



SCS2301 Y2 – GROUP 27

PROJECT PROPOSAL 2025



Innovate Your Path, Accelerate Your Career

Details of the Project Supervisor and Co-supervisor

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Date: 2025/06/27

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Date: 2025/06/27

The Client of the Project

Name of the client: Dr. K.D.Sandaruwan

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1. Introduction

In an increasingly competitive global landscape, access to relevant career guidance, practical industry exposure, and robust networking opportunities is paramount for students transitioning from academia to the professional world. However, many aspiring professionals, particularly in developing regions, face significant hurdles in acquiring these essential resources, leading to a disconnect between their educational foundation and the dynamic demands of various industries. This disparity often results in underemployment, skill mismatches, and a general sense of uncertainty among graduates entering the workforce.

Addressing this critical need requires a comprehensive approach that not only provides personalized guidance for academic and career choices but also fosters a vibrant ecosystem where students, universities, and industry professionals can seamlessly connect and collaborate. Such an integrated platform can empower individuals to make informed decisions, build crucial skills, and gain invaluable real-world experience, thereby enhancing their employability and long-term success.

Furthermore, a centralized hub can streamline the efforts of university clubs and organizations in reaching a wider audience and facilitating inter-university collaborations, enriching the overall student experience. By bridging these existing gaps, we can cultivate a more guided, connected, and prosperous future for the next generation of professionals.

1.1. Problem Statement

There is a significant gap between students and industry expectations in Sri Lanka. Many students lack access to proper career guidance, making it difficult to:

- Choose the right degree or specialization aligned with their strengths and job market demands.
- Understand different career paths and job roles available after graduation.
- Navigate their journey toward a dream job due to limited exposure to industry insights, mentorship, and skill-building opportunities.

Additionally, university clubs and organizations struggle to effectively promote their events, collaborate with other universities, and reach a wider student audience due to the absence of a centralized platform.

1.2. Our Solution

“UniVerse” is a centralized platform built to bridge the gap between students and industry expectations in Sri Lanka. It empowers students by:

- Helping school leavers students choose suitable degree programs based on their Z-score, stream, and preferences.
- Providing career guidance articles, discussion forums, and industry expert insights to support informed career decisions.

- Connecting undergraduates with internships and job opportunities tailored to their fields.
- Allowing students to share personal achievements, projects and build a public portfolio for industry visibility.
- Serving as a hub for university clubs to promote events, collaborate, and engage students across different universities.

UniVerse unites students, universities, and industry in one platform to support a more guided and connected academic journey.

1.3 How Is It Different?

UniVerse brings together students, universities, and industry professionals into one connected space, supporting every stage of a student's journey. Unlike other platforms, UniVerse allows school leavers students to choose degrees based on their Z-score, stream, and preferences, ensuring informed academic decisions. It combines career guidance, job and internship opportunities, event promotion, and project sharing in a single platform. Through shared experiences from industry experts, students gain a clear understanding of real-world job expectations.

Furthermore, the platform empowers university clubs by providing a dedicated space to promote events and facilitate inter-institutional collaboration. Simultaneously, it enables undergraduates to showcase their achievements and projects. This integrated environment supports students in making informed academic and career choices while fostering personal growth, professional networking, and long-term success.

2. Project Goal

The primary goal of the UniVerse project is to create a centralized digital platform that bridges the gap between students, universities, and industry by providing comprehensive career guidance, academic decision support, and professional networking opportunities. UniVerse aims to:

- Empower school leavers students to make informed academic choices by matching their Z-scores and preferences with eligible degree programs and providing access to career guidance resources.
- Support undergraduates in building their professional profiles, connecting with relevant job and internship opportunities, and showcasing their achievements and projects to increase visibility among industry professionals.

- Foster alumni engagement by enabling them to share career experiences, offer mentorship, and post job or internship opportunities for current students.
- Strengthen university clubs and organisations by offering tools to promote events, specify target audiences, and facilitate collaboration across institutions.
- Provide administrators with robust management and analytics tools to ensure platform integrity, monitor engagement, and communicate effectively with all users.

By uniting these stakeholders on a single platform, UniVerse seeks to guide students throughout their academic and career journeys, enhance collaboration among universities, and strengthen connections with industry, ultimately supporting student success and employability.

3. Project Scope

3.1. Users

- School leavers - After A/L students
- Undergraduates - Current university students
- Alumni - Former university students
- Companies
- Clubs
- Admin panel

3.2. In-Scope

- Registering new students, undergraduates, approved companies, alumni.
- Creating a customizable profile with personal and professional details.
- Recommending degrees based on z-score.
- Create, reply, edit, delete, search discussion forums and articles.
- Separate portal to publish jobs and internships.
- Search, filter and view published jobs and internships with necessary information.
- Applying for internships and jobs.
- Applicants receive notifications about application approvals, and status updates.
- Applying for mentorship and review mentorship experience.
- Like, Comment and save articles and job opportunities.
- Search and follow clubs.
- Creating and publishing club events.
- Viewing published club events.
- Filtering upcoming and past club events.
- Notifying club events with notifications.
- User authentication.

3.3. Out of Scope

- Real-time chat or private messaging between users is not implemented in this version.
- Sharing job posts, articles, or profiles directly to platforms like Facebook, WhatsApp is not supported.
- The platform is web-based only. A dedicated mobile app is not included in the current scope.

4. Project Objectives

- Identify the requirements of university students, school leavers, alumni, and career service providers through surveys and interviews.
- Enable school leavers to find suitable university degree programs based on their Z-scores and personal preferences, supporting informed decision-making.
- Develop a web application to support job and internship search, career guidance, and mentorship connections for students.
- Provide a platform for alumni and industry professionals to offer mentorship and guidance to students.
- Enable students to share achievements, participate in discussions, and engage in academic and career-related forums.
- Learn and apply technologies related to full-stack web development while enhancing project documentation.
- Improve collaboration, communication, and other soft skills through team-based development.

5. Project Feasibility

5.1. Social Feasibility

Social feasibility assesses the acceptance and readiness of the target audience to adopt the UniVerse platform. A survey was conducted among school leavers students, undergraduates, and club members, and the results indicate strong interest and willingness to engage with the platform's features.

Would you use a website to find internships or job opportunities related to your field ?

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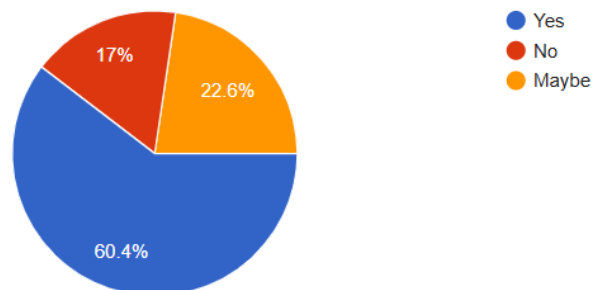


Figure 01 : Response to the question "Would you use a website to find internships or job opportunities related to your field"

Would you like to share your projects or achievements through our platform for others to see?

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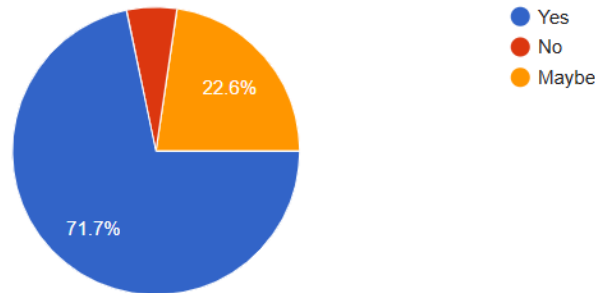


Figure 02 : Response to the question “Would you like to share your projects or achievements through our platform for others to see”

Would you find it helpful to get career advice from industry experts or alumni ?

 Copy chart

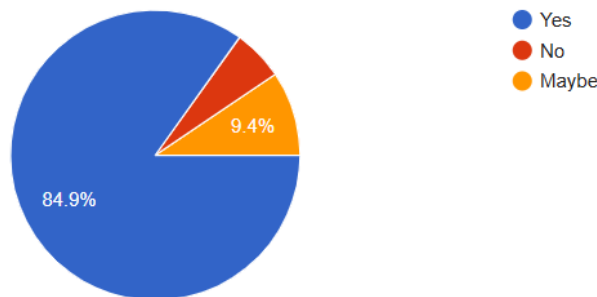


Figure 03 : Response to the question “Would you find it helpful to get career advice from industry experts or alumni?”

