CS551 Advanced Software Engineering

First Increment Report (PG - 7)

Title: Campus Network

Submitted By: Sumanth Gunda (Class ID: 21) (TL)

Goutham Donthu (Class ID: 14)

Kothuri UmaMaheshwarRao(Class ID:28)

Jonnalagadda Rajesh (Class ID: 23)

I. INTRODUCTION

To get an appointment from the Instructor students are using mail to interact with the respective faculty. There is no facility to the students to check their attendance. Instructors do not have the smart facility to assess the student's profile. Faculty are using mails to notify any deadlines to the students. We are designing a web based portal which provides all the above facilities in an efficient way.

II. GOAL OF THE PROJECT

Our project provides a web based application which includes major options like Appointment scheduler, Attendance tracker, Performance tracker, Course tracker. Instructors and Students will no longer interact with the mails. They are provided with an interface which makes the work simple, efficient and saves the time.

III. EXISTING SERVICES

1. **Service Name - Google Maps API**

   Description: - To track the student position before marking Attendance.

   URL: https://developers.google.com/maps/documentation/javascript/tutorial.

2. **Service Name - Google Chart API**

   Description: - To visualize the attendance and performance report of students.

   URL: https://google-developers.appspot.com/chart/interactive/docs/quick_start.

3. **Service Name - Google Drive API**

   Description: - To help create docs inside the web portal.

   URL: https://developers.google.com/drive/web/.

IV. DESIGN

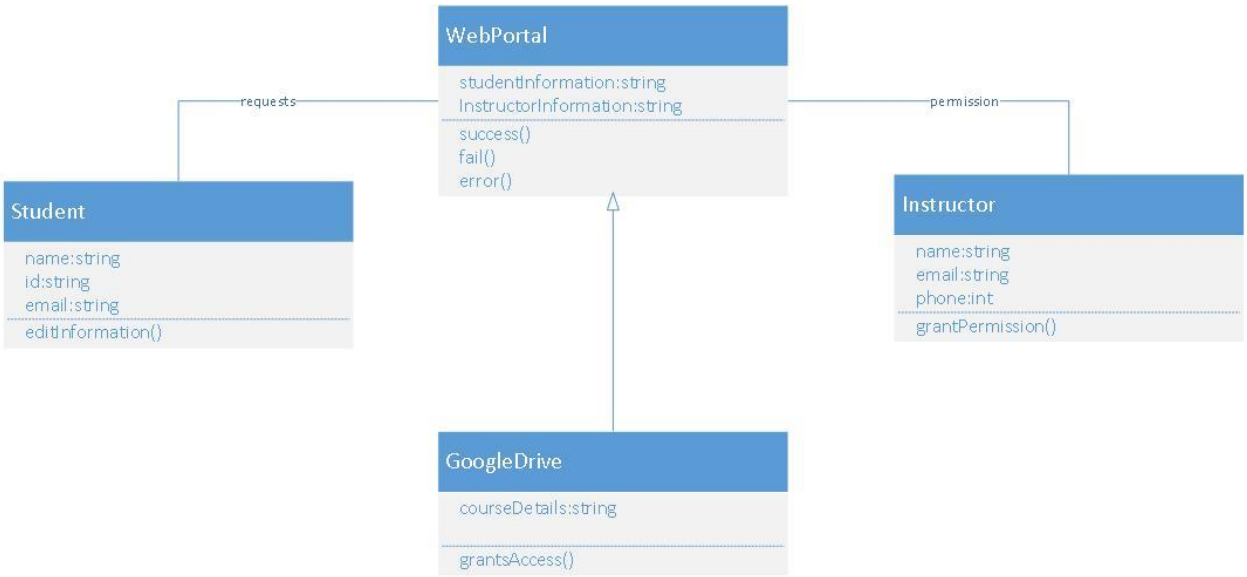
The portal has 3 logins Administrator, Instructor and Student.

The project is divided into 5 modules

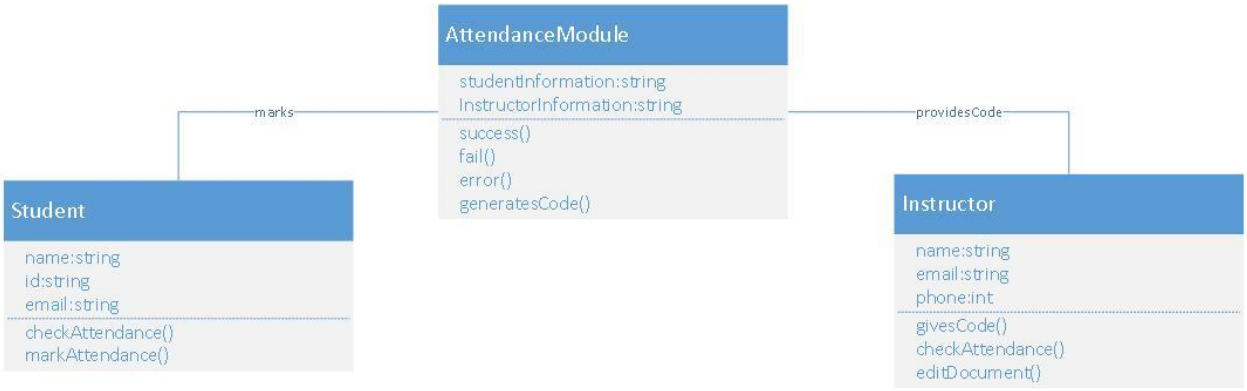
1. Requests Module.
2. Attendance Module.
3. Performance Module.
4. Course Tracking.
5. Google Drive Integration

CLASS DIAGRAM:

