts securely.

2. Profile Management

- Alumni shall be able to update their personal information, including job title, company name, and employment status.
- Alumni shall be able to upload Certificates of Employment (COE) or Business Certificates in PDF or image formats.

3. Automated Notification System

- The system shall send automated email reminders to alumni who have not updated their employment information.
- The system shall allow administrators to customize reminder frequency and content.

4. Administrator Dashboard

- Administrators shall have access to a dashboard that displays alumni compliance statistics and status.

5. Reports & Analytics

- The system shall allow administrators to generate reports on employment data, trends, and compliance rates.
- Reports shall be exportable in common formats (e.g. PDF).

3.2 Non-Functional Requirements

Non-functional requirements define the quality attributes and constraints of the system:

1. Performance

- The system shall support at least 50 concurrent users without performance degradation.

2. Security

- The system shall implement encryption for sensitive data, including user passwords and personal information.
- Access to the administrator dashboard shall be restricted to authorized personnel only.

3. Usability

- The system shall have an intuitive user interface that allows users to navigate easily and perform tasks without extensive training.

4. Compatibility

- The system shall be compatible with modern web browsers on desktop and mobile devices.
- The system shall be responsive to different screen sizes and orientations.

5. Availability

- The system shall be available 24/7.

3.3 External Interface Requirements

External interface requirements specify how the system interacts with external systems or services:

1. Email Notification Services

- The system shall integrate with external email gateway services to send notifications to alumni.
- The integration shall be secure and comply with data privacy regulations.

2. Database Management System

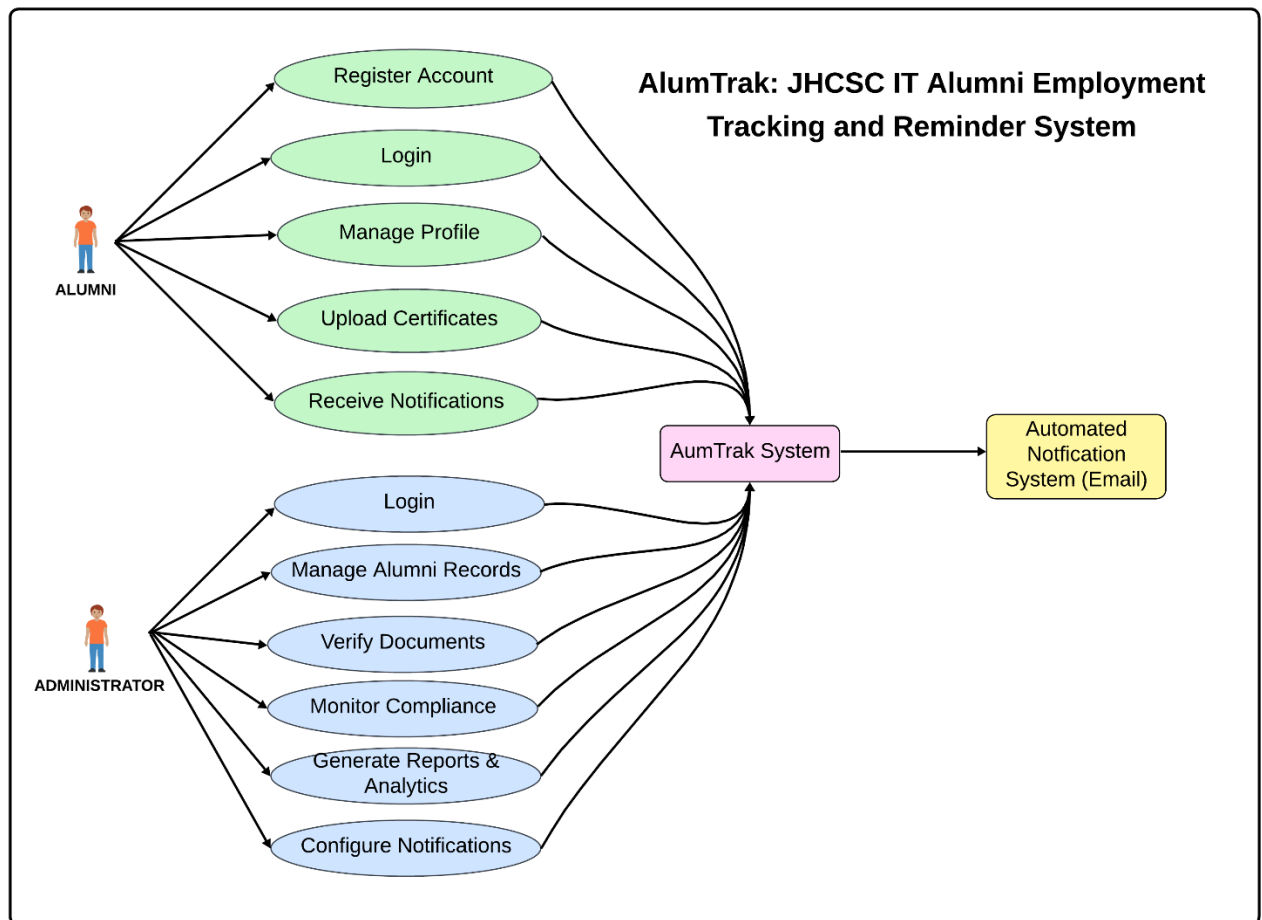
- The system shall utilize a relational database for storing user data and employment records.

3. User Interface

- The user interface shall be developed using web technologies (HTML, CSS, JavaScript) and shall comply with accessibility standards.
- APIs shall be utilized for email services.

3.4 System Models

3.4.1 Use Case Diagram



The use case diagram illustrates the major functions of the AlumTrak system, showing interactions between actors and the system:

1. Alumni – Can register, log in, manage profiles, upload certificates, and receive notifications. These features ensure alumni can easily update employment information and comply with institutional requirements.
2. Administrator – Has access to more advanced functions such as managing alumni records, verifying documents, monitoring compliance, generating reports and analytics, and configuring notifications. This ensures proper data management and compliance monitoring.
3. Automated Notification System – An external system integrated with AlumTrak that sends reminders to alumni, ensuring they remain updated and responsive.

3.4.2 Crow's Foot Notation