A substantial number of positive responses were received, with the majority of participants expressing interest and a willingness to adopt the proposed system. These findings suggest a high level of social feasibility and indicate strong potential for user acceptance.

Survey had 79 responses which can be accessed at:

<https://docs.google.com/spreadsheets/d/1GoyYOK9LpzKIhjWng-fVi5Rsbeje9oQwn3CW2ZXhRkc/edit?usp=sharing>

5.2. Technical Feasibility

This technical feasibility section evaluates the practicality and technological viability of developing our web-based platform. The main deliverable of this project is a web app built using HTML, CSS and JS in the frontend and PHP in the backend which utilizes MySQL as the database. Apache HTTP server is used to run PHP applications.

In addition to that, GitHub is used as the code collaborative and version control tool. Additional tools include VS code as the primary IDE and documentation tool such as draw.io, Google Docs and Google Drive. Notion is used to track the tasks and progress of the project.

Most of these technologies and development tools are either open source or freely available. So the system is technically feasible due to accessibility of all required tools. However, the absence of modern framework or cloud services introduces a higher learning curve and an initial overhead in coding. The team will have to gain adequate technical knowledge before and during building the system. But the timeline of the project allows us to gain a considerable amount of knowledge before starting the actual development work and the rest while building the system itself.

5.3. Schedule Feasibility

- The project is planned to be implemented approximately 09 months (approximately 36 weeks). The estimated total man-hours required to complete the project are calculated as follows:
 - Weekday working hours = 5 hours
 - Weekend working hours = 6 hours
 - Number of group members = 4
 - Number of weeks = 36
 - Total man hours = $(5 + 6) * 4 * 36$ hours = 1584 hours
- The development process is being conducted using the Waterfall model. With the requirements phase nearing completion and the project scope clearly defined, there is a strong level of confidence that the subsequent stages of the Software Development Life Cycle (SDLC) can be executed within the projected timeline.
- The product is scheduled for completion by March 2026. Given the current stability of the requirements, no significant changes are anticipated that would affect the project timeline.

5.4. Ethical and Legal Feasibility

- Legal Compliance in System Development and Deployment: Guaranteeing that the building and deployment of the system do not violate any laws.
- Compliance with Open-Source Software Licenses: Building the application in adherence to the licenses of all open-source software technologies utilized.
- User Privacy and Personal Data Protection: Implementing necessary measures within the system to protect the privacy and personal data of users.
- User Responsibility and Misuse Prevention: Expecting users not to misuse the system's features in a way that could lead to legal or ethical issues.

6. Deliverables

- A fully functional web application for students to search and apply for jobs, internships, and mentorships.
- A degree recommendation system for school leavers students based on Z-scores and preferences.
- A mentorship module connecting students with alumni and industry professionals.
- A forum and achievement-sharing feature for student engagement.
- Complete technical documentation covering design, implementation, and user guides.
- A project report detailing requirements, development process, testing, and evaluation.



WebApplication



User Guide



SRS Document

7. Project Constraints and Assumptions

7.1. Project Constraints

- The platform only supports jobs and internships related to the Information Technology (IT) sector.
- Only for Sri Lankan students and universities.

7.2. Assumptions

- Users will provide accurate and honest information during registration and when posting content.
- Internet access and modern web browsers are available to all users.
- Universities and clubs will support and promote the platform to encourage user adoption.

8. Requirements

8.1. Functional Requirements

I. Undergraduate Students

- Undergraduate users shall be able to register and log in to the system.
- Undergraduate users shall be able to update and maintain their personal profiles.
- Undergraduate users shall be able to view and search profiles of other undergraduates, alumni, companies, and university clubs.
- Undergraduate users shall be able to share their achievements such as projects, and achievements.
- Undergraduate users shall be able to search and engage in forums by creating posts, commenting, and reacting.
- Undergraduate users shall be able to browse/filter and apply for job and internship opportunities.
- Undergraduates shall be notified about the status of their job applications.
- Undergraduate users shall be able to browse and apply for mentorship.
- Undergraduate users shall be able to schedule mentorship sessions with accepted mentors.
- Undergraduate users shall be able to read feedback from past mentees.
- Undergraduate users shall be able to receive notifications when, a mentorship request is accepted or rejected, a scheduled session is approaching (e.g.: reminder 1 hour/day before) and a session is rescheduled or canceled by the mentor.
- Undergraduate users shall be able to provide feedback after completed sessions.
- Undergraduate users shall be able to view, like, comment and save published articles and club events.

- Undergraduate users shall be able to filter club events by Upcoming events and Past events.
- Undergraduate users Shall be able to view the list of clubs they follow.

II. School leavers(After A/L students)

- School leavers shall be able to register and log in to the system.
- School leavers shall be able to enter their Z-score and preferences to receive suitable degree suggestions.
- School leavers shall be able to view articles.
- School leavers shall be able to search and participate in forums by reading and commenting on them.

III. Companies

- Companies shall be able to register and log in to the system.
- Companies shall be able to view profiles of undergraduates and other registered companies.
- Companies shall be able to post job and internship opportunities.
- Companies shall be able to view and sort applicants and applications for posted opportunities.
- Companies shall be able to update the status of applications (e.g., In progress, rejected, selected).
- Companies shall be able to notify applicants about the status of their applications. (selected, rejected, or In progress).
- Companies shall be able to edit their job postings.

IV. University Clubs

- Clubs shall be able to register and log in to the system.
- Clubs shall be able to view profiles of undergraduates and other registered clubs.
- Clubs shall be able to post updates and share upcoming events.
- Clubs shall be able to edit their event postings.
- Clubs shall be able to send notification to the followers.

V. Alumni

- Alumni shall be able to register and log in to the system.
- Alumni shall be able to view profiles of undergraduates and other registered alumni.
- Alumni shall be able to search and participate in forums by reading and commenting on them.
- Alumni shall be able to share their academic and professional experiences.
- Alumni shall be able to indicate availability for mentorship.

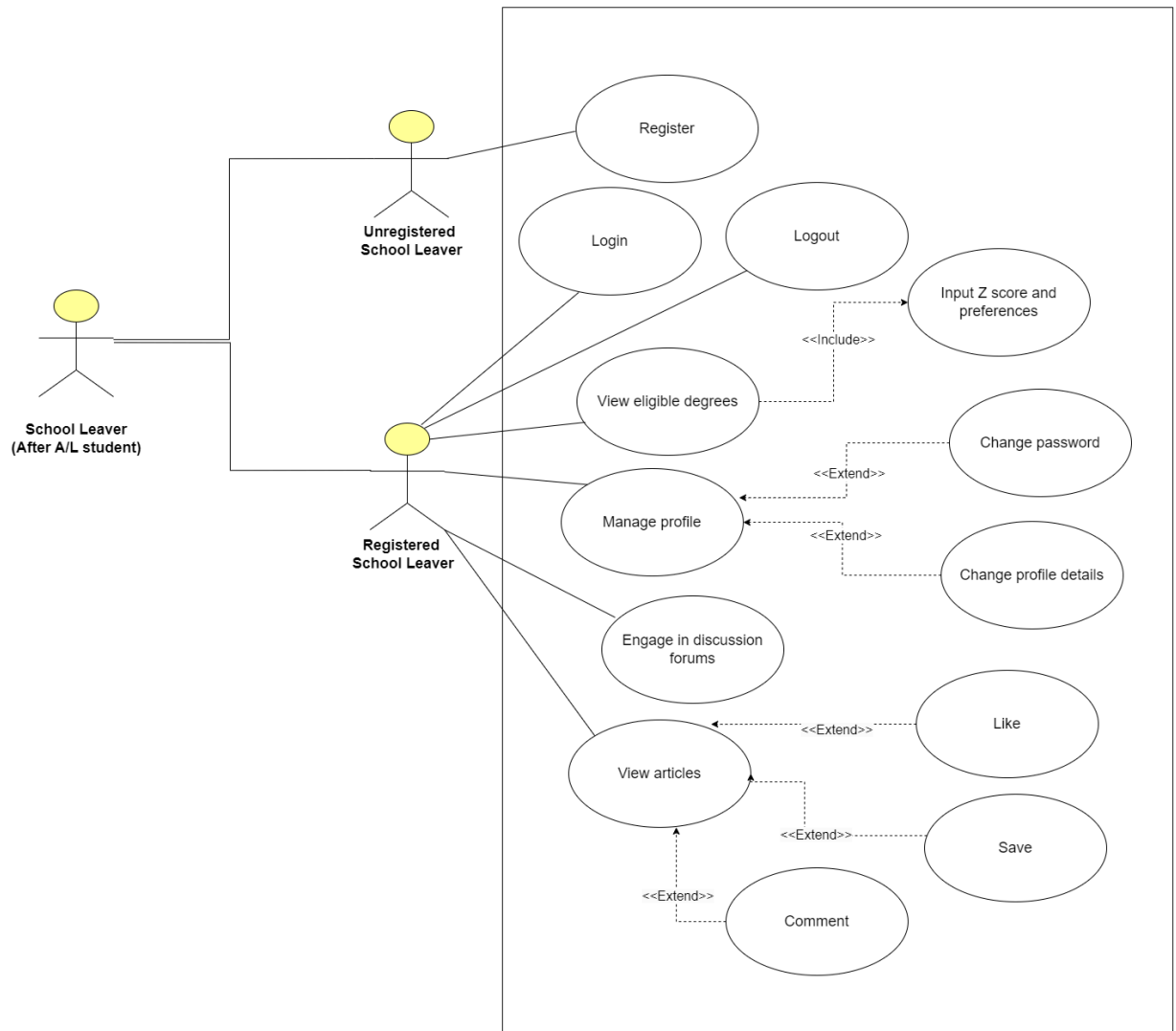
- Alumni shall be able to view and sort mentorship applicants and their submitted applications.
- Alumni shall be able to get notified when mentorship requests submitted by undergraduate students.
- Alumni shall be able to respond(accept or reject) to mentorship requests submitted by undergraduates.