Request Module

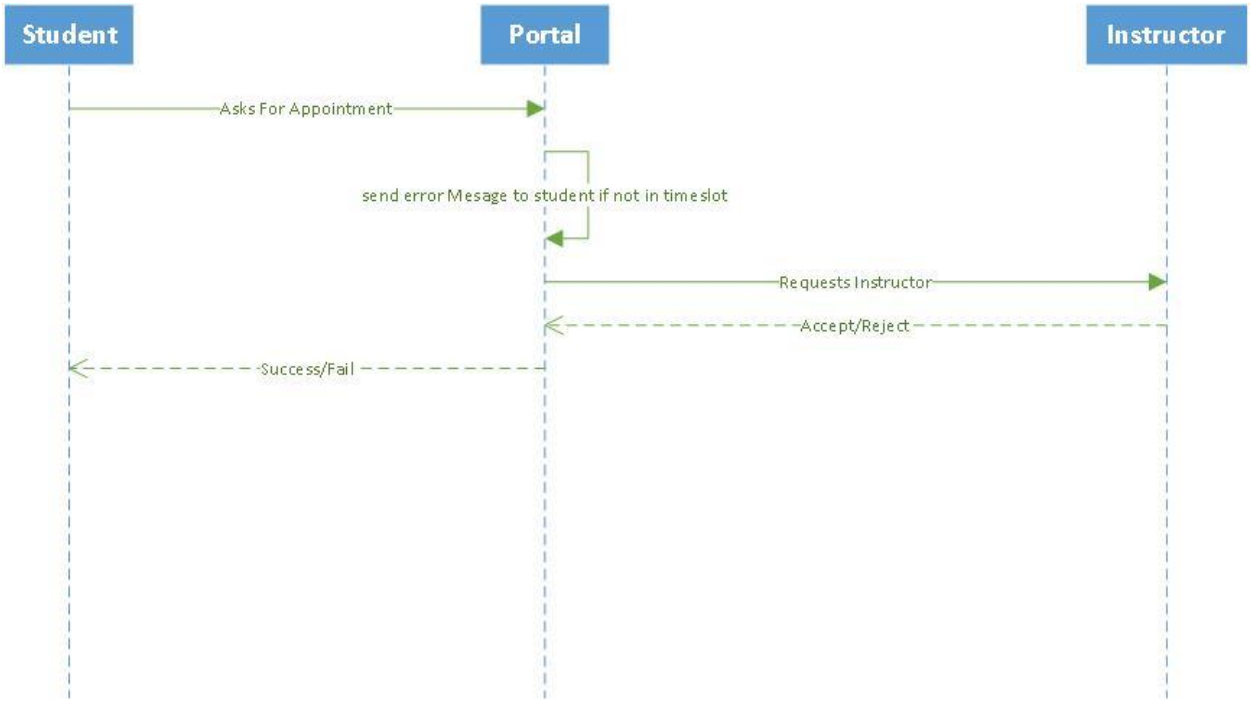


Google Drive Integration

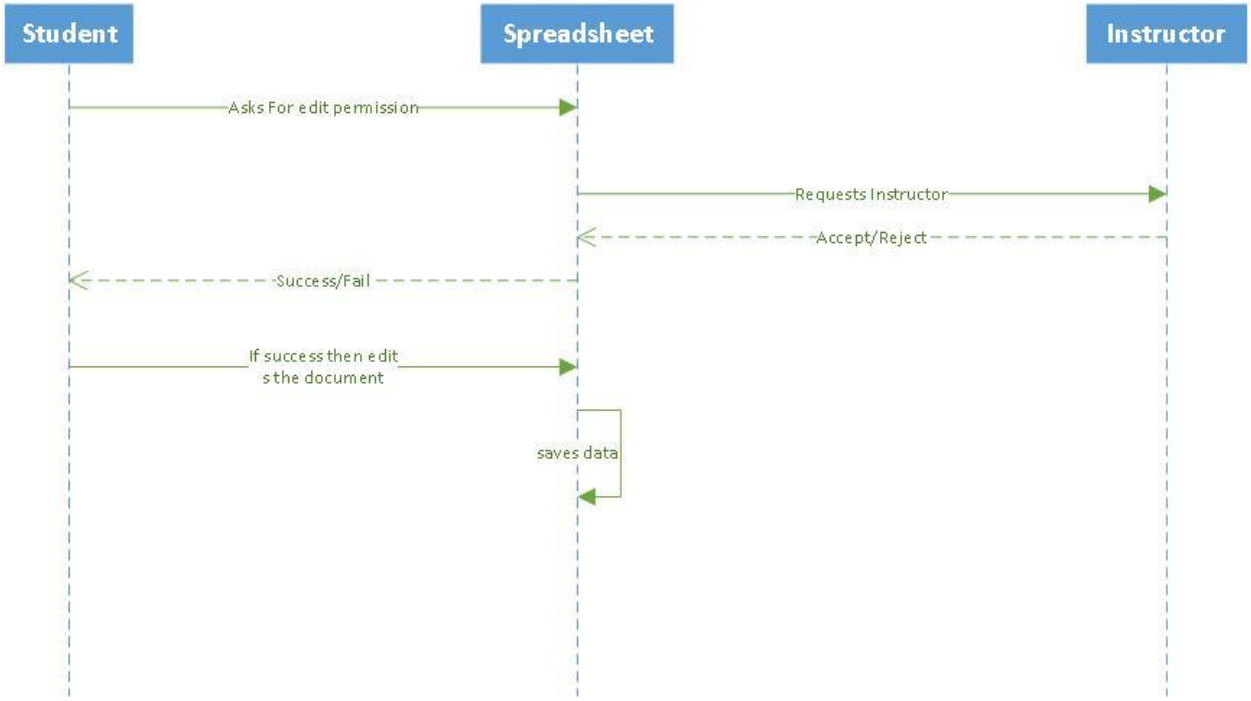


Attendance Module

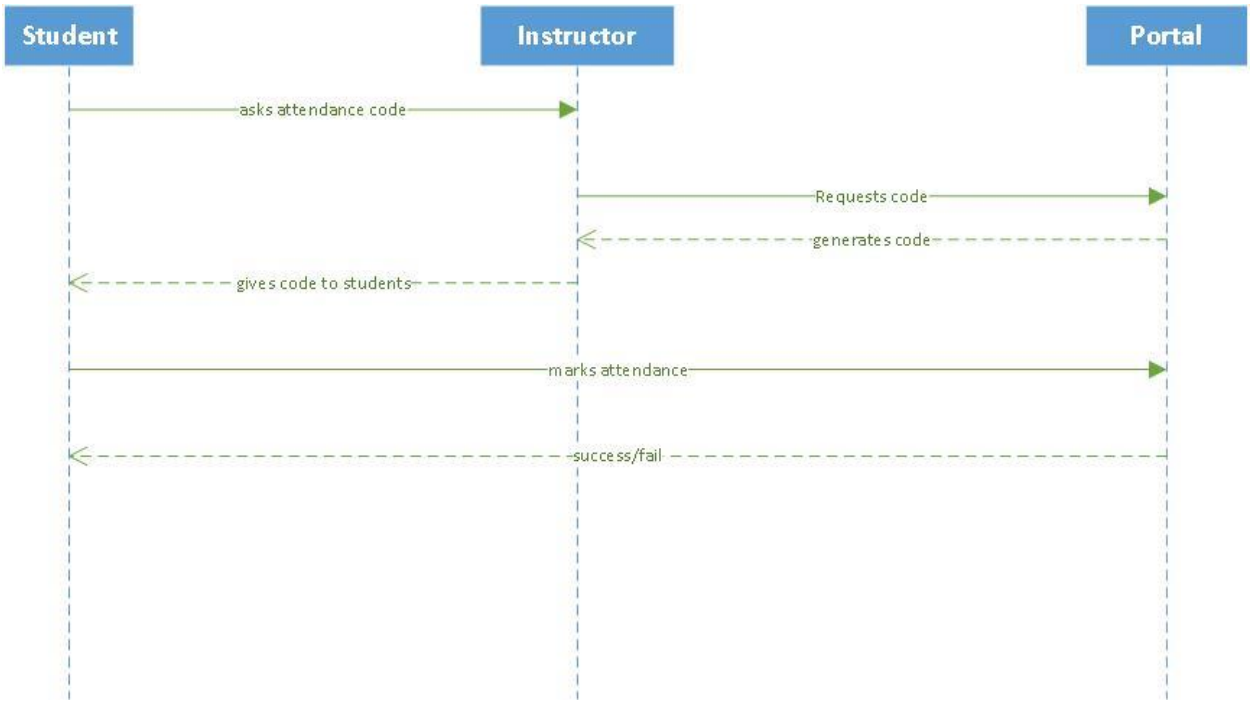
SEQUENCE DIAGRAM:



Request Module

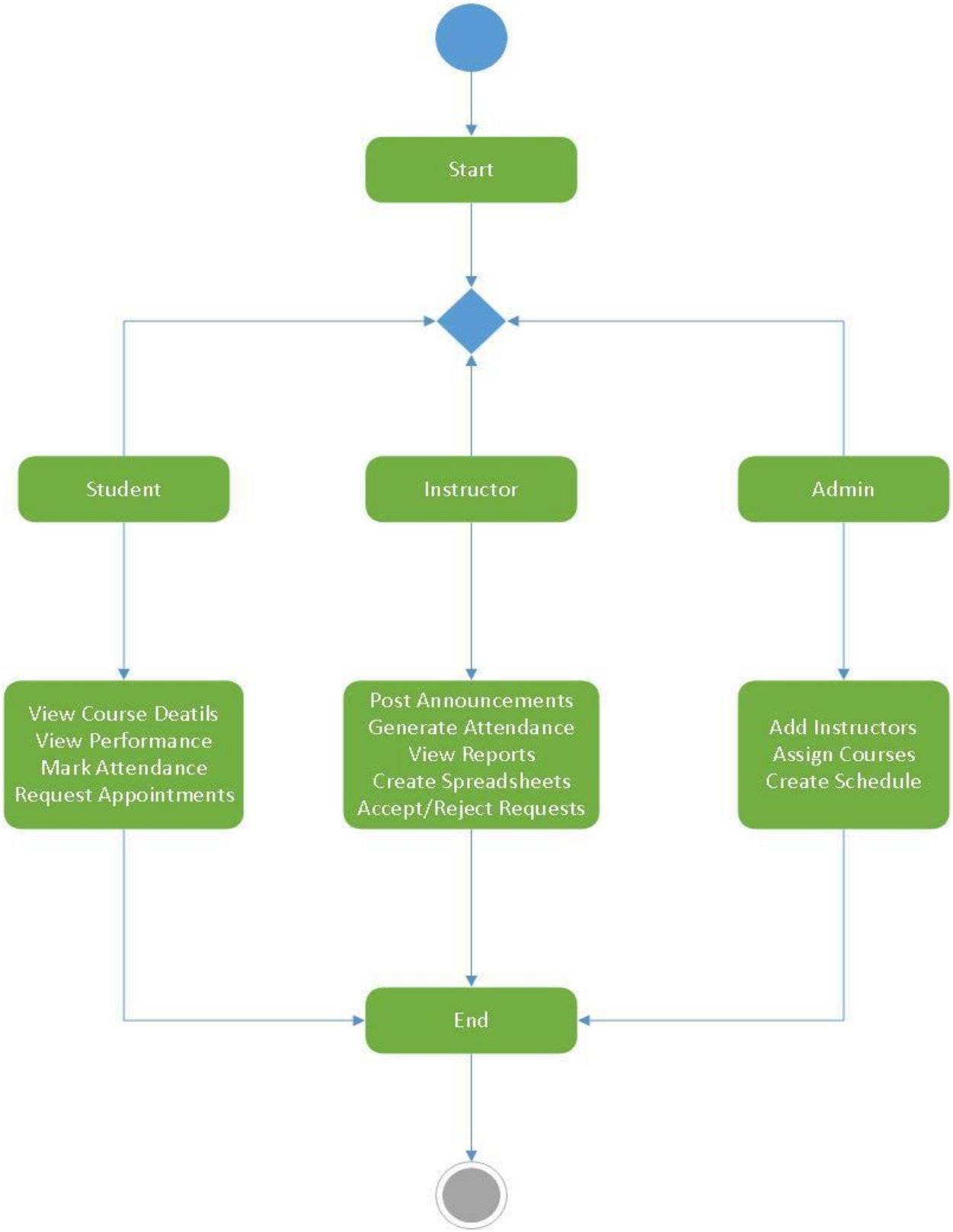


Google Drive Integration



Attendance Module

ACTIVITY DIAGRAM:



V. IMPLEMENTATION

The Phase 1 of the Project Implements

1. Master Page for the Website
2. Login Page for the Website.
3. Home Page for both Student and Instructor.
4. Validations of all the Pages.
5. Database Design and Executing Scripts.

