

Capstone Project Proposal Report (Individual Report)

Instructions:

This form is to be completed by each student doing Project registration to fulfill their senior design or capstone requirement. It must be completed and submitted to your Guide. Each student must complete this form individually.

This report is to be completed during the starting of the semester, while the project description report will be completed during end of the semester.

Guide Approval (initials/date):		
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CAP4001– Capstone Project Proposal Report

Student Name	C Bindhu Madhava Varma		
Student Register Number	19BCD7116		
Programme	CSE Specialization in Data Analytics		
Semester/Year	7 th Semester, 4 th year.		
Guide(s)	Dr. Hussain Syed.		
Project Title	VIT Alumni Association Portal		
Team Composition: Provide the information below for each member of the project team . Include all project team members, not just those in your discipline or those enrolled for Capstone project. Please also include yourself!			
Reg. No	Name	Major	Specialization
19BCD7116	C Bindhu Madhava Varma	CSE	Data Analytics
19BCE7460	Jaldu Bhargav venkata phaneendra	CSE	CORE
19BCN7095	Mandadi nitheesh	CSE	Networking and security

Project and Task Description: Provide a brief (one or two page) technical description of the design project and your specific tasks, as outlined below: (use a separate sheet)

- Provide a summary of the project, including a description of the project and its requirements, the purpose, specifications, and a summary of the approach. If this is a continuing project, you may use and/or edit the same project description.
- Describe the specific role and tasks that **you individually** will be completing as part of the design of the project. What **specific deliverables** will you produce?
- Discuss in detail the specific approach that will be used to complete **your** portion of the design.
- Describe the phases of the design process that will be incorporated and what work will be accomplished during those phases. (you may attach a Gantt Chart)

1.1 INTRODUCTION

It's always tough to contact the passed-out students without having any connection between them. To overcome this issue, we are introducing an alumni reconnect application.

The main purpose of this project is to make the Android Application and website to be more flexible and be more eco-friendly. This Android app is mainly for the purpose of VIT AP student batches going out from the VIT AP.

Alumni reconnect is aimed towards the Students who have passed out from college and want to reconnect with college and management. This project envisages bridging the gap between the students, the faculty and the management. Alumni reconnect should be user-friendly, 'quick to learn' and reliable software for the above purpose. It can run in all famous browsers and android.

1.2 PROJECT STATEMENT:

Network & Interaction where Alumni networking features, including ways to find out the information about a colleague or professors, and the ability to view alumni blogs, news and events held by the university.

Professional Development where Information about how to use the university to get a better job and showing them the status of everything throughout application. Creating an opportunity for your juniors to develop.

1.3 OBJECTIVES:

The target of our project is to ensure the users can see, register, login and go through the feed. They can know brief information about the other students or faculty. They can post. They can Create groups, add members and chat with valid credentials. Users can see the Events, Newsfeed and alumni profiles from the dashboard.

