FRP No. _____

FINAL YEAR AUTOMATION SYSTEM (FAS)
REPORT

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RESEARCH REPORT SUBMITTED TO THE FACULTY OF COMPUTER SCIENCE, MOHAMMAD ALI JINNAH UNIVERSITY, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF BACHELOR COMPUTER SCIENCE

SPRING 2019

FINAL YEAR AUTOMATION SYSTEM

(FAS)

Batch – 2016

DEPARTMENT OF COMPUTER SCIENCE
Mohammad Ali Jinnah University. Karachi
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PREFACE

Our initial concept of the system was that of a web app and the core concept of the result of the project revolved around that of a fyp stakeholders. This systems workflow was as follow

Super Admin

1)Super Admin, it will be single user no other super admin will exist

2)Supper admin have the ability to create committee Head and committee members. (Means he will able to include members in committee)

Committee

3) One of the committee members will be head (created by super admin).
   a) All committee members will have the power to make a final decision (for any case)*.
   b)He can make policies for FYP

4) Committee will have 10% of marks for all students this thing will be discussed later

Advisor

5) Advisors can post unlimited ideas.
6) Advisors can see group ideas that don't have any advisor yet.
   a) Also can see the Group and their members with their CGPA.
   b)Request groups to meet him for posted ideas.
7) Advisor can see groups' requests they made to make him their advisor.
   a) This will be an accepted and rejected case.
      i)If the advisor accepts then this request forward to the committee member if any of the committee members approve it then he becomes advisor.
      ii) If rejected, the advisor must write the reason for rejection.
8) Advisors can communicate with students

Student

10) student can request other student for greeting a group
11) student can request advisor to become their group advisor
12) student and advisor can communicate through posting it on page

ACKNOWLEDGMENT

First of all, we thank Almighty Allah who praises us with the ability to think, work and deliver what we are assigned to do. Secondly, we must be grateful to our internal Mr. Sir Adil Rao who helped us in this project. We also acknowledge our teachers that throughout our studies helps us and guides us, departmental staff, university staff or other than this.

INTRODUCTION TO GROUP MEMBERS

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CERTIFICATE OF COMPLETION

This is to certify that the following students of BS (CS) of Batch 2016

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have successfully completed their final year project titled

FINAL YEAR AUTOMATION SYSTEM (FAS)

in the partial fulfillment for the Degree of Bachelor of Science in Computer Science.

_____

Mr. Sir Adil Rao

Lecturer
Muhammad Ali Jinnah University

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Abstract

The main idea behind the project is to make an online FYP system for Mohammad Ali Jinnah University, which helps the Students, Jury, and FYP Committee. Created a system for every role of fyp member with a different account and create jury team and student request, accept. yet creating a function to make jury and student share posts will be completely web-based, there are no special hardware requirements. It is completely web-based.

1 backend: Php laravel framework 5.8 will used on backend to run the website and bring the business logic into effect

2 database: We will use MySql database to store all the necessary data of the website

3 frontend: JavaScript HTML CSS Bootstrap are used for view

Manual procedure leads to lots of time-wasting, project work because the student carrying out the project work is not able to update the lecturer on the level of execution of the task or lead in lack of communication with the advisor. It could make managers or the faculty in control that can see and check the progress of student automation

portal used for the automation of the processes related to the last year extends to University. The procedures start from registration to submitting of project. As we have achieved to make different functionalities with complicated database

CHAPTER 1: INTRODUCTION

Overview

Students find it very difficult when they have taken Final Year Project (FYP) course in such circumstances, it is very difficult for them to find their group partners and coordinate with Advisers from that most of the days goes by and students are unaware and confused, We have come up with a solution to solve their problem by going online with FYP Automation System

Objective

The main objective behind the project is to make the FYP registration process easier for the students. The user will have access to a centralized portal where they will find all the information they need to register for the FYP. The student will simply register and mention their idea along with their group members and the desired supervisor. The supervisor then sees the projects that the students have posted and then they can call the corresponding group.

Abstract

Processes associated with undergraduate final year projects have always been a manual process that requires a lot of paperwork and could sometimes be a cumbersome and tiring task for the personnel in charge. The manual process sometimes leads to time-wasting, impeding project work, and lack of misunderstanding because the student carrying out the project work is not able to update his work on the level of execution of the project. Also due to unavailability of a content management system or repository

CHAPTER 2: Introduction To Network Monitoring

What is monitoring?

Monitoring is utilized to evaluate the presentation of tasks, institutes, and projects set up by international organizations, government, universal associations, and higher authority. Its will probably improve current and future management of outputs, results, and effect

Data Collection

Data collection is the process of collecting data. data is gathered from the administration of the university of student name and facility there email related to fyp so that every student that is eligible for fyp has its own account on fyp portal. once every account is created then every student data is collected through a portal and again stored in database

Data Logging

Through the final year automation system (fyp) every data is logging into the database. Database is created in such that every student, committee, jury, advisor, faculty related data is differentiated as every account has it,s different role.so here role base data stored

Analysis

Processes associated with undergraduate final year projects have always been a manual process which requires a lot of paperwork and could sometimes be a cumbersome and tiring task for the personnel in charge. The manual process sometimes leads to time.

Reporting

database, design, and functionality of the system has been reported to Advisor. From the beginning to end of the project. since the project started data was gathered from students and reported to the advisor for further advice after every meeting with the advisor we designed a structure of the system that can play every role of stakeholder which were student, advisor, committee member, admin and jerry as the design was approved by advisor we further went with the functionality of individual role that was as student u can add other student and one advisor then post share, as admin you can create comminute as commute you can add students and every account created the mail goes to the user based of fyp every idea and functionality was reported to the advisor

CHAPTER 3: BACKGROUND REVIEW

Cryptography

User Authentication

through user email and hashed password user has been authenticated for there safety account with different roles of users.no account can penetrate other account or other role as every account has to be authenticated before being access.every user has a authentication login based on their role and for more safety they have been sent mail individually for their information that no one can access

Information integrity

accuracy, consistency, and reliability of the information of the data substance, procedures and frameworks.there data is secured through database and is only shared with authenticated user as a user account data is only shared on his account or with he whom share

Nonrepudiation

user can not deny or any not done activity after it has been done as data is stored in database or is attached to his account

Encryption / Decryption

user account password is encrypted and when is try to log in the encrypted password math with the user login password if both encrypted data math the user login we have used Bcrypt and Argon2 hashing for storing user passwords

CHAPTER 4: Overall Description

Product Perspective

We have done extensive research on our project and we came to know that similar systems have been made for other universities. However, those systems are proprietary and our university does not have such a system. Therefore we are developing an FYP system for our university.

Product Functions

- **Login Page**
- **Select Supervisor**
- **Select Group Members**
- **View Grades**
- **Submit Online Activity**

User Classes and Characteristics

CHAPTER 5: External Interface Requirements

User Interfaces

The user interface will be created using Laravel and it will be completely web based. The UI will be simple and easy to use and pretty much self-explanatory.

Hardware Interfaces

the system must have a PHP server and at least 10GB of storage with run time system that can run all the time and to deploy system,only control panel with a domain will be required

Software Interfaces

- **Laravel**
- **PHPmyAdmin**
- **Javascript**
- **Heroku**
- **HTML**
- **CSS**
- **JQuery**
- **Bootstrap**

Communications Interfaces

Notifications will be received through email and then the user can access the app through the browser.

CHAPTER 6: System Features

Login and Register

Description and Priority

A student who is eligible for the FYP can login to the system.

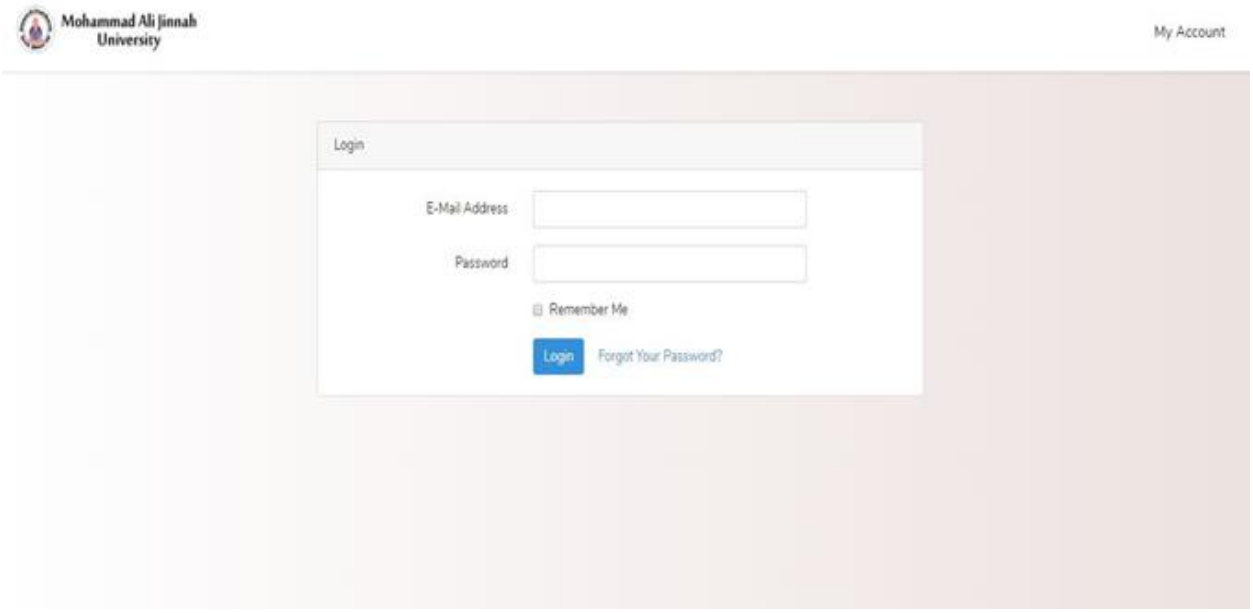
- **credit hours greater than 90**
- **CPA greater than 2**
- **must be in last year**

Stimulus/Response Sequences

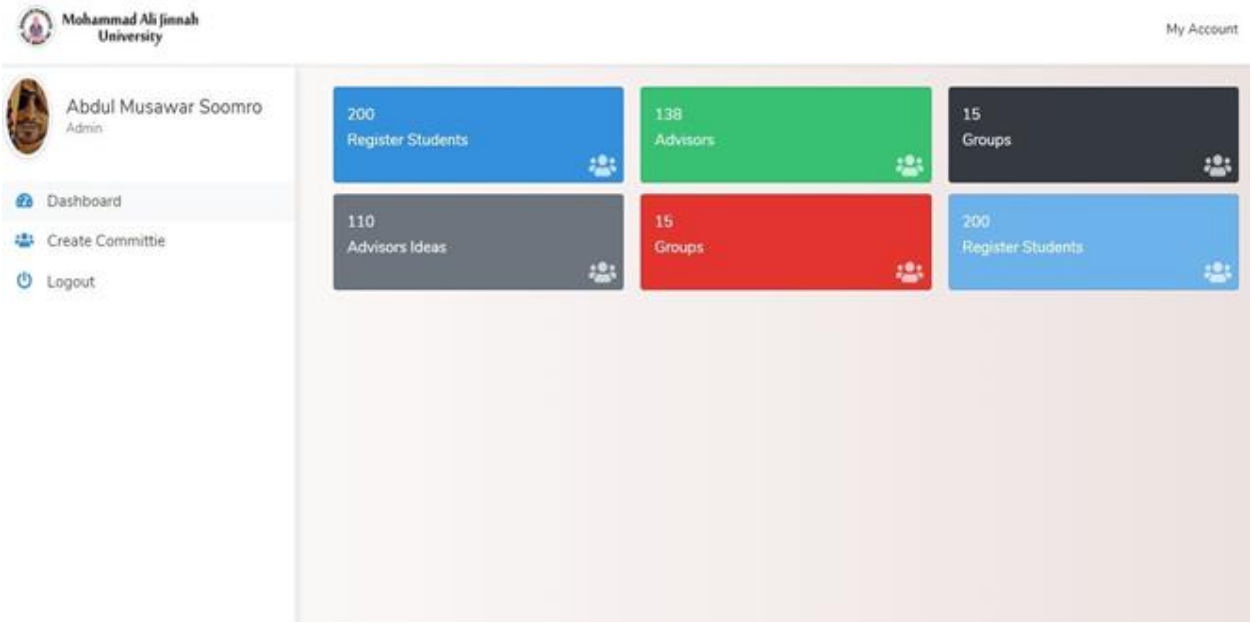
- **Admin has authority to create Committee member**
- **The Committee member will register the jury, advisor and students through Excel file. Committee members can create jury team**
- **After authentication the student will login to the system.**
- **user can change his information from account setting (picture ,name ,password);**

CHAPTER 7 Detailed Interface Design

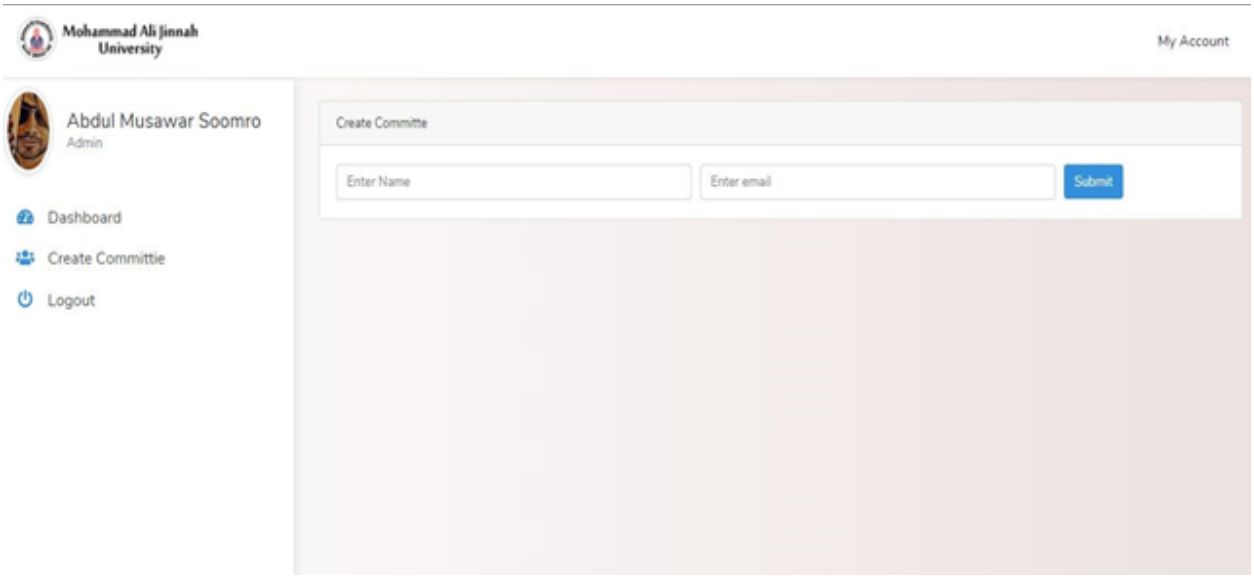
First Page For Login Interface



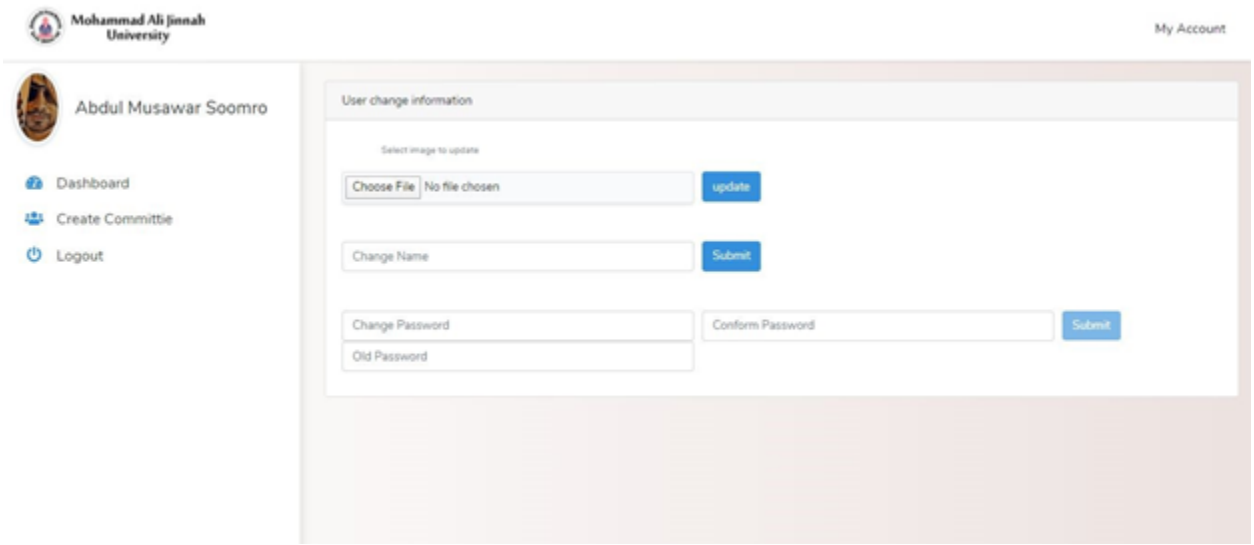
Login As Admin Interface



Create Committee Interface



My Account Interface

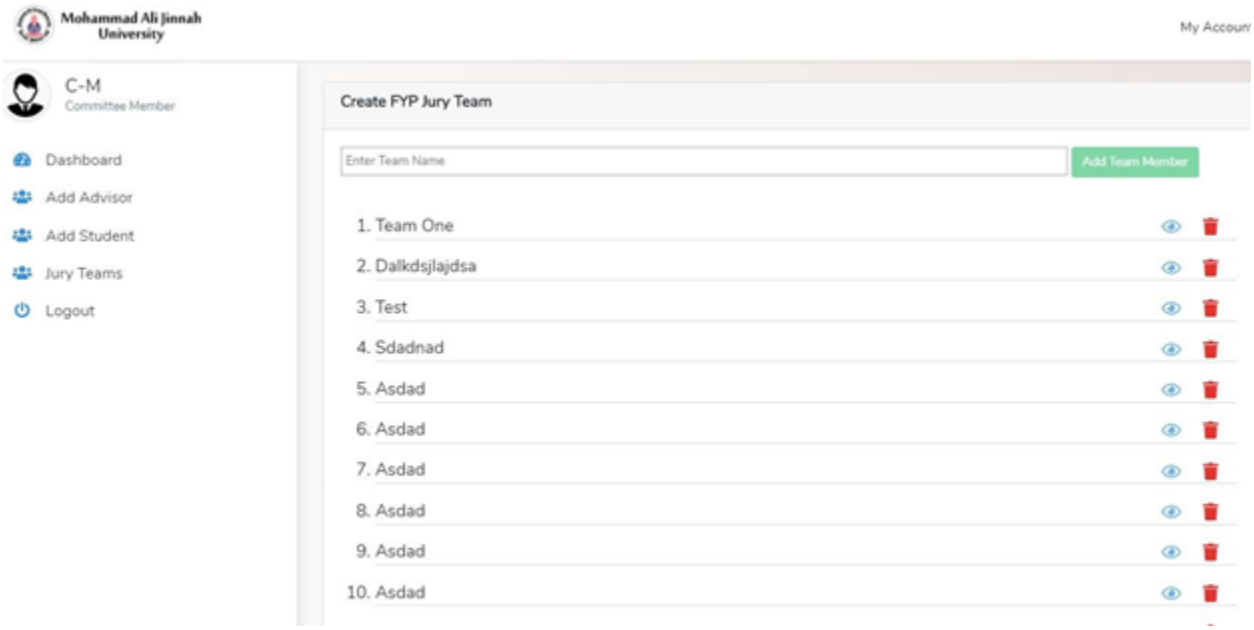


Login as Committee Member Interface

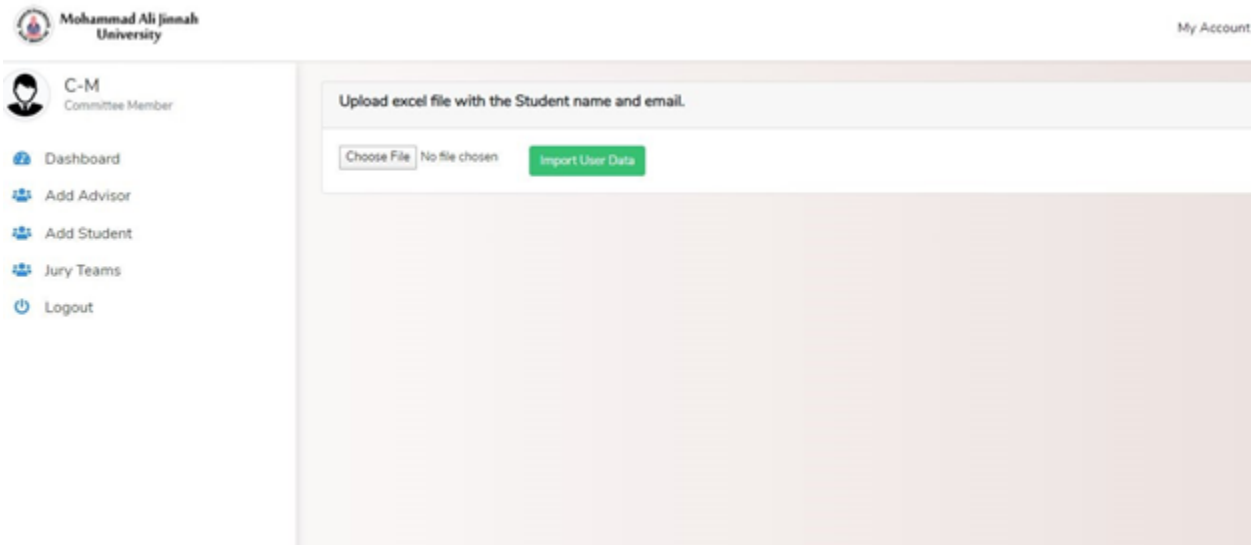
Advisor Interface

Advisor Publish Ideas Interface

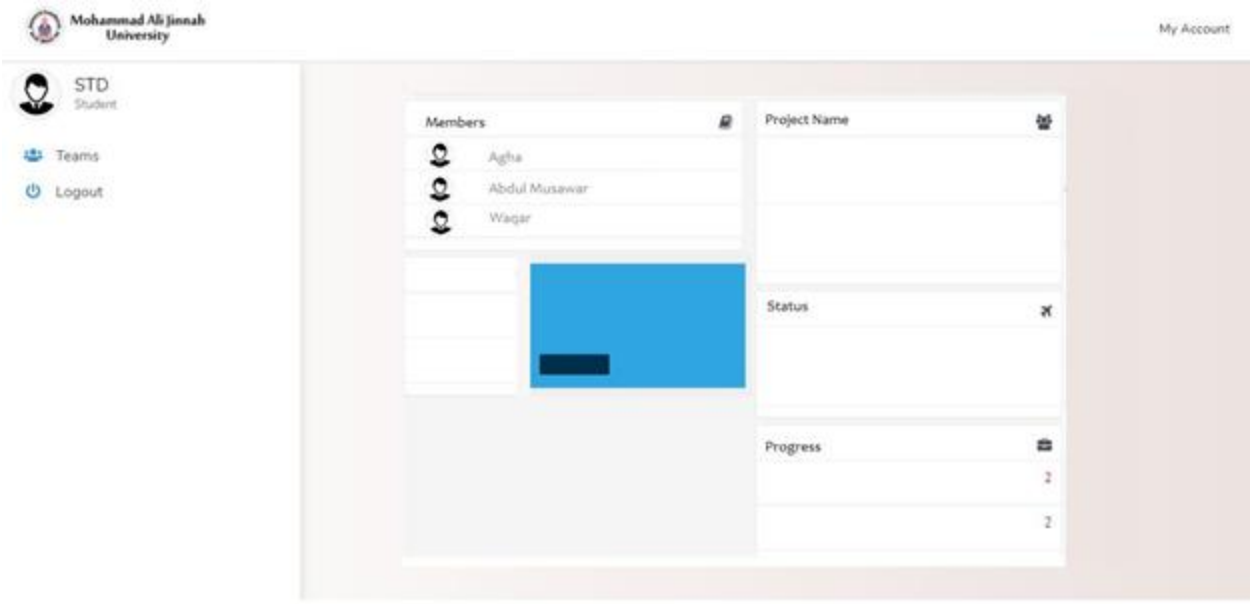
Create Jury Team Interface



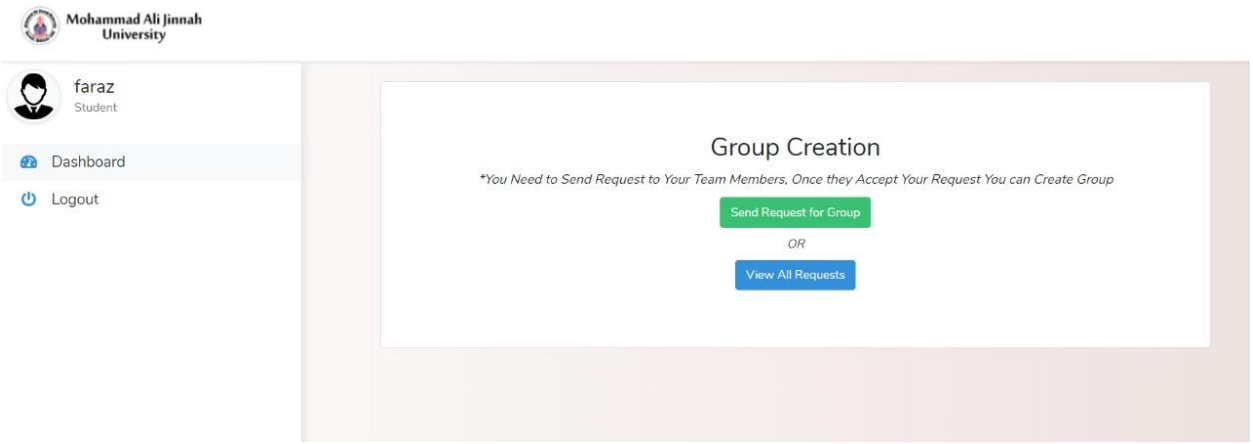
Committee ADD STUDENT Excel Sheet Interface



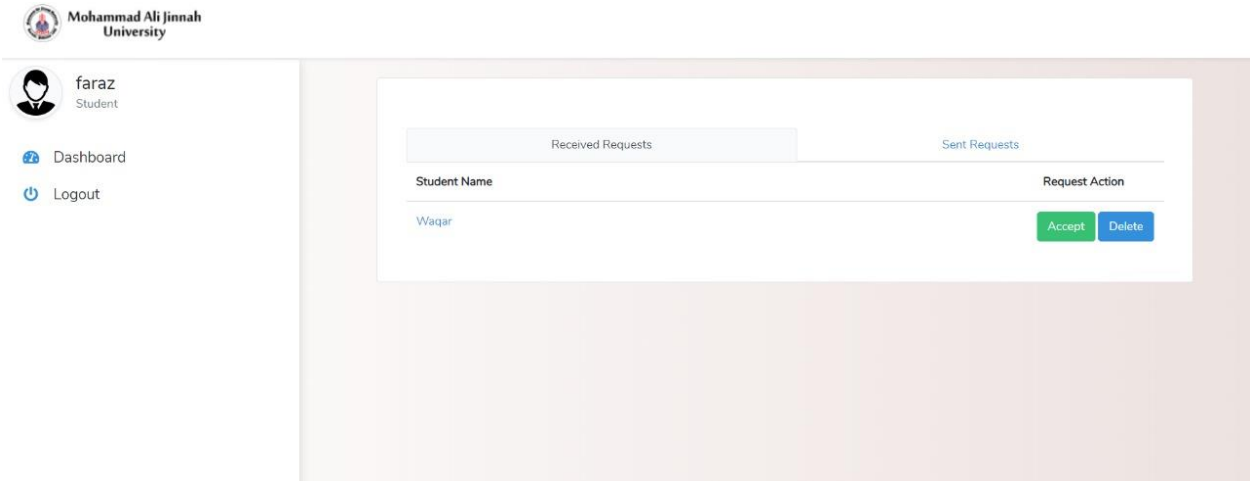
Login as Student Interface



Student Send and View All Request GROUP CREATING Interface



Student Accept Other Student Request Interface



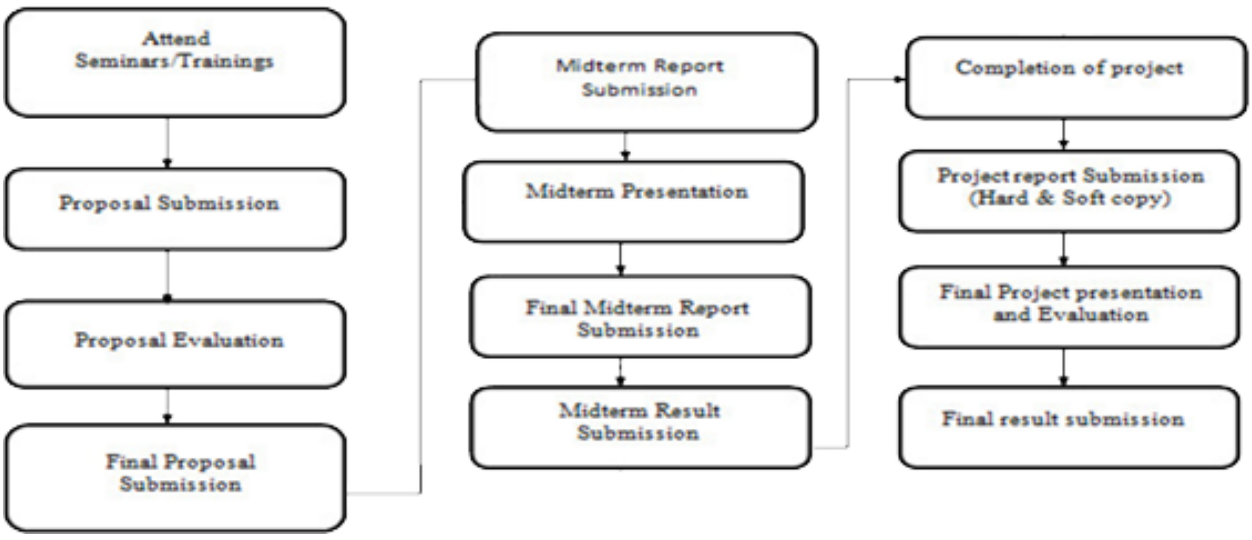
CHAPTER 8: CONCLUSIONS

As with this final year project system every individual user related to fyp will save time, make more effort on the project, and can work from any place with the internet and a device such as laptops or mobile phones. As this system helps every university student who will come to face fyp1 and fyp2.This system helps users and teachers such as in times of quinine to work from home. No need to meet physically daily. This system plays every part of stakeholder so every stakeholder can work from a device. The main achievement was that we were able to create every different role and student register online, a system to send online mail with account details, creating a jury team and student send and accept requests.

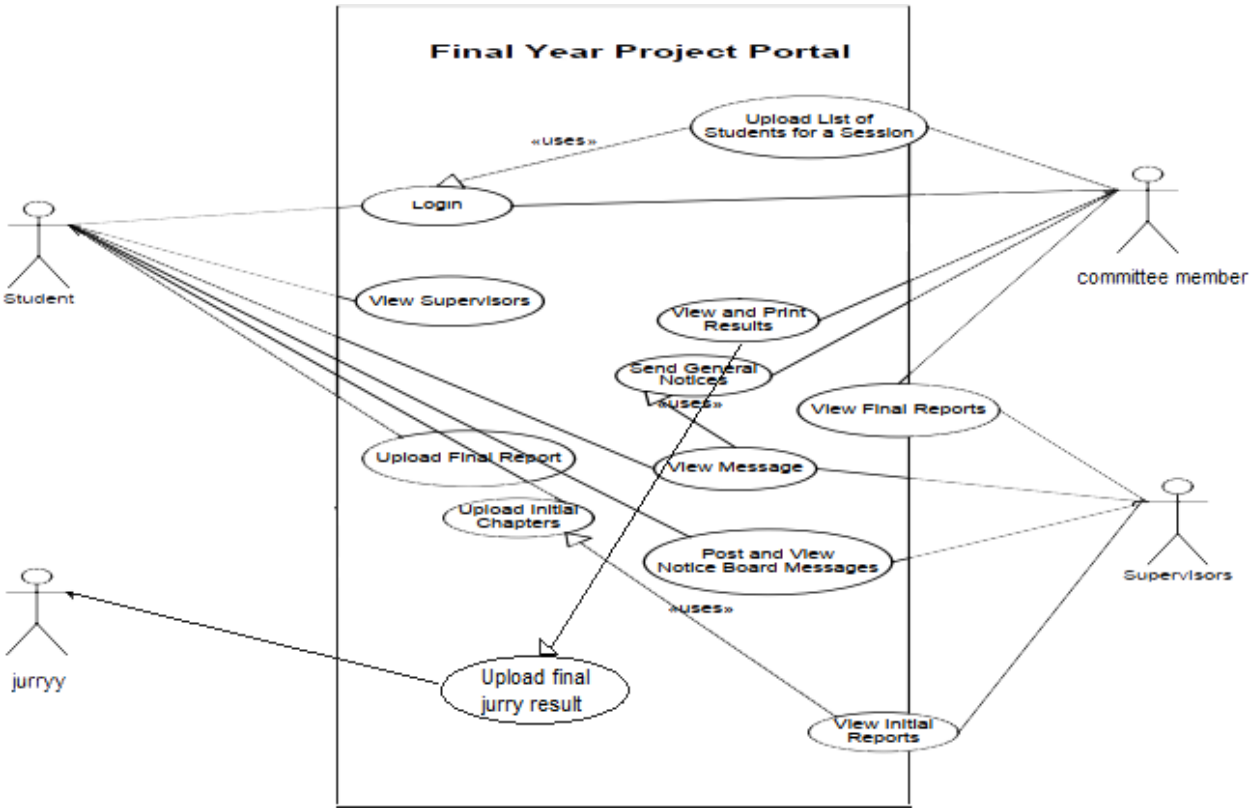
APPENDIX A: DATA FLOW DIAGRAMS

A.1 Data Flow Diagram of Outer Round Pipelining Design

Step by step to carry out the Final Year Project (FYP):



A Use-Case diagram describing the fyp final year project portal



A.2 Data Flow Diagram of Inner Round Pipelining Design

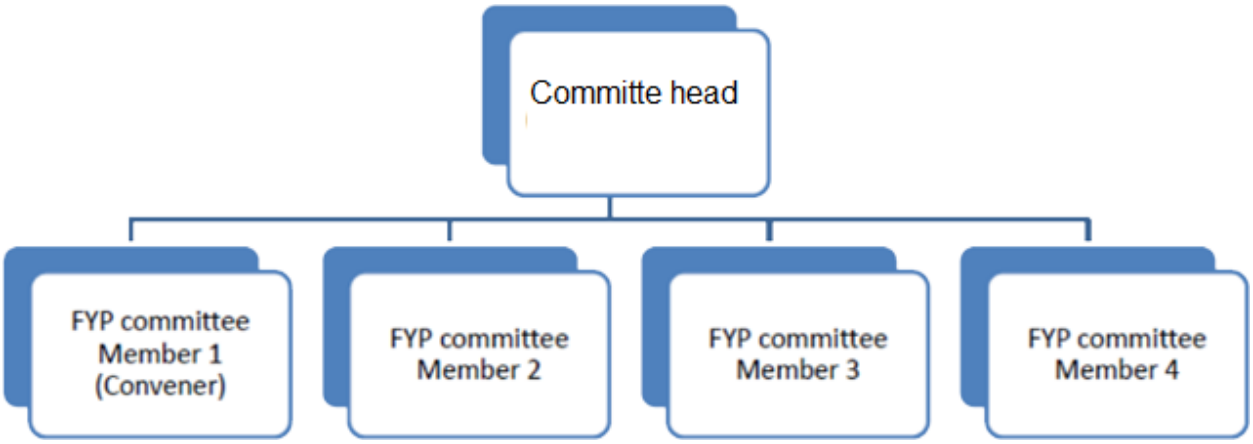
Final year project (FYP) committee:

It contains a convener and 4-5 members to monitor and calendar all the exercises identified with FYP. Following are the roles of FYP committee:

To frame various task advisory groups relying on the academic calendar of the university.

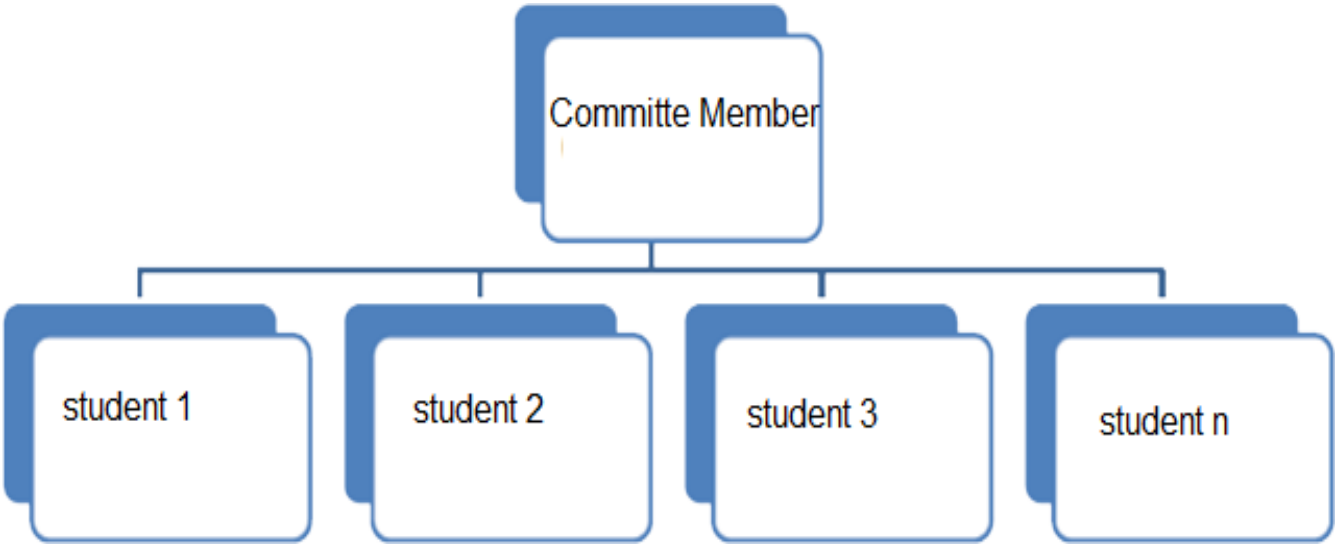
To provide submitted FYP proposals of students for assessment to extend panels and to gather adjusted/altered propositions from them.

To gather mid and last assessment results from the task directors.

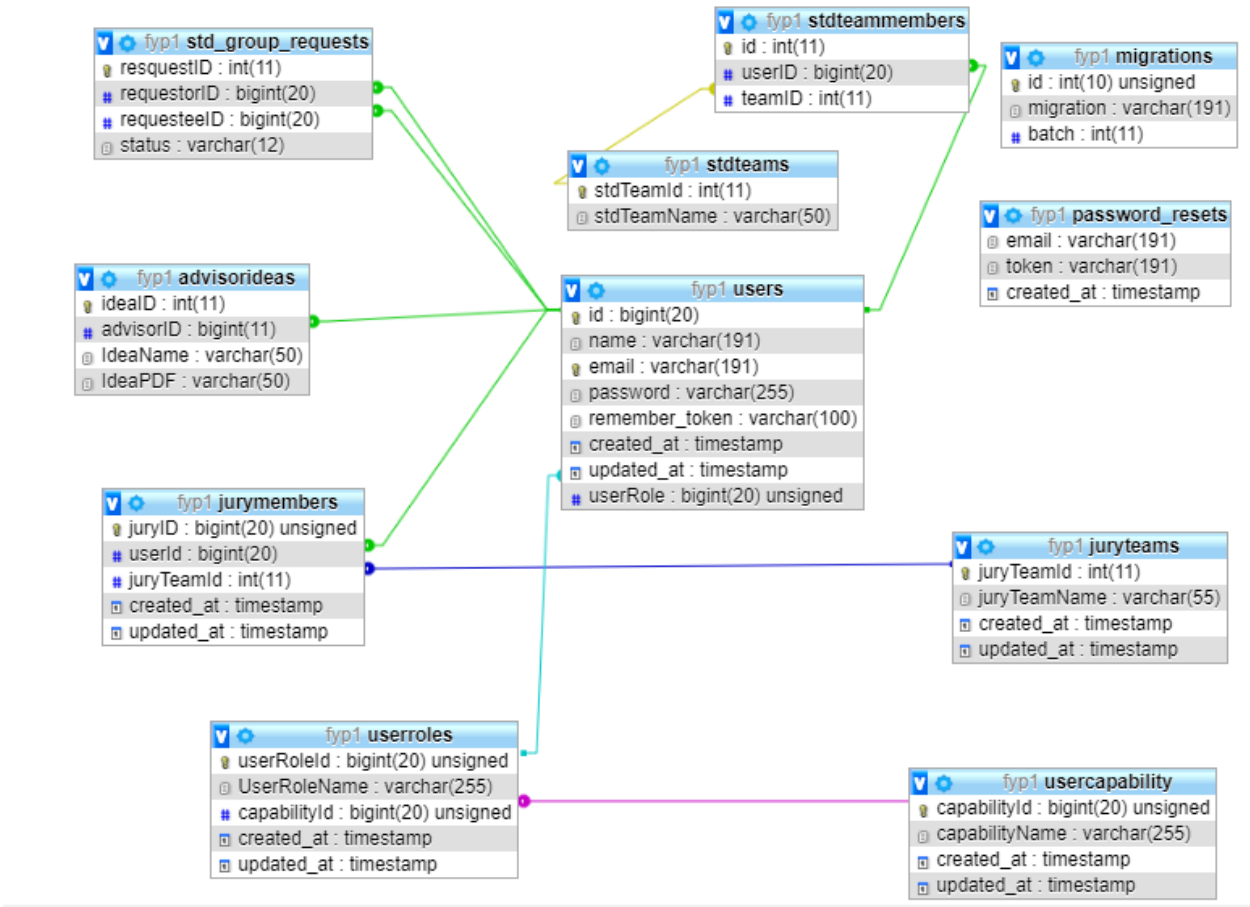


Final year project (FYP) students:

Committee Member upload student sheet who are eligible for fyp on portal which create n number of student account with there name and university email



Database diagram



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