Screenshots:

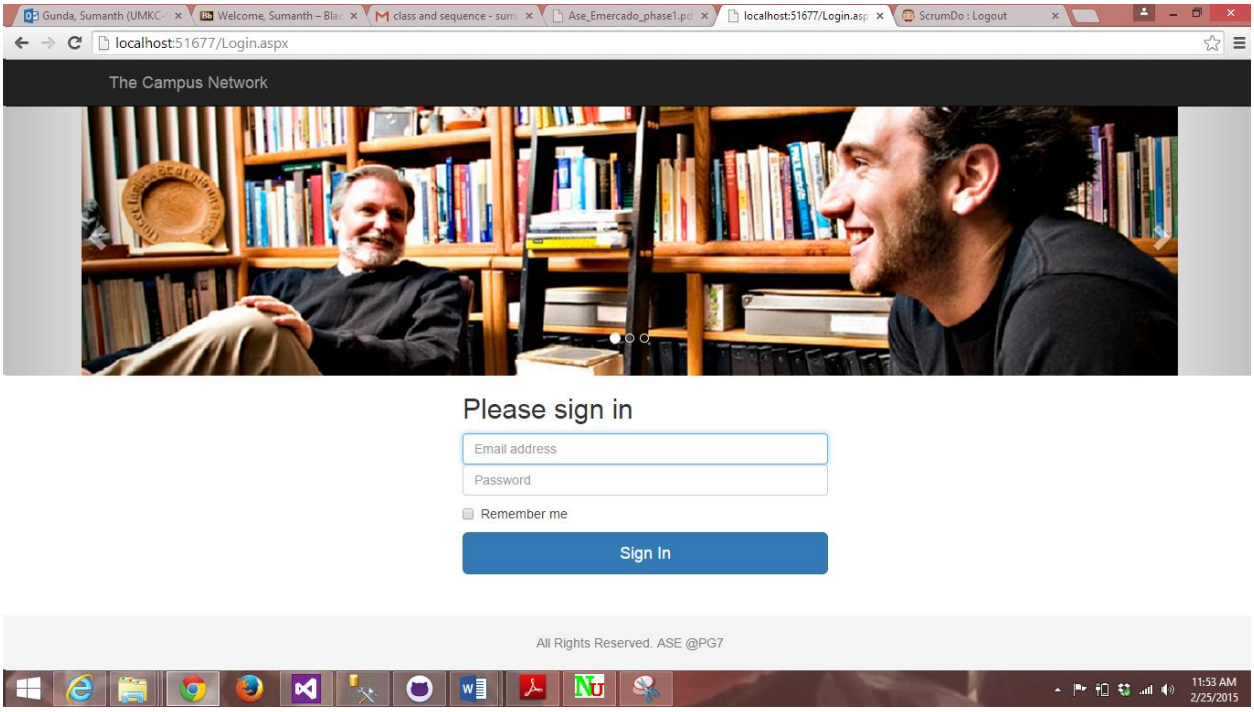


Fig 1: Login Page

This page will allow both students and Instructor to login to the portal.

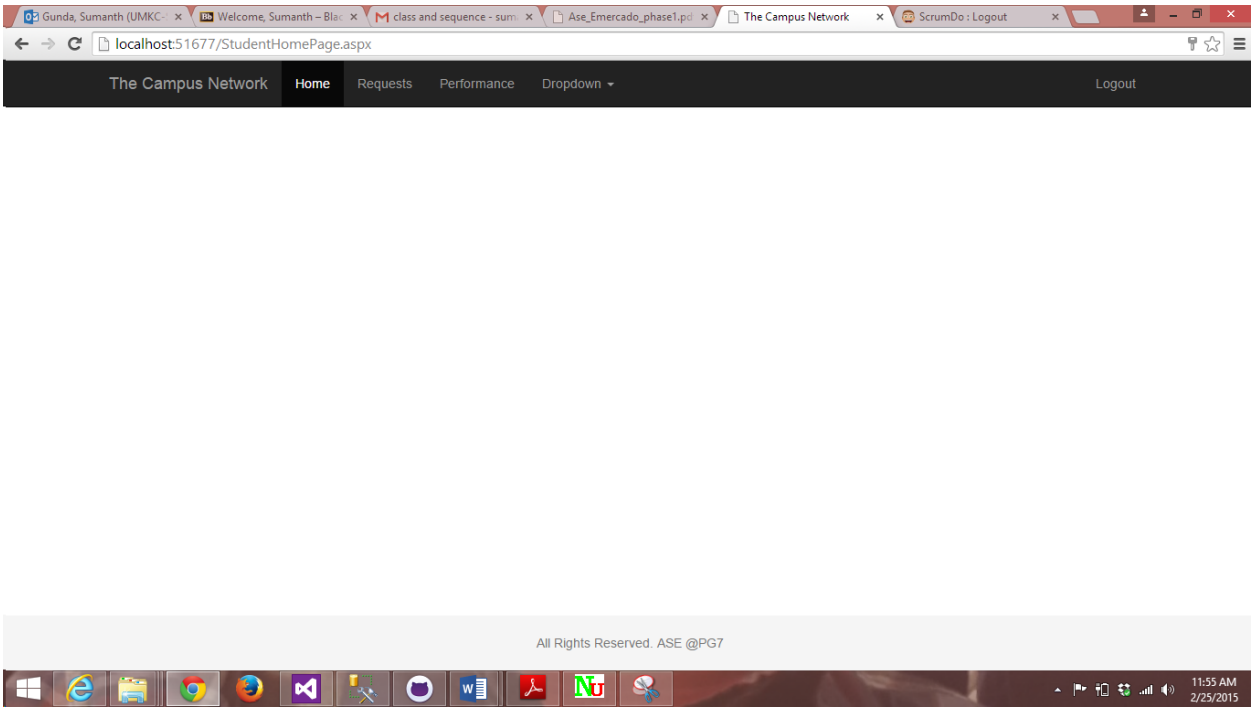


Fig 2: Dashboard

This Page is the Dashboard for both students and instructors. The services and the navigation of the page changes based on the role of the user.