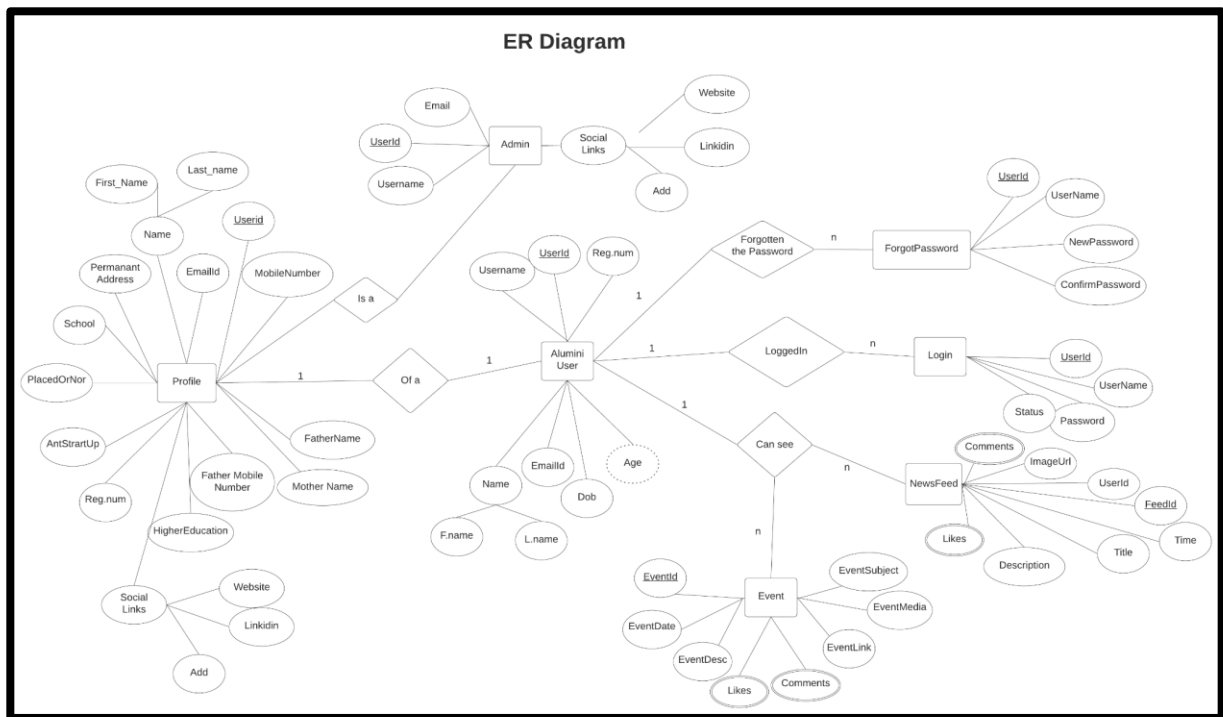
I've used Firebase and imported all the necessary packages and used all required modules and made a flexible website out of it. The firebase gives more security to the data and only the admin can control it. The Objective of the project is to provide a better platform to reconnect all the passed out batches with the Campus.

1.4 SCOPE OF THE PROJECT:

Our Scope of the project is to deliver Secure registration and profile management facilities for Students. Searching through the Posts to see the different feeds that are there in each category of feeds like posts (events, announcements etc) and groups. Creating a group so that Students can add or delete groups in the app or website. Regular updates to registered Students or faculty of the Alumni connect about new Posts using cloud based messaging systems. Uploading Images in each post is optional. Strategic data for Administrators and management about the daily, weekly and monthly active users data, and who the

