

# **CS551 Advanced Software Engineering**

## **Third Increment Report (PG - 7)**

**Title: Campus Network**

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## **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](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.

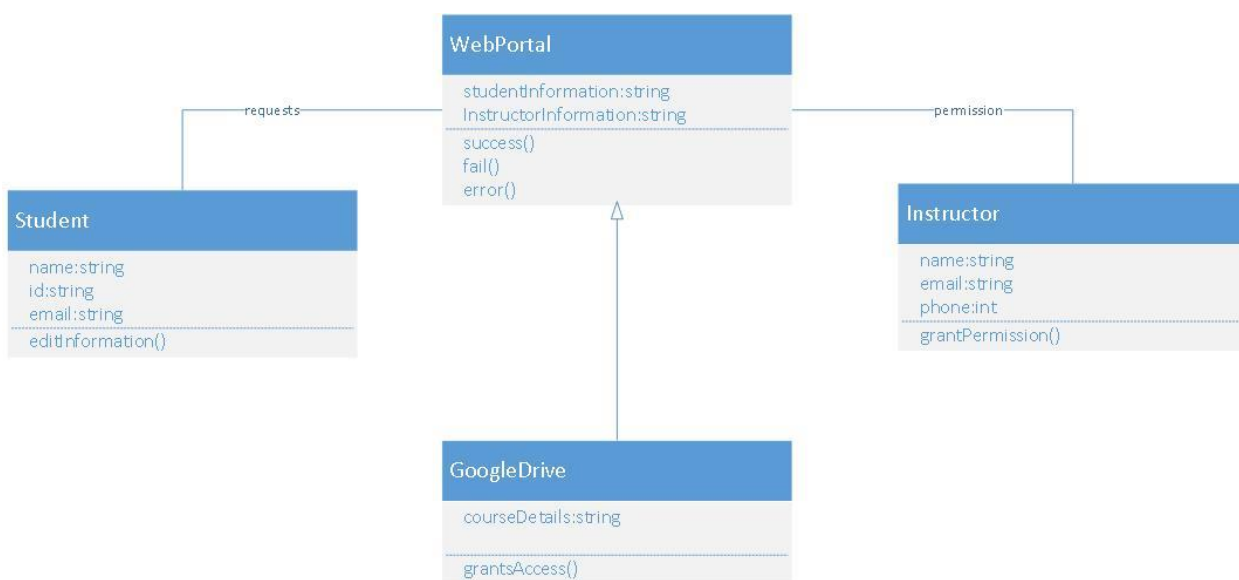
The project is divided into 5 modules

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

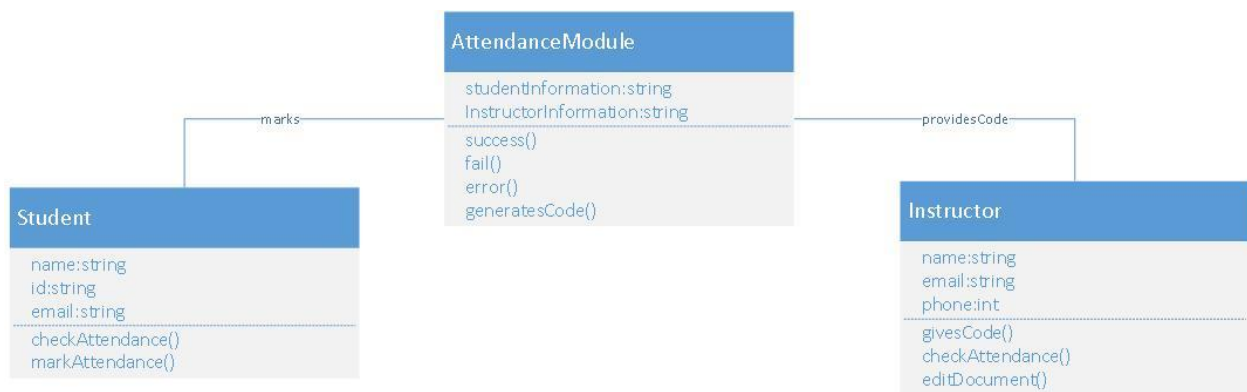
### CLASS DIAGRAM:



### Request Module

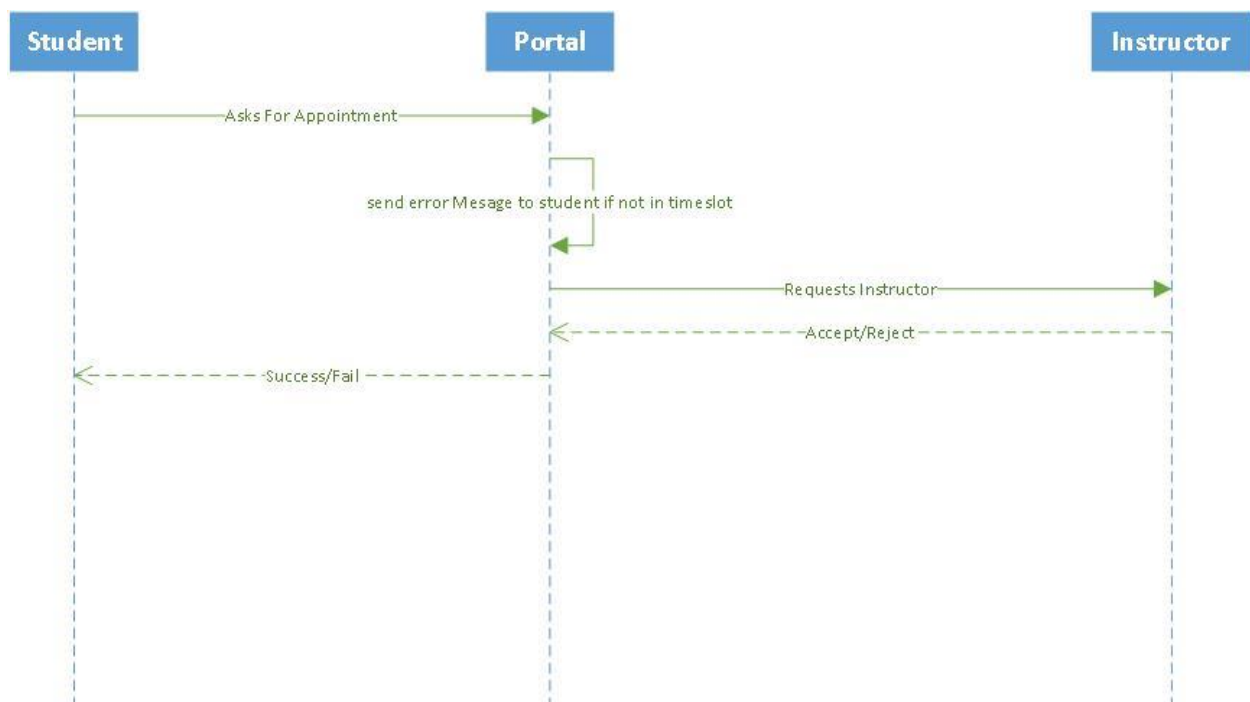


### Google Drive Integration

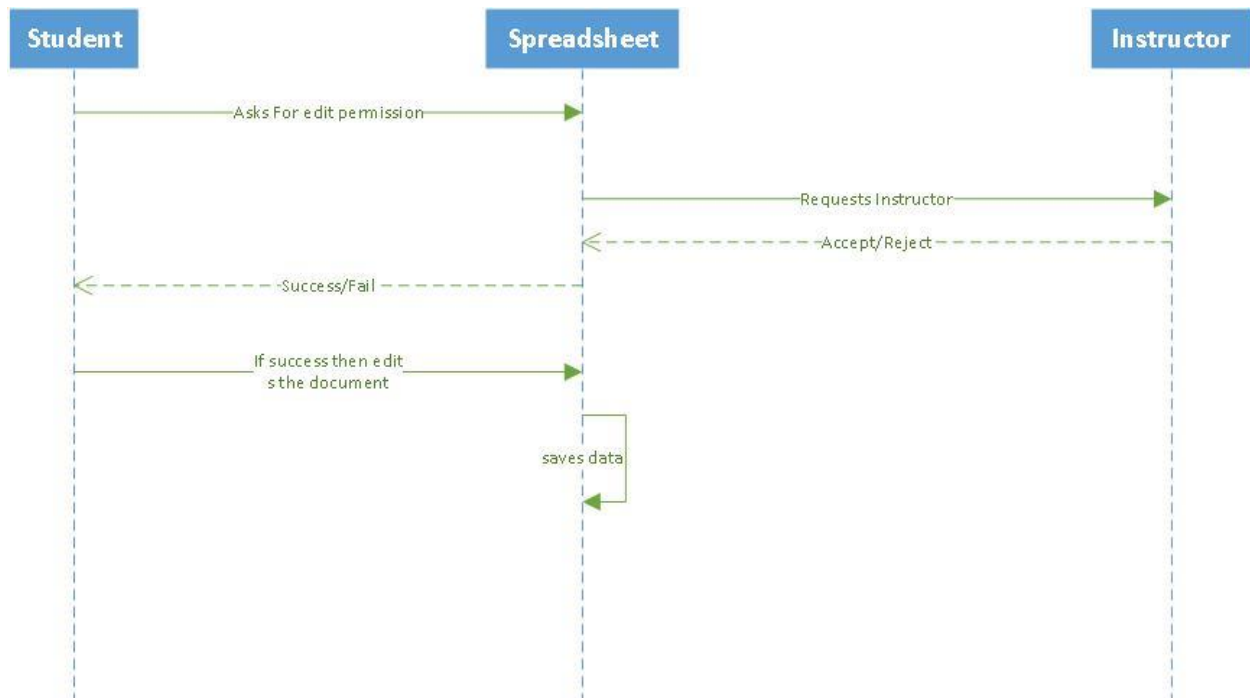


Attendance Module

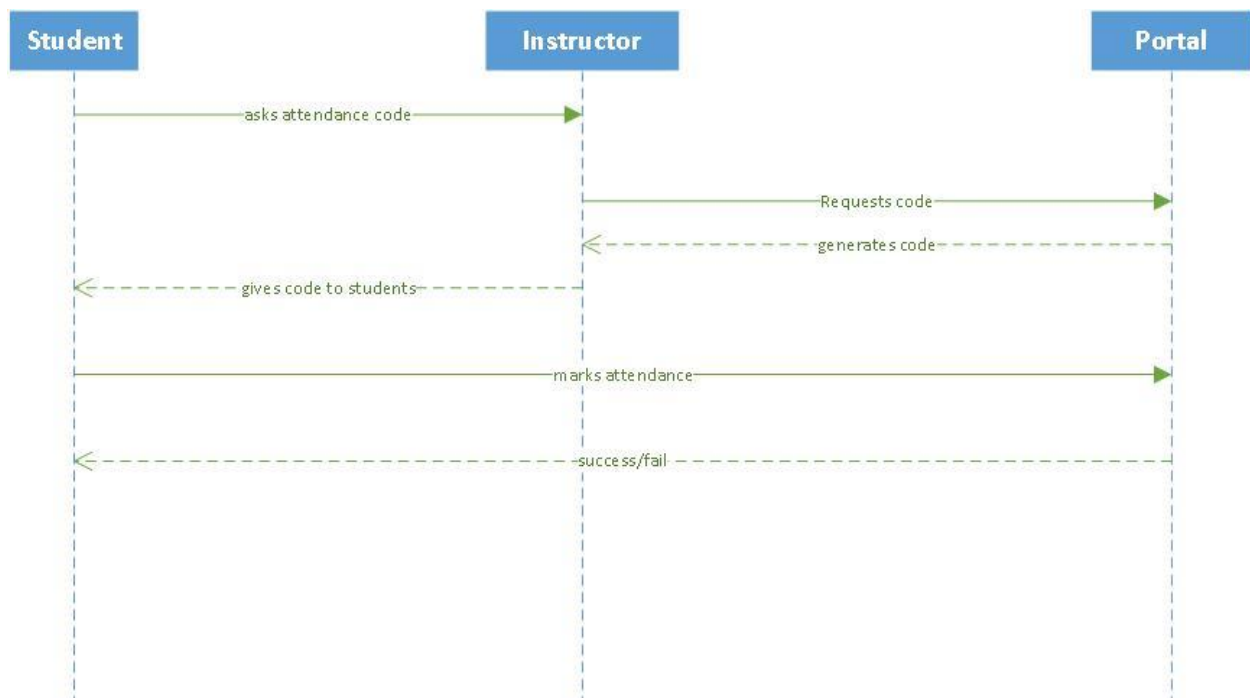
## SEQUENCE DIAGRAM:



