QAU Community Guild

By

Luqman Anjum

Supervised By

Dr. Muhammad Usman

Department of computer science

Quaid-i-Azam University

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بِسْمِ اللَّهِ الرَّحْمَٰنِ الرَّحِيمِ

QUAID-I-AZAM UNIVERSITY

DEPARTMENT OF COMPUTER SCIENCE

Dated:_____

FINAL APPROVAL

This is to certify that we have read the final report submitted by Luqman Anjum and it is our judgment that this report is of sufficient standard to warrant its acceptance by the Quaid-i-Azam University, Islamabad for the degree of the Bachelor in Computer Science (BSCS).

Committee

1. ***EXTERNAL EXAMINER***   _____

2. ***SUPERVISOR***   _____

        Dr. Muhammad Usman

        Department of Computer Science

        Quaid-i-Azam University, Islamabad.

3. **INCHARGE**   _____

        Dr. Onaiza Maqbool

        Department of Computer Science

        Quaid-i-Azam University, Islamabad.

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Abstract

QAU Community Guild is a web-based application which offer services to faculty staff and student. The QAU community members can avail facilities such as vehicle sharing, transport booking, student and staff facility, and accommodation listing and varsity club management. Any member who wants to avail these facilities he/ she has to post advertisement , view advertisement and then can choose a service that he/ she finds most suitable.

There is no proper platform in Quaid-e-Azam University (QAU) Islamabad where the students, teachers, and staff can interact with each other. There are students, teachers and staff members of university who want to share their vehicle with other people but can't because they don't have the necessary resources to advertise properly and the other people who need this facility are usually ignorant of the people who want to share it. QAU is a big place, there are a lot of departments in it. There are thousands of students, teachers and staff members. Also those students who don't get allotment in the university hostels have to move towards private hostels and don't know where to go for suitable hostels according to their requirements. Information about new jobs is announced in the university but rarely people find out about it. The students who want to do the internships find it very difficult to know where to go and who to ask. The companies offering jobs or internships face a lot of difficulties when it comes to discovering the talented and hardworking student of QAU. There is no online source to book the university's transport. The students and staff members who have to book the transport for trips or other purposes, they have to physically go to the transport office and ask for the availability of buses and that is very time consuming, and no proper advertising is done as well by the different clubs (e.g. Adventure Club) of the university. The students, teachers or even the staff members who are new or have recently joined the university usually have no idea about the services provided by the university such as daycare center for the staff members' children and the facility of a university gym.

In order to address the above-mentioned problems, a web-based system has been introduced in this final year project. The introduced system manages user portfolio, user advertisements, transport booking records, varsity clubs management, hostel accommodation listing, and student-staff sports facility details. The system will have two sides: server side which will be used by an admin, and a client side which will be accessed by the users via internet. Users can request for membership in community guild by entering their details and later on the server side admin can reject or accept their requests based on the rules of QAU.

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Chapter 1

Introduction

The QAU Community Guild Software is implemented in Quaid-E-Azam University Islamabad which provides many facilities to the students, teachers, and the staff of the university. In the community guild, the teachers, students, and staff can interact with each other they can easily share their vehicles and rooms with the each other without any problem. The new students who take admission in QAU have to face some difficulties when it comes to finding a hostel outside the university according to their requirements. The hostels external to the university can register themselves on the website and post advertisement. The different companies can offer job in university through this service.

1.1) Problem Definition

There is no proper platform in Quaid-e-Azam University (QAU) Islamabad where the students, teachers, and staff can interact with each other. There are students, teachers and staff members of university who want to share their vehicle with other people but can't because they don't have the necessary resources to advertise properly and the other people who need this facility are usually ignorant of the people who want to share it. QAU is a big place, there are a lot of departments in it. There are thousands of students, teachers and staff members. Also those students who don't get allotment in the university hostels have to move towards private hostels and don't know where to go for suitable hostels according to their requirements. Information about new jobs is announced in the university but rarely people find out about it. The students who want to do the internships find it very difficult to know where to go and who to ask. The companies offering jobs or internships face a lot of difficulties when it comes to discovering the talented and hardworking student of QAU. There is no online source to book the university's transport. The students and staff members who have to book the transport for trips or other purposes, they have to physically go to the transport office and ask for the availability of buses and that is very time consuming, and no proper advertising is done as well by the different clubs (e.g. Adventure Club) of the university. The students, teachers or even the staff members who are new or have recently joined the university usually have no idea about the services provided by the university such as daycare center for the faculty' children and other facilities provided by the university.

1.2) Proposed Solution

Hence a system has been proposed to be deployed in Quaid-E-Azam University, Islamabad named as "QAU COMMUNITY GUILD" which is a web-based application. This web-based system allows users to interact with each other on a single platform. The teachers, staff and students can create a profile on it. They can properly advertise for vehicle sharing. The hostels which are outside the university jurisdiction can properly advertise themselves. Students can find the best suitable private hostels near the university. Companies in the market can properly advertise their jobs and their requirements on this platform. Teachers, staff and student members will be able to look for jobs easily. The students who want to join any company can easily contact them without having to do much struggling. The teachers, staff and students will be able to book the transport services for trips and for other purposes easily without going from one person to another person .Teachers, staff and students will be able to see the different activities carried out by university clubs. Any member of the club can view the members' profile and read relevant data about that member who is registered in the club. The member's profile contains the DOB, name and his performance information. Any teacher, staff member or student who wants to acquire vehicle and hostel accommodation can easily access the information of the person who wants to share it. Administration staff will have to login for approving the membership forms after reading the data of new members. Admin has rights to change and modify the rules of QAU Community Guild. Admin will keep track of all activities of QAU Community Guild.

1.3) Scope
This system is totally web-based system. This web-based is only for QAU faculty staff, student and for registered hostel and companies. System will provide a platform to those students and faculty members, who are interested to share their vehicles, find suitable accommodations listing, search new jobs, book University's transport and watch the activities of university's clubs. The system provides the facility to different companies who are registered in QAU to post ads about the jobs. The companies search the student by GPA and by department. The system provide the facility to teacher staff and student to see other facilities provides by the universities just like Jim, daycare center for the children's of teachers. But i will manage the (job portal, vehicle sharing, varsity club management).

1.4) Objectives
The main objective of the system is to save the time of the user (faculty, staff, and student). The tasks related to the projects can be done on a single platform. The main objective of this project is to facilitate the users with different services (vehicle sharing facility, accommodation listings, job portal, transport booking facility, student and staff support facility, and varsity clubs management) using internet. All the users can easily interact with each other.

1.5) Project Organization

A project organization is a structure that facilitates the coordination and implementation of project activities. Its main reason is to create an environment that fosters interactions among the team members with a minimum amount of disruptions, overlaps and conflict.

1.5.1) Software Process Model

In the Implementation of this project we use the V process Model. The V - model is SDLC model where execution of processes happens in a sequential manner in V-shape. It is also known as verification and validation model. V - Model is an extension of the waterfall model and is based on the association of a testing phase for each corresponding development stage. Simple and easy to use. Testing activities like planning, test designing happens well before coding. This saves a lot of time. Hence, higher chance of success over the waterfall model. Proactive defect tracking – that is defects are found at an early stage. Avoids the downward flow of the defects. Works well for small projects where requirements are easily understood. The V-shaped model should be used for small to medium sized projects where requirements are clearly defined and fixed. The V-shaped model should be chosen when ample technical resources are available with needed technical expertise.**[1].**

1.5.2) Roles and Responsibilities

Administrator plays a major role here. He approves member requests from new users, stores the user records and keeps record of all the members in QAU Community Guild. Administrator sees all the activities carried out by the users. Users can maintain their profiles. User can view the latest jobs posted by the companies .User can post the new advertisement about the hostel accommodation listing, vehicle sharing and new jobs.

1.5.3) Tools and Techniques

I used Visual studio 2015 and language asp.net to implement the QAU community Guild. To store the database I used the SQL SERVER 2008 which is very powerful tool to store a large database.

1.6) Project Management Plan

 The Project Management Plan is a formal, approved document used to manage project execution. The PMP documents the actions necessary to define, prepare, integrate and coordinate the various planning activities. The PMP defines how the project is executed, monitored and controlled, and closed.

1.6.1) Project Libre plan

		Task Name	Duration	Start	Finish	Predecessors	Resource Names
		⊟QAU Community Guild	69 days?	10/4/16 8:00 AM	1/6/17 5:00 PM		
✔		Understand Problem	1 day	10/4/16 8:00 AM	10/4/16 5:00 PM		Luqman Anjum
▦	✔	Making of SPMP Doucment	6 days	10/5/16 8:00 AM	10/12/16 5:00 PM	2	Luqman Anjum;MS Word;Project Libre
		⊟Analysis Phase	35 days?	10/4/16 8:00 AM	11/21/16 5:00 PM		
▦	✔	Gather Requirements	2 days	10/10/16 8:00 AM	10/11/16 5:00 PM		Luqman Anjum
▦	✔	Refine Requirements	2 days	10/12/16 8:00 AM	10/13/16 5:00 PM	5	Luqman Anjum;Project Supervisor
▦	✔	Making of Document V1	1 day	10/14/16 8:00 AM	10/14/16 5:00 PM	5;6	Luqman Anjum;MS Word
▦	✔	⊟Identify Specific Requirements	11 days?	10/4/16 8:00 AM	10/18/16 5:00 PM		
✔		⊟External Interface Requirements	11 days?	10/4/16 8:00 AM	10/18/16 5:00 PM		
✔		User Interface	1 day	10/17/16 8:00 AM	10/17/16 5:00 PM		Luqman Anjum
✔		Hardware Interface	1 day	10/17/16 8:00 AM	10/17/16 5:00 PM		Luqman Anjum
✔		Software Interface	0.5 days?	10/17/16 8:00 AM	10/17/16 1:00 PM		Luqman Anjum;Project Supervisor
✔		Communication Protocols	1 day	10/4/16 8:00 AM	10/4/16 5:00 PM		Luqman Anjum
▦	✔	Making of Document V2	1 day?	10/18/16 8:00 AM	10/18/16 5:00 PM	7;10;11;12;13	Luqman Anjum;MS Word
✔		⊟ Software Product Features	12 days?	10/18/16 8:00 AM	11/2/16 5:00 PM		
▦	✔	Identiy Use Cases	2 days?	10/18/16 8:00 AM	10/19/16 5:00 PM		Luqman Anjum
▦	✔	Refine Use Cases	8 days?	10/20/16 8:00 AM	10/31/16 5:00 PM	16	Luqman Anjum;Project Supervisor
▦	✔	Making of Document V3	2 days?	11/1/16 8:00 AM	11/2/16 5:00 PM	14;16;17	Luqman Anjum;MS Word
		⊟Software System Functions	4 days?	11/2/16 8:00 AM	11/7/16 5:00 PM		
▦		Identify System Functions	2 days?	11/2/16 8:00 AM	11/3/16 5:00 PM		Luqman Anjum
▦		Refine System Functions	1 day?	11/4/16 8:00 AM	11/4/16 5:00 PM	20	Luqman Anjum;Project Supervisor
▦		Making of Document V4	1 day?	11/7/16 8:00 AM	11/7/16 5:00 PM	18;20;21	Luqman Anjum;MS Word
▦		⊟Identify Software System Attributes	2 days?	11/8/16 8:00 AM	11/9/16 5:00 PM		
		Reliability	1 day?	11/8/16 8:00 AM	11/8/16 5:00 PM		Luqman Anjum
		Availability	1 day?	11/8/16 8:00 AM	11/8/16 5:00 PM		Luqman Anjum
		Security	1 day?	11/8/16 8:00 AM	11/8/16 5:00 PM		Luqman Anjum
		Maintainability	1 day?	11/8/16 8:00 AM	11/8/16 5:00 PM		Luqman Anjum
		Portability	1 day?	11/8/16 8:00 AM	11/8/16 5:00 PM		Luqman Anjum
▦		Making of Document V5	1 day?	11/9/16 8:00 AM	11/9/16 5:00 PM	22;24;25;26...	Luqman Anjum;MS Word
▦		⊟Database Requirements	2 days?	11/10/16 8:00 AM	11/11/16 5:00 PM		
		Identify Database Requirements	1 day?	11/10/16 8:00 AM	11/10/16 5:00 PM		Luqman Anjum
		Making of Document V6	1 day?	11/11/16 8:00 AM	11/11/16 5:00 PM	29;31	Luqman Anjum;MS Word
▦		⊟Making of Final SRS Document	6 days?	11/14/16 8:00 AM	11/21/16 5:00 PM		
		Refining SRS Document	6 days?	11/14/16 8:00 AM	11/21/16 5:00 PM	32	Luqman Anjum;Project Supervisor
▦		⊟Design Phase	69 days?	10/4/16 8:00 AM	1/6/17 5:00 PM		
		⊟Develop Design	53 days?	10/4/16 8:00 AM	12/15/16 5:00 PM		
		Develop Architectural Design	2 days?	10/4/16 8:00 AM	10/5/16 5:00 PM		Luqman Anjum
▦		Review Architectural Design	2 days?	12/1/16 8:00 AM	12/2/16 5:00 PM	37	Luqman Anjum;Project Supervisor
▦		Develop Interface Design	2 days?	12/5/16 8:00 AM	12/6/16 5:00 PM		Luqman Anjum
▦		Review Interface Design	2 days?	12/7/16 8:00 AM	12/8/16 5:00 PM	39	Luqman Anjum;Project Supervisor
▦		Create Sequence Diagram	2 days?	12/9/16 8:00 AM	12/12/16 5:00 PM		
▦		Create Design Class Diagram	3 days?	12/13/16 8:00 AM	12/15/16 5:00 PM		
		⊟Develop Algorithms	11 days?	12/16/16 8:00 AM	12/30/16 5:00 PM		
▦		Draw Flow Chart	2 days?	12/16/16 8:00 AM	12/19/16 5:00 PM		
▦		Write Pseudo Code	3 days?	12/20/16 8:00 AM	12/22/16 5:00 PM	44	
▦		Review Pseudo Code	2 days?	12/23/16 8:00 AM	12/26/16 5:00 PM	45	
▦		Draw Decision Table	2 days?	12/27/16 8:00 AM	12/28/16 5:00 PM		
▦		Review Decision Table	2 days?	12/29/16 8:00 AM	12/30/16 5:00 PM	47	
		⊟Evaluate Design	5 days?	12/31/16 8:00 AM	1/6/17 5:00 PM		
▦		Validate Design	2 days?	12/31/16 8:00 AM	1/3/17 5:00 PM		
▦		Verify Design	2 days?	1/4/17 8:00 AM	1/5/17 5:00 PM		
▦		Review & Refine Design	1 day?	1/6/17 8:00 AM	1/6/17 5:00 PM		
▦		Finalize Documentation	1 day?	1/9/17 8:00 AM	1/9/17 5:00 PM		

1.7) Report Structure

In the first chapter i discuss the introduction of the project, the problem definition and solution. In the second chapter i discuss the major input and output major functionalities. In the third chapter there is a sequence diagram EERD and class diagram. In chapter four there is a discussion of implementation: which tools and techniques are used. The chapter five contains the test cases.

Chapter 2

Requirements Gathering and Analysis

This section of the document specifying the general factors that affects the product and its requirements, providing a background for the requirements of the software. It also describes the summary of the functions that the software will perform. It also describes the user capabilities and their interest.

2.1) Introduction

Requirements gathering and analysis is very necessary before implementing the project. In this chapter i discuss the functional and non-functional requirements, the stakeholders, the major functions, inputs and outputs, overall description of the product, use cases and domain model.

2.1.2) Stakeholders

A person , group or organization that has an interest or concern in an organization. Faculty, university employees's, students, hostel owner, and job companies are stakeholders.

2.1.3) Major Functions

Faculty staff and students who are new in the university will first fill the registration form online. Admin will accept the registration form and will send the registration number and password to the user through email when user is registered. He will also manage and analyze records of users, vehicle sharing, accommodation listing, varsity club news advertisement and reservation requests for trips. He will send responses to the users on their personalized service requests (like if a user posts an advertisement request to book a bus for a trip and admin will respond to his request e.g. whether request is accepted or rejected).

2.1.4) Major Inputs and outputs

Major inputs and outputs are defined as which input is given to the system by the user and which outputs are shown to the user. Some of the major input and outputs are listed below.

2.1.4.1) Major Inputs

Major Input of the system which i implemented is that the user can login into the system by using his username and password. When the user logs in into the system, the user can manages his profile. The user can advertise properly. The companies can post the job.

The user can see the new uploaded jobs. The user can see the profile of the people who want to share their vehicle and accommodation. The user can see the other facilities provide by the university.

2.1.4.2) Major Outputs

Major output of the system is that system first show the registration form to the user then after the completion of registration the system show the login form to user, after login the system shows the different functionalities to the user such as the job posting ads, different advertisements which can be posted by other users. System can show different options to the user.

2.1.5) Definitions, Acronyms and Abbreviations

Acronyms	Abbreviations
User	Teachers, Student, University Employees
QAU	Qauid-E-Azam university
PMP	Project Management Plan
Member	Hostel owner, JobCompanies

Definitions Table 2.1

2.2) Overall Description

Overall description i discuss the product features and operation performed by the system which i implemented. First the system displays a registration form this registration form approved by the Admin. Then the system asks the user to login to continue to operate the system. Displays user profiles shows advertisements of all types just like accommodation listing job advertisements etc.

2.2.1) Product Perspective

QAU Community Guild is a standalone system. QAU Community Guild serves only those users who have an internet connection. Admin of the system can register users and sends registration number and password to users through email so that the users can use this web application after login. Admin see the activities carried out on the whole system. Admin also performs the different functions such as adding a new user. Admin can delete the old advertisements as well.

2.2.1.1) System Interfaces

QAU Community Guild is a web-based system. This system is used by the users who are registered in the university. QAU Community Guild uses a server which holds system database.

The admin updates the database after logging in the system. The users access this system through laptop or computer using the internet. After login user can perform the different functions.

2.2.1.2) User Interfaces

In the user interface i describe how the user interacts with the system. The system which i implemented is web-based. In order to use this user must have authenticated email and password.

2.2.1.3) Software Interfaces

This web-based system can access by any type of browser there is no restriction of the web browser, but most preferred is to use the latest browsers. There is no restriction of the operating system. The user uses this system on any kind of operating system.

2.2.1.4) Hardware Interfaces

There is no hard and tough hardware required to run our application. Even it can be run using processor with Windows XP. The website can be open in any browser using any device. But it is recommended to use a better machine to run website perfectly. Hardware requirements for server side and client side are:

2.2.2) Product Functions

A product Functions provide a summary of the major functions that the software will perform. Some of the major functions which i implemented in the software are listed below.

2.2.2.1) Manage user's information

User submits an application form online, to get registered. Admin then registers the user to the system after verifying its form data and a registration number and password will be sent to the user by email. After getting the login details, user is eligible to login through his laptop or personal computer. Admin can delete, update, search and view all records of the users.

2.2.2.2) Manage department's information

Admin manages records of university departments as when a student registers to the system its department is registered along its other information. Admin can add, delete, update and view records of departments.

2.2.2.3) Manage reservation request

Users can request to reserve a bus for the trip. Admin manages these requests and also send response to them.

2.2.2.4) Request to login

The user enters its registration number and password to use the application. Only authentic users will be able to use the application.

2.2.2.5) Request to post advertisements about vehicle sharing

User can post the about the vehicle sharing. User can post about their timing, location and   the number of people they want.

2.2.2.6) Request to see advertisements about vehicle sharing

User can see advertisements about vehicle sharing. User can see about their timing, location and the number of people they want.

2.2.2.7) Request to delete advertisements about vehicle sharing

User who posts the advertisement of vehicle sharing and admin of the system can only delete the advertisement .No other person can delete advertisement.

2.2.2.8) Request to apply for vehicle sharing

User can easily apply for vehicle sharing User can fill the form. The details of the form is send to the person who post this advertisement.

2.2.2.9) Request to post advertisement about Accommodation listing

User can post the about the Accommodation listing. User can post about their location and   the number of people they want.

2.2.2.10) Request to see advertisement about Accommodation listing

User can see advertisements about accommodation listening. User can see about their timing, location and the number of people they want.

2.2.2.11) Request to apply for Accommodation listing

User can easily apply for accommodation listening .User can fill the form. The details of the form is send to the person who post this advertisement

2.2.2.12) Request to post advertisements about varsity club Activity

Users can post the latest advertisement about the activities of varsity club.

2.2.2.13) Request to see advertisements of varsity club Activity

Users can view the latest advertisement of the activities of varsity club. User can see the timing places and the number of who take part in this activity.

2.2.2.14) Request to apply for membership of varsity club

Users can to apply for membership of varsity club. User can fill the form and fulfill the required details.

2.2.2.15) Request to delete advertisements about varsity club Activity

President of varsity club or admin of the system can only delete the advertisement of activities. No other member can delete the advertisement of varsity club.

2.2.2.16) Request to apply for take part in activity of varsity club

User can easily apply for activity of varsity club. User can fill the form. The details of the form is send to the person who post this advertisement

2.2.2.17) Request to Book a Transport

User can easily book a transport. User can fill a form to book a transport .Admin can give response to user this request is accepted or not.

2.2.2.18) Request for facility of Day Care

Teacher can easily request for facility of day care. Teacher can fill For Facility of Day Care. Admin can give response to user this request is accepted or not.

2.2.2.19) Request for facility of counseling

Student can easily request to teacher for counseling. Student can fill the form for facility of counseling. In response teacher will send email in which the teacher tells about day and timings

2.2.3) User Characteristics

This is assumed that users knows English language and can read and write it. Users must have knowledge of how to use a computer/laptop and related applications. And admin also must have knowledge of how to use computer/laptop and related applications.

2.2.4) Constraints

In order to operate this implemented system the user must have a laptop/desktop computer and the main thing is that the user has an internet connection. Without internet connection the user cannot operate this system.

2.2.5) Assumptions and Dependencies

The system which i implemented is totally web-based system the user must have the internet connection to operate this system. Without the internet connection the user cannot operate this system.

2.3) Specific Requirements

There is some specific requirement of the implemented system. There are some functional and non-functional requirements.

2.3.1) Functional Requirements

The system shall validate all registration numbers and passwords. The system shall allow admin to manage users, data of advertisement, user requests and news. The system shall allow authentic user to login, to post advertisement about the different jobs the advertisement about vehicle sharing, accommodation listing, view news, and request for reserving a bus. The system shall not store any information about problems.

2.3.2) Nonfunctional Requirements

The non-functional requirements are those which are not directly involved in the system. The load time for user interface screens shall take no longer than milliseconds. The login information shall be verified within a second. Queries shall return results within milliseconds.

2.3.2.1) Security

This web based Application can only use by the teacher student and staff which have a user name and password. The people who don't register in QAU cannot see the activities carried out on this website. If this system is deployed in other universities then in future we can use encryption and decryption methods

2.3.2.2) Reliability

The system which I have implemented is very much reliable and responds well whenever the user makes any sort of query. The system processes the query and sends back the exact result. The system does not send out any ambiguous results. The admin users and members can rely on the system. The system will give the 90% correct result.

2.3.2.3) Availability

The system is available all the time. When the user makes any query the database can send the result within the milliseconds. The system will available 24/7.

2.3.2.4) Performance

The load time for user interface screens shall take no longer than milliseconds. The login information shall be verified within a second. Queries shall return results within milliseconds Specific as possible.

2.3.2.5) Maintainability

The database may crash at any certain time due to virus or an operating system failure. Therefore, it is required to keep a backup of all the data on the database to avoid any data loss.

2.4) Data Base requirements

RegistrationTable
- PK RegistrationTableId
- UserCode
- FullName
- PhoneNumber
- UserEmail
- FK DepartmentId
- UserName
- Roles

DepartmentTable
- PK DepartmentId
- DeptName

ClubMemeberShip
- PK MemeberShipId
- ApplicantName
- ApplicantSession
- ApplicantEmail
- FK DepartmentId
- Status

HostelChartTable
- PK HostelChartID
- HostelMonth
- NoOfHostelAds

ActivityChartTable
- PK ActivityChartID
- ActivityMonth
- NoOfActAds

CompaniesResourcesTable
- PK HostelResourcesId
- Rate1Resource
- Rate2Resource
- Rate3Resource
- Rate4Resource
- AverageResources
- FK CompanyID

JobTable
- PK JobId
- JobTitle
- JobType
- JobReqQualification
- JobReqExperience

JobsChartTable
- PK JobChartID
- JobMonth
- NoOfJobAds

DayCareAdmissionTable
- PK DCformID
- FatherName
- MotherName
- Designation
- FK DepartmentId
- Information

Add Company
- PK CompanyID
- CompanyName
- CompanyLocation

AppliedCandidateTable
- PK CandidateID
- CandidateName
- CandidatePhone
- FK JobId

CounselingSubmittedTable
- PK AppID
- StudentName
- FK DepartmentID
- FK TeacherID
- Status

VechileTable
- PK VechileSharingID
- VechileName
- VechileType
- VechileOwner
- Capacity
- AvaliableSeats
- StartLocation

TransportVechileTable
- PK VID
- VehicleType
- TotalCapacity
- AvailableVehicle
- NumOfVehicles

AccomodationAdsTable
- PK HostelAdID
- FK HostelID
- AvailableRooms
- Water
- Heater
- Laundry

HostelResourcesTable
- PK HostelResourcesId
- Rate1Resource
- Rate2Resource
- Rate3Resource
- Rate4Resource
- AverageResources
- FK HostelID

Entity Name
- PK CandidateID
- CandidateName
- CandidatePhone
- FK VechileSharingID

TeacherTable
- PK TeacherID
- Image
- Name
- Availability

Transport Booking Table
- PK TBID
- NoOfPersons
- FK VehicleID
- NoOfVehiclesRequired
- Date
- FK DepartmentID

ActivityTable
- PK ActivityId
- ActivityTitle
- ActivityDescription
- Vacancies
- ActivityPostValidity

ActivityCandiateApply
- PK ActivityCandidate ID
- ActivityCandidateName
- ActivityCandidatePhone
- ActivityId

NotificationTable
- PK NotificationID
- RegUser
- NewUser
- NewJobsAds
- JobsAds
- HostelAds
- NewHostelsAds

TeacherTable
- PK TeacherID
- Image
- Name
- Department
- Field

Add Hostel
- PK HostelID
- HostelName
- HostelLocation

Figure 2.1 ERD
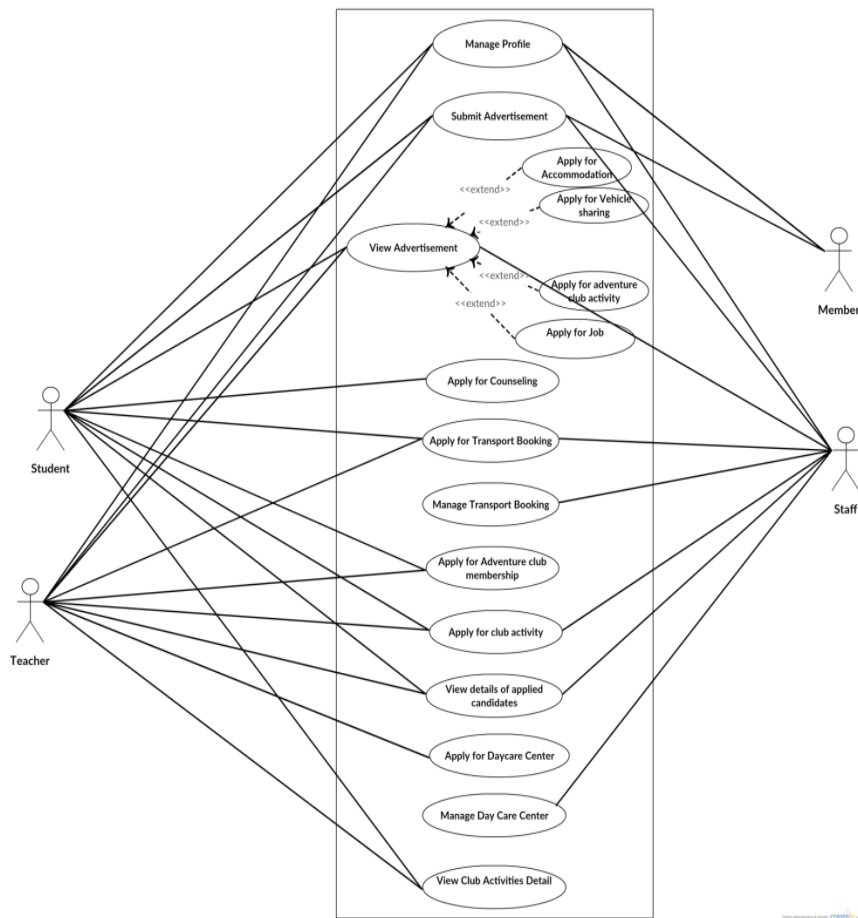
2.5) Use Case Diagram

Figure 2.2 Use case Diagram

2.6) Use Case Descriptions

The use - case diagram is a graphical representation of a user's interaction with the system. Use-case diagram can portray the different types of users of a system and ways that they interact with the system. A list of use-cases mentioned in use-case diagram are described in detail, so that we are able to look more precisely that how user can interact with the system to perform tasks. As this application is multiple users based and there are two main types of users**[2].**

Use Case Details

2.6.1 Login

This use describes how the user login into the system the user select the login button. The login screen appear the user enter the user name and password. The system will check the username and password. The user will log in.

Name	UC1:Login
Primary Actor	Administrator, User
Pre-Conditions	User and members is registered on system.
Post-Conditions	User and members will be logged in.
Main Scenario	1. User selects login option. 2. System asks to enter Id and password. 3. User enters Id and password. 4. System will check Id and password. 5. User will be logged in.
Alternative Scenario	A*. System fails at any time. 1. System rolls back all the changes made by administrator. 3a. Id or password is incorrect. a) System prompts user to enter correct information.

2.6.2 Apply for Registration

This use case describes how the user registers into the system. User and members Select the option of registration system prompts to enter details.

Name	UC2: Apply for Registration
Primary Actor	User, Members
Pre-Conditions	User or member wants to apply for account registration.
Post-Conditions	User and members will be successfully applied for registration.
Main Scenario	1. Users and members select the option of registration. 2. System asks to enter the information of user and members. 3. User and members enters required information. 4. System prompts the message of successful submission.
Alternative Scenario	A* System fails at any time. a. Roll back all the changes made. 3a.User and member cannot provide some information. 1. System asks to fill all the information

2.6.3 Submit Advertisement

This use case tells us how user and member submit advertisement. User and members select the option of submit advertisement and form will appear the user fill the form and select the post button then the advertisement will be submit.

Name	**UC3:** Submit Advertisement
Primary Actor	User Members
Pre-Conditions	User and member is authenticated and logged in.
Post-Conditions	User and members will Successfully submit new advertisement.
Main Scenario	1. User and members Select the option of submit new advertisement. 2. System Show the Form for submits new advertisement. 3. User will fill the form to submit new advertisement. 4. System saves the new advertisement in the database. And your advertisement has received.
Alternative Scenario	A* System fails at any time. a. Roll back all the changes made. 3a. User and members not fills the form properly. a) Systems ask the user to fill the form properly.

2.6.4 View Advertisement

This use case describes how the user View advertisement. The user selects the option to view advertisement. The user selects the relevant category and advertisement appears on the screen.

Name	**UC4:** View Advertisement
Primary Actor	User
Pre-Conditions	User is authenticated and logged in.
Post-Conditions	User will Successfully view advertisement.
Main Scenario	1. User selects the option of view advertisement. 2. System show the new advertisement posted. 3. User Search the relevant category. 4. System shows the advertisement of relevant category.
Alternative Scenario	A* System fails at any time. a. Roll back all the changes made. 3a.User not properly Search category. 1. System Ask the user to select the category.

2.6.5 Apply For Advertisement

This use case tells how user apply for advertisement. User select the option of make a apply. The form appear in front of user and fill the form and select the submit option.

Name	**UC5:** Apply For Advertisement
Primary Actor	User
Pre-Conditions	User is authenticated and logged in
Post-Conditions	User will successfully advertisement.
Main Scenario	1. User selects the option of apply for advertisement. 2. System shows the form for apply for advertisement. 3. User Fills the Fields of the form. 4. System shows the message you has been made successfully applied for the advertisement.
Alternative Scenario	A* System fails at any time. a. Roll back all the changes made. 3a.User not properly fills the field of the form. 1. System asks the user to fill the field of the form.

2.6.6 View Details of Applied Candidate

This use case tells how user see the details of applied candidate. Users select the option of view applied candidate. The details of candidate will appear in front of user.

Name	**UC6:** View Details of Applied Candidate
Primary Actor	User
Pre-Conditions	User is authenticated and logged in
Post-Conditions	User will successfully see the applied candidate
Main Scenario	1. User selects the option of view applied candidate. 2. System shows the form of applied candidate. 3. User see the details of applied candidate.
Alternative Scenario	A* System fails at any time. a. Roll back all the changes made.

2.6.7 Apply for club membership

This use case tells how users apply for member. Users select the option of Apply For Membership. All the details will appear in front of user.

Name	**UC7:** Apply For club membership
Primary Actor	User
Pre-Conditions	User is authenticated and logged in.
Post-Conditions	User will successfully apply for club membership
Main Scenario	1. User Select the option of apply for club ,membership 2. System show the form for applies. 3. User will provide the detail. 4. System show message you are successfully apply for membership and sent email to the president.

Alternative Scenario	A* System fails at any time.
	
	    a) Roll back all the changes made.
	
	3. User will not provide fill the desired fields properly.
	
	    b) System ask the user to fill the fields properly

2.6.8 View club member Details

This use case tells how users see a member details. User select the option of see the members. All the details will appear in front of user.

Name	**UC8:** View club member Details
Primary Actor	User
Pre-Conditions	User is authenticated and logged in.
Post-Conditions	User will successfully see the member of varsity club.
Main Scenario	1. User Select the option of see the member of varsity club. 2. System Show the complete the details of members of varsity club.

Alternative Scenario	A* System fails at any time.
	
	    a) Roll back all the changes made.
	      .

2.6.9 Apply for Adventure Club Activities

This use case tells how users apply for adventure club activities. User select the option of apply for adventure club activities. All the details will appear in front of user.

Name	**UC9: Apply for Adventure Club Activities**
Primary Actor	User
Pre-Conditions	User will be registered one and will apply for adventure club activities.
Post-Conditions	User applied for adventure club activities successfully.
Main Scenario	1. User opens view an advertisement panel. 2. System displays the relevant panel to the user. 3. User selects the Ad and clicks apply button. 4. System shows application form. 5. User fills the form and submits form. 6. System prompts the message 'applied for adventure club activities successfully'.

Alternative Scenario	1. System fails at any time.
	   a) System rolls back all the changes made by administrator.
	 5. User didn't fill the full form.
	   a) System prompts message to fill all the fields.

2.6.10 Manage Profile

The user is registered once and opens a page of manage profile . The system shows the relevant panel to the user then user fills the form and submits it after that system prompts message 'your profile is successfully updated'.

Name	UC10: Manage Profile
Primary Actor	User
Pre-Conditions	User is registered.
Post-Conditions	User update the profile successfully.
Main Scenario	1. The user opens the profile page . 2. The system displays the relevant panel to the user. 3. The user opens application form, fills it and clicks on the submit button. 4. The system prompts the message your profile is update successfully.

Alternative Scenario	1. The system fails at any time.
	    a) The system rolls back all the changes made by the administrator.
	 3. The user has not filled the full form.
	    a) The system prompts message to fill all the fields.

2.6.11 Logout

This use case will tell the scenario how the user logout from the system. The user select the option of logout and the system show the main screen.

Name	UC11: Logout
Primary Actor	User/Administrator/Members
Pre-Conditions	User/Administrator/Members would logout.
Post-Conditions	User/Administrator/Members logged out successfully.
Main Scenario	1. User/Administrator/Members clicks logout button. 2. The system shows the message you are logged out successfully. 3. System show the main screen
Alternative Scenario	1. System fails at any time. a) System rolls back all the changes made by administrator.

2.7) System Sequence Diagram

A system sequence diagram illustrates input and output events related to our system. System is treated as a black box and the emphasis of the diagram is events that are generated by system for a particular scenario of a use-case.

2.7.1) SSD login

The figure 2.3 show that which message pass to the system by the user to login into the system. First the user selects the option of login. The system in response gives back the message to enter email and password. The user enters email and password. If the username and password is correct then the system. The system shows option you are succefully login.
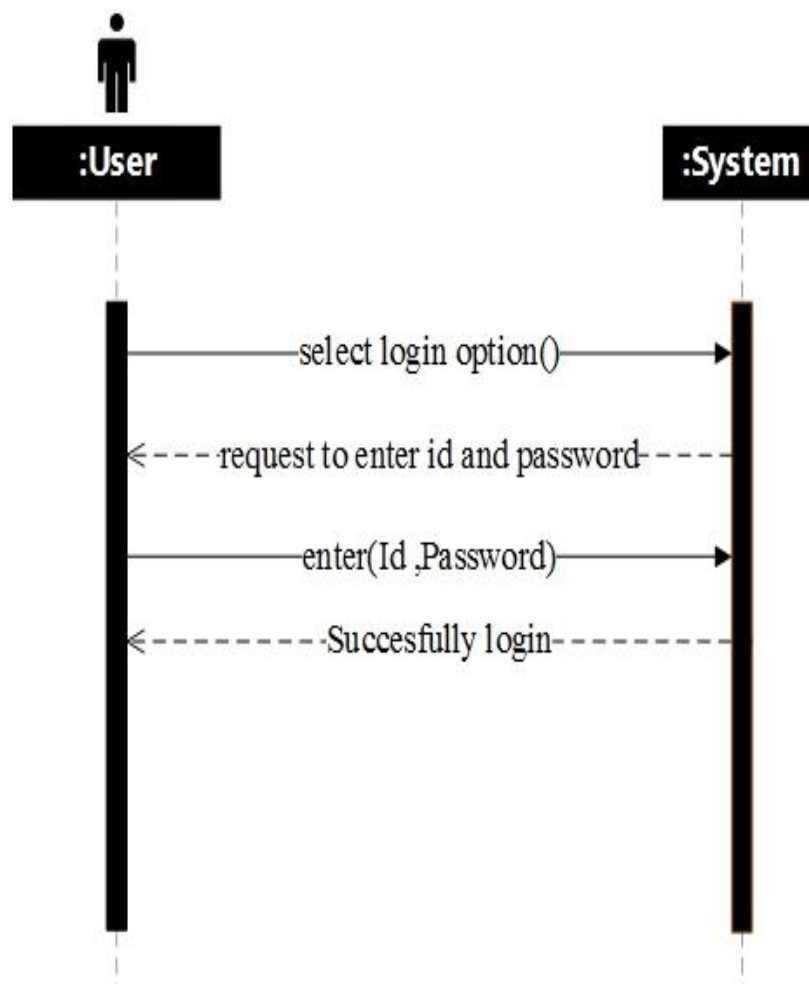
Figure 2.3 SSD Login

2.7.2) SSD Register Users

The figure 2.4 specifies how the user registers on the system. The user first select the specific category (staff/ student/faculty).According to the category the system ask the user to enter the desire details.
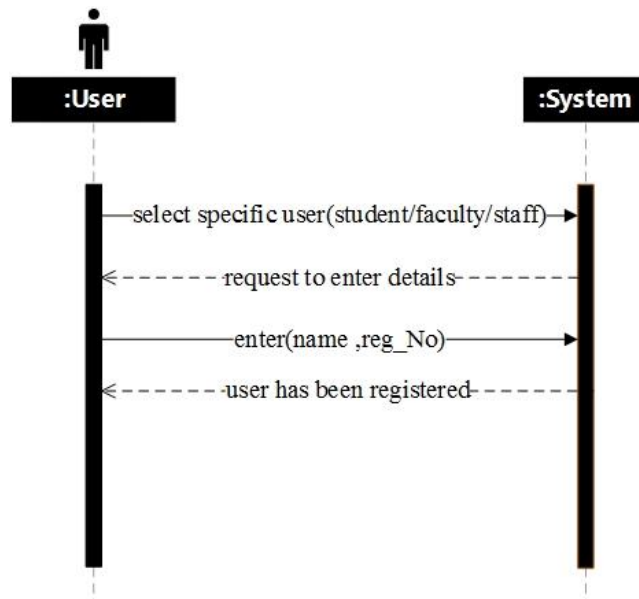

Figure 2.4 SSD Register users

2.7.3) SSD Post Advertisement

The figure 2.5 show that how the user posts the advertisement .User first select the option of post advertisement. The system shows the form to the user and asks the user to fill the form. The user fills the form and submits to the system. The system display option that your advertisement has been submitted.
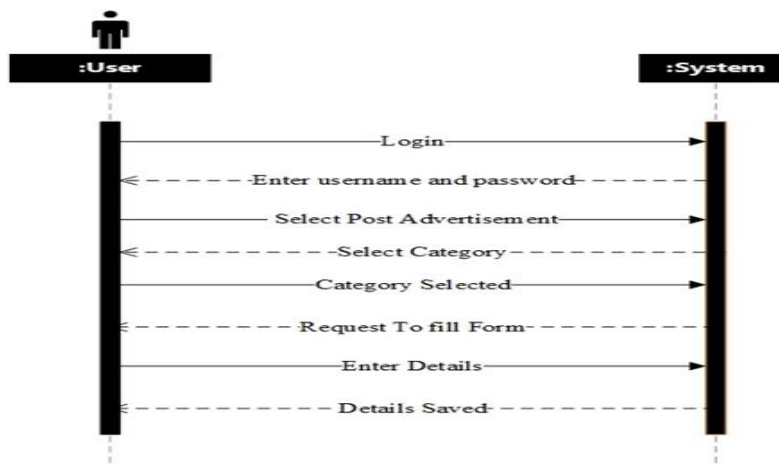

Figure 2.5 SSD Post Advertisements

2.7.4) SSD Apply For Advertisement

The figure 2.6 shows that how the user can apply for advertisement. The user first select the option of apply for advertisement. The system asks the user to fill the required field. The user fill the field and click the save button. The system show message you have been successfully applied.
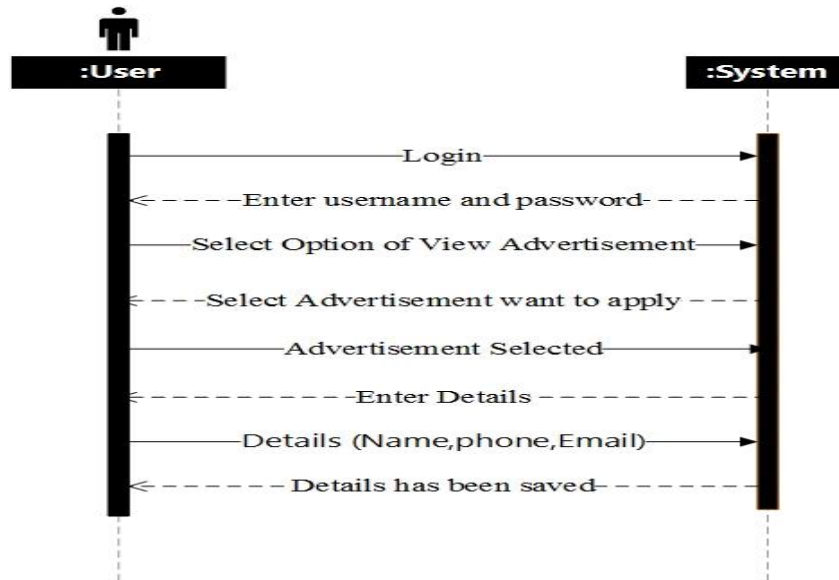

Figure 2.6 SSD Apply for advertisement

2.7.5) SSD View Details of Applied Candidate

The figure 2.7 show that how the user view the applied candidate .The user first select the option of view the applied candidate. The system show the list of applied candidate
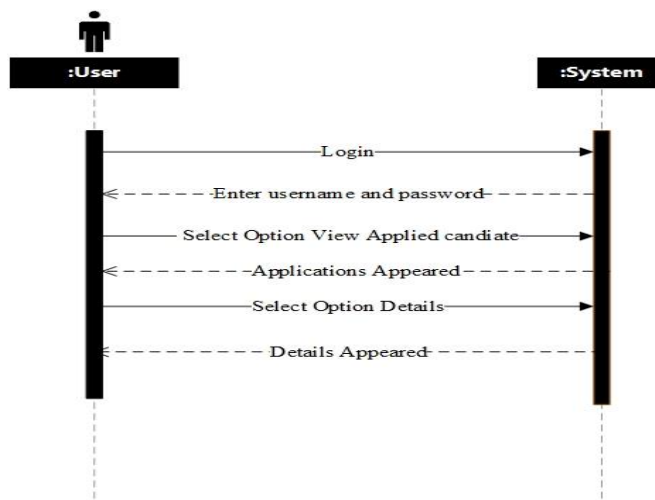

Figure 2.7 SSD Apply for advertisement

2.7.6) SSD View Advertisements

The figure 2.8 show that how the user views the advertisement .User first select the option of view advertisement. The system ask the user to select the category. The user select the category and system show the desired advertisement to the user.
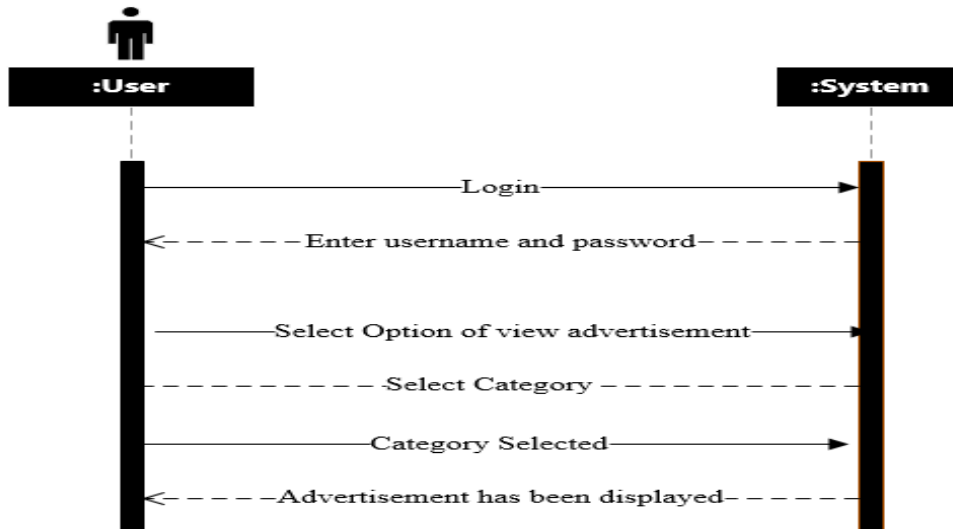

Figure 2.8 SSD View Advertisements

2.7.7) SSD Logout

The figure 2.9 shows how the user logout from the system .The user first select the option of logout. The system prompts the user to are you sure to logout. The user select the option ok and user logout from the system and the system display the main screen again.
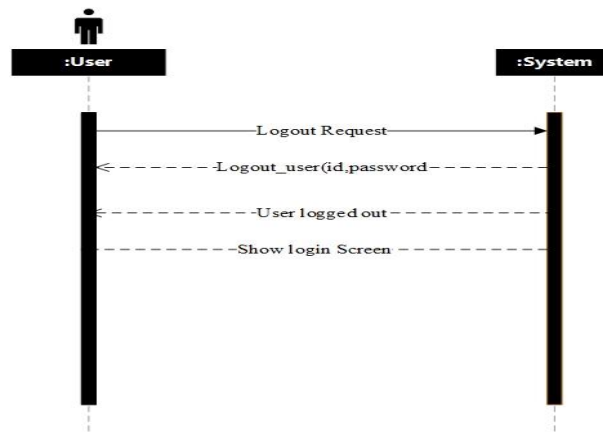

Figure 2.9 SSD Logout

2.7.8) SSD Apply for member ship

The figure 2.10 show that how the user apply for membership .User first select the option of apply for membership. The system ask the user to enter the details. The system show the message you are registered for membership
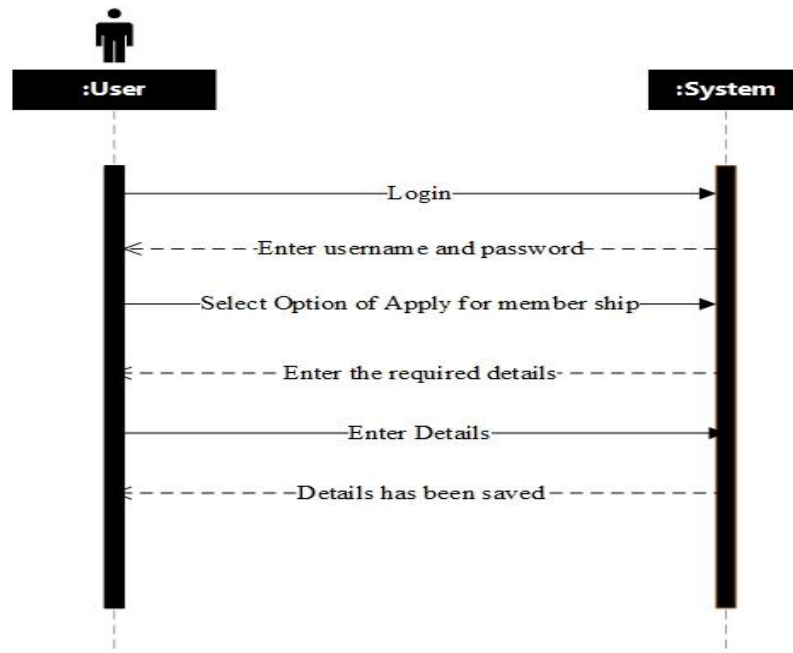

Figure 2.10 SSD Apply for membership

2.7.9) SSD Apply for varsity club activity

The figure 2.11 show that how the user apply for varsity club activity. User first select the option of varsity club activity. The system asks the user to enter the details. The system shows the message you are registered for activity.
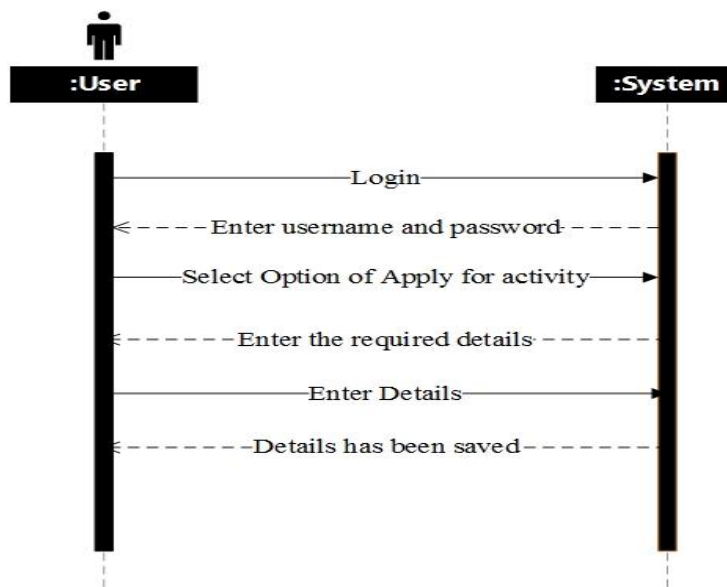

Figure 2.11 SSD Apply for activity

Chapter Summary

In this chapter we discuss the major input and output, the functional and non-functional requirements of the system uses cases and system sequence diagram the major functionalities of the system

Chapter 3

Software Design Description

This chapter specifies the general factors that can affects the product and its requirements, providing a background for the requirements of the software. To describe the key concepts of the problem domain and data items used in our system, the following models have been used system sequence diagram, domain model, sequence diagram and class diagram.

Software Design Description (SDD) is a representation of a system that how the users can interact with the system. This can be shown with the help of diagrams. The SSD shows that the system is completely fulfill the requirement.

3.1) Design Overview

In the design overview, we can describe the system at architecture level and the complete structure of the system. In this we can explain how the user interacts with the system. In the class diagram, we can show that how the classes can interact with each other define the relationship. Sequence diagram that is an interaction diagram, which shows the sequence of messages interacting with objects **[3].**

3.1.2) Requirements Traceability Matrix

Requirement traceability matrix is that matrix in which we define how the requirement is mapped with the system sequence diagram, class diagram and the test cases. When the requirement is changed you cannot need to change to find the requirement in the whole document .you can just see the requirement traceability matrix.

Requirement Id	Requirement Name	Sequence Diagram	Test Case	System Sequence Diagram	Interface
UC:1	Signup	Fig 3.3	4.3.2	Fig 3.19	Fig 3.12
UC:2	Login	Fig 3.2	4.3.1	Fig 3.18	Fig 3.13
UC:3	Upload Advertisement	Fig 3.4	4.3.5	Fig 3.20	Fig 3.14
UC:4	View Advertisement	Fig 3.7	4.3.7	Fig 3.22	Fig 3.15
UC:5	Apply for Varisty Club Registration	Fig 3.9		Fig 3.25	
UC:6	Logout	Fig 3.8			Fig 3.12
UC:7	Apply For Activity	Fig 3.10		Fig 3.25	

Table of Matrix 3.1

3.2) Domain Model

Domain model is an object model of problem domain. It is based on real world classes/concepts and their relationships, that is used to identify the relationships among all the entities within the scope of problem domain.
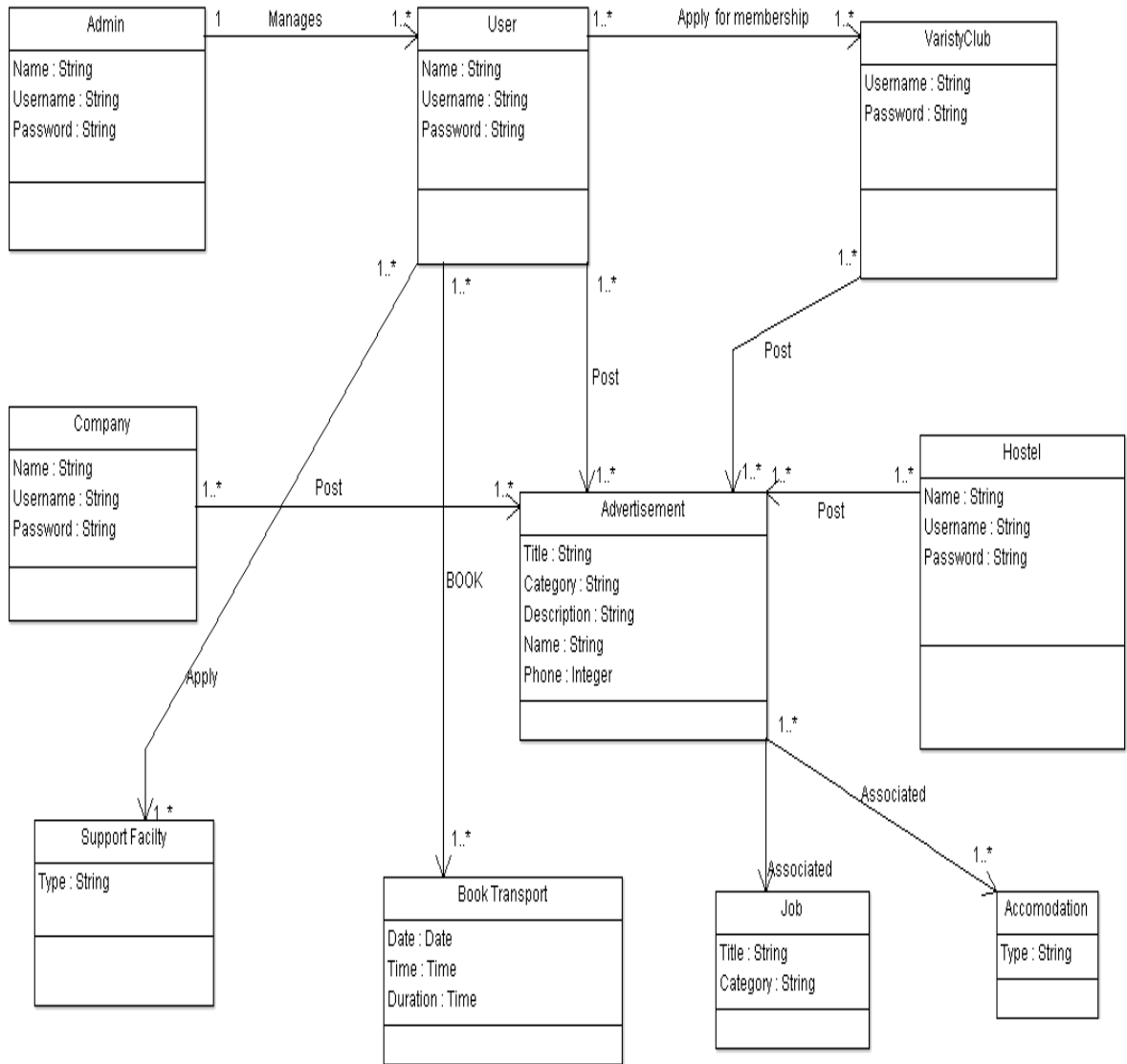

Figure 3.1 Domain Model

3.3) Architecture Diagram

Architecture Diagram is used to represent the components of system and interaction between them. System under discussion is based on "Three Tier" Architectural pattern. Three-tier architecture is a software architecture pattern in which the user interface (presentation), functional process logic (business rules), computer data storage and data access are developed and maintained as independent modules Interacting between components of system is shown in diagram. Double arrows represents the interaction from both sides. Similarly single arrow represents one way interaction. The singular quality of a three-tier architecture is the separation of the application logic into a distinct logical middle tier of software. The interface tier is relatively free of application processing; windows or web pages forward task requests to the middle tier. The middle tier communicates with the back-end storage layer.It is possible to make changes on the presentation level without affecting the other two (business or data access layer). As each tier is independent it is possible to use different sets of developers since the client doesn't have direct access to the database business logic are more secure.
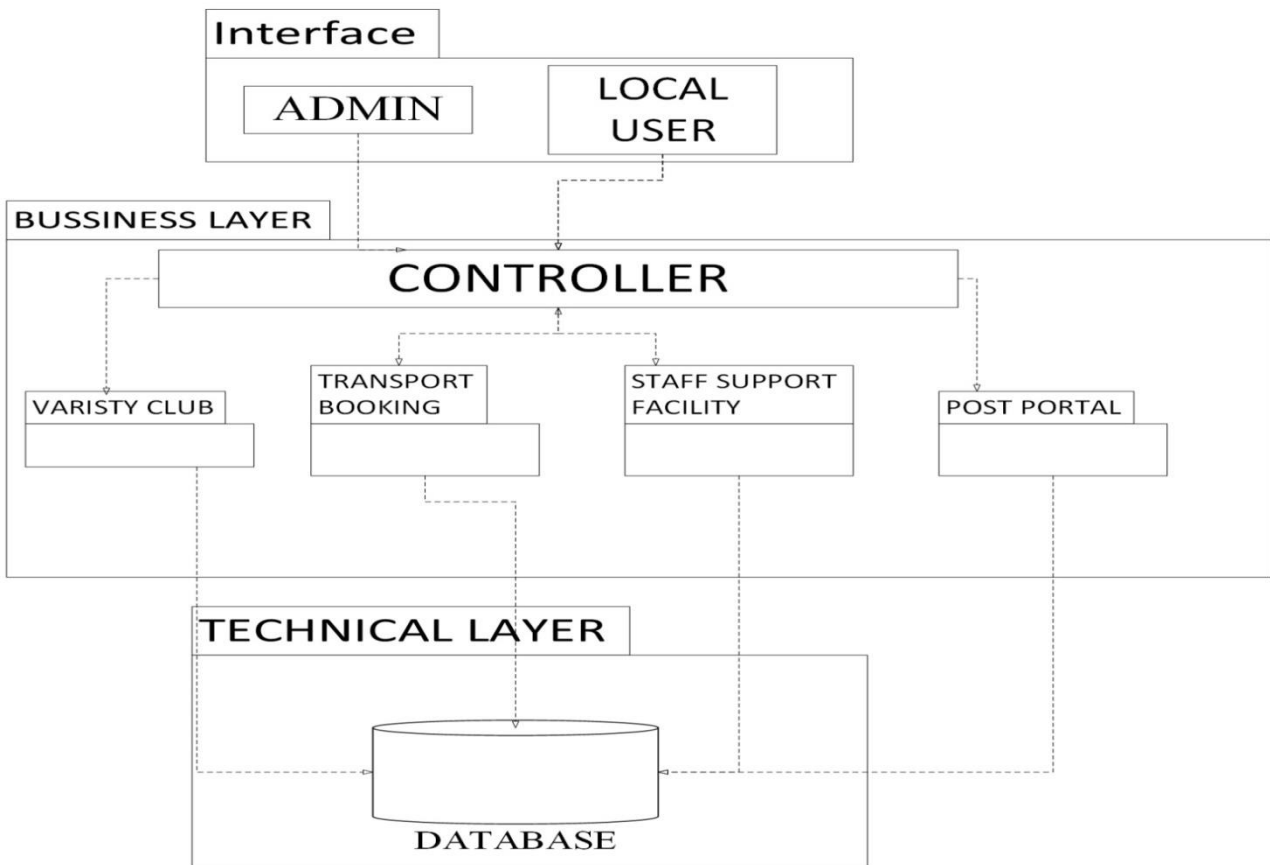
Figure 3.2 Architecture Diagram

3.4) Interface design

3.4.1) Simple and Appealing

The interface is simple to use, a naïve user can also use it very easily and efficiently to get there required information. The image buttons are used that makes website appealing.
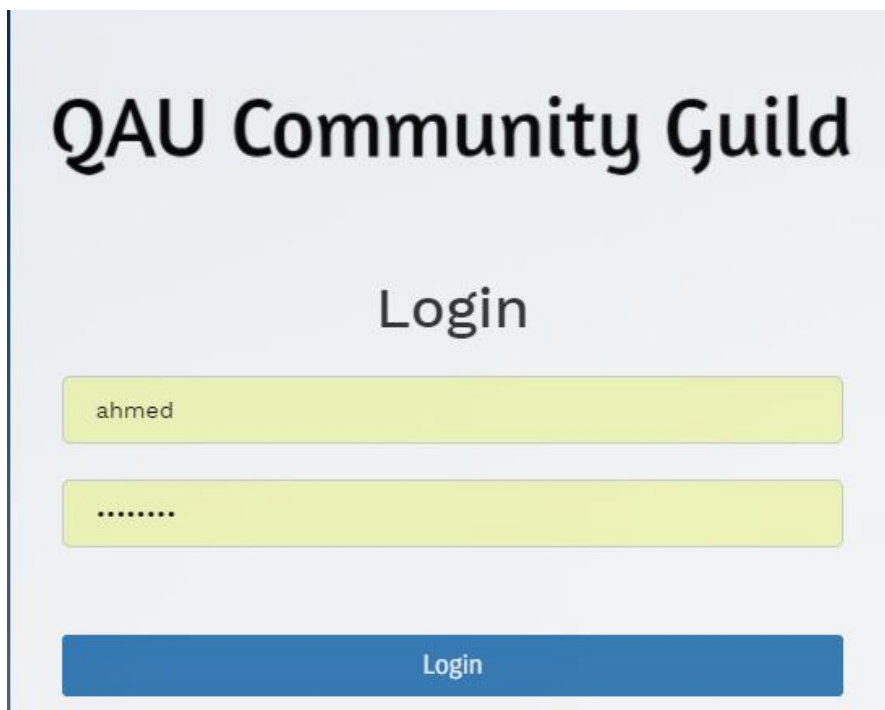
3.4.2) Responsive

The interface is responsive this means it can adjust its size according to device's display Like (small screens, large screens) etc.

3.5) Interfaces

3.5.1) Interface Login

This picture will show the interface of login screen. Which is used in the project . It can contains two field of username and password.
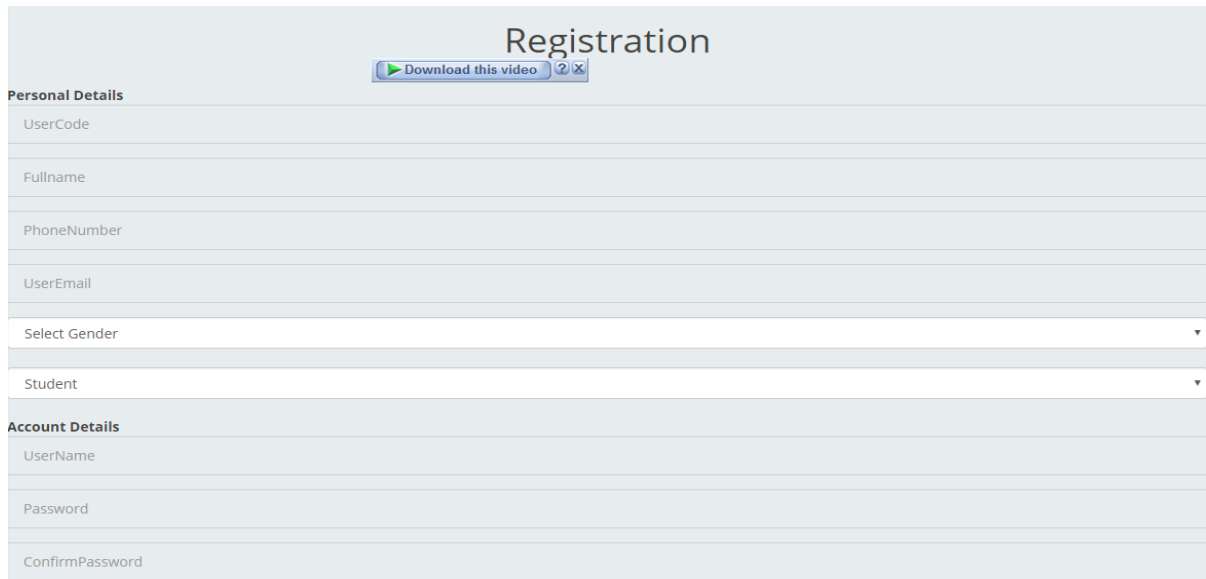

Figure 3.3 Interface Login

3.5.2) Interface Register

This picture will show the interface of register screen. Which is used in the project . It can contains field of personal details and account details.
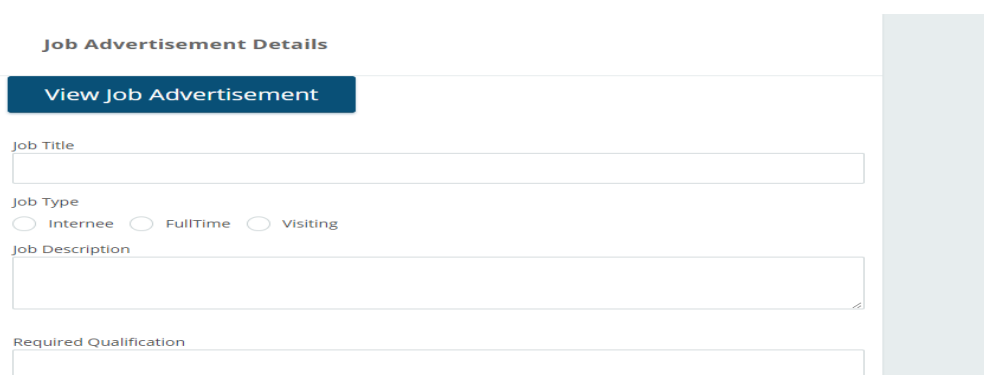
Figure 3.4 Interface Register User

3.5.3) Post Advertisement

This picture will show the interface of register screen. Which is used in the project . It can contains field of personal details and account details

Figure 3.5 Interface Post Advertisement

3.5.4) Job Advertisement

This picture will show the interface of view job advertisement. Which is used in the project . It can show the job advertisement. It can show the option of edit and delete.
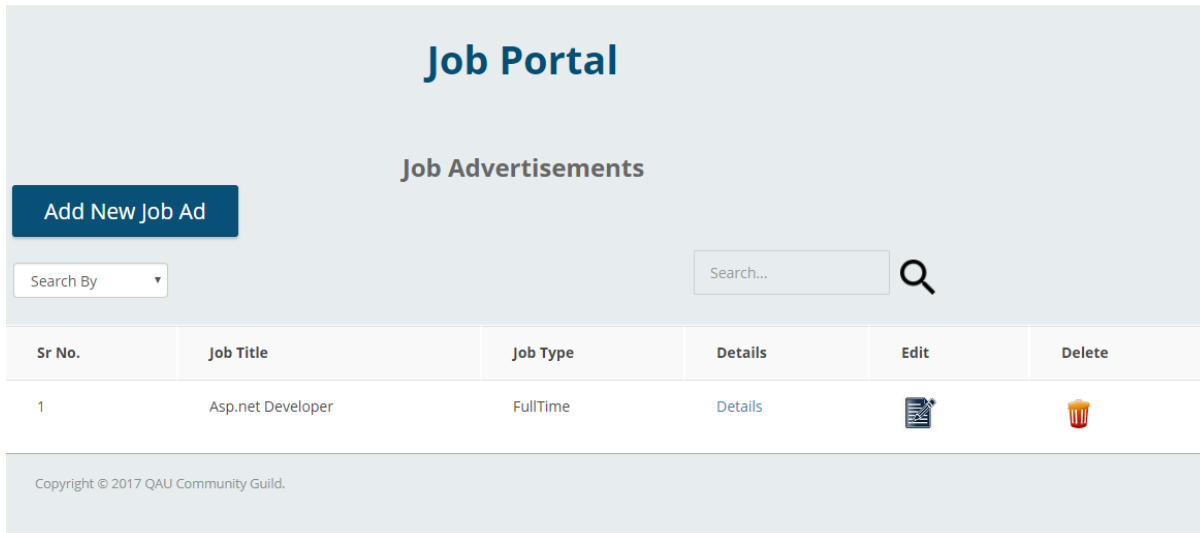
Figure 3.6 Interface View Advertisement

3.5.4) View Job Details

This picture will show the interface of view job advertisement. Which is used in the project . It can show the job advertisement details. It can show the option of apply for job.

Figure 3.7 Interface job Details

3.5.5) Rating of companies

This picture will show the interface of view rating of companies. Which is used in the project . It can show the rating details.
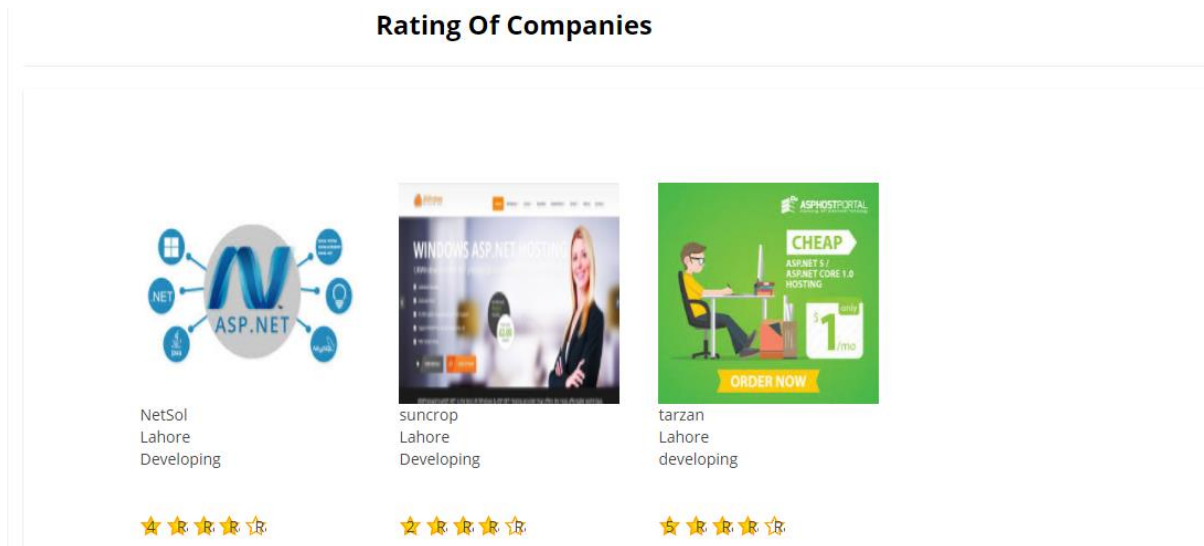
Figure 3.8 Interface Rating of companies

3.6) Object and Actions (Sequence Diagram)

A Sequence diagram is an interaction diagram that shows how objects operate with one another and in what order. It is a construct of a message sequence chart. A sequence diagram shows object interactions arranged in time sequence.

3.6.1) SD Login

Sequence diagram of admin login shows that sequence of interaction that take place when the user wants to login to the system. User enters id and password to the system then system validates id and password. If admin is authorized then admin will be successfully login to the system else error message will be displayed to the user.
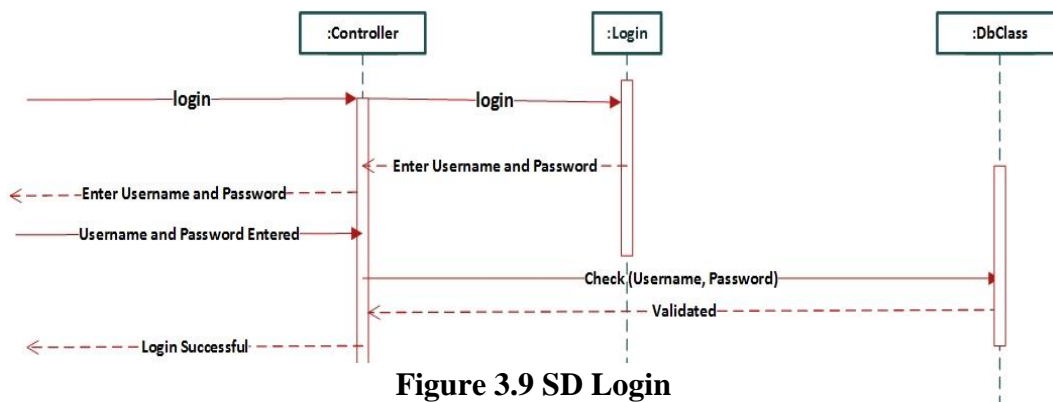
Figure 3.9 SD Login

3.6.2) SD Register User

Sequence diagram of admin login shows that sequence of interaction that take place when the user wants to register to the system. User enters details into the system then system if the user fills the form correctly the system show message to the user your request has been submitted.
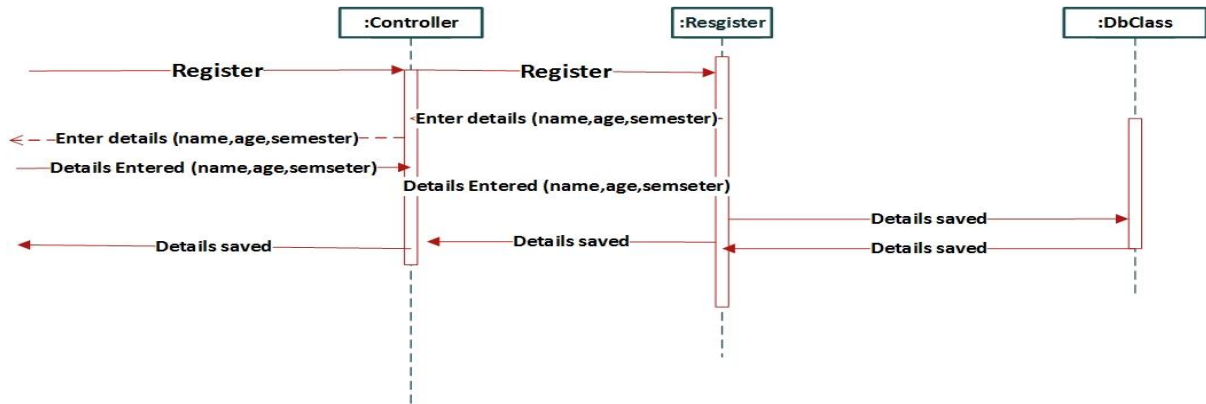
Figure 3.10 SD Register

3.6.3) SD Post Advertisement

This sequence diagram of post advertisement will show the step how the user can post the advertisement. The user sends the input data to the controller and controller pass the data to post portal class.
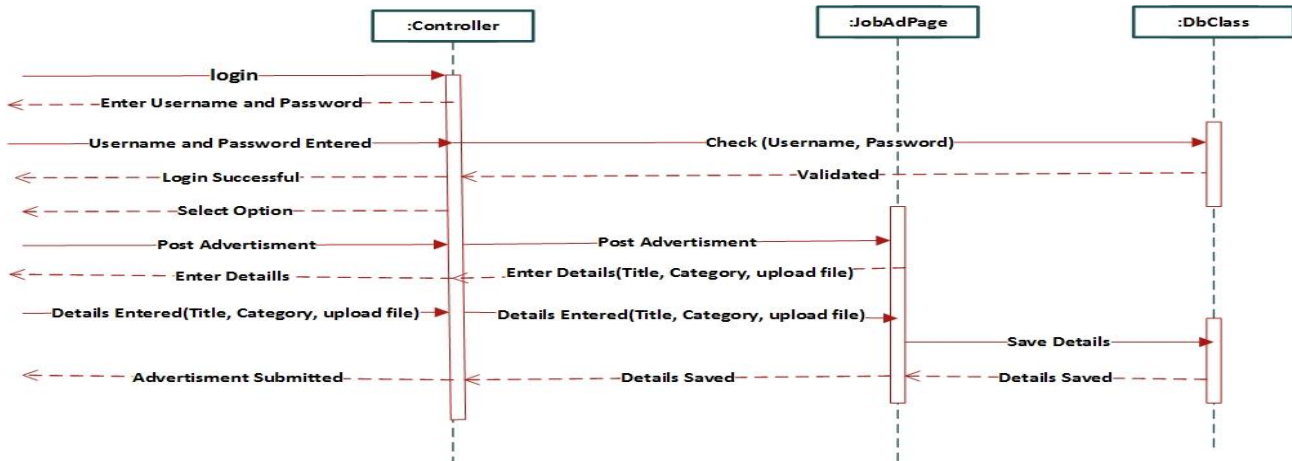
Figure 3.11 SD Post Advertisements

3.6.4) SD View Advertisement

This sequence diagram show how the user will see the advertisement .first the user give the input to the controller the controller give the call to post portal class the post portal class retrieve the advertisement form the db class.
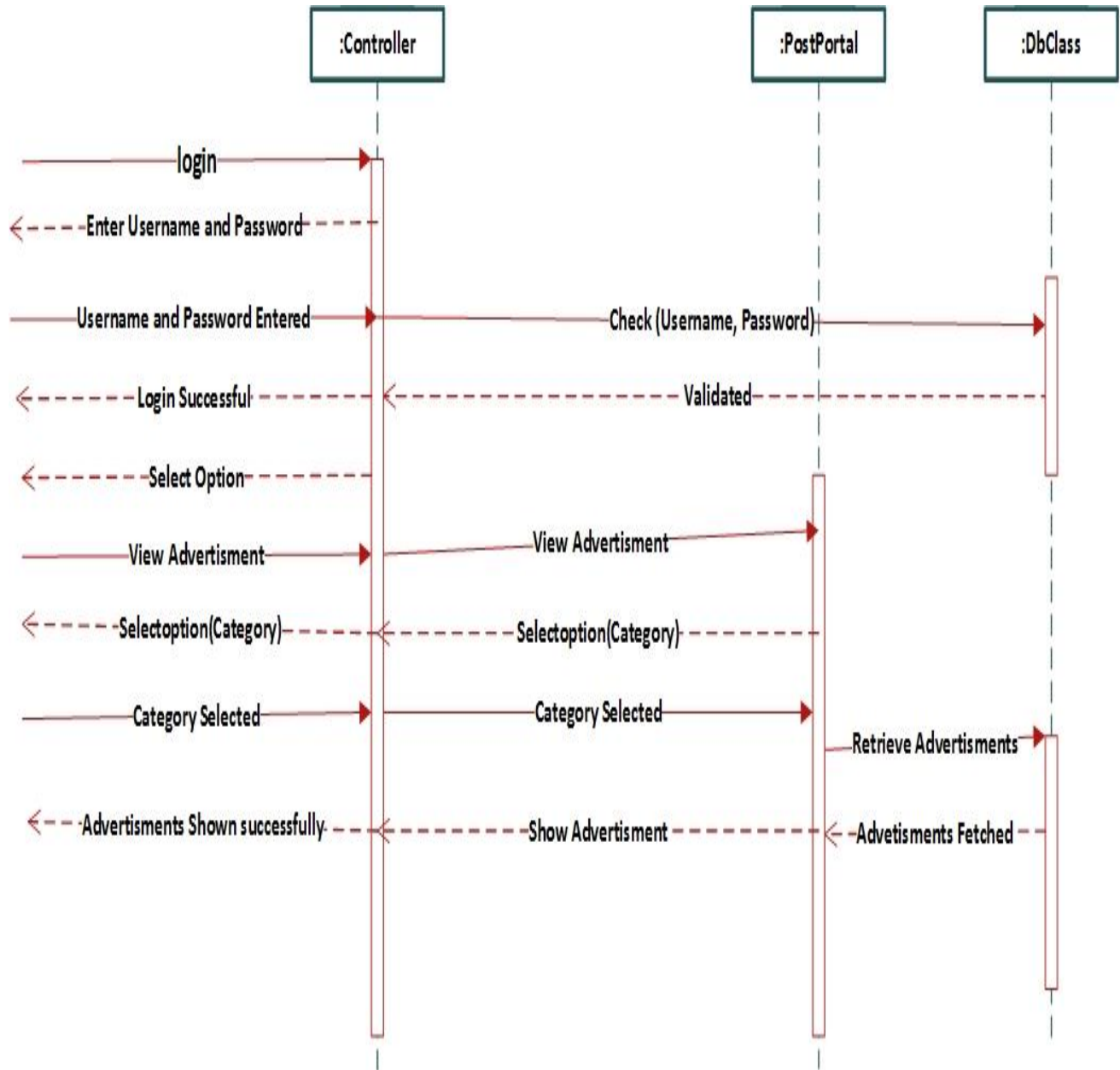
Figure 3.12 SD View Advertisements

3.6.5) SD Book Transport

This sequence diagram show how the user will book transport .first the user give the input to the controller the controller give the call to book transport class the book transport class save the form in database class.
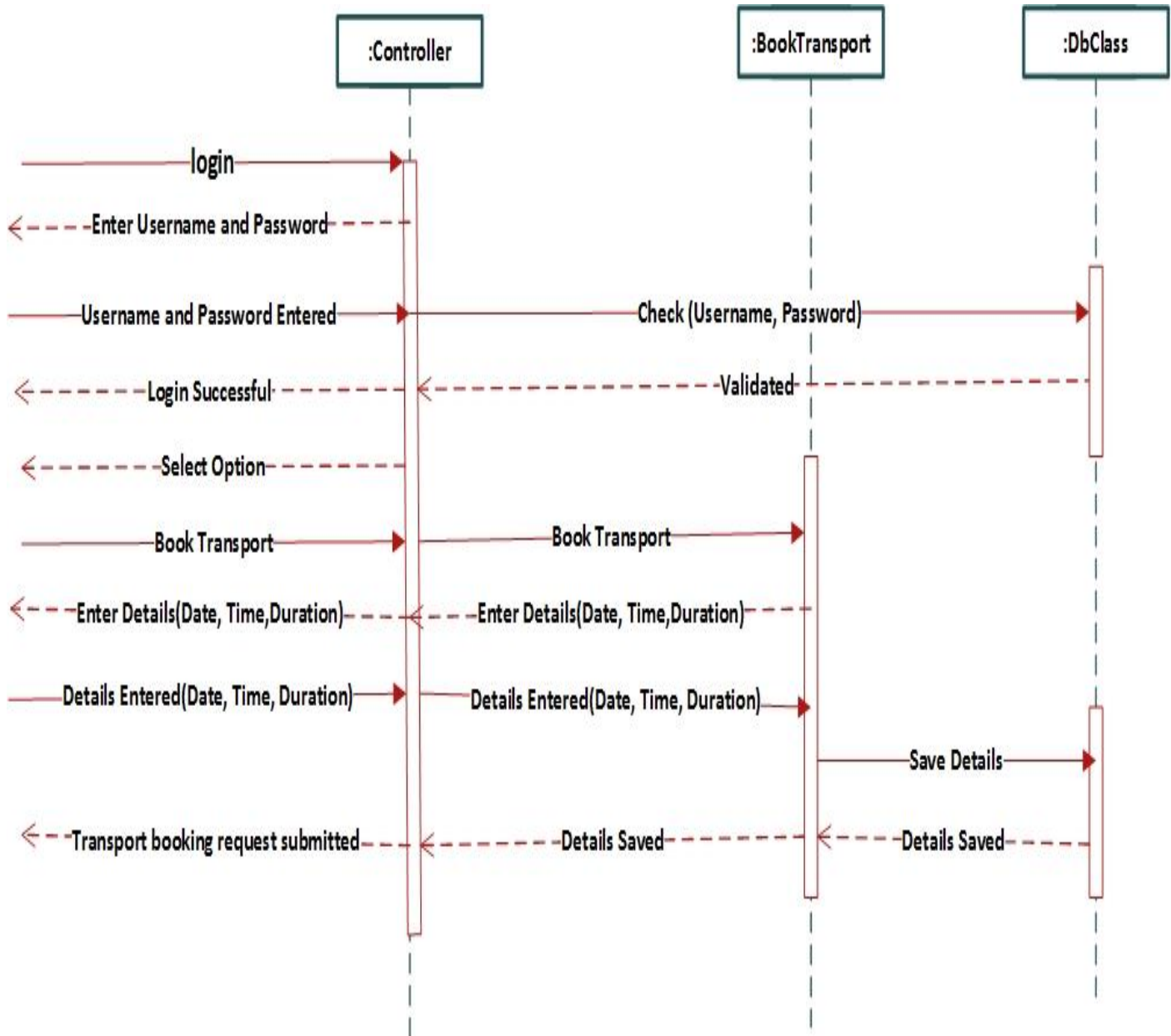
Figure 3.13 SD Book Transport

3.6.6) SD Apply for advertisement

This sequence diagram shows how the user will apply for advertisemet. first the user give the input to the controller the controller give the call to post portal class and post portal class save the form in dB class.
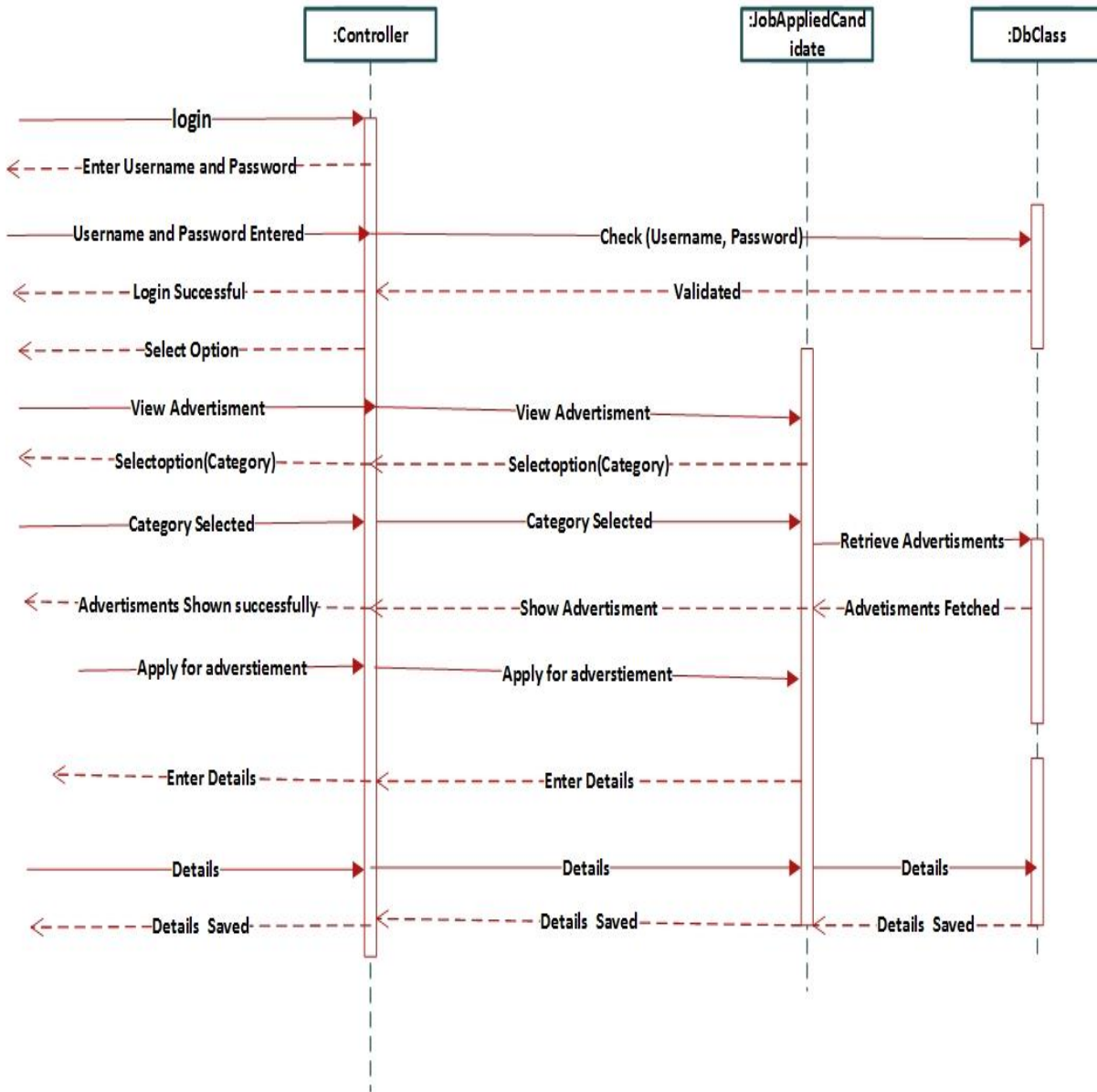
Figure 3.14 SD Apply for advertisement

3.6.7) SD Apply for varsity Club Membership

This sequence diagram show how the user will apply for varsity club. first the user give the input to the controller the controller give the call to varsity club class and the varsity club class save the form in dB class.
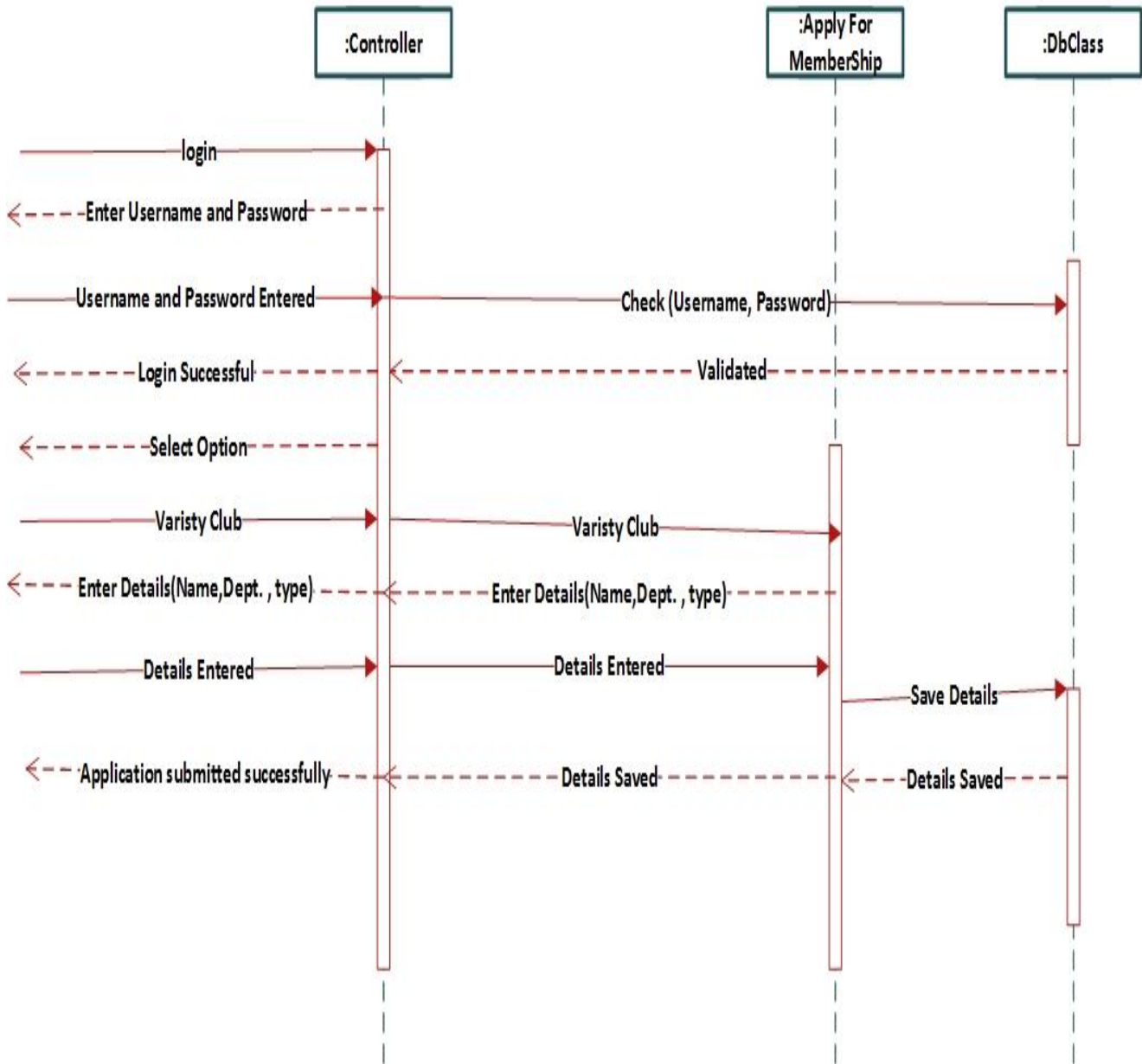
Figure 3.15 SD Apply for varsity Club

3.6.8) SD Apply for varsity club activity

This sequence diagram show how the user will apply for varsity club activity. First the user give the input to the controller the controller give the call to varsity club class and the varsity class save the form in database class.
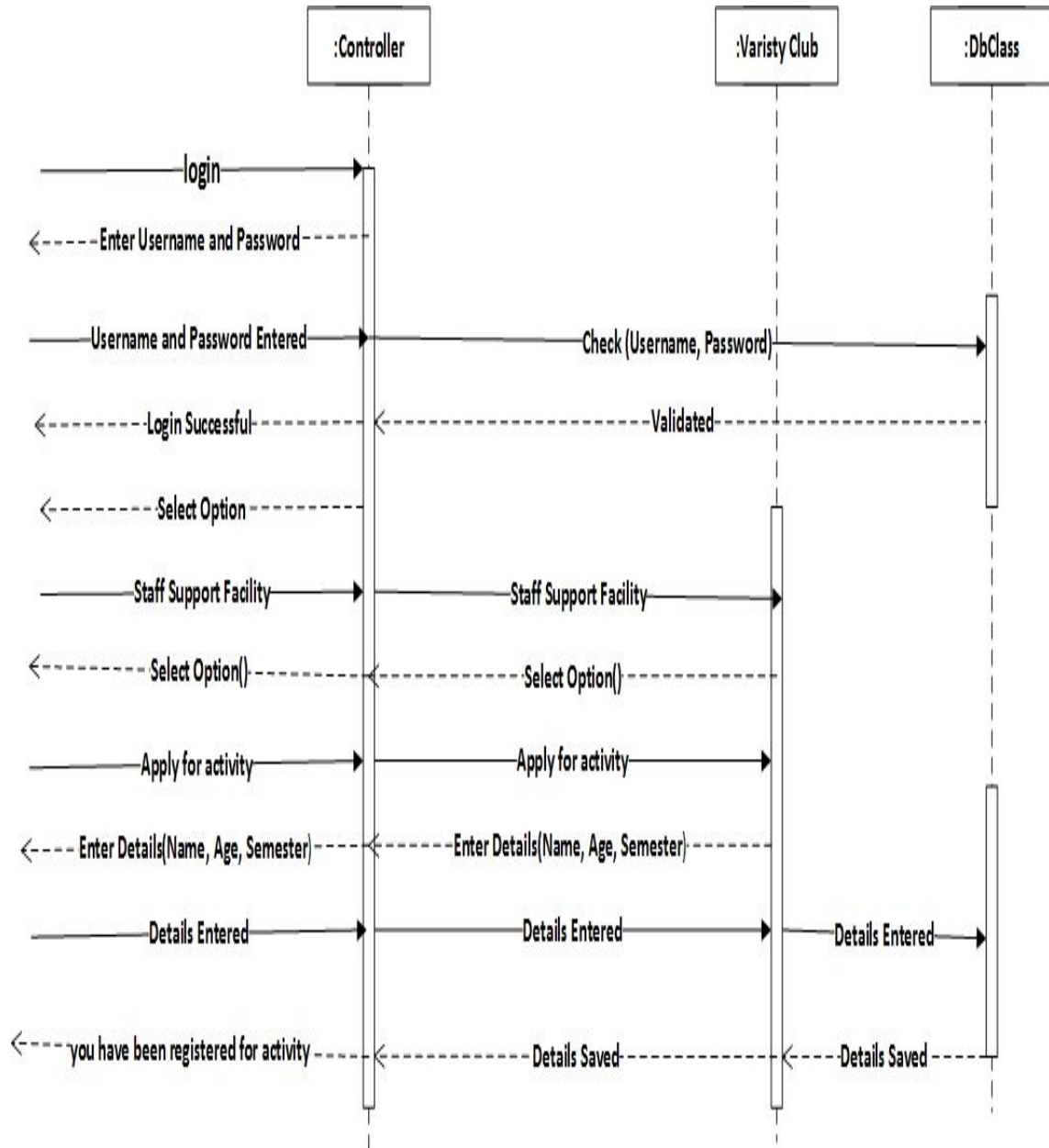
Figure 3.16 SD Apply for activity

3.6.9) SD Apply for Staff Support Facility

This sequence diagram show how the user will apply for Staff Support Facility . first the user give the input to the controller the controller give the call to Staff Support Facility class and the Staff Support Facility class save the form in dB class.
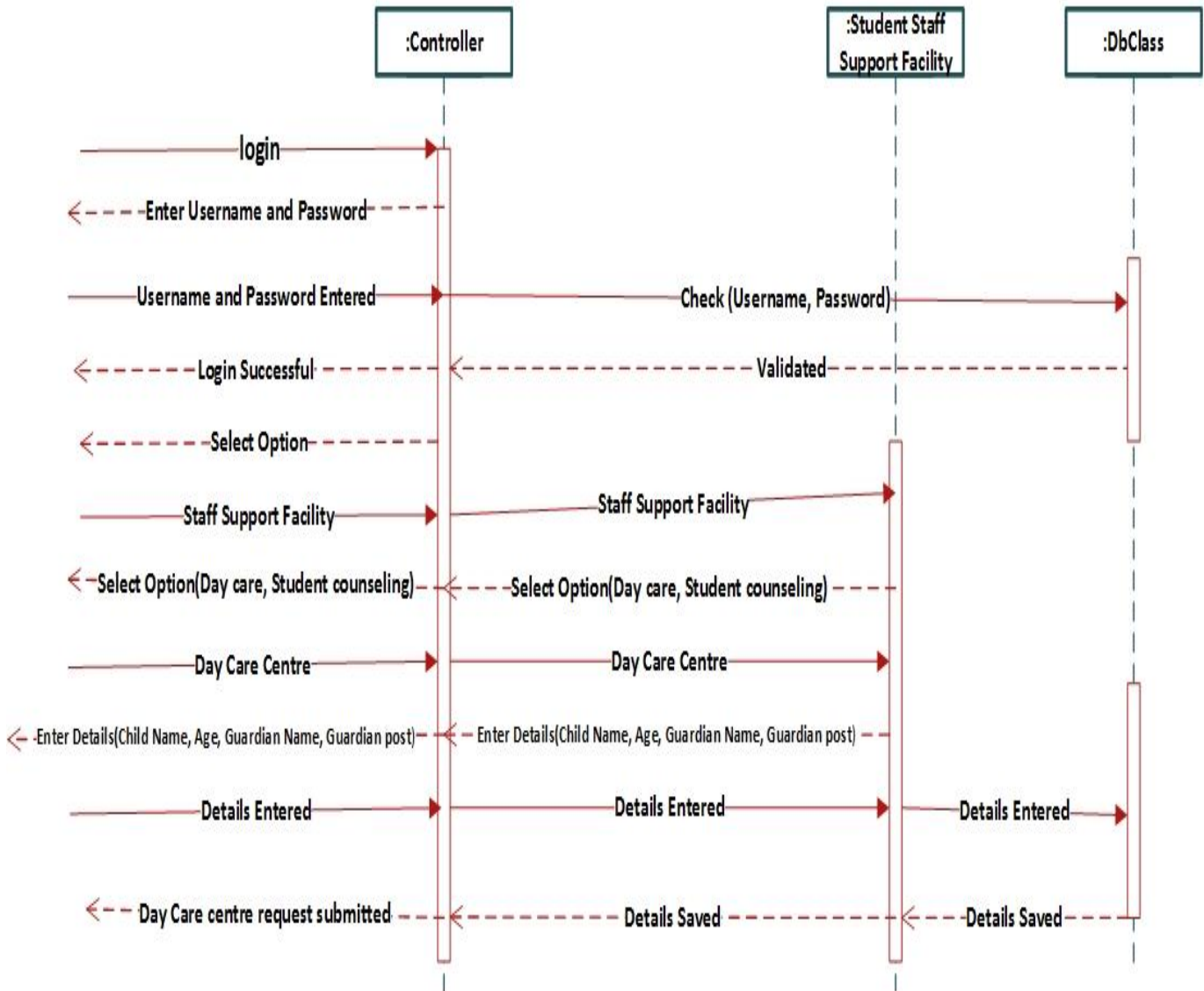
Figure 3.17 SD Staff Support Facility

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3.7) Class Diagram

A class diagram in the Unified Modeling Language (UML) is a type of static structure diagram that describes the structure of a system by showing the system's classes, their attributes, operations (or methods), and the relationships among objects[5].
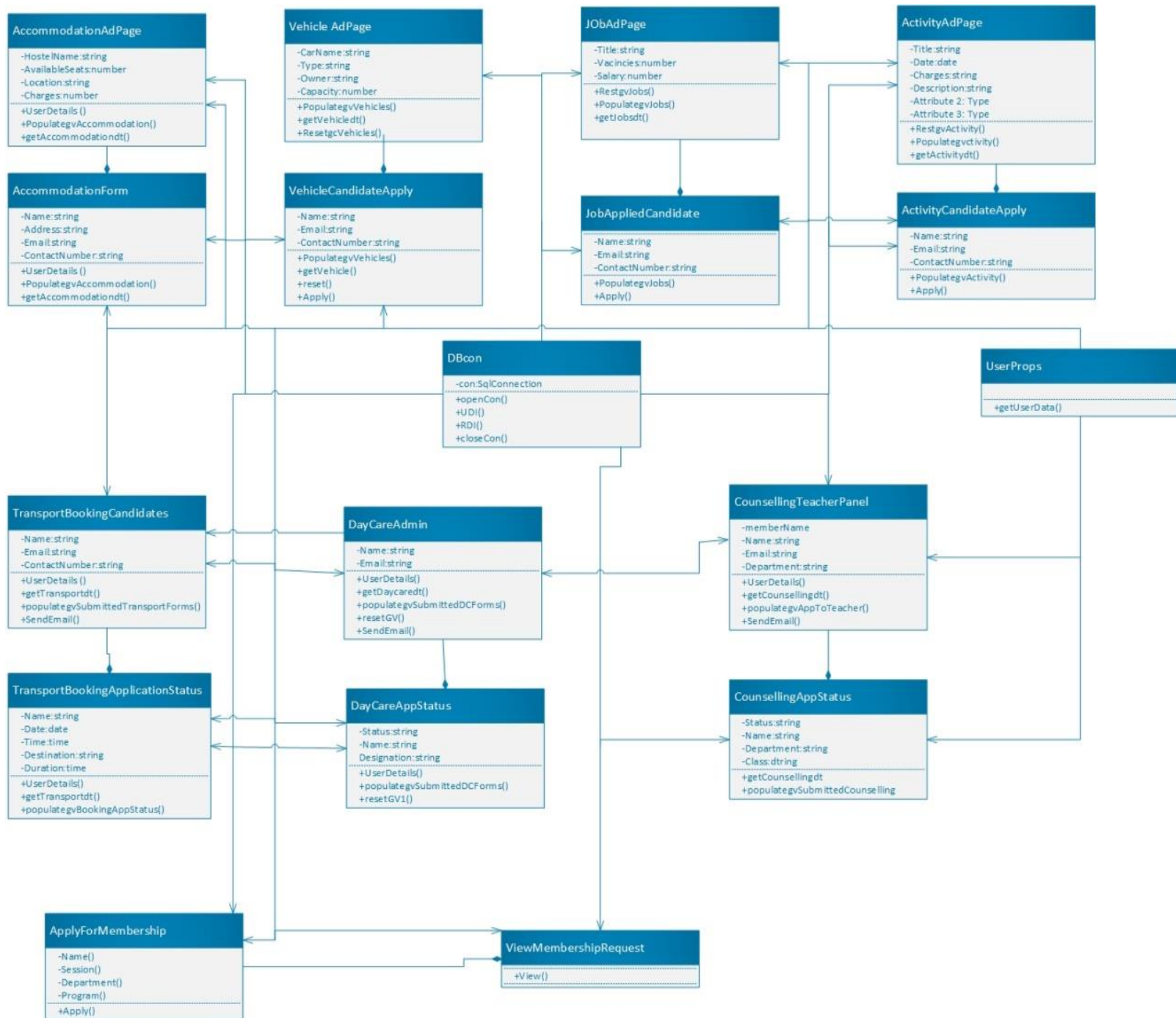
Figure 3.18 Class Diagram

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Chapter Summary

This chapter gives the complete description of software design. It gives details description regarding architecture design, components of the system and user interface description. Finally, interaction between the object and human actor are shown by interaction diagram and relationship between the instances is shown by class diagram. System testing and test cases will be discussed in next chapter.

Chapter 4

Implementation

After the design phase, the implementation phase comes. This chapter is related to system implementation. The chapter mentions the tools, framework, platforms and database used to develop the application. In this phase we decide how to implement our design and which techniques to use. At last some interfaces are provided to visualize the application.

4.1. System Definition

System will mainly be composed of two parts

- Database Server
- An Web Application

4.1.1. Database Server

System requires of a Database Server which is used to store all data about teachers, students, staff, companies, hostel and other required data in the university.

4.1.2. Web Application

System consists of an web Application which will be used as UI (User Interface). User will be able to access data from server using this web application, and users will post advertisement user will apply for advertisement user will apply for counseling. User will book transport.

4.2. Development Tools

4.2.1. Framework

The system is developed using visual Studio Integrated Development Environment (IDE)

Visual Studio

Visual Studio is the official Integrated Development Environment (IDE) for web platform developing.

4.2.2. Language Selection

Building an web app comes down to two major languages: C# and Asp.net. C# is the language used in web, learning Asp.net for the design of the app.

4.2.2.1 C Sharp

C# was designed to have the look and feel of the C++ language, but it is simpler to use than C++ and enforces an object-oriented programming model. C# can be used to create complete applications that may run on a single computer or be distributed among servers and clients in a network. It can also be used to build a small application module. The C# programming language requires the presence of a software platform in order for compiled programs to be executed.

Why C#?

Following are the main features [9]

4.2.2.2 Platform Independent

C# Language is Platform Independent means program of C# is Easily transferable because after Compilation of C# program bytes code will be created then we have to just transfer the Code of Byte Code to another Computer This is not necessary for computers having same Operating System in which the code of the C# is Created and Executed After Compilation of the C# Program We easily Convert the Program of the C# the another Computer for Execution.

4.2.2.3 Object-Oriented

We Know that is purely OOP language that is all the code of the C# language is written into the classes and objects so for This feature java is most popular language because it also supports code reusability, maintainability etc.

4.2.2.4 Robust and Secure

The Code of C# is Robust and first checks the reliability of the code before execution when we trying to convert the higher data type into the lower. Then it checks the demotion of the code the It will warns a user to not to do this, so it is called as Robust.

4.2.2.5 Distributed

C# is Distributed Language Means because the program of C# is compiled onto one machine can be easily transferred to machine and Executes them on another machine because facility of Bytes Codes So C# is Specially designed For Internet Users which uses the Remote Computers For Executing their Programs on local machine after transferring the Programs from Remote Computers or either from the internet.

4.3. Code Snapshot

```
protected void gvJobs_RowEditing(object sender, GridViewEditEventArgs e)
{
    btnSubmit.Text = "Update";
    GridViewRow row = gvJobs.Rows[e.NewEditIndex];
    Session["ID"] = Convert.ToInt32(gvJobs.DataKeys[e.NewEditIndex].Value);
    txtJobTitle.Text = ((Label)row.FindControl("lblJobTitle")).Text;
    JobType = ((Label)row.FindControl("lblJobType")).Text;
    if (JobType == "Internee")
    {
        rbInternee.Checked = true;
    }
    if (JobType == "FullTime")
    {
        rbFullTime.Checked = true;
    }
    if (JobType == "Visiting")
    {
        rbVisiting.Checked = true;
    }
    txtJobDescription.Text = ((Label)row.FindControl("lblJobDescription")).Text;
    txtJobReqQualification.Text = ((Label)row.FindControl("lblJobReqQualification")).Text;
    txtJobReqExperience.Text = ((Label)row.FindControl("lblJobReqExperience")).Text;
    txtVacancies.Text = ((Label)row.FindControl("lblVacancies")).Text;
    txtSalary.Text = ((Label)row.FindControl("lblSalary")).Text;
    txtJobPostValidity.Text = ((Label)row.FindControl("lblJobPostValidity")).Text;
```

Figure 4.1 Code Snap

```
protected void RatingDataList_ItemCommand(object source, DataListCommandEventArgs e)
{

    DataListItem item = RatingDataList.SelectedItem;
    string CompanyID = ((Label)e.Item.FindControl("lblID")).Text;
    string qry = "select Rate1Resource, Rate2Resource,Rate3Resource,Rate4Resource,Rate5Resource,AverageResourc

    con.openCon();
    dt = con.RDI(qry);

    int rate1 = Int32.Parse(dt.Rows[0][0].ToString());
    int rate2 = Int32.Parse(dt.Rows[0][1].ToString());
    int rate3 = Int32.Parse(dt.Rows[0][2].ToString());
    int rate4 = Int32.Parse(dt.Rows[0][3].ToString());
    int rate5 = Int32.Parse(dt.Rows[0][4].ToString());
    con.closeCon();
    if (e.CommandName == "Rate1")
    {

        Button Rate1Button = (Button)e.Item.FindControl("Rate1Button");
        Rate1Button.CssClass = "Filled";
        rate1++;
        int avg = ((rate1 * 1 + rate2 * 2 + rate3 * 3 + rate4 * 4 + rate5 * 5)) / (rate1 + rate2 + rate3 + ra
        con.openCon();
        string qry1 = "Update CompaniesResourceTable Set Rate1Resource='" + rate1 + "', AverageResources='" +
```

Figure 4.2 Code Snap Rating

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Chapter 5

System Testing

This chapter illustrates the test approach which i used in this project, testing tools and environment, and the test cases.

5.1) Test Approach

A test approach is the test strategy implementation of a project and defines how testing would be carried out. Test approach has two techniques:

Proactive: An approach in which the test design process is initiated as early as possible in order to find and fix the defects before the build is created.

Reactive: An approach in which the testing is not started until after design and coding are completed.

The reactive approach has been used in this project because by this approach, we can analyze the field or tool experts knowledge extremity. We can analyze various risks linked to the project. Consider people, environment, and the company. Understand your project's nature and the business setup [6].

5.2) TEST PLAN

5.2.1 Testing Tools and Environment

The testing environment which i use is black box testing in which the internal structure design implementation of the item being tested is not known to the tester. These tests can be functional or non-functional, though usually functional. This method is named so because the software program, in the eyes of the tester, is like a black box inside which one cannot see. This method attempts to find errors in the following categories incorrect or missing functions interface errors .

5.3 Test Cases

5.3.1 Login

This test case will describe the success scenario of user login .The user enter the username and password. The system matches the username and password from the database. If it is match the user login successfully.

ID	T001
Description	User can login to the system.
Tester	User
Setup	Register user with ID luqmananjum84@gmail.com and password 123.
Instructions:	1. Enter ID luqmananjum84@gmail.com. 2. Enter password "1234567". 3. Press login Button.
Expected Results	User with ID luqmananjum84@gmail.com. Should be logged in to the system.
Oracle	**Pass**

5.3.2 Login (Alternative Scenario)

This test case will describe the alternative scenario of user login .The user enter the username and password. The system matches the username and password from the database. If it is not match the user login cannot login into the system.

ID	T002
Description	User cannot login to the system.
Tester	User
Setup	Register user with ID luqmananjum84@gmail.com and password 123.
Instructions:	1. Enter ID luqmananjum84@gmail.com. 2. Enter password "1234567". 3. Press login Button.
Expected Results	1. User with ID luqmananjum84@gmail.com should not be logged in to the system. 2. There is error in the email address or password.
Oracle	**Pass**

5.2.3 Register user

This test case tells us about the success scenario of registration of user. If the user fills the all fields correctly then the user successful registered on the system.

ID	T003
Description	User will register user on the system.
Tester	Admin
Setup	Login as an administrator.
Instructions:	1. Select "Register faculty" option. 2. Enter Email address dr usman@qau.edu.PK. 3. Enter password "123". 4. Reenter password "123". 5. Press register button.
Expected Results	Faculty member with id usman@qau.edu.pk is registered on system.
Oracle	**Pass**

5.2.4 Register user (Alternate Scenario)

This test case tells us about the alternate scenario of registration of user. If the user does not fills the all fields correctly then the user cannot registered on the system.

ID	T004
Description	User will not register user on the system.
Tester	Admin
Setup	Login as an administrator.
Instructions:	1. Select "Register faculty" option. 2. Enter Email address usman@qau.edu.pk. 3. Enter password "123". 4. Reenter password "123". 5. Press register button.
Expected Results	1. Faculty member with id usman@qau.edu.pk is not registered system. 2. There is internet problem. 3. Required fields are not filled properly.
Oracle	**Fail**

5.3.5 Upload Advertisement

This use case tell us the success scenario how user can upload advertisement .The system show the form to the user .User fill the form correctly if the user fill the form correctly then they successfully upload the advertisement.

ID	T005
Description	Advertisement will be uploaded on the system.
Tester	Student, Teacher, Faculty
Setup	1. Login as student.
Instructions:	1. Login as student with ID "01071411023". 2. Enter Title of advertisement". 3. Select advertisement type. 4. Enter the description 5. Press upload button.
Expected Results	Description will be uploaded on the system.
Oracle	**Pass**

5.3.6 Upload Advertisement (Alternative scenario)

This use case tell us the alternate scenario how user can upload advertisement. The system shows the form to the user .User fill the form correctly if the user not fills the form correctly then they cannot upload the advertisement.

ID	T006
Description	Advertisement will not upload on the system.
Tester	Student,Teacher,Faculity
Setup	1. Login as student.
Instructions:	1. Login as student with ID "01071411023". 2. Enter Title of advertisement". 3. Select report type "Non-editable". 4. Enter the description 5. Press upload button.
Expected Results	Advertisement will not be uploaded on the system. 2. There is internet problem. 3. Required fields are not filled properly.
Oracle	**Fail**

5.3.6 Apply for advertisement

This use case tells us about the success scenario of the user can apply for advertisement. System show the form to the user .The user fill the form if the user fill the form correctly then they successfully apply.

ID	T007
Description	User will apply for advertisement.
Tester	Student, Teacher, Faculty
Setup	1. Login as faculty.
Instructions:	1. Login as faculty with ID "01071411023". 2. Select option of apply for advertisement". 3. Fill the form. 4. Press submit button.
Expected Results	User have been successfully applied.
Oracle	**Pass**

5.3.7 Apply for advertisement (Alternate Scenario)

This use case tells us about the success scenario of the user can apply for advertisement. System show the form to the user .The user fill the form if the user fill the form correctly and they not successfully apply.

ID	T008
Description	User will not make a resume.
Tester	Student, Teacher, Faculty
Setup	1. Login as faculty.
Instructions:	1. Login as faculty with ID "01071411023". 2. Select option of apply for advertisement. 3. Fill the form. 4. Press submit button.
Expected Results	1. User has not successfully applied. 2. There is internet problem. 3. Required fields are not filled properly.
Oracle	**Pass**

5.3.5 View Advertisement

This use case tells us about the how the user can see the advertisement successfully. If the user select the category carefully and advertisement type then they will have successfully view the advertisement .

ID	T009
Description	Advertisement will be shown to the user.
Tester	Student, Teacher, Faculty
Setup	1. Login as student. 2. Upload status of student having ID "01071411023"to passed.
Instructions:	1. Login as student with ID "01071411023". 2. Enter Title of advertisement. 3. Select advertisement type. 4. Press show button.
Expected Results	Description of advertisement will be show to the user.
Oracle	**Pass**

5.3.5 View Advertisement (Alternate Scenario)

This use case tells us about the alternate scenario of view advertisement. If the user cannot select the category carefully and advertisement type then they will not view the advertisement successfully.

ID	T010
Description	Advertisement will not shown to the user.
Tester	Student, Teacher, Faculty
Setup	1. Login as student.
Instructions:	1. Login as student with ID "01071411023". 2. Enter Title of advertisement. 3. Select advertisement type. 4. Press show button.
Expected Results	1. Description of Advertisement will be show to the user. 2. There is internet problem.
Oracle	**Pass**

Chapter 6

Conclusions and future enhancements

The basic objective of the developed application provides facility to Quaid I Azam University people to find out the jobs and they can easily apply for the job through this system, the people who want to share the vehicle can easily find out the partner , to find out the activities carried out by the varsity club and apply for the activities. The user can easily book the transport. Students can easily apply for counseling faculty members can apply for the admission of their in daycare center. The QAU Community Guild Application has modules namely, (i) Job Portal (ii) Varsity Club (iii) Vehicle Sharing (iv) Transport Booking (v) Accommodation listing (iv) student staff support facility. The application allows users to view graphs of hostel advertisements job advertisements. Admin is allowed to add, users. The application provide security to all users by hiding information from other. Users can send emails through this project.

6.1 Future Enhancements

In future there are some enhancements which can be done in application. These enhancements will make the application more helpful and time saving.

6.1.1 Live Conversation

In present state contact between users is being provided through Email and in future the feature of live conversation between users can be provided. So users can contact each other anytime using this platform. It will be more easy and fine way for users to contact companies, hostels, clubs, transport unit and daycare centre using this feature.

6.1.2 Connection With CMS (Course Management System)

CMS is a course management system, using that system students register their courses studying in current semester and teachers also register those courses which they are teaching in current semester. It will be great enhancement in our system that if it is connected with CMS so students and teachers will be able to see their course and academic details on our system without going to CMS.

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