SOFTWARE REQUIREMENT FOR BIT LINKEDIN PORTAL

Name	**KUMAR V.S**
Roll number	**7376222CT127**
Seat number	**273**
Project number	**33**
Problem statement	**BIT LINKEDIN PORTAL**

PROBLEM STATEMENT : BIT LINKEDIN PORTAL

Login credentials using BIT Sathy mail ID. All facilities inside a general LinkedIn portal should be reflected. Need messaging facility among the peers. Provide a Job search platform wherein the students could search for jobs/ internships based on their interests. Separate Link to know about the BIT on-campus placement drives and results. Portal to design a resume professionally (Separate plugins should be added to design a resume on submitting the details).

STACK:

Component	Tech Stack
Frontend	**React js**
Backend	**Node js with Express js**
Database	**MongoDB**
API	**Open API**

PROGRESS - TIMELINE:

Phase	Deadline	Status	Notes
Stage 1	03/05/2024	In Progress	Planning and Requirement Gathering
Stage 2		Not Started	Design and Prototyping
Stage 3		Not Started	DB Designing
Stage 4		Not Started	Backend Implementation
Stage 5		Not Started	Testing & Implementation
Stage 6		Not Started	Deployment

1. INTRODUCTION

1.1 PURPOSE :

The purpose of this document is to present a detailed description of the BIT Linkedin Portal. It will explain the purpose and features of the system, the interfaces of the system, what the system will do, the constraints under which it must operate and how the system will react to external stimuli.

1.2 SCOPE OF THE PROJECT :

The creation of an extensive web-based platform customized to meet the unique requirements of BIT students and alumni is included in the scope of the BIT LinkedIn Portal. Within the BIT community, the portal will provide a primary location for networking, career development, and professional advancement.

- **User Profiles:** Customizable profiles where users can add their professional details, including education, experience, skills, qualification, training, expertise, experiences, and professional goals and endorsements.

- **Networking Features:** In order to grow their professional network and look for mentorship possibilities, users can connect with other BIT students, faculty members, alumni, and prospective employers
- **Job/internship Listings:** Integration of a job/internship board where members can post and apply for jobs/internship within their industry.
- **Content Sharing and Feed:** A news feed where users can post articles, share insights, and discuss trends relevant to their industry.
- **Message & Communication:** An internal message system allows users to connect with one another, which promotes networking and teamwork.

1.3. Technology Stack

- **Frontend:** React.js or Angular for a dynamic and responsive user interface.
- **Backend:** Node.js with Express for server-side logic; Python could also be considered for its robustness in handling data.
- **Database**: MongoDB depending on the requirement for scalability and data structure flexibility.
- **API:** Open API

2. STACK OVERVIEW:

2.1 Purpose of the System

The "Bit LinkedIn Portal" is designed to be a specialized networking platform tailored for professionals in a specific industry. It offers tools for professional networking, job searching, content sharing, and professional development. The goal is to facilitate easier connections, better job placement, and ongoing professional growth within a focused community.

2.2System Components

1. **User Interface (UI)**
    - **Web Interface:** A responsive web application that provides users with access to all platform features from various devices (desktops, tablets, and smartphones).

2. **Backend Services**
    - **User Management:** Handles all aspects of user account setup, profile management, authentication, and security.

- **Networking Services:** Manages user connections, recommendations, and network expansions.
- **Messaging System:** Facilitates private and group communications among users.
- **Job Management System**: Integrates job postings, applications, and interactions between job seekers and employers.

3. **Analytics and Reporting**
    - **User Analytics**: Provides insights into user behavior, platform engagement, and content interaction.
    - **System Performance Monitoring:** Tracks and analyzes system performance to ensure optimal operation and quick resolution of any issues.

3. FUNCTIONAL REQUIREMENT:

Functional requirements define specific behaviors or functions of a system. For a project like the "Bit LinkedIn Portal," which aims to replicate and tailor some of the functionalities of LinkedIn to a specific audience, these requirements detail what the system should do in terms of features and operations.

3.1. User Account Management

- **Registration and Login:** Users must be able to register using their email address or social media accounts. The system should support secure login mechanisms with options for multi-factor authentication.
- **Profile Creation and Editing:** Users should be able to create and edit their profiles, including adding information such as biography, work experience, education, skills, certifications, and profile pictures.
- **Account Settings:** Users must be able to modify account settings, including privacy controls, notification preferences, and account deactivation.

