BANNARI AMMAN INSTITUTE OF TECHNOLOGY
An Autonomous Institution Affiliated to Anna University - Chennai, Accredited by NAAC with A+ Grade
Sathyamangalam - 638401 Erode District, Tamil Nadu, India

SOFTWARE REQUIREMENT SPECIFICATION (SRS)

Student Name: Samitha A

Seat No: 366

Project ID: 6

Project Title: Alumni Network

TECH STACK: MERN

Front End	React (JS Library for building user interfaces)
Back End	Node.js with Express.js
Database	MongoDB(NOSQL Database)
API	OpenAPI

IMPLEMENTATION TIMELINE:

Phase	Notes
Stage 1	Planning and Requirement gathering
Stage 2	Design and UI/UX prototyping
Stage 3	Database Design and Implementation
Stage 4	Backend Development
Stage 5	Integration and Testing
Stage 6	Deployment

PROBLEM STATEMENT:

Many institutions lack a comprehensive platform that facilitates meaningful and long-lasting connections among their alumni community. Alumni often lose touch with their fellow graduates, missing out on opportunities for networking, mentorship, and professional growth. Additionally, current students lack access to an organized platform to connect with experienced alumni for guidance, mentorship, and potential job opportunities.

PURPOSE: Build an alumni network platform where alumni can connect with each other, mentor current students and share job opportunities. Include features like alumni directories, events calendars, and profile updates.

NOVELTY:

Alumni Career Coaching and Mock Interviews: Offer career coaching services and mock interview sessions conducted by experienced alumni professionals. This could provide valuable guidance and preparation for current students or recent graduates entering the job market.

Alumni Crowdfunding Platform: Implement a crowdfunding platform specifically for alumni-led projects or initiatives. This could foster a sense of community and support while providing a platform for alumni to pitch their

REQUIREMENTS:

Frontend Development:

Technology: Utilize React.js for building the user interface, ensuring a responsive and interactive design.

User Experience: Implement a user-friendly interface with smooth navigation and intuitive features for alumni, current students, and admin users.

Dashboard: Create a dashboard for alumni to view profiles, events, and updates, and for admins to manage content and user accounts.

Backend Development:

Technology: Employ Node.js with Express.js for the backend server, handling data management and API integrations.

Database: Use MongoDB as the database to store user profiles, event details, and other relevant information securely.

APIs: Develop Open APIs to facilitate communication between the frontend and backend components, enabling data retrieval and updates.

Authentication and Security:

User Authentication: Implement secure user authentication to ensure data privacy and user access control.

Data Encryption: Encrypt sensitive data stored in the database to enhance security and protect user information.

Features and Functionality:

Profile Management: Allow alumni and current students to manage their profiles, update information, and connect with others in the network.

Event Management: Enable admins to create and manage events, such as reunions, webinars, and networking sessions, to engage users.

Communication: Incorporate messaging features for users to interact, share updates, and network within the platform.

Deployment and Scalability:

Hosting: Deploy the platform on cloud services like AWS or Heroku for scalability and reliability.

Scalability: Design the platform to handle a growing user base, ensuring performance and responsiveness as the network expands.

PROJECT FLOW: The frontend is built using React.js, while the backend is developed with Node.js and Express.js for handling API endpoints and server-side logic. MongoDB is used as the database for storing and retrieving data.

Authentication and User Management:
Implement user registration, login, and authentication flows using JWT or similar mechanisms.
Allow users to create and manage their profiles, including personal information, education details, work experience, and interests.

Alumni Directory:
Develop a searchable and filterable alumni directory component.
Implement filters based on criteria like graduation year, location, industry, and interests.

Display alumni profiles with relevant information and options to connect or send messages.

Mentorship:

Create a mentorship program component for alumni to sign up as mentors or mentees.
Implement a matching algorithm to connect mentors and mentees based on shared interests, goals, and backgrounds.
Facilitate communication channels.

Job Opportunities:

Develop a job board component where alumni can post job openings and search for opportunities.
Implement filters based on location, industry, job type, and other relevant criteria.

Events Calendar:

Create an events calendar component to display upcoming events, reunions, webinars, or workshops.

Profile:

Implement a news feed or section to display updates, announcements, and success stories from the institution and alumni community.
Enable alumni to contribute and share their professional achievements or milestones.
The project flow covers the essential components and features required for an alumni network platform, including user authentication, profile management, alumni directory, mentorship program, job board, events calendar, news and updates, networking and connections.

USE CASES

ADMIN:

Content Management: The admin class should have the ability to manage and update content on the website, including news, events, and resources.

User Management: Admins should be able to manage user accounts, including creating, editing, and deleting profiles for alumni and current students.

Event Organization: Admins can organize and manage events, such as reunions, webinars, and networking sessions, to facilitate interaction between alumni and current students.

Communication: Admins should be able to send out notifications and updates to the entire network, ensuring that everyone is informed about important announcements and activities.

STUDENTS:

Networking: Current students can connect with alumni and other students, gaining valuable insights into the industry and career paths.

Event Participation: Current students can participate in events organized by the admin class, such as career fairs, workshops, and networking sessions.

ALUMNI:

Job and Internship Listings: The website can feature job and internship listings, allowing alumni to post opportunities and current students to apply.
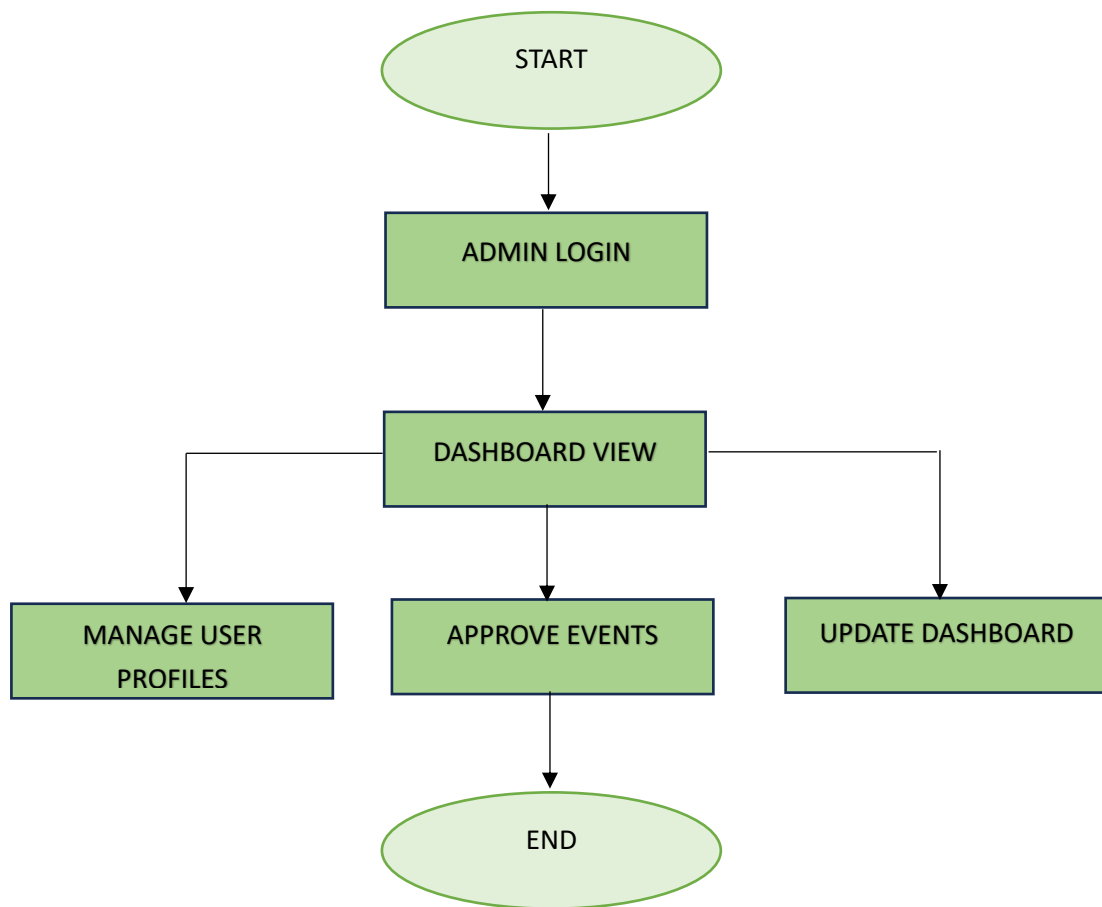
Mentorship Program: A mentorship program can be established, where alumni can mentor current students, providing guidance and support.

Communication: Incorporate messaging features for users to interact, share updates, and network within the platform.
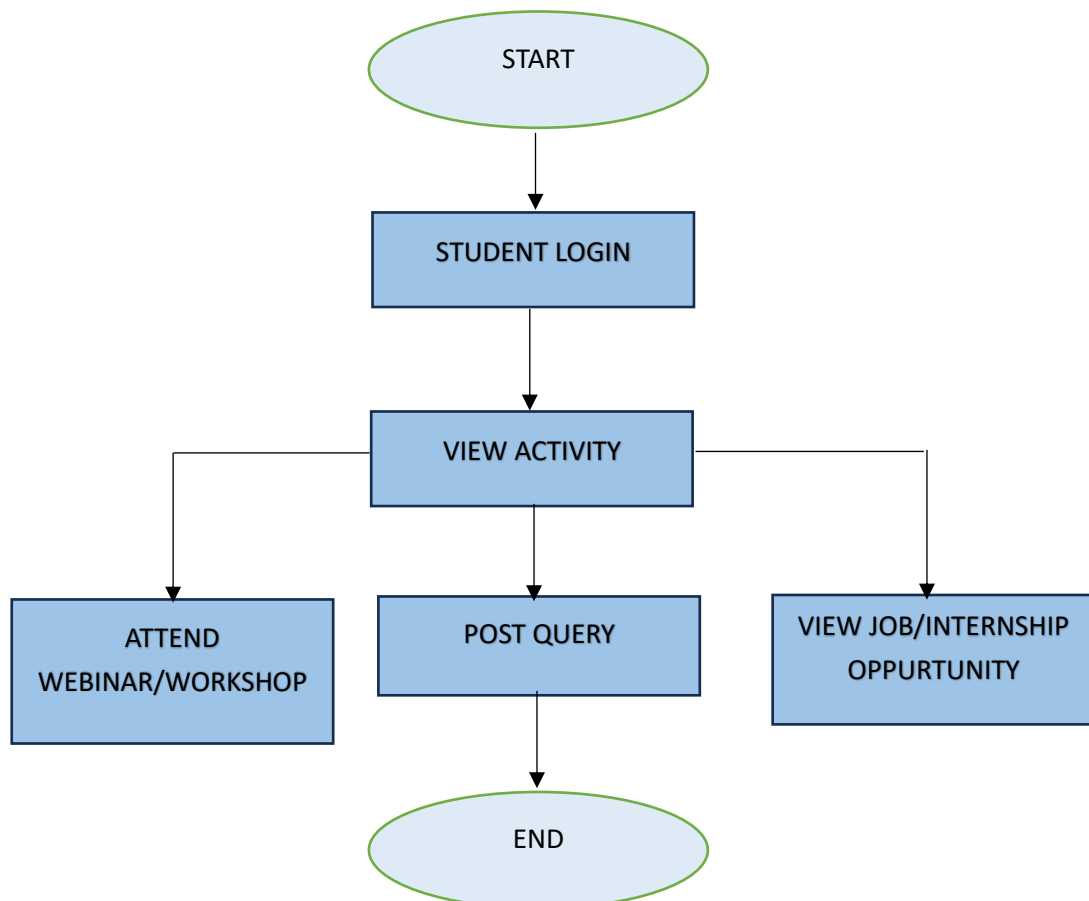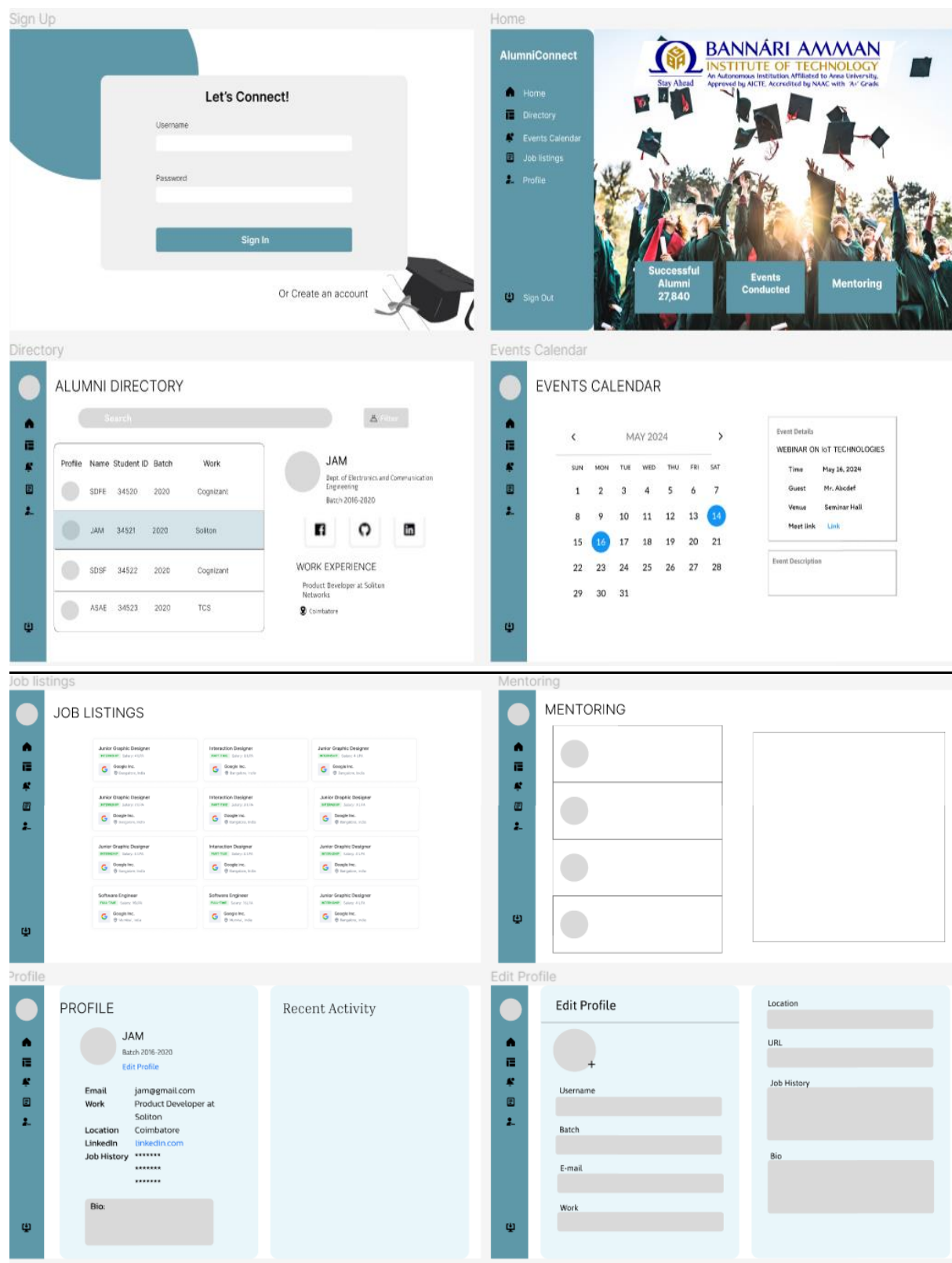
ALUMNI ENTITY

Alumni Network Platform

ADMIN ENTITY

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                    │ ADMIN LOGIN │
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    │ PROFILES     │ │ EVENTS       │ │                  │
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STUDENT ENTITY

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                    │ STUDENT LOGIN│
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    │ WEBINAR/     │ │              │ │ INTERNSHIP       │
    │ WORKSHOP     │ │              │ │ OPPURTUNITY      │
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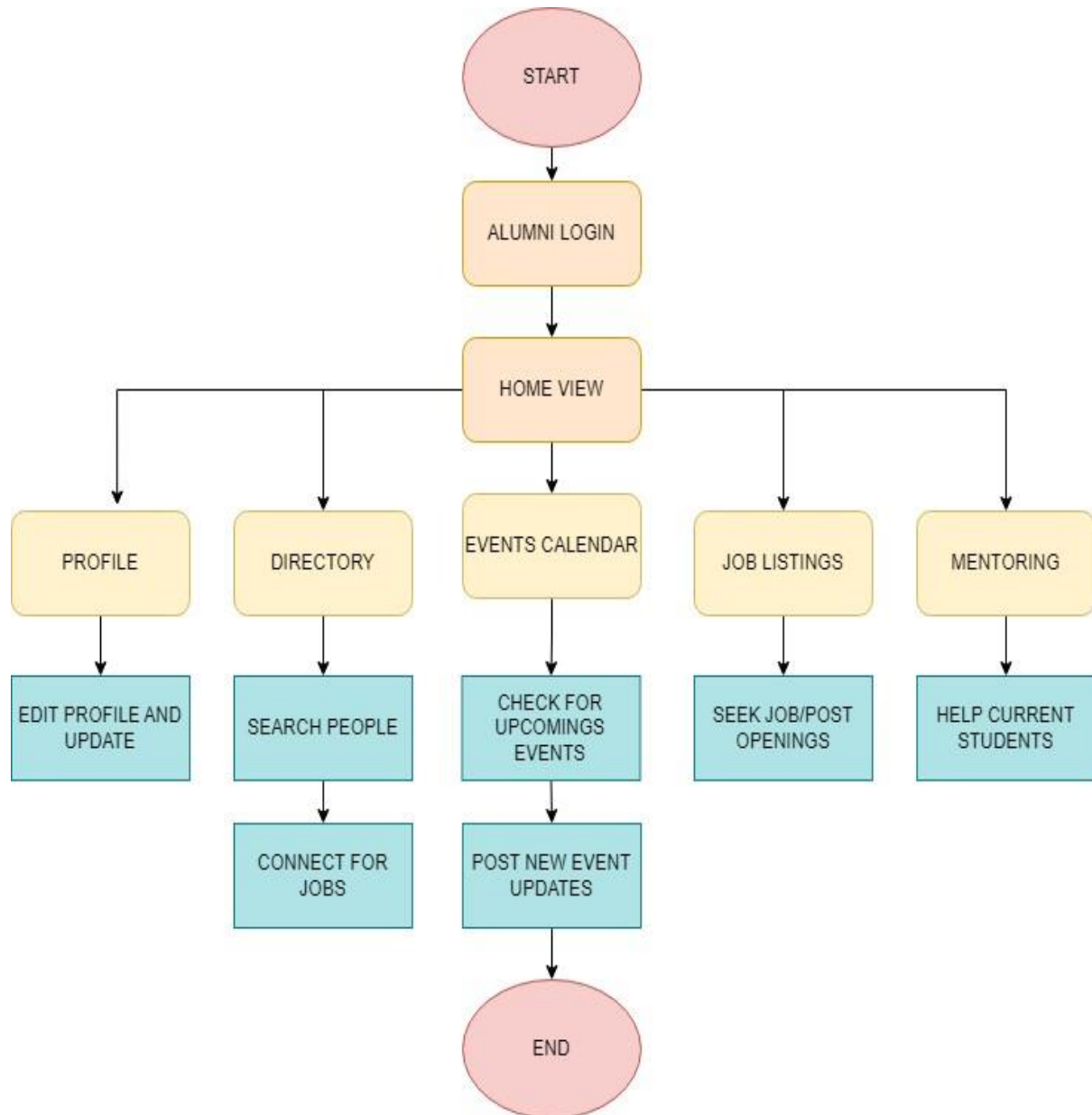
USER INTERFACE

ENTITY RELATIONSHIP DIAGRAM