VI. Admin Panel

- Admin shall be able to log in securely.
- Admin shall be able to manage user accounts including activation, deactivation, and deletion.
- The admin panel shall be able to accept or reject registration requests from undergraduates, companies, and clubs.
- The admin panel shall be able to send notifications about system maintenance and failures to all users.
- Admin shall be able to moderate forums and articles.
- Admin shall be able to monitor platform usage.

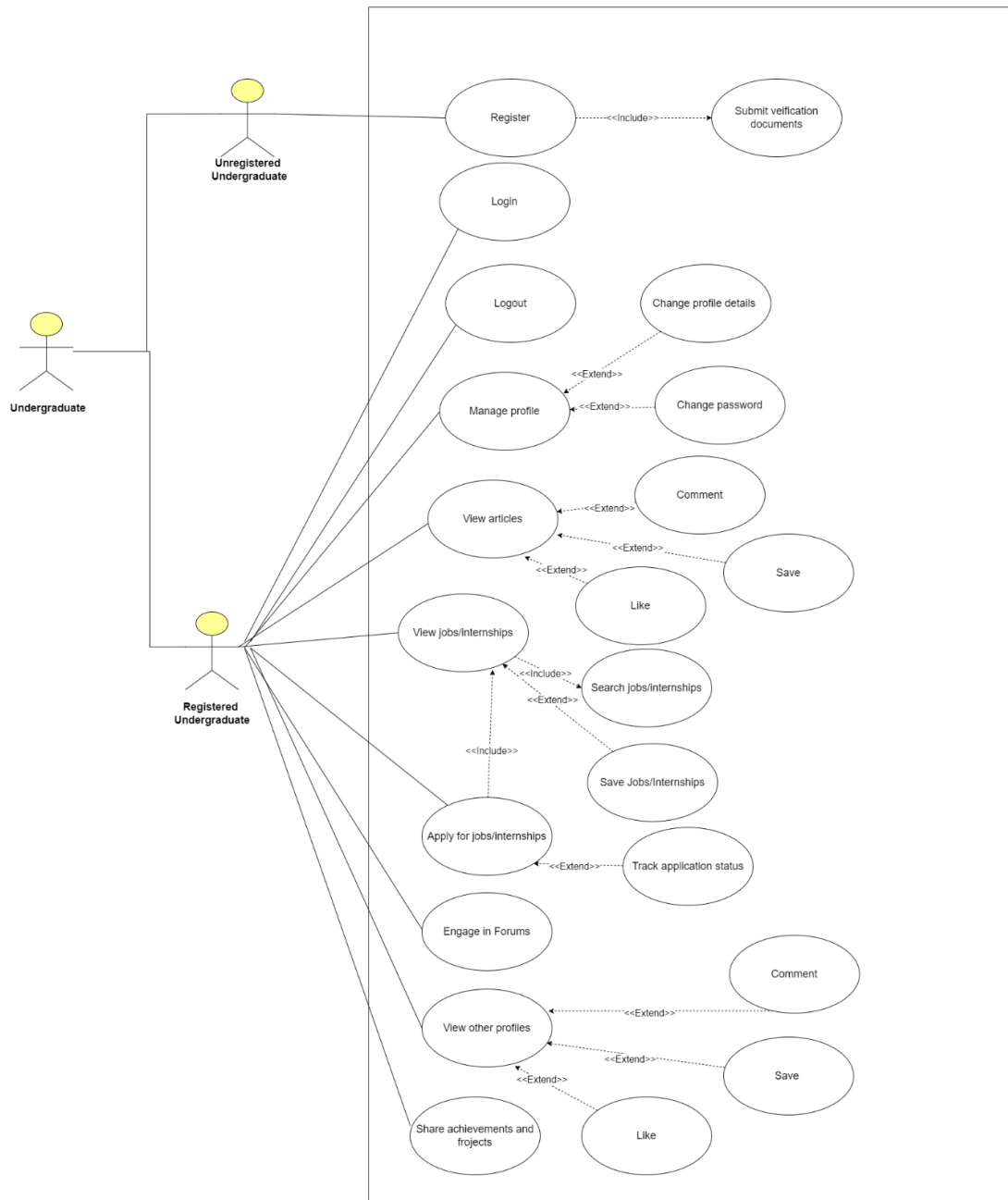
8.2. Use Case Diagrams

8.2.1. School Leavers

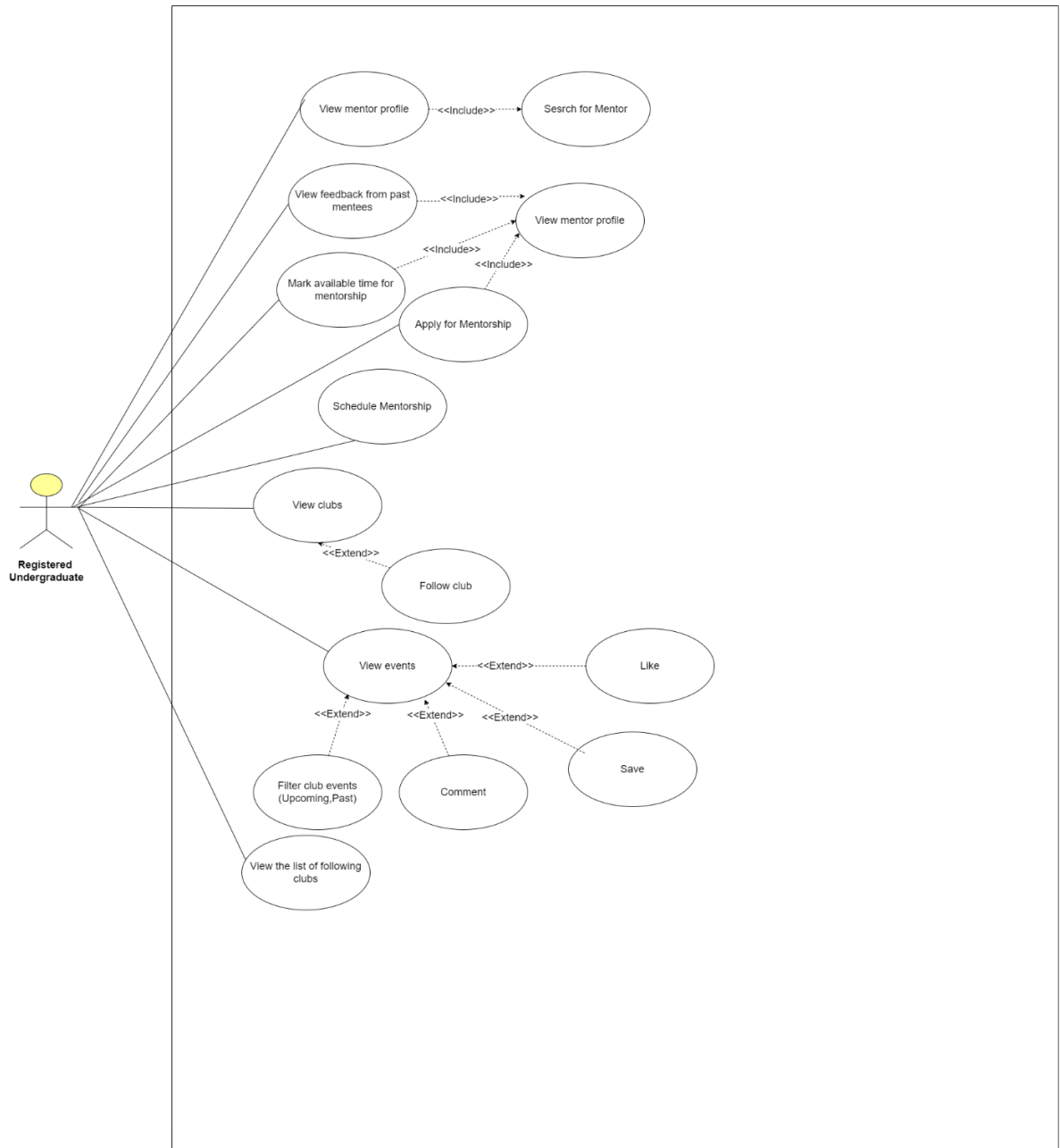


8.2.2. Undergraduate

I. Undergraduate Registration, Articles and Jobs



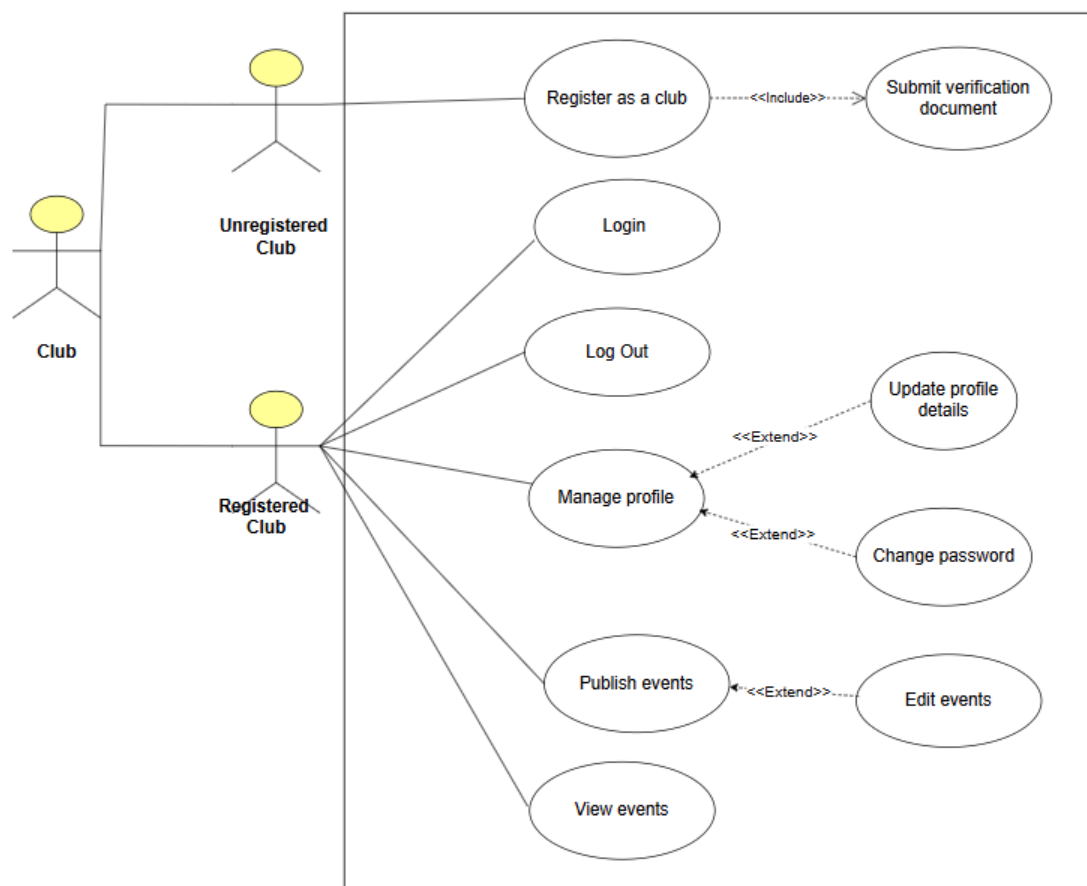
II. Interaction with clubs and Finding mentors