Request Module

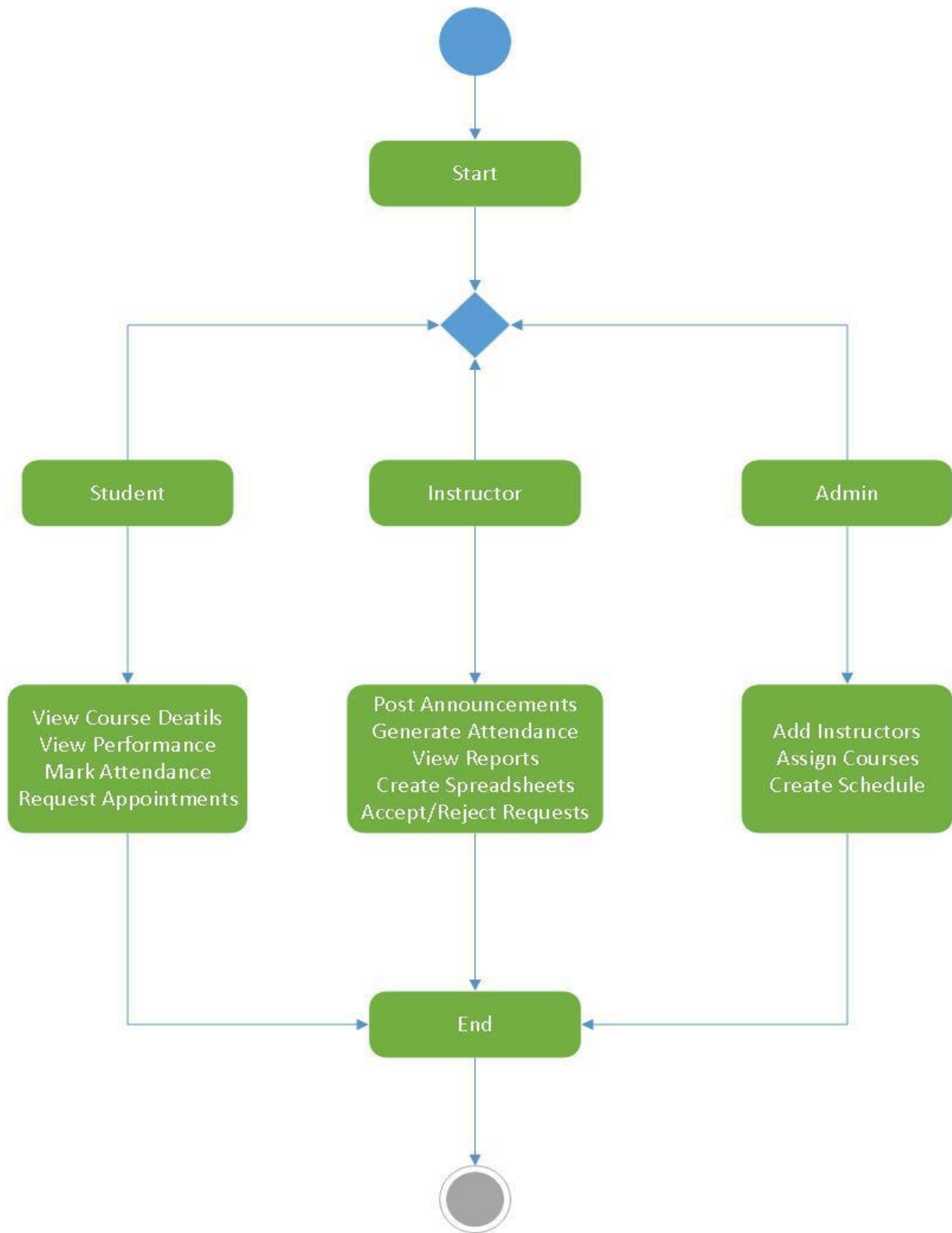


### Google Drive Integration



### Attendance Module

## ACTIVITY DIAGRAM:

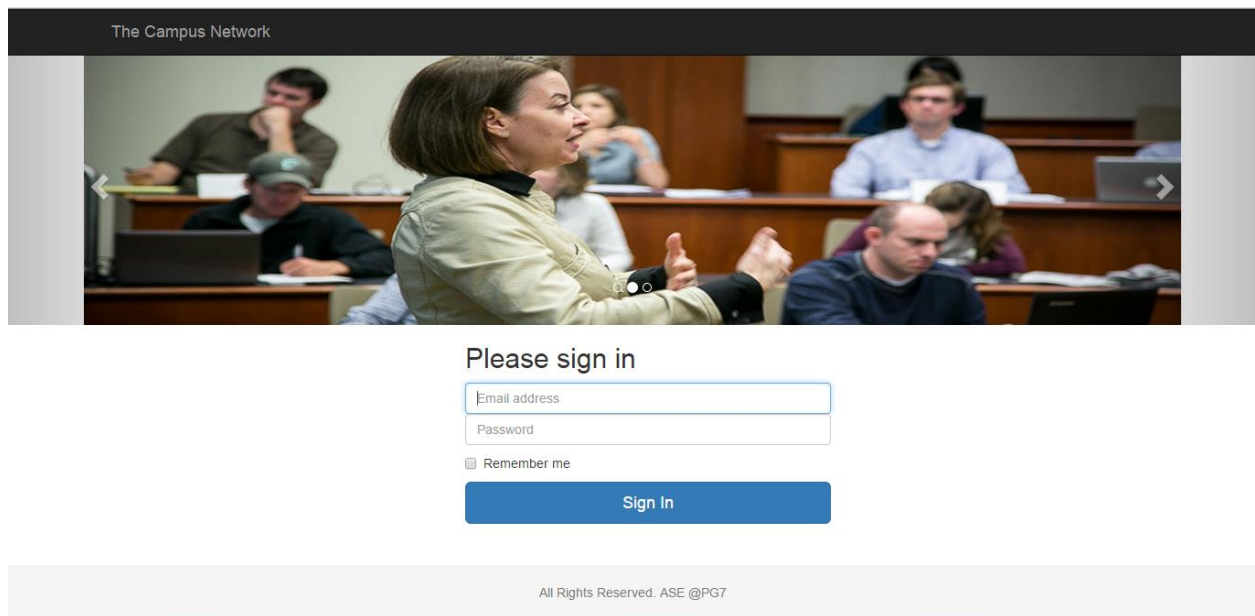


## V. IMPLEMENTATION

The Phase 3 of the Project Implements

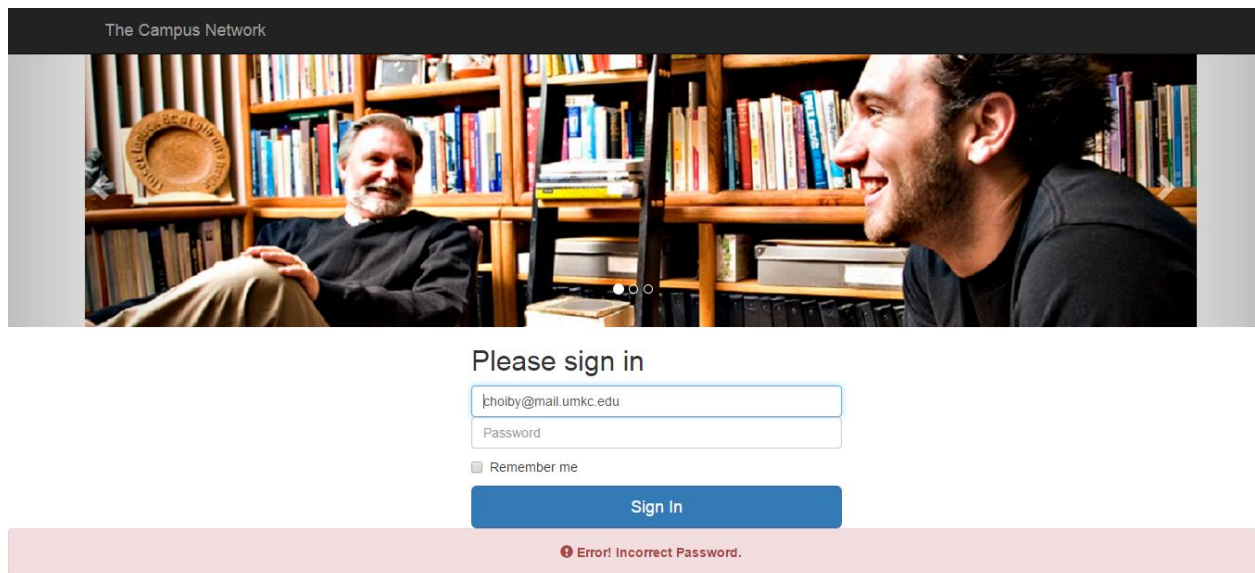
1. Home page extension for students
2. Home page extension for Instructor
3. Instructor page in Performance module
4. Student page in Performance module
5. Validation of all pages
6. Database design and Executing scripts