3.2. Networking and Connections

- **Search and Add Connections:** Users should be able to search for other users using various filters (e.g., name, location, industry) and send connection requests.

- **Accept or Reject Connections:** Users must be able to accept or reject connection requests.

3.3. Messaging System

- **Send and Receive Messages:** Enable users to send and receive messages privately.
- **Notifications:** Real-time notifications for received messages.

3.4. Content Management

- **Post Creation:** Users should be able to create posts, including text, images, and videos.
- **Post Interaction:** Functionality for users to like, comment on, and share posts.

3. 5. Job Portal

- **Job Posting:** Employers should be able to post job listings, including details such as job title, description, and qualifications.
- **Job Application**: Users should be able to apply for jobs directly through the platform.
- **Manage Applications:** Employers must be able to manage received applications (view, accept, reject).

3. 6. Search and Discovery

- **Advanced Search:** Robust search functionality across all sections of the platform, including people, jobs, posts, and groups.
- **Recommendation Engine:** Algorithmic recommendations for connections, groups, jobs, and content based on user behavior and preferences.

3. 7. Analytics and Reporting

- **User Analytics:** Dashboard for users to view statistics related to their activities, posts, and engagements.
- **Admin Analytics:** Admin dashboard to monitor site usage, user engagement, and growth metrics.

4. NON-FUNCTIONAL REQUIREMENTS:

4.1. Performance

- **Response Time:** The system should respond to user interactions within 2 seconds under normal load conditions.
- **High Throughput:** The system must be able to handle a high number of requests simultaneously, specifically aiming to support thousands of concurrent users without degradation in performance.

4.3. Reliability

- **Uptime:** The system should aim for a 99.9% uptime excluding planned maintenance.
- **Recovery:** Implement disaster recovery plans and mechanisms to ensure rapid restoration of data and services in the event of hardware or software failure.

4.4. Usability

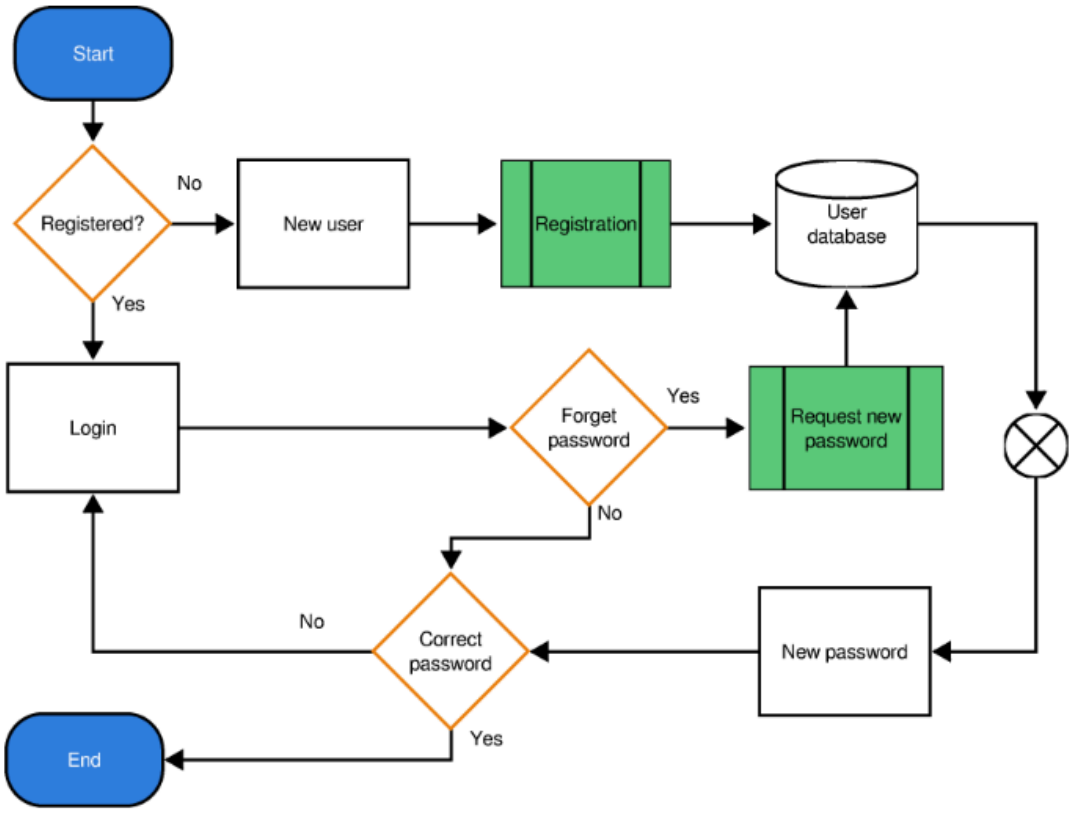
- **User Interface:** The user interface should be intuitive and user-friendly, designed to ensure ease of use for all functionalities across various platforms (desktop and mobile).
- **Accessibility:** Comply with the Web Content Accessibility Guidelines (WCAG) 2.1 to ensure the platform is accessible to users with disabilities.