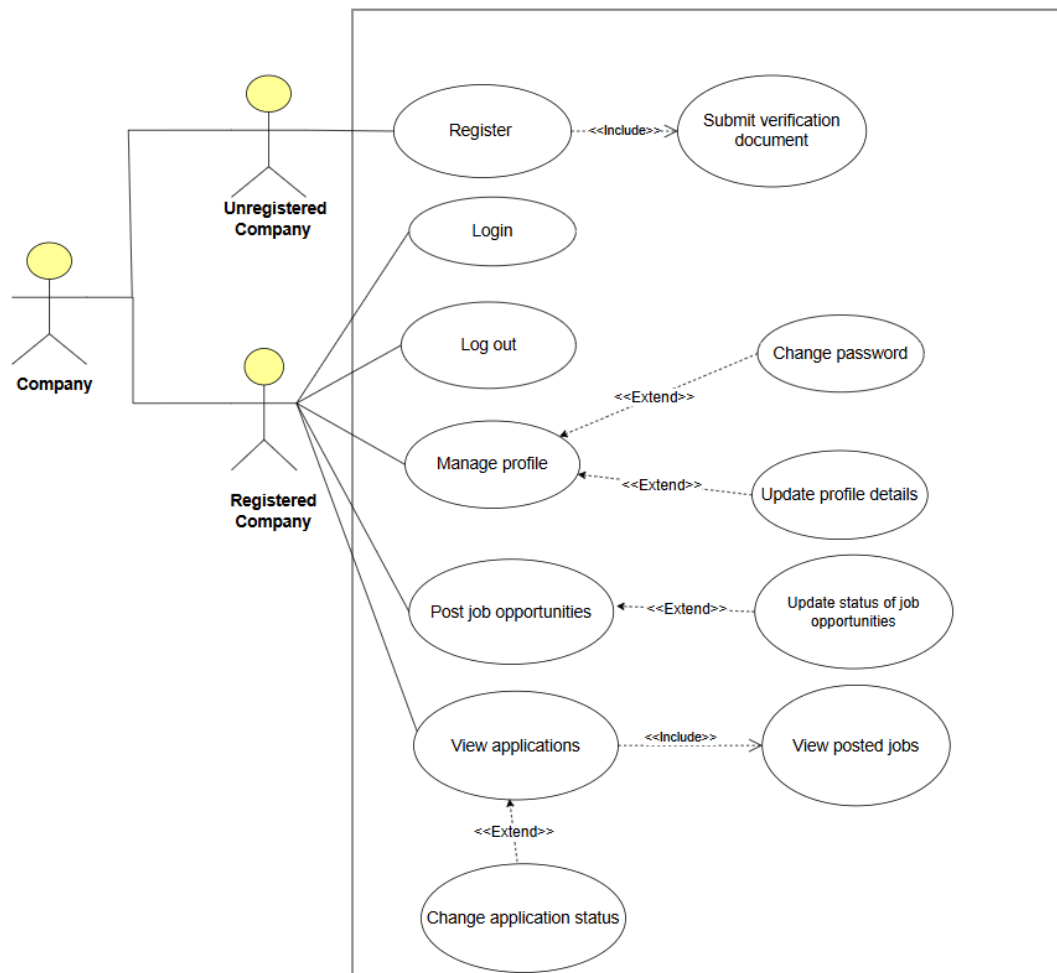
8.2.3. Alumni



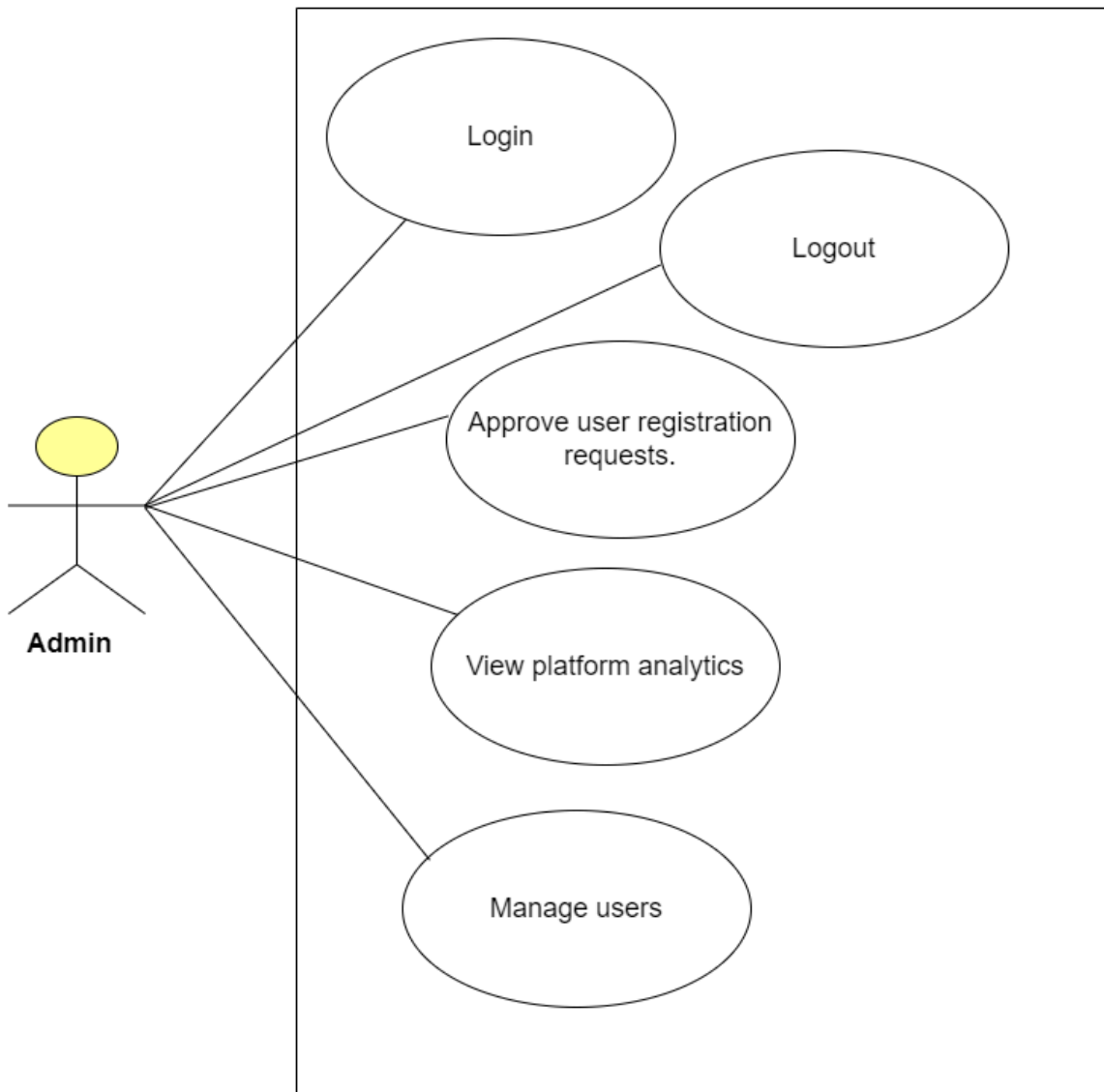
8.2.4. Clubs



8.2.5. Companies



8.2.6. Admin



8.3. Use Case Description

8.3.1. Registration & Profile Management

Field	Description
Use Case ID	01
Use Case Name	Register as School leaver
Primary Actors	School leaver
Description	School leavers registers on the platform to access degree recommendations and resources
Pre-conditions	User has internet access
Main Flow	<ol style="list-style-type: none"> 1. User accesses registration page. 2. Fills in personal details. 3. Submits registration form. 4. Account created successfully.
Exceptions	<ul style="list-style-type: none"> - Invalid email format - Duplicate email registration - Missing required fields - System unavailable
Post Conditions	User account created and can access degree recommendation features

Field	Description
Use Case ID	02
Use Case Name	Register as Undergraduate
Primary Actors	Undergraduate
Description	Undergraduate creates an account to access academic and career-related services
Pre-conditions	User has undergraduate status and valid email address
Main Flow	<ol style="list-style-type: none"> 1. User navigates to registration page 2. Selects undergraduate registration type 3. Completes personal profile information 4. Submits registration form 5. Account created successfully
Exceptions	<ul style="list-style-type: none"> - Invalid university details - Email already exists - Network connectivity issues - Incomplete academic information
Post Conditions	Undergraduate profile created with access to job/internship and forum features

Field	Description
Use Case ID	03
Use Case Name	Register as Alumni
Primary Actors	Alumni
Description	Alumni signs up to share experiences and mentor students
Pre-conditions	Users have to be in the IT industry.
Main Flow	<ol style="list-style-type: none"> 1. Alumni accesses registration page 2. Provides personal information 3. Submits registration form 4. Account created successfully
Exceptions	<ul style="list-style-type: none"> - Incomplete details - Invalid company information - Email already exists - Network connectivity issues
Post Conditions	Alumni account created with mentorship and experience sharing capabilities

Field	Description
Use Case ID	04
Use Case Name	Register as Company
Primary Actors	Company
Description	A company submits registration details to post jobs/internships
Pre-conditions	Company has valid business registration and authorized representative