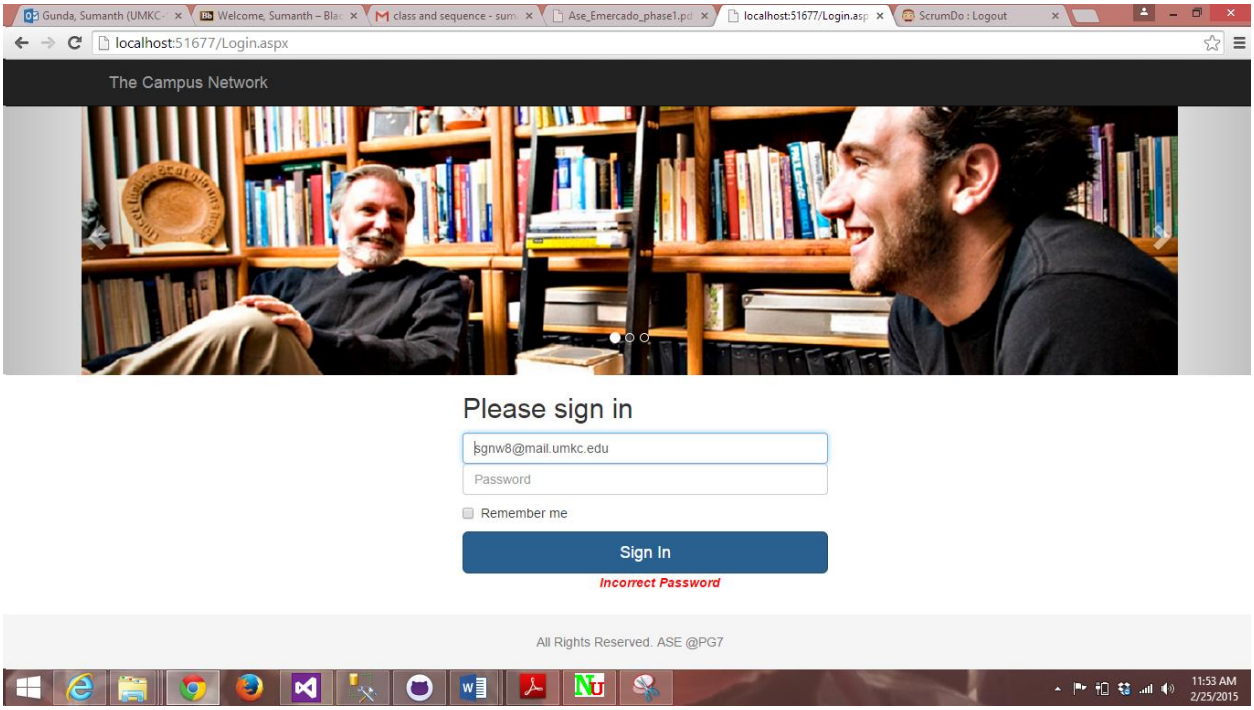


Fig 3: Login Page Validation 1

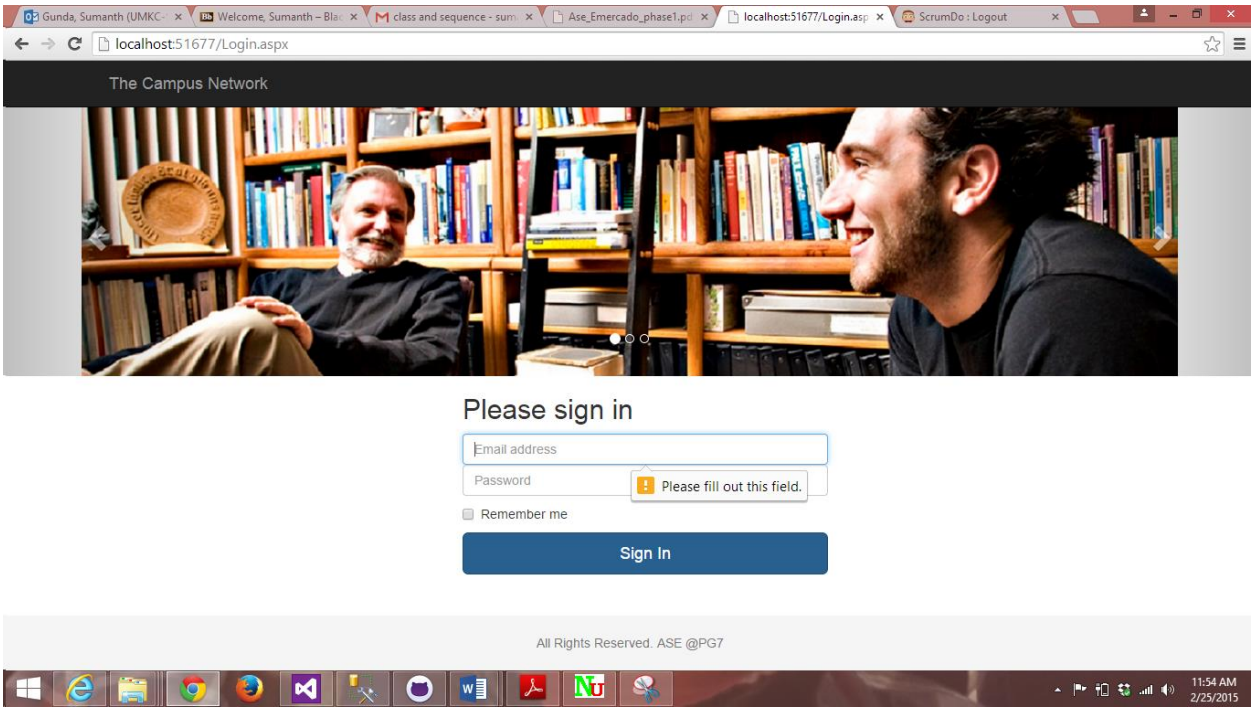


Fig 4: Login Page Validation 2

If the user does not enter any details and if he clicks login. Then he will not be directed to the home page. He will be given with a message asking for his details.

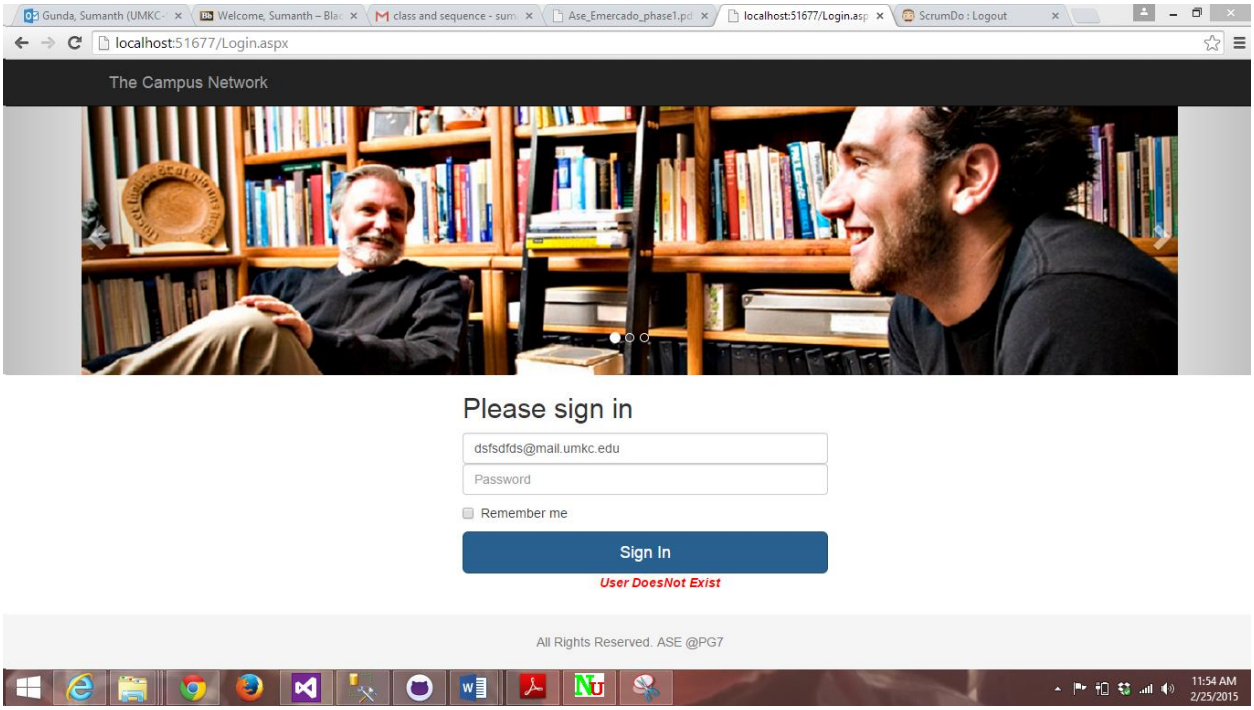


Fig 5: Login Page Validation 3

If the details provided by the user does not exist. Then appropriate error will be displayed.

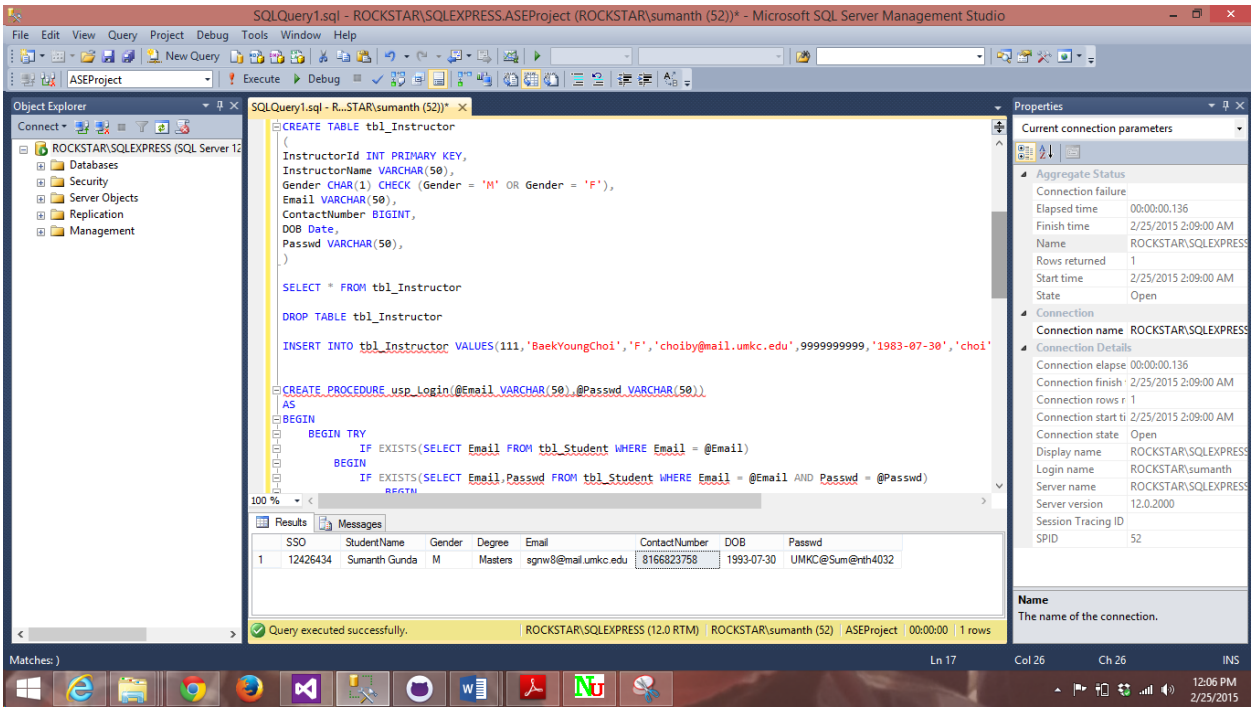


Fig 6: Database Design and Stored Procedures

VI. TESTING

To make sure the quality of the software is good testing is a critical component of the development. Software testing is done to ensure quality and it is also the review of the design and specification.

NUnit Testing:

This tool is used to unit test the application that is developed in C# ASP.Net. It is a Unit Testing Framework when the code that was written in C# can be tested.

The test cases that were designed to test the Campus Network Application are:

- **MasterPage()**

  This function test for the successful loading of the master page when a content page has been inherited from the master page.

- **HomePage()**

  This function tests for successful loading of the dashboard of both the student and instructor after successful loading.

  This function also tests whether the session variables are stored or not.

- **LoginPage()**

  This function tests for successful loading of the login page and also tests for all the validation controls on the page. This function tests whether the appropriate error messages are being displayed.

- **Validations()**

  This function test whether the validations are working properly before the page is sent back to the server.

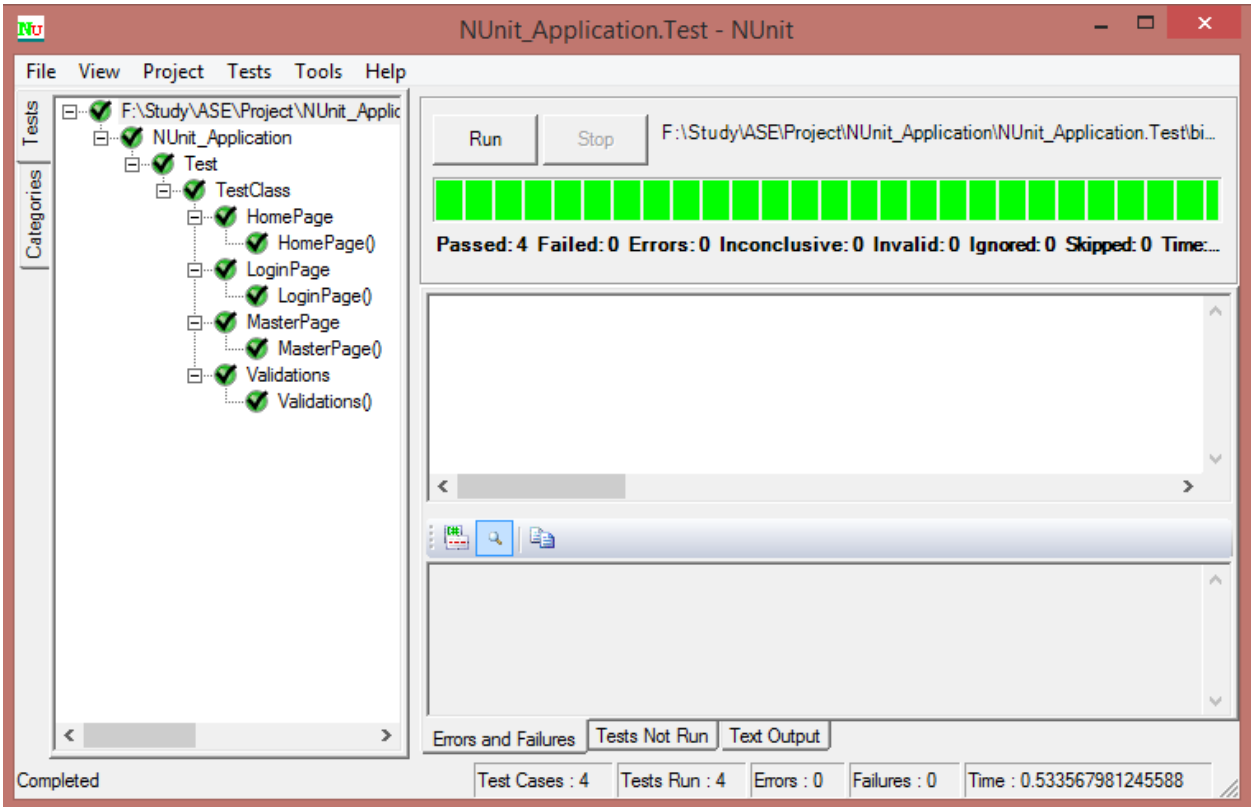


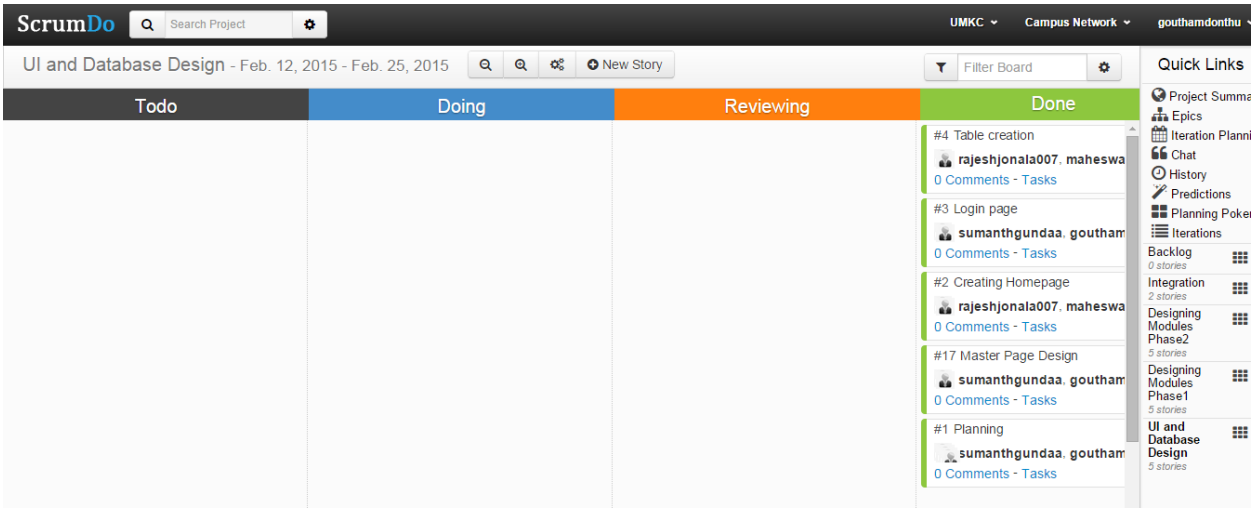
Fig 7: Implementation of Test Cases

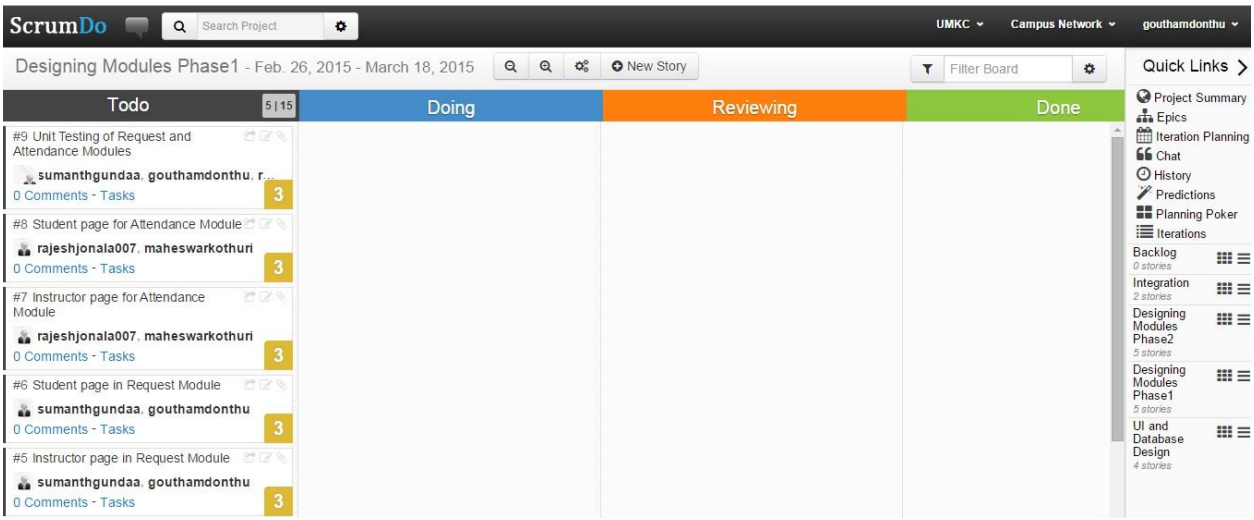
VII. DEPLOYMENT

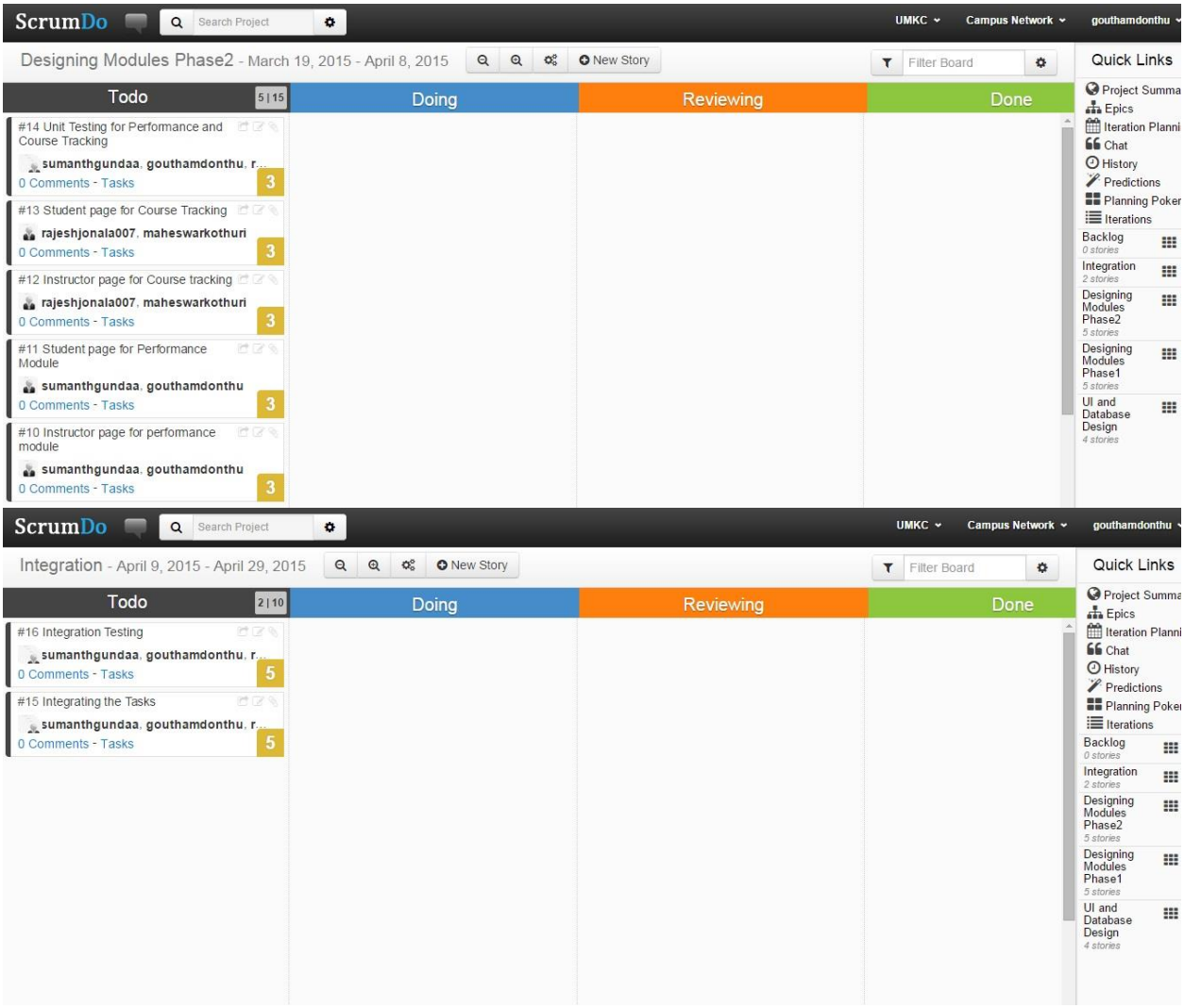
Project Scrum Do Link:

http://www.scrumdo.com/projects/project/campus-network/summary#

Screenshots:







GitHub Site URL:

https://github.com/sumanthgundaa/ASE-Project

VIII. PROJECT MANAGEMENT

Implementation Status Report:

Work Completed:

Story 1: Planning

Description:

Whole Team participates in this story. Here we plan the whole structure of project like what features are we providing and how to implement them.

Responsibility:

Here the project scope and appropriate methods for completing the project is determined.

Time Taken: 6hours

Contributions: All team members equally participated in this story.

Story 2: Master Page Design

Description: Here we create Master page for our project

Responsibility: In this we create common structure for our project

Time Taken: 4 hours

Contributions: Sumanth and Goutham.

Story 3: Creating Home Page

Description: Here we design the Home Page for both Student and Instructor. Navigation in the Home Page changes based on the roles of the user.

Responsibility: Home Page will be designed and the Navigation bar will be changed based on the User Login.

Time Taken: 3hours

Contributions: Mahesh and Rajesh.

Story 4: Creating Login Page

Description: Here we design the login page for the portal.

Responsibility: All the Validations should be done from the database and respective stored procedures should be written to validate the user.

Time Taken: 6hours

Contributions: Sumanth and Goutham.

Story 5: Database Design

Description: All the tables will be created and also the stored procedures will be written.

Responsibility: Table Scripts are created and the sample data will be inserted into the database.

Time Taken: 5hours

Contributions: Mahesh and Rajesh.

Work to be completed:

Description: The Modules that have to be designed on both Instructor and Student side are:

- Request Module
- Attendance Module
- Performance Module
- Google Drive Integration

Responsibility: Each module has to be created to student and also the Instructor. Each of them has different responsibilities based on the roles.

Time Taken: The Time Taken to develop each module for both student and instructor would be 30hrs. And also the time taken to insert sample data and write stored procedures would be 15hrs.

Note: The time that was written was just an expected time. It might take longer or lesser.