**Screenshots:**



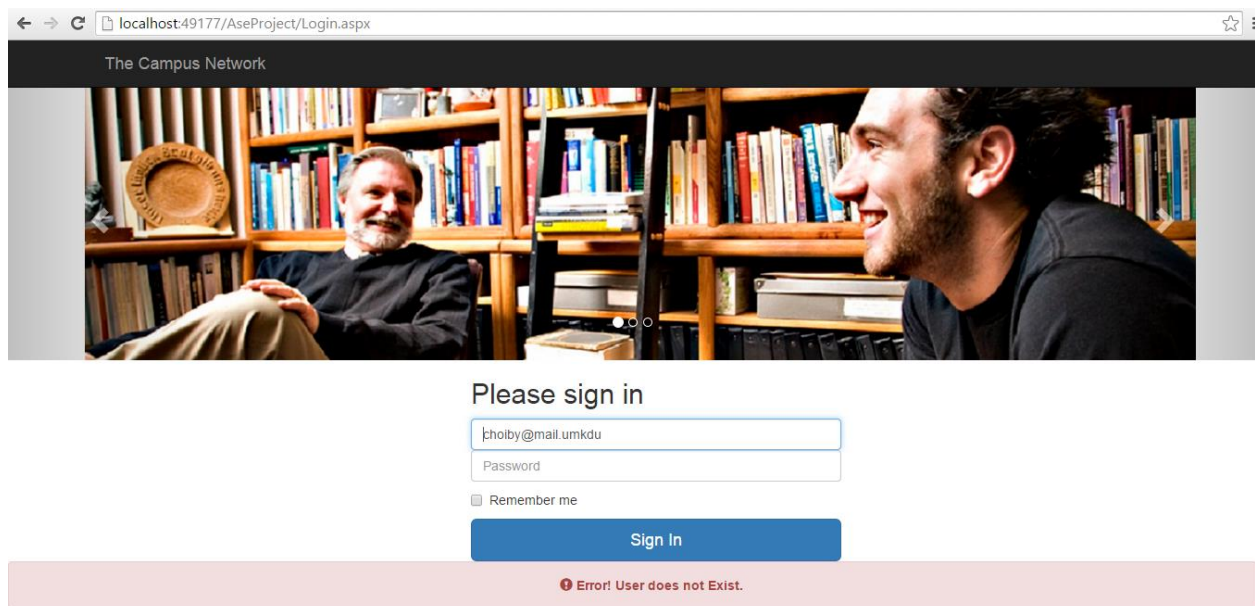
**Fig 1: Login Page**

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



**Fig 2: Login failed because of incorrect password**

Here Instructor failed to enter correct password so login failed and error message is shown



**Fig 3: Login Failed because of wrong user name**

Here Instructor failed to enter correct ID so login failed and error message is shown



The Campus Network
Home
Requests
Performance
Dropdown
Logout

Set Appointments

Select From Date
03/01/2015

Select To Date
03/14/2015

Select From Time
1:00
PM

Select To Time
2:00
PM

Duration of Appointment
10

Max No Of Appointments
5

Set Appointment

Appointments Successfully Set

Cancel Appointments

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**Fig 4: Instructor set's Appointment**

Here Instructor can set the time for their appointments

The Campus Network
Home
Requests
Performance
Dropdown
Logout

Set Appointments
Cancel Appointments

Appointment Date	FromTime	ToTime	Duration	MaxAppointments	Cancel Appointments
3/2/2015	01:00:00	02:00:00	10	5	Delete
3/3/2015	01:00:00	02:00:00	10	5	Delete
3/4/2015	01:00:00	02:00:00	10	5	Delete
3/5/2015	01:00:00	02:00:00	10	5	Delete
3/6/2015	01:00:00	02:00:00	10	5	Delete
3/9/2015	01:00:00	02:00:00	10	5	Delete
3/10/2015	01:00:00	02:00:00	10	5	Delete
3/11/2015	01:00:00	02:00:00	10	5	Delete
3/12/2015	01:00:00	02:00:00	10	5	Delete

12

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**Fig 5: Instructor can delete Appointments for a day**

Here Instructor can delete his appointments for any days.

The Campus Network
Home
Requests
Performance
Dropdown
Logout

Request Appointment

### Request Appointment

Select Appointment Date
03/12/2015

Select Professor
BaekYoungChoi

Select Appointment Time
01:00:00 pm to 02:00:00 pm

Select Appointment Type
Question

Description
intiki vellaccha

Request Appointment

Appointment Requested Successfully

**Fig 6: Student Requesting Appointment**

Student can request appointment from any of his Instructor

The Campus Network
Home
Requests
Performance
Dropdown
Logout

### Appointment Requests

AppointmentId	SSO	StudentName	AppointmentDate	AppointmentTime	AppointmentType	Description	Approve	Reject
1010	16186322	Goutham Donthu	3/2/2015	01:00:00 pm to 02:00:00 pm	Emergency	tdgfsd	Approve	Reject
1011	16186322	Goutham Donthu	3/11/2015	01:00:00 pm to 02:00:00 pm	Enrollment	Consent	Approve	Reject
1012	12426434	Sumanth Gunda	3/10/2015	01:00:00 pm to 02:00:00 pm	Enrollment	Consent	Approve	Reject

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**Fig 7: Instructor's view of Appointments**

This is the page showing all the appointment requests came to the Instructor by students

The Campus Network
Home
Requests
Performance
Dropdown
Logout

Request Appointment

Check Status

AppointmentId	Appointment Date	Instructor Name	Appointment Time	Appointment Type	Description	AppointmentStatus	
9	3/3/2015	BaekYoungChoi	01:00:00 pm to 02:00:00 pm	Enrollment	consent	Approved	Cancel Appointment
10	3/3/2015	BaekYoungChoi	03:00:00 pm to 04:00:00 pm	Enrollment	xfxfd	Rejected	Cancel Appointment
1010	3/2/2015	BaekYoungChoi	01:00:00 pm to 02:00:00 pm	Emergency	fdgfsd	Pending	Cancel Appointment
1011	3/11/2015	BaekYoungChoi	01:00:00 pm to 02:00:00 pm	Enrollment	Consent	Pending	Cancel Appointment
1013	3/12/2015	BaekYoungChoi	01:00:00 pm to 02:00:00 pm	Question	intiki vellaccha	Pending	Cancel Appointment

Fig 8: Student’s view of his Appointment Status

Student viewing status for all his Appointments

The Campus Network
Home
Requests
Performance
Logout

Assigned Courses Progress

Course Progress

Course Id : CS551MT CourseName : Software Methods and Tools

Course Id : CS551NA CourseName : Network Architecture

Check Schedules

Fig 9: showing course progress for Instructor

This page showing how much course has been completed dynamically

The Campus Network
Home
Requests
Performance
Logout

Assigned Courses Progress
Check Schedules

### Assigned Courses

CourseId	CourseName	StartDate	EndDate	Credits	
CS551MT	Software Meathods and Tools	1/20/2015	5/20/2015	3	Get Schedule
CS551NA	Network Architecture	1/20/2015	5/20/2015	3	Get Schedule

Course Schedule For : CS551MT

Date	Topic	Assignment	AssignmentDeadline
1/20/2015	Course Introduction	No Silver Bullet	1/26/2015
1/22/2015	Software Development Process and Activities		
1/27/2015	Lab 1	Assignment 1	2/2/2015
1/29/2015	UML Modelling 1		
2/3/2015	Lab 2	Assignment 2	2/9/2015
2/5/2015	UML Modelling 2		

**Fig 10: Assigned courses for Instructor**

Here Instructor can see what all courses assigned for him and details of those courses

The Campus Network
Home
Requests
Performance
Logout

Upload Marks

### Upload Marks

Select Course
CS551MT

Select Type Of Assessment
Assignments

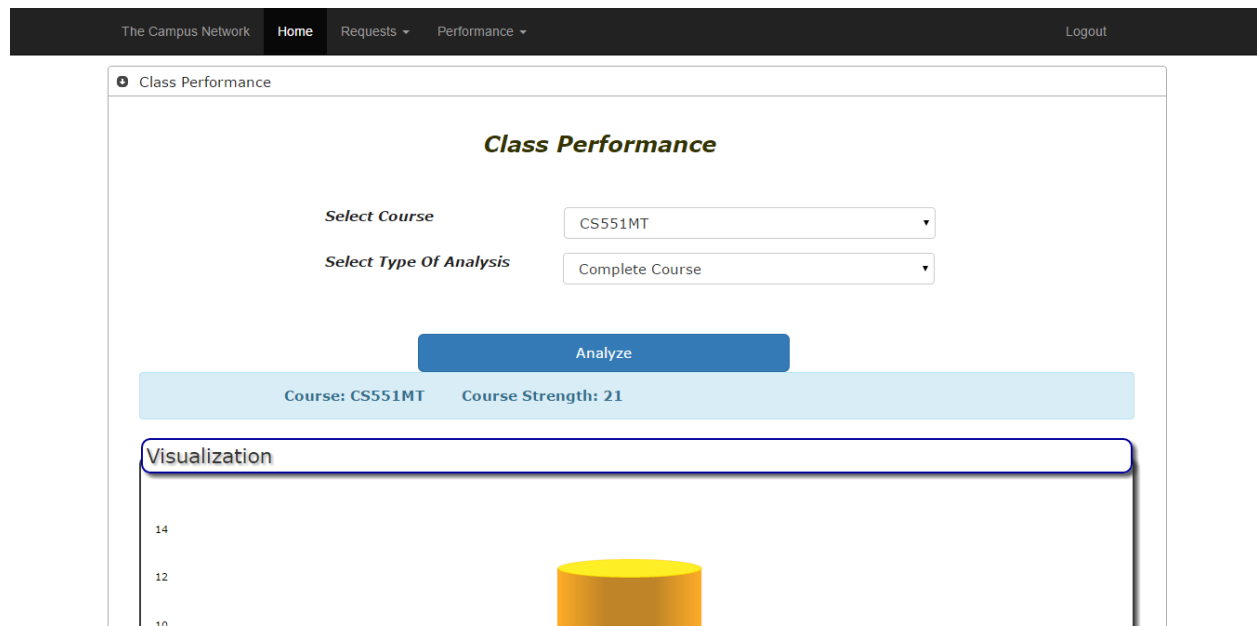
Select Assessment
Assignment 8

Browse For File
 No file chosen

Upload Marks

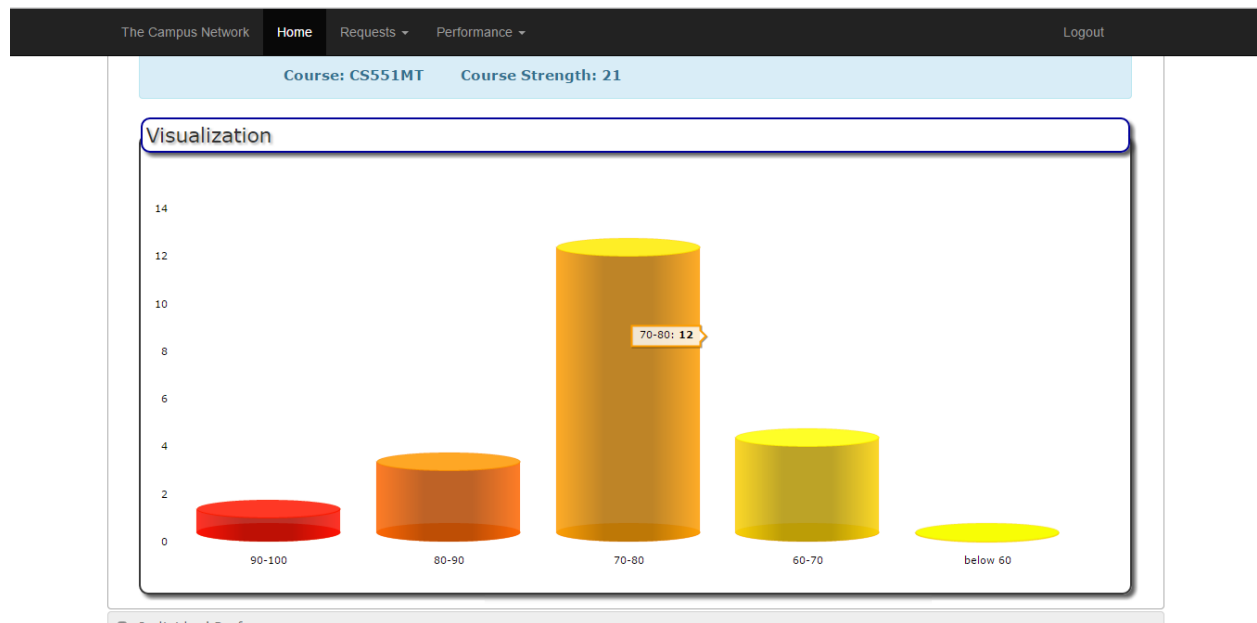
**Fig 11: Uploading marks**

Here Instructor can upload student's marks



**Fig 12: Seeing class performance**

Here Instructor can see the performance of class



**Fig 13: class performance**

Class performance is graphically represented

The Campus Network
Home
Requests
Performance
Logout

Individual Performance

### Individual Performance

Select Course
CS551MT

Enter Student Id
12426434

View Performance

Performance For Course: Label

CourseId	TopicName	TotalMarks	MarksObtained	Percentage	Comments
CS551MT	Assignment 1	100	100	100	Good
CS551MT	Assignment 2	100	90	90	Good
CS551MT	Assignment 3	100	100	100	Well Done
CS551MT	Assignment 4	100	98	98	Well Done
CS551MT	Lab 1	100	96	96	Good Work keep it up
CS551MT	Lab 2	100	88	88	Good Work keep it up
CS551MT	Lab 3	100	96	96	Good Work keep it up
CS551MT	Lab 4	100	100	100	Good Work keep it up
CS551MT	Lab 5	100	90	90	Good Work keep it up

**Fig 14: check individual performance**

Instructor can see individual student performance

The Campus Network
Home
Requests
Performance
Logout

Course Progress And Important Dates

#### Important Dates

CS551MT	Assignment 5	4/15/2015	View
CS551MT	Assignment 7	4/27/2015	View

#### Upcoming Assessments

CS551MT	Final Exam	5/11/2015	View
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#### Course Progress

Course Id : CS551MT CourseName : Software Methods and Tools

Course Id : CS551NA CourseName : Network Architecture

Course Plan

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**Fig 15: Student's view of course progress**

This is the page showing course progress and all important assessments for students

The Campus Network
Home
Requests
Performance
Logout

Course Progress And Important Dates
Course Plan

### Enrolled Courses

CourseId	CourseName	StartDate	EndDate	Credits	
CS551MT	Software Meathods and Tools	1/20/2015	5/20/2015	3	Get Schedule
CS551NA	Network Architecture	1/20/2015	5/20/2015	3	Get Schedule

Course Schedule For : CS551MT

Date	Topic	Assignment	AssignmentDeadline
1/20/2015	Course Introduction	No Silver Bullet	1/26/2015
1/22/2015	Software Development Process and Activities		
1/27/2015	Lab 1	Assignment 1	2/2/2015
1/29/2015	UML Modelling 1		

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**Fig 16: Student's view of his enrolled courses**

Student viewing what courses he enrolled and can get schedule for his course

The Campus Network
Home
Requests
Performance
Logout

### View Performance

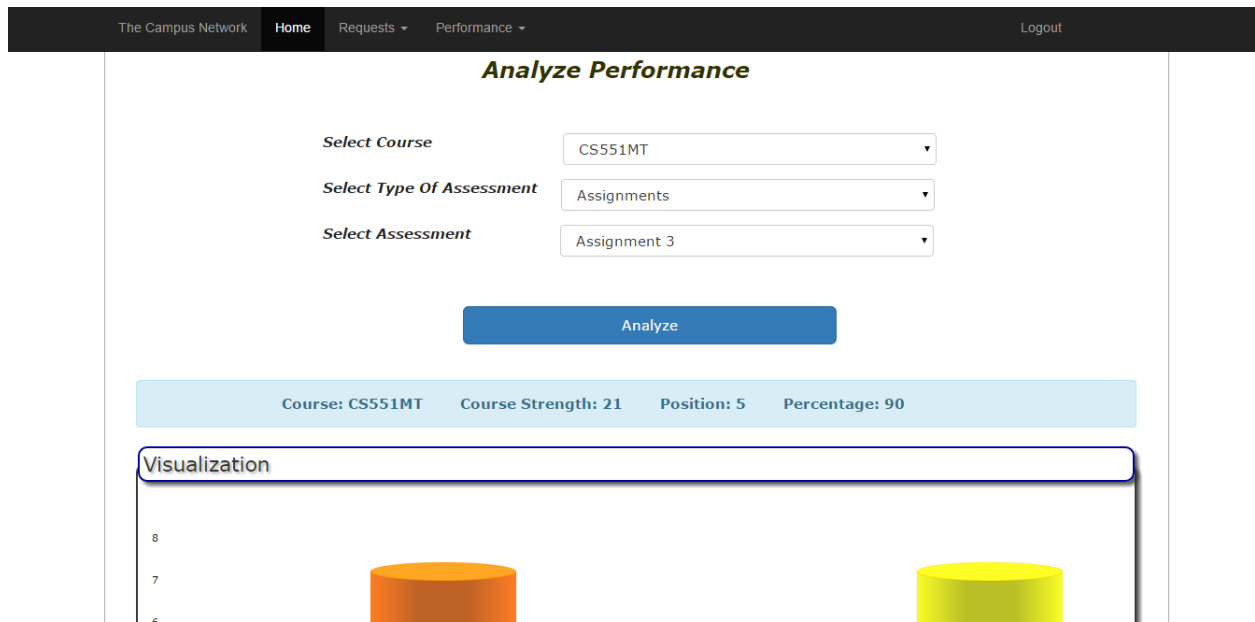
Select Course
CS551MT
View Performance

Performance For Course: CS551MT

CourseId	TopicName	TotalMarks	MarksObtained	Percentage	Comments
CS551MT	Assignment 1	100	93	93	Not Bad
CS551MT	Assignment 2	100	100	100	Not Bad
CS551MT	Assignment 3	100	90	90	Good
CS551MT	Assignment 4	100	90	90	Good
CS551MT	Lab 1	100	92	92	Keep it up
CS551MT	Lab 2	100	81	81	Keep it up
CS551MT	Lab 3	100	92	92	Keep it up
CS551MT	Lab 4	100	95	95	Keep it up
CS551MT	Lab 5	100	95	95	Keep it up
CS551MT	Lab 6	100	98	98	Keep it up
CS551MT	Lab 7	100	85	85	Keep it up
CS551MT	Lab 8	100	93	93	Keep it up
CS551MT	Mid Term	30	23	76	Keep it up

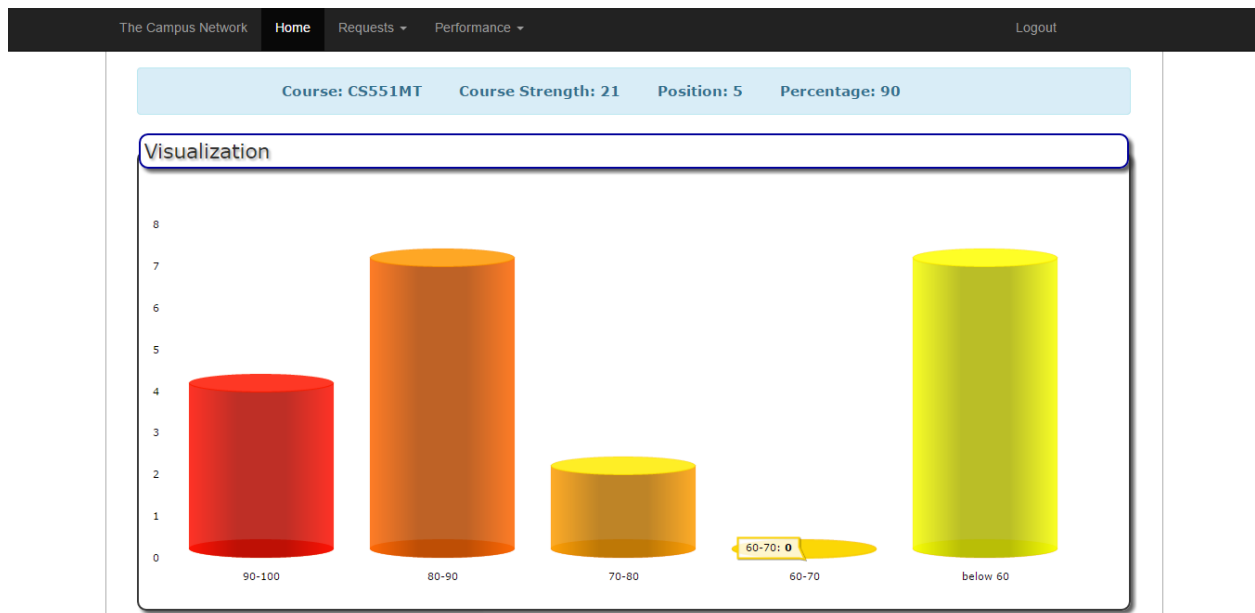
**Fig 17: Student can view his performance**

Student can check all his scores and respective comments by Instructor



**Fig 18: Student can analyze his performance**

Student can analyze his performance in class and he can check his position in particular class



**Fig 19: Graphical representation of student's performance**

This is the graphical representation of all students' performance



## 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.

- **ManageAppointment()**

This function tests whether approve or reject works properly and the web page redirected to expected page or not

- **ApplyAppointment()**

This function tests whether after applying appointments Instructor gets the request or not

- **AppoinmentRequest()**

This function tests whether appointment request came to respective Instructor or not

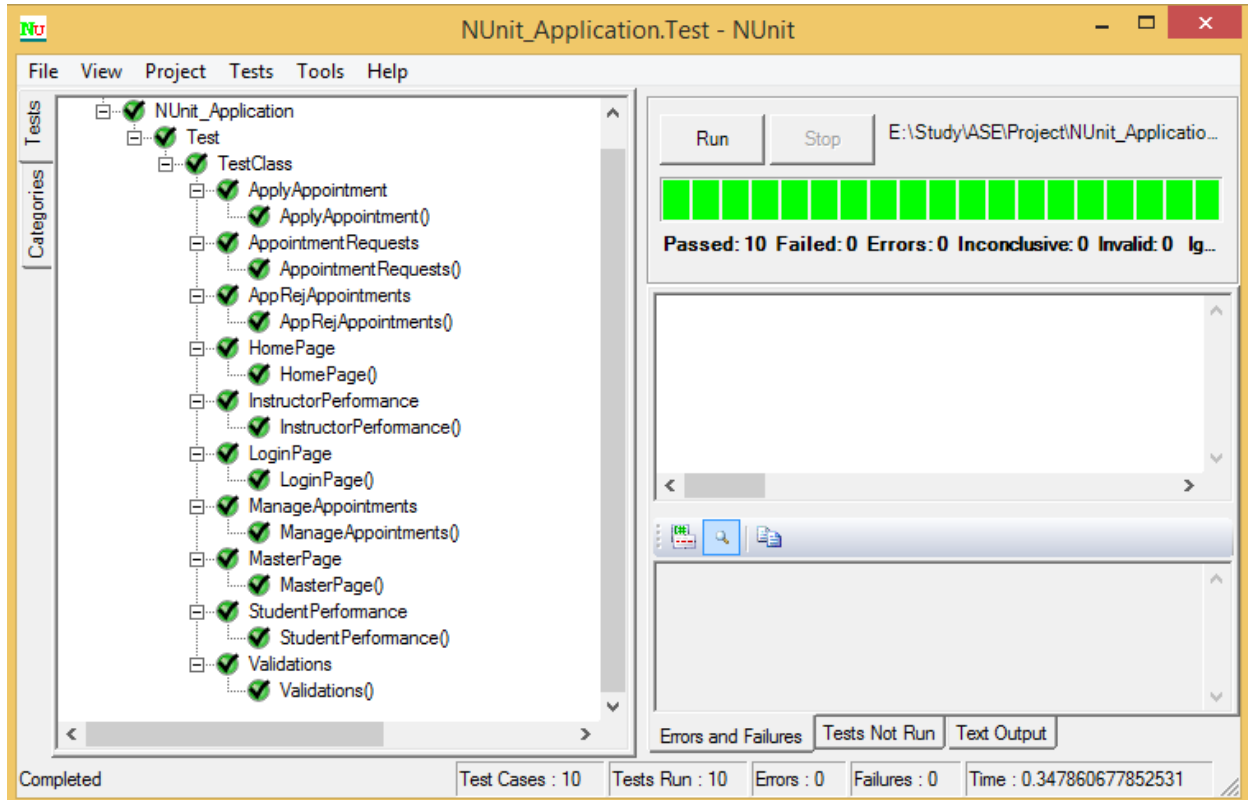
- **InstructorPerformance()**

This function tests for all the validations in performance module on the instructor login.

- **AppoinmentRequest()**

This function tests for all the validations in th performance module on the student module.

### Screen shot for NUnit Testing:



### Implementation of Test Cases

## VII. PERFORMANCE TESTING

- **Firebug Testing:**

It is a web browser extension that will facilitate the live debugging and also monitoring of any websites

We have tested student home page and apply appointments page using firebug for this Increment.

The screenshot shows a web browser at the URL `localhost:49177/AseProject/StudentHomePage.aspx`. The page has a navigation bar with 'The Campus Network', 'Home', 'Requests', and 'Performance'. The main content area is titled 'Course Progress And Important Dates' and contains two tables. The 'Important Dates' table lists assignments for CS551MT, and the 'Upcoming Assessments' table lists a final exam. Below these is a 'Course Progress' section. The Firebug console is open, showing the DOM tree and the console output, which includes a jQuery object and a function definition.

### Firebug Testing for Student Home Page

The screenshot shows a web browser at the URL `localhost:49177/AseProject/ApplyAppointments.aspx`. The page has a navigation bar with 'The Campus Network', 'Home', 'Requests', and 'Performance'. The main content area is titled 'Request Appointment' and contains a form with three sections: 'Select Appointment Date', 'Select Professor', and 'Select Appointment Type'. The Firebug console is open, showing the DOM tree and the console output, which includes a jQuery object and a function definition.

### Firebug Testing for Apply Appointments Page

- **Page Speed Insights:**

It is now available as a google chrome extension to test the load time of the page and also it gives the suggestions for the page so that it can be made faster.

We have tested Student Home Page and Apply Appointments page using Page Speed Insights to analyze the speed of the pages and get some suggestions

The screenshot displays the PageSpeed Insights tool interface. At the top, there's a navigation bar with 'The Campus Network', 'Home', 'Requests', 'Performance', and 'Logout'. Below this is the 'Inspect' panel, which shows the HTML structure of the page. The 'Style' panel on the right shows the CSS rules for the page. The 'Overview' panel on the left lists suggestions for minimizing payload and delay. The 'Suggestion Summary' panel on the right provides a detailed list of suggestions, including enabling compression, minifying JavaScript and CSS, optimizing images, and putting CSS in the document head.

**Overview**

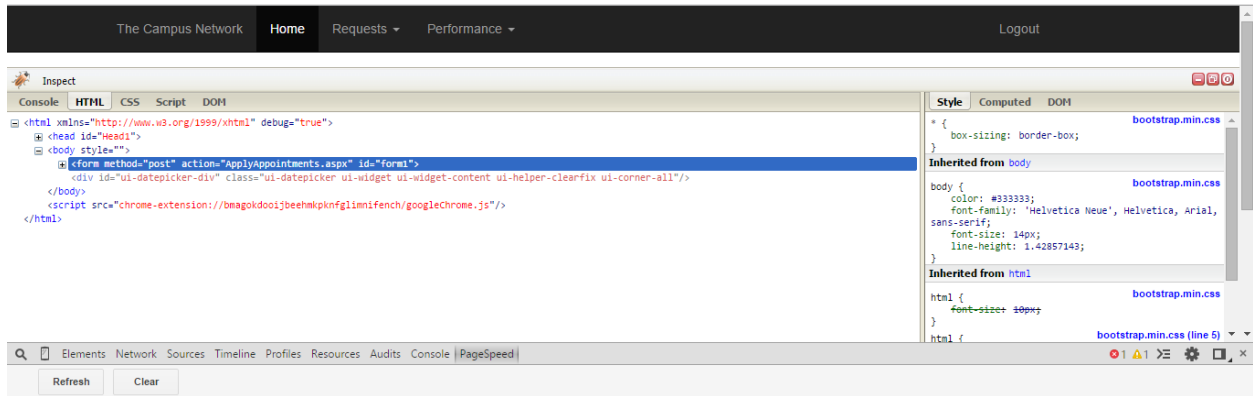
- ☒ **Minimize payload (5)**
  - Enable compression
  - Minify JavaScript
  - Minify CSS
  - Optimize images
  - Minify HTML
- ☒ **Minimize delay in page load (2)**
  - Avoid bad requests

**Suggestion Summary**

Click on the rule names to see suggestions for improvement.

- Minimize payload**
  - (H)Enable compression, (H)Minify JavaScript, (M)Minify CSS, (L)Optimize images, (L)Minify HTML
- Minimize delay in page load**
  - (L)Avoid bad requests, (L)Put CSS in the document head
- Other**
  - (M)Enable Keep-Alive, (M)Defer parsing of JavaScript, (L)Leverage browser caching, (L)Specify a cache validator

## Page Speed Insights for Student Home Page



Refresh Clear

Already done! (17)

- Avoid CSS @import
- Avoid a character set in t...
- Avoid landing page redire...
- Combine images into CS...
- Inline Small CSS
- Inline Small JavaScript
- Minimize redirects
- Minimize request size
- Optimize the order of sty...
- Prefer asynchronous res...
- Put CSS in the document

### Suggestion Summary

Click on the rule names to see suggestions for improvement.

- Minimize payload**  
(H)Enable compression, (H)Minify JavaScript, (M)Minify CSS, (L)Optimize images, (L)Minify HTML
- Minimize delay in page load**  
(L)Avoid bad requests
- Other**  
(M)Enable Keep-Alive, (M)Defer parsing of JavaScript, (L)Leverage browser caching, (L)Specify a cache validator

## Page Speed Insights for Apply Appointments page

## VIII. DEPLOYMENT

### Project Scrum Do Link:

<http://www.scrumdo.com/projects/project/campus-network/iteration/121658/board>

### Screenshots:

The screenshot shows the ScrumDo project board for 'UI and Database Design'. The board has columns for 'Todo', 'Doing', 'Reviewing', and 'Done'. The 'Done' column contains the following tasks:

- #4 Table creation by rajeshjona007.maheswa (0 Comments - Tasks)
- #3 Login page by sumanthgundaa.goutham (0 Comments - Tasks)
- #2 Creating Homepage by rajeshjona007.maheswa (0 Comments - Tasks)
- #17 Master Page Design by sumanthgundaa.goutham (0 Comments - Tasks)
- #1 Planning by sumanthgundaa.goutham (0 Comments - Tasks)

The right sidebar shows 'Quick Links' including Project Summary, Epics, Iteration Planning, Chat, History, Predictions, Planning Poker, Iterations, Backlog, Integration, Designing Modules Phase2, Designing Modules Phase1, and UI and Database Design.

ScrumDo

Search Project

UMKC

Campus Network

gouthamdonthu

Designing Modules Phase1 - Feb. 26, 2015 - March 18, 2015

Filter Board

New Story

Todo

Doing

Reviewing

Done

#18 Unit testing for Appointment Request Module  
sumanthgundaa, goutham  
0 Comments - Tasks

#9 Unit Testing for home pages of student and instructor  
rajeshjonala007, maheswa  
0 Comments - Tasks

#8 Home page for student  
rajeshjonala007, maheswa  
0 Comments - Tasks

#7 Home page for Instructor  
rajeshjonala007, maheswa  
0 Comments - Tasks

#6 Student page in Request Mod  
sumanthgundaa, goutham  
0 Comments - Tasks

#5 Instructor page in Request Mo  
sumanthgundaa, goutham  
0 Comments - Tasks

Project Summary

Epics

Iteration Planning

Chat

History

Predictions

Planning Poker

Iterations

Backlog

Integration

Designing Modules Phase2

Designing Modules Phase1

UI and Database Design

ScrumDo

Search Project

UMKC

Campus Network

gouthamdonthu

Designing Modules Phase2 - March 19, 2015 - April 8, 2015

Filter Board

New Story

Todo

Doing

Reviewing

Done

#14 Unit Testing for Performance Course Tracking  
sumanthgundaa, goutham  
0 Comments - Tasks

#13 Student page for Course Tra  
rajeshjonala007, maheswa  
0 Comments - Tasks

#12 Instructor page for Course tr  
rajeshjonala007, maheswa  
0 Comments - Tasks

#11 Student page for Performance Module  
sumanthgundaa, goutham  
0 Comments - Tasks

#10 Instructor page for performar module  
sumanthgundaa, goutham  
0 Comments - Tasks

Project Summary

Epics

Iteration Planning

Chat

History

Predictions

Planning Poker

Iterations

Backlog

Integration

Designing Modules Phase2

Designing Modules Phase1

UI and Database Design

ScrumDo

Search Project

UMKC

Campus Network

gouthamdonthu

Integration - April 9, 2015 - April 29, 2015

Filter Board

New Story

Todo

Doing

Reviewing

Done

#16 Integration Testing  
sumanthgundaa, gouthamdonthu, r  
0 Comments - Tasks

#15 Integrating the Tasks  
sumanthgundaa, gouthamdonthu, r  
0 Comments - Tasks

Project Summe

Epics

Iteration Planni

Chat

History

Predictions

Planning Poker

Iterations

Backlog

Integration

Designing Modules Phase2

Designing Modules Phase1

UI and Database Design

**GitHub Site URL:**

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

## **IX. 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.

### **Story 6: Instructor Home Page**

**Description:** This is the homepage after Instructor login into his account. In this page he can see all the courses taught by him and corresponding schedule.

**Responsibility:** All Courses taught by the Instructor are displayed in his home page and the schedule is also available

**Time Taken:** 9hours

**Contributions:** Mahesh and Rajesh.

### **Story 7: Student Home Page**

**Description:** This is the homepage for the student after he logged in. He can see what all courses he enrolled and the syllabus of respective courses. He can also view works to be done.



**Responsibility:** All Courses registered by the student are displayed in his home page

**Time Taken:** 8hours

**Contributions:** Mahesh and Rajesh.

### **Story 8: Instructor Page in Request Module**

**Description:** We create page for instructor such that he can accept or reject the students request for appointment and he can view all the requests

**Responsibility:** All the requests are displayed in his page and he can accept or reject the request. After the reply from Instructor result is reflected in student page

**Time Taken:** 9hours

**Contributions:** Sumanth and Goutham.

### **Story 9: Student Page in Request Module**

**Description:** Here student can request for an appointment with desired instructor and he can later view the status of the request

**Responsibility:** Instructors available timings are displayed in his page so that he can seek appointment. After student requests for appointment it is reflected in Instructors page that particular student is asking for his appointment.

**Time Taken:** 10hours

**Contributions:** Sumanth and Goutham.

### **Story 10: Unit Testing for Home Pages of Student and instructor**

**Description:** Here we test the home pages independently such that they are working correctly according to our specifications without any bugs

**Responsibility:** Unit testing is done on home pages of student and Instructor

**Time Taken:** 4hours

**Contributions:** Mahesh and Rajesh.

### **Story 11: Unit Testing for Appointment Request Module**

**Description:** Here we test the Instructor and Student pages in Appointment Request module such that they are working correctly according to our specifications without any bugs

**Responsibility:** Here we do the unit testing for student page and Instructors page in appointment request module. Our goal is to run this module without any bugs.

**Time Taken:** 5hours

**Contributions:** Sumanth and Goutham

### **Story 12: Unit Testing for Home Pages of Student and instructor**

**Description:** Here we test the home pages independently such that they are working correctly according to our specifications without any bugs

**Responsibility:** Unit testing is done on home pages of student and Instructor

**Time Taken:** 4hours

**Contributions:** Mahesh and Rajesh

### **Story 13: Instructor page for performance module**

**Description:** Here Instructor can track all the students performance and he can generate report of all the students

**Responsibility:** Instructor can track all the students' performance. We are providing data through excel sheet.

**Time Taken:** 15 hours

**Contributions:** Sumanth and Goutham

### **Story 14: Student page for Performance Module**

**Description:** Here student can view his test scores and he can view his position in the class

**Responsibility:** Students score can be viewed by him and they are graphically represented

**Time Taken:** 15hours

**Contributions:** Sumanth and Goutham

### **Story 15: Instructor page for Course tracking**

**Description:** Instructor can track the status of the course and he can generate a warning message to all the students about any assignment or project deadlines

**Responsibility:** Instructor can see how much course has been completed and he can see curriculum of course

**Time Taken:** 13hours

**Contributions:** Mahesh and Rajesh

### **Story 16: Student page for Course Tracking**

**Description:** Here student can track the status of the course and they were eventually notified about their tasks

**Responsibility:** Student can see how much course has been completed and he can see curriculum of course

**Time Taken:** 16hours

**Contributions:** Mahesh and Rajesh

### **Story 17: Unit Testing for Performance and Course Tracking**

**Description:** Here we test the modules independently such that they are working correctly according to our specifications without any bugs

**Responsibility:** Here we do the unit testing for student page and Instructors page in performance module. Our goal is to run this module without any bugs

**Time Taken:** 10hours

**Contributions:** Sumanth and Goutham

### **Work to be completed:**

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

- 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 this module for both student and instructor would be 40hrs. And also the time taken to insert sample data and write stored procedures would be 20hrs.

**Note:** The time that was written was just an expected time. It may vary in real time.