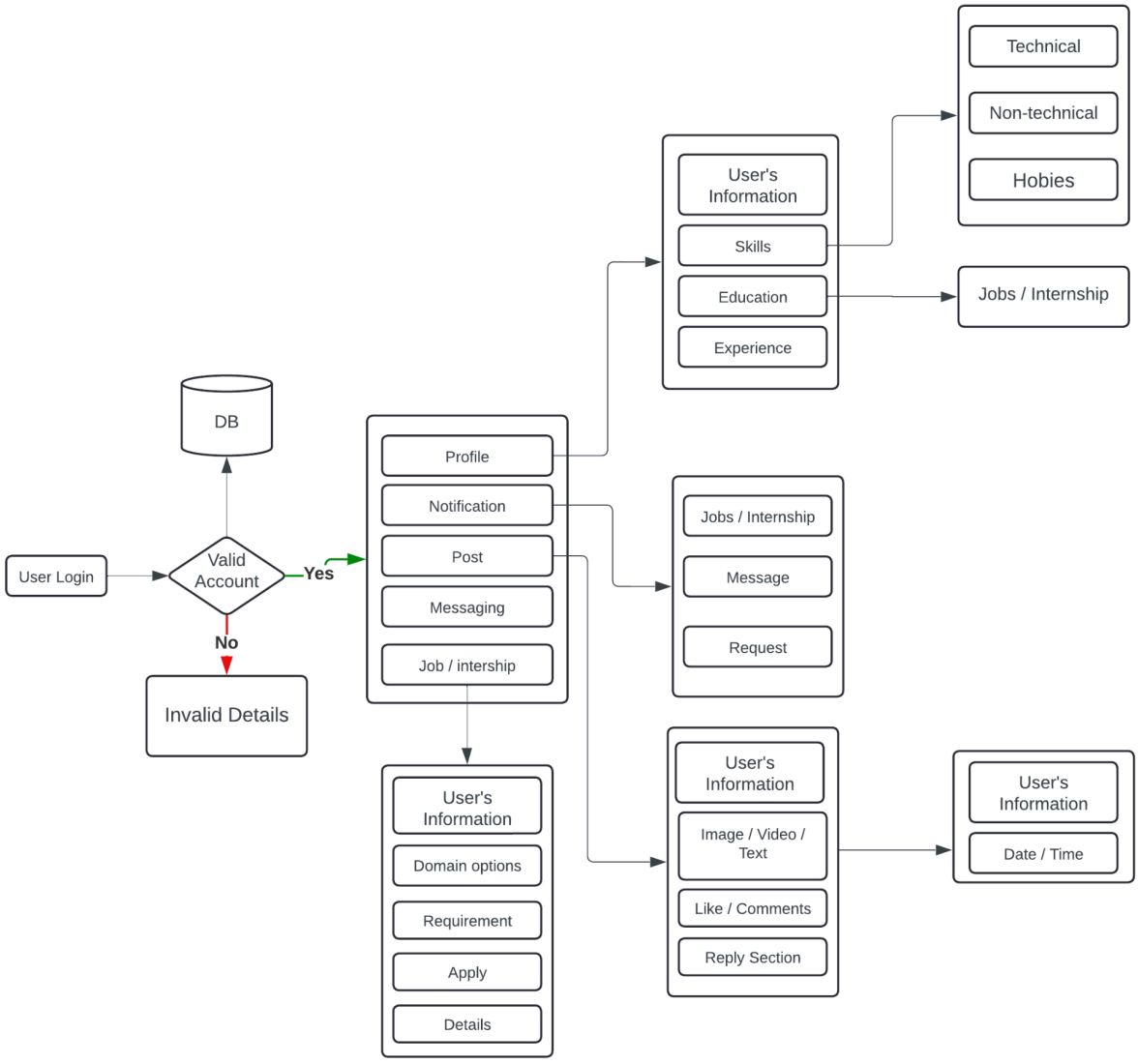
4.5. Security

- **Data Protection:** All user data must be encrypted in transit and at rest using industry-standard encryption protocols.
- **Authentication and Authorization:** Implement