Main Flow	<ol style="list-style-type: none"> 1. Company representative accesses registration 2. Fills company information form 3. Provides contact details and company profile 4. Submits application
Exceptions	<ul style="list-style-type: none"> - Incomplete company information - Network connectivity issues
Post Conditions	Company registration submitted and can post jobs/Internships

Field	Description
Use Case ID	05
Use Case Name	Login
Primary Actors	All users
Description	User logs in to their profile by using username and password
Pre-conditions	User is already registered. Login page is accessible.
Main Flow	<ol style="list-style-type: none"> 1. User navigates to the login page. 2. User enters username/email and password. 3. System validates the credentials. 4. If valid, the system grants access and redirects to the user dashboard
Exceptions	- Invalid Credentials
Post Conditions	User is authenticated and logged into the system.

Field	Description
Use Case ID	06
Use Case Name	Update User Profile
Primary Actors	School leavers,Undergraduate,Alumni,Company,Clubs
Description	User edits personal and academic/professional profile details
Pre-conditions	User is logged in and has existing profile
Main Flow	<ol style="list-style-type: none"> 1. User accesses profile settings 2. Selects fields to edit 3. Updates information 4. Saves updated profile
Exceptions	<ul style="list-style-type: none"> - Invalid data format - Required fields left empty - File upload failure for profile picture - System timeout during save
Post Conditions	User profile updated

Field	Description
Use Case ID	07
Use Case Name	View User Profiles
Primary Actors	Undergraduate, Alumni, Company, Clubs
Description	Users can view profiles of others for networking or collaboration
Pre-conditions	<p>User is logged in and target profile exists. Access to profiles is based on user type:</p> <ul style="list-style-type: none"> • A/L students cannot view profiles. • Undergraduates can view undergraduate, company, alumni, and club profiles. • Companies can view undergraduate and other company profiles. • Clubs can view undergraduate and other club profiles. • Alumni can view undergraduate and other alumni profiles.
Main Flow	<ol style="list-style-type: none"> 1. User searches for specific user 2. Selects user profile to view 3. System displays public profile information 4. User can view academic/professional details 5. Contact options displayed if available
Exceptions	<ul style="list-style-type: none"> - User account suspended - Profile not found - Network connectivity issues
Post Conditions	Profile information displayed successfully

Field	Description
Use Case ID	08
Use Case Name	Deactivate/Delete Own Account
Primary Actors	School leavers,Undergraduate,Alumni,Company,Clubs
Description	A user can temporarily deactivate their own profile
Pre-conditions	User is logged in and has active account
Main Flow	<ol style="list-style-type: none"> 1. User accesses account settings 2. Selects deactivation or deletion option 3. Confirms decision 4. System processes request 5. Account status updated
Exceptions	<ul style="list-style-type: none"> - System error during deactivation - Network connectivity issues
Post Conditions	User account deactivated or deleted as requested

8.3.2. Academic Guidance and Degree Recommendation.

Field	Description
Use Case ID	09
Use Case Name	Input Z-score,stream,district and get recommend degrees
Primary Actors	School leavers
Description	School leavers inputs A/L stream,district and Z-score to get degree suggestions
Pre-conditions	School leaver is logged in and has valid A/L results
Main Flow	<ol style="list-style-type: none"> 1. School leaversaccesses degree recommendation section 2. Inputs Z-score value and stream 3. Adds district 4. Submits information 5. Displays recommendations with university details
Exceptions	<ul style="list-style-type: none"> - No matching degrees found - Database connectivity issues - Insufficient data for recommendations
Post Conditions	Degree recommendations displayed to student with relevant details

Field	Description
Use Case ID	10
Use Case Name	Access Career Guidance Articles
Primary Actors	School leavers, Undergraduates
Description	Users can read articles about degree choices, careers, and study tips
Pre-conditions	User is logged in and articles database is available
Main Flow	<ol style="list-style-type: none"> 1. User navigates to career guidance section 2. Browses article categories or searches 3. Selects article to read 4. Views full article content 5. Can bookmark or share article
Exceptions	<ul style="list-style-type: none"> - Article not found - Content loading failure - Database unavailable
Post Conditions	User successfully accesses and reads career guidance content

8.3.3. Job and Internship Module

Field	Description
Use Case ID	11
Use Case Name	Publish Job/Internship Opportunity
Primary Actors	Company
Description	A company or alumni posts a job/internship opening for undergraduates
Pre-conditions	Company is approved and logged in
Main Flow	<ol style="list-style-type: none"> 1. Company accesses job posting section 2. Fills in job/internship details 3. Specifies requirements and qualifications 4. Sets application deadline 5. Adds company and contact information 6. Publishes posting
Exceptions	<ul style="list-style-type: none"> - Incomplete job description - Invalid application deadline
Post Conditions	Job/opportunity published and visible to undergraduates

Field	Description
Use Case ID	12
Use Case Name	Search and Filter Job Opportunities
Primary Actors	Undergraduate
Description	Student searches for job opportunities by job title, company name and filters jobs by category to find relevant positions
Pre-conditions	<ul style="list-style-type: none"> - Student is logged in - Job opportunities are posted by companies - Job categories are defined in the system
Main Flow	<ol style="list-style-type: none"> 1. Student navigates to job opportunities section 2. Student applies search and filter criteria 3. System displays matching job opportunities
Exceptions	<ul style="list-style-type: none"> - No jobs match search criteria
Post Conditions	Student views job opportunities matching search name and selected categories

Field	Description
Use Case ID	13
Use Case Name	View Job/Internship Listings
Primary Actors	Undergraduate
Description	Undergraduates browse available job and internship posts
Pre-conditions	Undergraduate is logged in and job postings exist
Main Flow	<ol style="list-style-type: none"> 1. Undergraduate accesses job listings 2. Browses available opportunities 3. Uses filters to narrow search 4. Views detailed job descriptions 5. Can save interesting postings
Exceptions	<ul style="list-style-type: none"> - No job postings available - Filter function not working - Database connectivity issues
Post Conditions	Job/Internship listings displayed for undergraduate review

Field	Description
Use Case ID	14
Use Case Name	Apply for Job/Internship
Primary Actors	Undergraduate
Description	Undergraduate submits an application for a job or internship
Pre-conditions	Undergraduate is logged in and job posting is active
Main Flow	<ol style="list-style-type: none"> 1. Undergraduate selects job to apply 2. Reviews application requirements 3. Fills application form 4. Uploads required documents 5. Submits application 6. Receives confirmation
Exceptions	<ul style="list-style-type: none"> - Application deadline passed - Required documents missing - File upload failure
Post Conditions	Application submitted and company notified

Field	Description
Use Case ID	15
Use Case Name	Manage Job Applications
Primary Actors	Company
Description	Company views,sorts(Based on time and name) and processes received job/internship applications
Pre-conditions	Company is logged in and has published job postings
Main Flow	<ol style="list-style-type: none"> 1. Company accesses application management 2. Views list of received applications 3. Reviews applicant details and documents 4. Updates application status 5. Contacts selected candidates
Exceptions	<ul style="list-style-type: none"> - No applications received - Application data not loading - Contact information invalid - System error during status update
Post Conditions	Application processed,sorted and candidates notified of status

Field	Description
Use Case ID	16
Use Case Name	Save Job/Internship Post
Primary Actors	Undergraduate
Description	User bookmarks a job/internship to apply later
Pre-conditions	Undergraduate is logged in and job posting exists
Main Flow	<ol style="list-style-type: none"> 1. Undergraduate views job posting 2. Clicks save/bookmark option 3. Job added to saved list 4. Can access saved jobs later 5. Can remove from saved list
Exceptions	<ul style="list-style-type: none"> - Job posting expired - Save function not working - Already saved
Post Conditions	Job/internship saved to user's bookmark list

8.3.4. Discussion Forum and Community Interaction

Field	Description
Use Case ID	17
Use Case Name	Create Forums
Primary Actors	Student, Undergraduate, Alumni
Description	User starts a discussion by posting a topic in the forum
Pre-conditions	User is logged in and has forum access privileges
Main Flow	<ol style="list-style-type: none"> 1. User accesses forum section 2. Selects appropriate category 3. Publish forum
Exceptions	- System error
Post Conditions	Forum created and visible to the community.

Field	Description
Use Case ID	18
Use Case Name	Comment on Forum
Primary Actors	School leavers, Undergraduate, Alumni
Description	Users reply or comment on forum discussions
Pre-conditions	User is logged in and forum exists
Main Flow	<ol style="list-style-type: none"> 1. User views forum 2. Reads existing comments 3. Writes comment response 4. Reviews comment content 5. Submits comment 6. Comment added to discussion
Exceptions	<ul style="list-style-type: none"> - Comment too long - Inappropriate content
Post Conditions	Comment is added to forum

Field	Description
Use Case ID	19
Use Case Name	Moderate Forum Posts
Primary Actors	Admin
Description	Admin reviews, edits, or deletes flagged posts
Pre-conditions	Admin is logged in and flagged posts exist
Main Flow	<ol style="list-style-type: none"> 1. Admin accesses moderation panel 2. Reviews flagged or reported posts 3. Takes appropriate action (edit/delete/approve)
Exceptions	- System error during moderationion rights
Post Conditions	Forum moderated

Field	Description
Use Case ID	20
Use Case Name	Search Forum Topics
Primary Actors	Student, Undergraduate, Alumni
Description	Users can search for discussions using keywords or categories
Pre-conditions	User is logged in and forum content exists
Main Flow	<ol style="list-style-type: none"> 1. User accesses forum search 2. Enters search keywords 3. Selects category filters if needed 4. Executes search 5. Reviews search results 6. Selects relevant discussion
Exceptions	<ul style="list-style-type: none"> - No search results found - Search function not working
Post Conditions	Search results displayed

8.3.5. Alumni Experience and Mentorship

Field	Description
Use Case ID	21
Use Case Name	Share Alumni Experience
Primary Actors	Alumni
Description	Alumni writes a post about their university and career experience
Pre-conditions	Alumni is logged in and has verified alumni status
Main Flow	<ol style="list-style-type: none"> 1. Alumni accesses experience sharing section 2. Selects experience category 3. Writes detailed experience post 4. Experience visible to community
Exceptions	- Publication error
Post Conditions	Shared experience available for all users

Field	Description
Use Case ID	22
Use Case Name	Offer Mentorship
Primary Actors	Alumni
Description	Alumni volunteer to mentor students and undergraduates
Pre-conditions	Alumni is logged in and has complete profile
Main Flow	<ol style="list-style-type: none"> 1. Alumni accesses mentorship section 2. Creates mentorship offer profile 3. Specifies areas of expertise 4. Sets availability and preferences 5. Submits mentorship offer 6. Profile visible to students
Exceptions	- System error
Post Conditions	Mentorship offer available for undergraduates

Field	Description
Use Case ID	23
Use Case Name	Search Mentorship Profiles
Primary Actors	Undergraduate
Description	Student searches for available mentors based on specific criteria and filters
Pre-conditions	<ul style="list-style-type: none"> - Student is logged in - Alumni mentors are available in the system
Main Flow	<ol style="list-style-type: none"> 1. Student navigates to mentorship section 2. Student accesses mentor search feature 3. Student enters search keywords 4. System displays matching mentor profiles 5. Student browses search results
Exceptions	<ul style="list-style-type: none"> - No mentors match search criteria
Post Conditions	Matching results showed.

Field	Description
Use Case ID	24
Use Case Name	View Mentorship Profiles
Primary Actors	Undergraduate
Description	Student views detailed profiles of available mentors including their background and expertise
Pre-conditions	<ul style="list-style-type: none"> - Student is logged in - Student has searched or browsed mentors - Mentor profiles exist
Main Flow	<ol style="list-style-type: none"> 1. Student selects mentor from search results or mentor list 2. System displays mentor's detailed profile 3. Student views mentor's professional background
Exceptions	<ul style="list-style-type: none"> - Mentor profile not accessible
Post Conditions	Student views the particular mentor profile

Field	Description
Use Case ID	25
Use Case Name	Request Mentorship
Primary Actors	Undergraduate
Description	Student or undergraduate sends a mentorship request to alumni
Pre-conditions	Student is logged in and available mentors exist
Main Flow	<ol style="list-style-type: none"> 1. Student browses available mentors 2. Selects suitable mentor 3. Request mentorship 4. Sends request to mentor 5. Awaits mentor response
Exceptions	<ul style="list-style-type: none"> - Mentor not available
Post Conditions	Mentorship request send

Field	Description
Use Case ID	26
Use Case Name	View and Sort Mentorship Applications
Primary Actors	Alumni
Description	Allows alumni to view and sort mentorship applicants and their applications
Pre-conditions	- Alumni is available as mentor - Students have submitted applications
Main Flow	1. Alumni accesses mentorship dashboard 2. Alumni views list of applications 3. Alumni sorts applications by criteria 4. Alumni reviews individual applications 5. Alumni evaluates applicant fit
Exceptions	- No applications received
Post Conditions	Alumni review all applications

Field	Description
Use Case ID	27
Use Case Name	Accept or Reject Mentorship Requests
Primary Actors	Alumni
Description	Allows alumni to respond to mentorship requests from undergraduates
Pre-conditions	- Alumni has received mentorship applications
Main Flow	1. Alumni selects application to respond to 2. Alumni chooses to accept or reject 3. Alumni provides response message 4. Alumni confirms decision 5. System notifies student of decision
Exceptions	- Response submission error
Post Conditions	Student is notified about the mentorship decision

Field	Description
Use Case ID	28
Use Case Name	View and book available mentorship slots
Primary Actors	Undergraduate
Description	Student views available time slots for mentorship sessions with approved mentors
Pre-conditions	<ul style="list-style-type: none"> - Student is logged in - Mentorship request has been accepted - Mentor has set available slots
Main Flow	<ol style="list-style-type: none"> 1. Student navigates to mentorship section 2. Student selects approved mentor 3. System displays mentor's available time slots 4. Student views slot details (date, time, duration) 5. Student booked an available slot.
Exceptions	<ul style="list-style-type: none"> - No available slots - Mentor temporarily unavailable - System loading error
Post Conditions	Student view available time slots and booked a slot.

Field	Description
Use Case ID	29
Use Case Name	Edit Available Mentorship Slots
Primary Actors	Alumni (Mentor)
Description	Alumni mentor manages and updates their available time slots for mentorship sessions
Pre-conditions	- Alumni is logged in - Alumni is available as mentor
Main Flow	1. Alumni navigates to mentorship management 2. Alumni accesses availability settings 3. Alumni adds/removes/modifies time slots 4. Alumni saves updated availability 5. System updates available slots
Exceptions	- Conflicting time slots - Invalid time format
Post Conditions	Mentors available time slots are updated in the system

Field	Description
Use Case ID	30
Use Case Name	Review Mentorship Experience
Primary Actors	Undergraduate
Description	Mentee provides feedback or rating on the mentorship
Pre-conditions	Mentorship session completed
Main Flow	1. Write review in review section 2. Submits review
Exceptions	- Review submission error
Post Conditions	Mentorship review submitted

8.3.6. Events and Project Sharing

Field	Description
Use Case ID	31
Use Case Name	Publish Event
Primary Actors	Clubs
Description	Authorized users create events like hackathons or seminars
Pre-conditions	User has club admin privileges and is logged in
Main Flow	<ol style="list-style-type: none"> 1. Club admin accesses event creation 2. Fills event details and description 3. Publishes event 4. Event appears in community calendar
Exceptions	- Incomplete event information
Post Conditions	Event published

Field	Description
Use Case ID	32
Use Case Name	Share Personal Project
Primary Actors	Undergraduate
Description	Undergraduate showcases a personal or academic project
Pre-conditions	Undergraduate is logged in and has project to share
Main Flow	<ol style="list-style-type: none"> 1. Student accesses project sharing section 2. Uploads project details and media 3. Adds project description and technologies 4. Publishes project
Exceptions	- Project description too long
Post Conditions	Personal project shared and visible to community

Field	Description
Use Case ID	33
Use Case Name	Like/Comment on Project
Primary Actors	Student, Undergraduate, Alumni
Description	Interact with shared projects through likes and comments
Pre-conditions	User is logged in and project exists
Main Flow	<ol style="list-style-type: none"> 1. User views shared project 2. Can like project to show appreciation 3. Writes comment with feedback
Exceptions	- Already liked project
Post Conditions	Project interaction recorded

8.3.7. Notification system

Field	Description
Use Case ID	34
Use Case Name	Receive System Notifications
Primary Actors	Undergraduate
Description	User receives notifications for applications/mentorship, approvals,rejections or event updates.
Pre-conditions	User has active account and notification events occur
Main Flow	<ol style="list-style-type: none"> 1. Notification sent to user's notification center 2. User can view notification details 3. Notification marked as read
Exceptions	- Notification delivery failure
Post Conditions	User receives notification

Field	Description
Use Case ID	35
Use Case Name	Admin Broadcast Notification
Primary Actors	Admin
Description	Admin sends system-wide messages or announcements
Pre-conditions	Admin is logged in with broadcast privileges
Main Flow	1. Admin accesses broadcast notification panel 2. Sends broadcast notification
Exceptions	- Broadcast service unavailable
Post Conditions	Notification send to the users

Field	Description
Use Case ID	36
Use Case Name	Receive System Notifications
Primary Actors	Alumni
Description	Users receive notifications when an undergraduate submits a mentorship request.
Pre-conditions	User has an active account and submits a mentorship request form.
Main Flow	1. User accesses profile 2. View mentor profile 3. Submits mentorship request form
Exceptions	- System error during submission
Post Conditions	Submission completed and alumni received a notification.

Field	Description
Use Case ID	37
Use Case Name	View All Users
Primary Actors	Admin
Description	Admin can see a list of all registered users
Pre-conditions	Admin is logged in
Main Flow	1. Admin accesses user management panel 2. Views comprehensive user list 3. Can filter by user type 4. Accesses individual user profiles
Exceptions	- Filter function not working
Post Conditions	Complete use list is displayed

8.4. Quality Attributes

8.4.1. Usability

The UniVerse system is designed to be user-friendly and easy to learn. It aims to provide a clear and intuitive experience for all users.

- The user interface is designed to be clear and intuitive, making it easy for users to navigate and understand the system.
- Common tasks can be completed efficiently with minimal steps.
- The system provides helpful feedback and error messages to guide users.
- New users can quickly learn how to use the system without extensive training.

8.4.2. Security

The UniVerse system prioritizes security through:

- Access Controls: Implements least privilege and regularly reviews permissions to prevent excessive access.
- Data Protection: Encrypts sensitive data both in transit (HTTPS/TLS) and at rest, with secure key management.
- Input Validation: Validates and sanitizes all user inputs to prevent injection attacks, using parameterized queries and whitelisting.

8.4.3. Availability

Availability refers to the ability of our web application to remain operational and accessible to the user throughout the day, whenever required. Thus, it is crucial to maintain the maximum availability and uptime of our application. For that,

- The system deployment is configured to maintain a 99.5% uptime at a minimum.
- The system will run on a stable apache server, either locally or on an institution-hosted machine.
- The UniVerse platform shall ensure high availability by maintaining continuous system accessibility for all user roles (students, undergraduates, alumni, companies, and administrators), minimizing downtime, and enabling uninterrupted access to critical services such as user registration, degree recommendation, job and internship listings, forums, and event participation.

8.4.4. Performance and Reliability

The UniVerse system is designed to handle a large number of concurrent users, including students, alumni, clubs, and administrators without degradation in speed or responsiveness.

Key performance goals include:

- Fast load times for user dashboards, search results, and content feeds.
- Efficient data retrieval for academic recommendations, user profiles, and event listings using optimized queries and caching mechanisms.
- Scalable architecture to accommodate growing numbers of users and data entries, ensuring seamless user experiences even during peak traffic.
- Responsive design that ensures consistent performance across devices (desktop, tablet, mobile).

Performance optimization techniques such as asynchronous data loading, content delivery networks (CDNs), and database indexing are employed to meet these goals.

The platform ensures high reliability by minimizing downtime, preserving data integrity, and supporting, and supporting continuous user access. Key reliability features include:

- Automated backups to prevent data loss and support quick recovery in case of system failure.
- Error handling and validation at both client and server levels to reduce crashes and ensure accurate data entry.
- Redundancy and failover mechanisms to the hosting environment to maintain uptime during server disruptions.

These measures ensure that the users can depend on the system for uninterrupted access to academic guidance, mentorship, and career resources.

8.4.5 Maintainability

The “UniVerse” system is designed to be easy to update, fix, and improve in the future. To make this possible:

- The code is clearly written and includes useful documentation for developers.
- Industry-standard coding practices are followed to ensure clean and understandable code.
- The system is divided into well-organized modules so that changes in one part do not break the entire system.
- The architecture allows for new features to be added or changes to be made with minimal effort.

8.2.6 Portability

UniVerse is a web-based platform that can be accessed through any modern web browser, regardless of the user's device or operating system.

To ensure it runs smoothly across different environments:

- UniVerse avoids using tools or systems that only work with specific platforms or vendors.
- UniVerse uses standard methods and technologies that are compatible with most systems (like SQL).
- Data formats used for communication and storage follow common standards, so the system can easily connect with other tools or platforms if needed.

9. Technologies to be used

Main Technologies

- **Frontend**
 - HTML
 - CSS
 - JavaScript
- **Backend**
 - PHP
- **Database**
 - MySQL

Web & Server Technologies

- **Web Server:** Apache
- **Local Development Server:** XAMPP

Development & Collaboration Tools

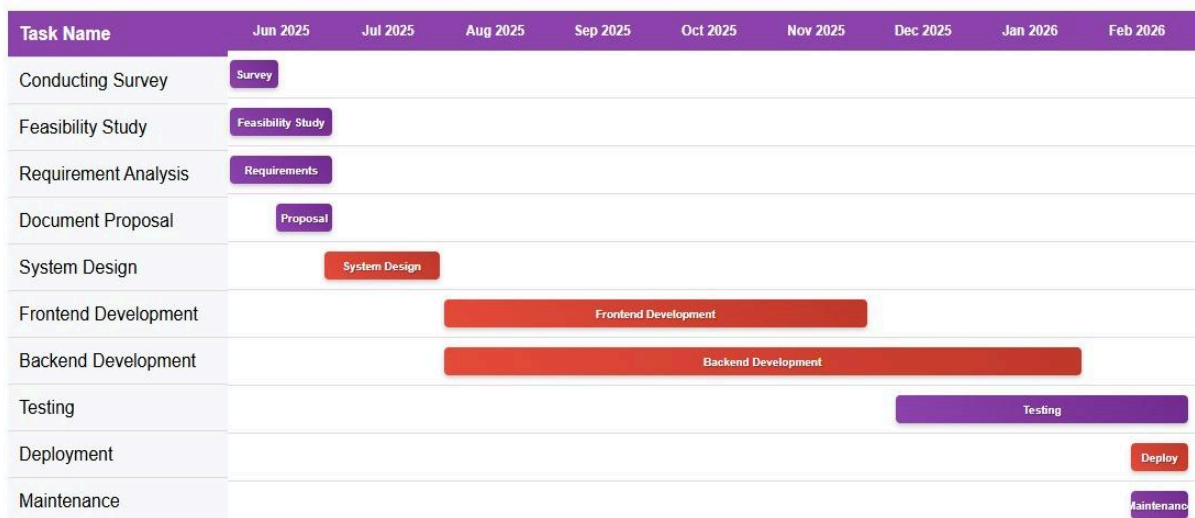
- **Version Control:** Git & GitHub
- **Code Editor:** VSCode
- **Diagramming Tool:** Draw.io
- **Documentation & File Sharing:** Google Docs, Google Drive
- **Project Planning & Management:**
 - Jira (task management)
 - Notion (documentation & planning)

10. Project Timeline

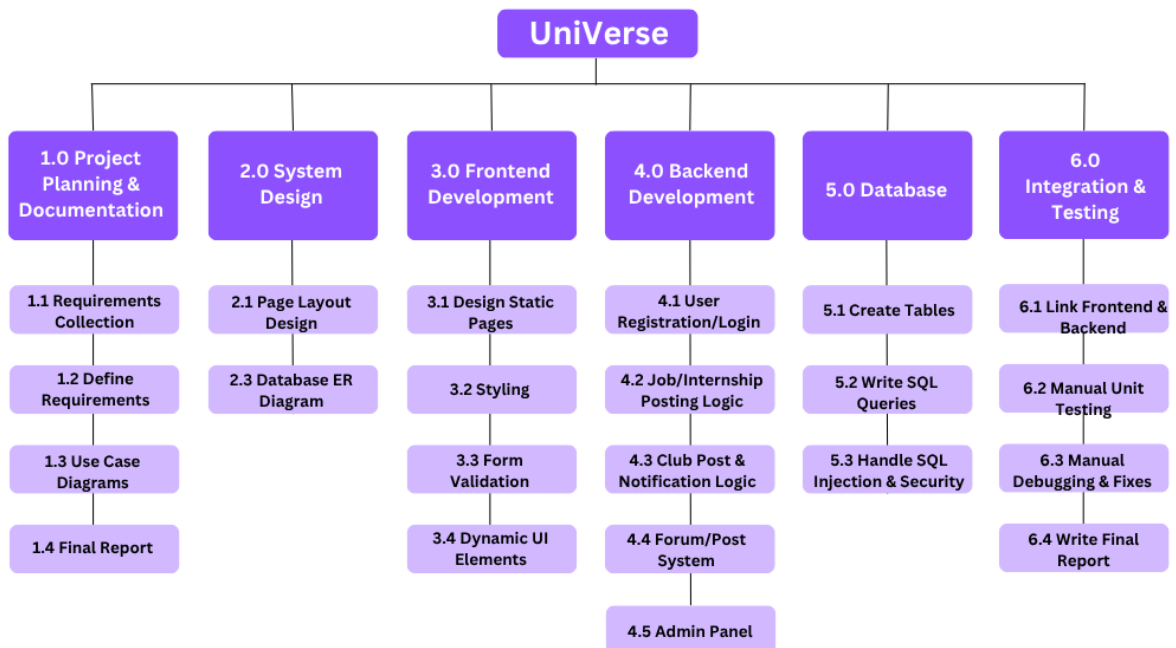
The project spans a total duration of 9 months - till the completion of the academic year. The software development process for this project is modeled using the Waterfall methodology, which follows a linear and sequential approach to system development.

With the requirement gathering, feasibility study and requirement analysis done, we are confident that the project could be completed on time without any major changes to the schedule.

Project Gantt Chart



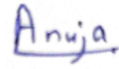


Work Breakdown Structure



11. Declaration

We as members of the project titled “*UniVerse*”, Certify that we will carry out this project according to the guidelines provided by the coordinators and supervisors of the course as well as we will not incorporate, without acknowledgment, any material previously submitted for a degree or diploma in any university. To the best of our knowledge and brief, the project work will not contain any material previously published or written by another person or ourselves except where due reference is made in the text of appropriate places.

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