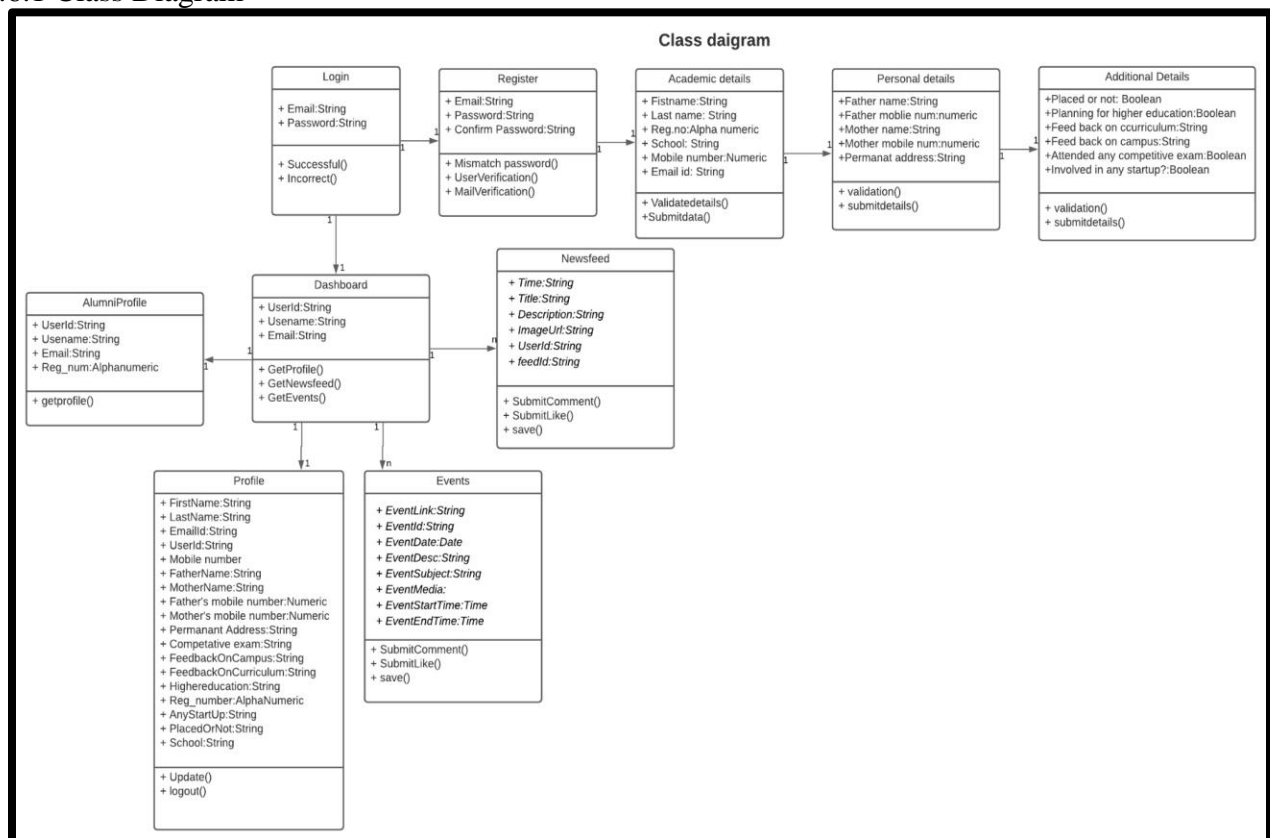
user responds to feedback. Maintaining a database of students of different needs. Feedback mechanism, so that customers can give feedback for the app or website or service which they have been using or used.

1.5 ER DIAGRAM:

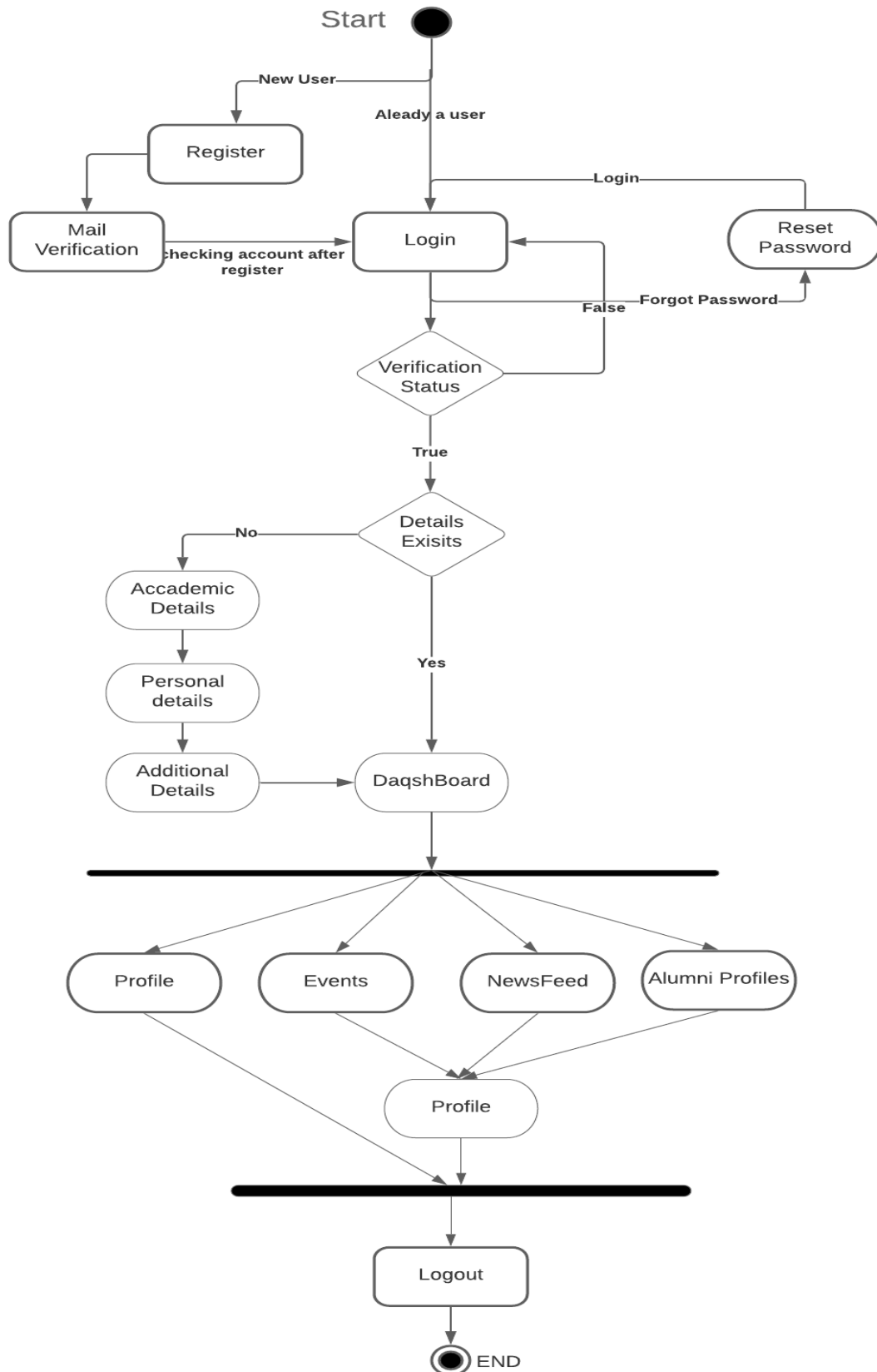


1.6 UML DIAGRAMS:

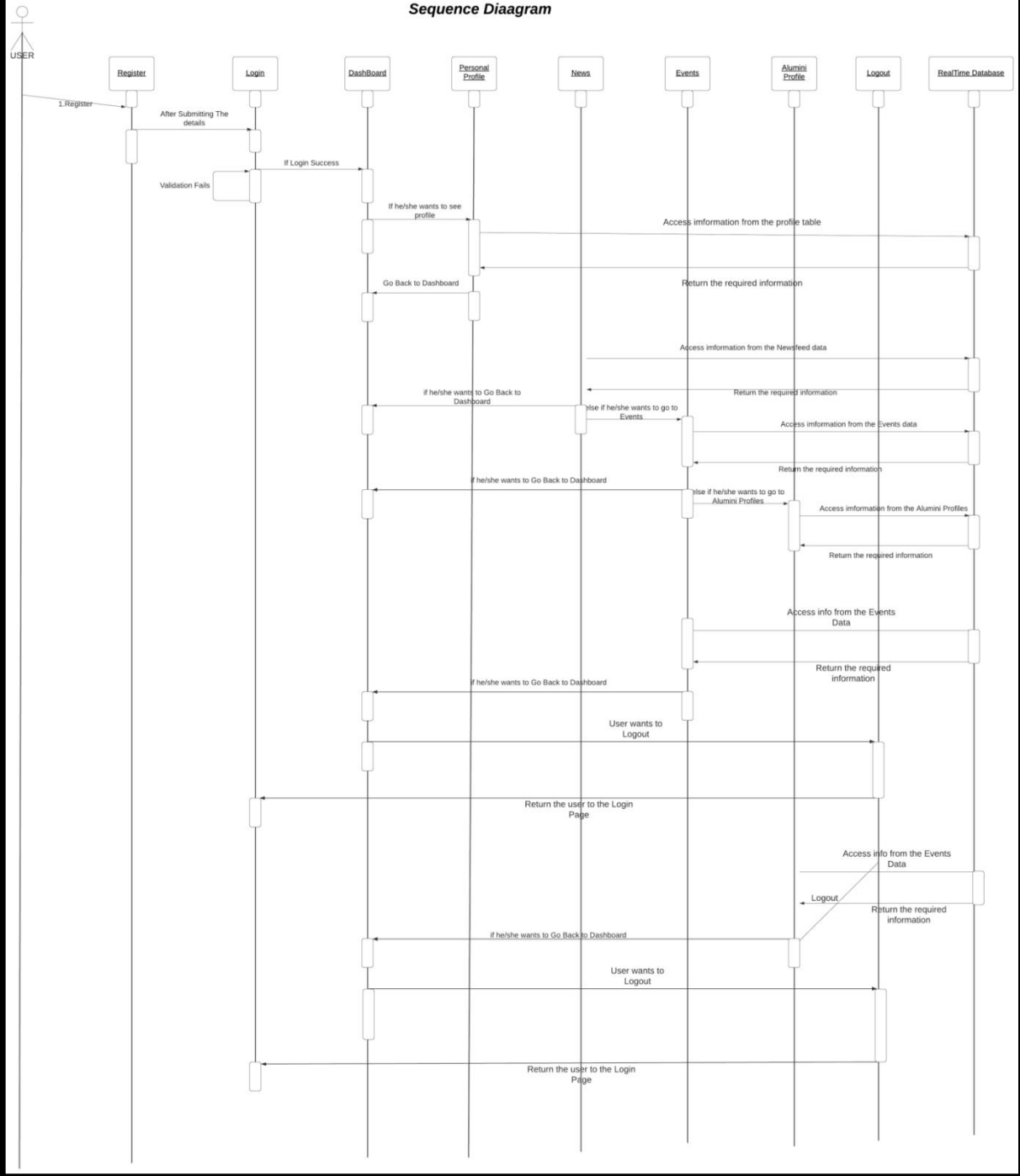
1.6.1 Class Diagram



Activity Diagram



Sequence Diagram



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graph TD
    Start(( )) --> Login
    Login -- "Password changed" --> Login
    Login -- "Account Created" --> CreateAccount[Create Account]
    Login -- "Mail not exist" --> CreateAccount
    Login -- "Mail exist" --> ResetPassword[Reset password]
    CreateAccount --> Login
    ResetPassword --> Login
    Login -- "User Login" --> VerifyEmail[Verifying Email]
    VerifyEmail -- "Verified" --> ValidatePassword[validate Password]
    VerifyEmail -- "Not verified" --> VerifyMail[Verify the Mail]
    ValidatePassword -- "Validated" --> Register[Verify Register details]
    ValidatePassword -- "Not validate" --> VerifyMail
    Register -- "Filling details" --> AccademicDetails1[Accademic Details]
    Register -- "Details exist" --> AccessAccount[Accessing the account]
    AccademicDetails1 -- "Filling details" --> AccademicDetails2[Accademic Details]
    AccademicDetails2 -- "All details exist" --> AccessAccount
    AccessAccount -- "Member Access" --> Dashboard
    Dashboard -- "Post discussions" --> Discussions
    Dashboard -- "To View News" --> NewsFeed
    Dashboard -- "To View Events" --> Events
    Discussions -- "To see profile or want to logout" --> Profile
    NewsFeed -- "To see profile or want to logout" --> Profile
    Events -- "To see profile or want to logout" --> Profile
    Profile -- "To View Profile To Edit Profile" --> Profile
    Profile --> Logout
    Logout --> End((( )))
    VerifyMail --> End
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graph TD
    User((USER))
    Discussions[DISCUSSIONS]
    News[NEWS DEPARTMENT]
    Profile[PROFILE MANAGEMENT]
    RealTime[REAL TIME DATABASE]
    Auth[AUTHENTICATION SERVER]
    Events[EVENT DEPARTMENT]
    Cloud[(CLOUD DATABASE)]

    User -- "SUBMIT POST DETAILS" --> Discussions
    Discussions -- "UPDATE DISCUSSIONS" --> RealTime
    RealTime -- "LOGIN TO APPLICATION" --> Auth
    Auth -- "STATUS OF AUTHENTICATION" --> User
    User -- "TO VIEW DISCUSSIONS" --> Discussions
    Discussions -- "UPLOAD POST" --> RealTime
    User -- "VIEW NEWS" --> News
    News -- "SEND NEWS" --> User
    User -- "TO VIEW EVENTS" --> Events
    Events -- "SEND THE EVENTS" --> User
    User -- "UPDATE NEWS" --> News
    News -- "UPDATE THE EVENTS" --> Events
    User -- "VIEW PROFILE" --> Profile
    Profile -- "VIEW UPDATED PROFILE" --> User
    User -- "SENDING THE PROFILE DATA" --> Cloud
    Cloud -- "UPDATE THE PROFILE" --> Profile
    Cloud -- "SENDING DATA" --> Cloud
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The diagram illustrates the interactions between a central **USER** and various system components. The components include **DISCUSSIONS**, **NEWS DEPARTMENT**, **PROFILE MANAGEMENT**, **REAL TIME DATABASE**, **AUTHENTICATION SERVER**, **EVENT DEPARTMENT**, and **CLOUD DATABASE**.

Key Interactions:

- USER** interacts with **DISCUSSIONS** (SUBMIT POST DETAILS, TO VIEW DISCUSSIONS, UPLOAD POST).
- DISCUSSIONS** interacts with **REAL TIME DATABASE** (UPDATE DISCUSSIONS).
- REAL TIME DATABASE** interacts with **AUTHENTICATION SERVER** (LOGIN TO APPLICATION).
- AUTHENTICATION SERVER** interacts with **USER** (STATUS OF AUTHENTICATION).
- USER** interacts with **NEWS DEPARTMENT** (VIEW NEWS, SEND NEWS, UPDATE NEWS).
- USER** interacts with **EVENT DEPARTMENT** (TO VIEW EVENTS, SEND THE EVENTS, UPDATE THE EVENTS).
- USER** interacts with **PROFILE MANAGEMENT** (VIEW PROFILE, VIEW UPDATED PROFILE, SENDING THE PROFILE DATA).
- PROFILE MANAGEMENT** interacts with **CLOUD DATABASE** (UPDATE THE PROFILE).
- CLOUD DATABASE** interacts with **EVENT DEPARTMENT** (SENDING DATA).

Outcome Matrix: Describe your plan to demonstrate each of the outcomes below.

Outcomes:	Plan for demonstrating outcome:
a) an ability to apply knowledge of mathematics, science, and engineering	The knowledge of science and engineering will be applied to plan the project and implement it with utmost priority given to the optimization of the application using various up to date technologies and techniques learned as part of the engineering courses we have done.
c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability	The application is developed using React which allow for component based development. The application is divided into various components which are then divided amongst all the teammates to be developed and integrated later. The components are well designed and all the constraints are tested before integrating the components. It is taken care that the project is reliable and integrity of the data is maintained. Realistic deadline are set for developing each component such that quality code is delivered.
d) an ability to function on multidisciplinary teams	As mentioned earlier the application is divided into various components which will be developed by the team and then they will be integrated to make the application. This ensures that the whole team is involved and resources are used to the maximum potential.
e) an ability to identify, formulate, and solve engineering problems	In the journey of planning and implementing the application a lot of problems have occurred which have been solved using the knowledge gained from the engineering courses and various other modern technologies.
g) an ability to communicate effectively	This is the most important part of the project as good communication is required to ensure quality delivery of the project and managing a complex application like this.
k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice	The application is developed on React and Firebase which are currently one of the most used frameworks in the industry. Everyone in the team has trained themselves to be able to work on these technologies.