secure authentication mechanisms such as OAuth, and ensure proper authorization checks are in place for every sensitive operation within the system.

FLOWCHART:

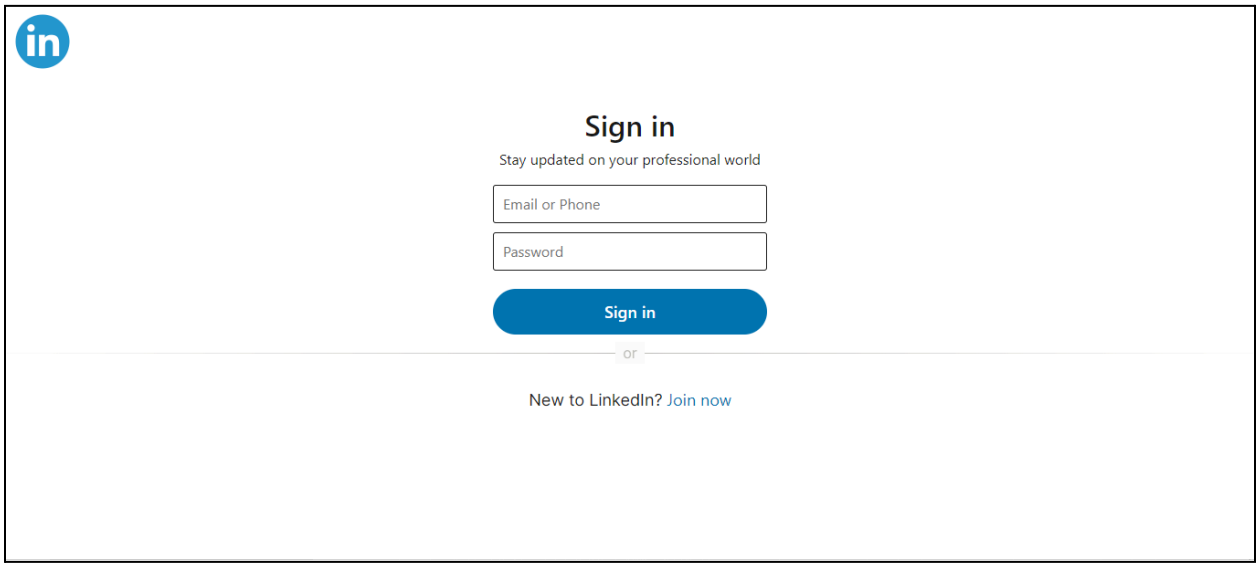
LOGIN PAGE:



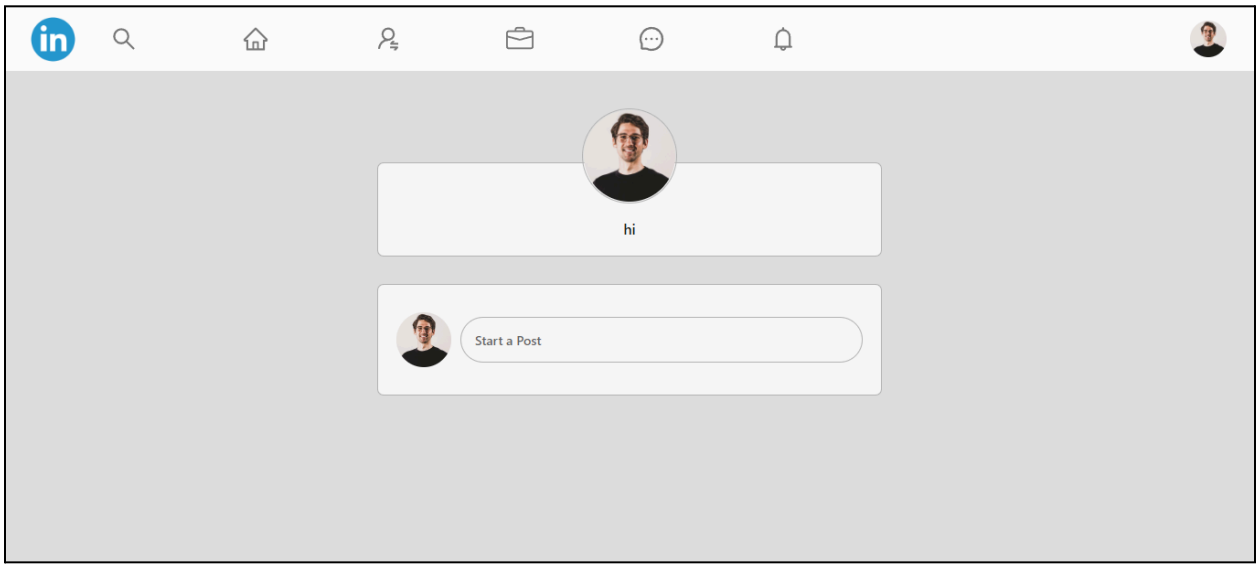
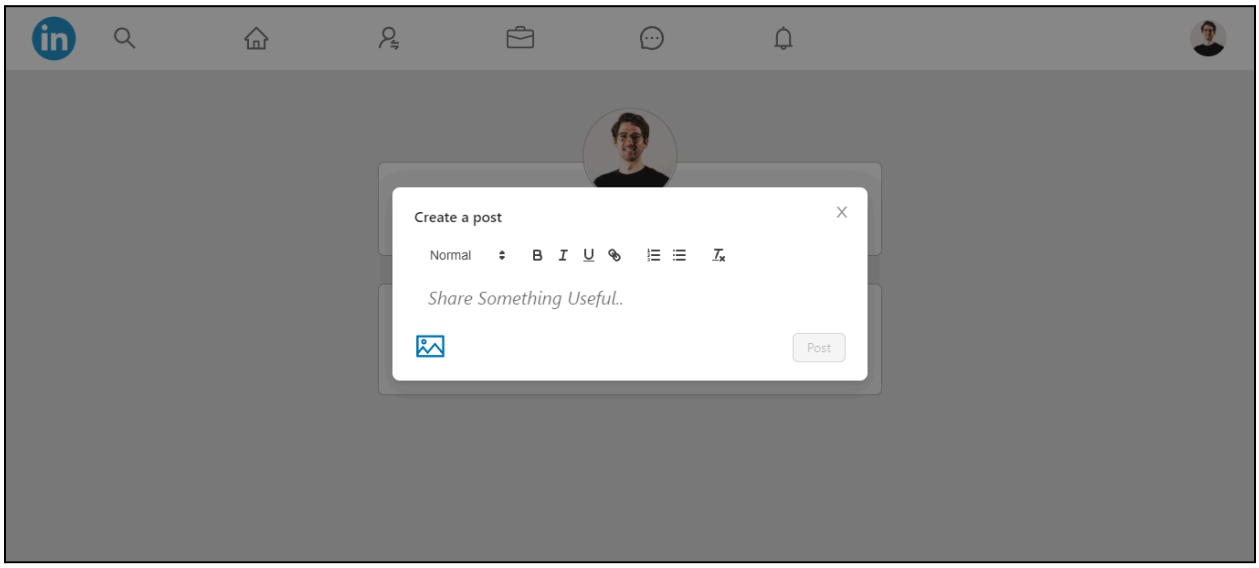

DB
User Login
Valid Account
Yes
No
Invalid Details
Profile
Notification
Post
Messaging
Job / intership
User's Information
Skills
Education
Experience
Technical
Non-technical
Hobies
Jobs / Internship
Jobs / Internship
Message
Request
User's Information
Domain options
Requirement
Apply
Details
User's Information
Image / Video / Text
Like / Comments
Reply Section
User's Information
Date / Time

PROTOTYPE OF THE PROJECT :

1.Login page:



2. Linkedin UI/UX (Home page):



3. Post creation: