



ASE

## **Attendance & Feedback Portal**

Final Project Package -2017

CS 5551 -CSEE

### **School Matters!**



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# UMKC Attendance and Feedback Portal

## 1. Introduction

A Web portal is an exclusively designed web application that can provide information from different sources and the content that displayed varies depending upon the intended user and the intended purpose. UMKC Attendance & Feedback is a portal which can be used by UMKC students and professors. Students can submit the attendance and feedback through this portal upon enrolment to their respective courses for the semester. And professors can track the data related to each student's presence, feedback and suggestions from the portal.

## 2. Project Proposal

### 2.1 Motivation

The existing UMKC Attendance Application enables students to submit code for attendance submission. This existing application can be enhanced as a web portal for the students to register. Depending upon the term and courses enrolled, students can easily have access to view the calendar, corresponding schedule for the date and submit the feedback for their presence. Each professor can pull out information regarding the attendance and feedback. So, the main agenda of this is to create a portal collectively which makes it flexible for students to submit the attendance & feedback instead of spending time in fetching links of the forms and submitting it externally.

Initially every intended user (student, professor and admin) must register and login to access the portal. Upon login, each student should submit the details of the enrolled courses for the semester. The student can then view a scheduled calendar which will display the courses enrolled in. On clicking on the date, the user can submit the feedback and attendance form. The professors can login to the portal and can download/export the sheets for the attendance and feedback depending upon the submission received from the students for a date. The admin has rights to view access and maintain the entire data of the application.

### 2.2 Significance/Uniqueness

Flexible and quick submission of attendance and feedback using a single form access rather than submitting multiple forms explicitly. Improved accessibility to track and manage student attendance and feedback. Positive and negative feedback analysis. Location and Time tracking of each submission.

### 2.3 Objectives

A Web Portal-UMKC Attendance and Feedback, for availing students and professors to easily submit and access the attendance and feedback forms for courses enrolled.

### 3. Features

1. Login/Register Pages: Student, Professor and Admin Login/Registration Pages.
2. Pop-up Dialog box for details regarding courses enrolled.
3. Scheduled calendar page which allows students to view their schedule for the courses enrolled and submit attendance/feedback forms.
4. Acknowledgement for attendance/feedback submissions.
5. Location and time capture through API's.
6. Sentimental Analysis for feedback submitted by students.
7. Auto generating the reports of attendance/feedback for the professors.
8. Database (MongoDB) to store the details.

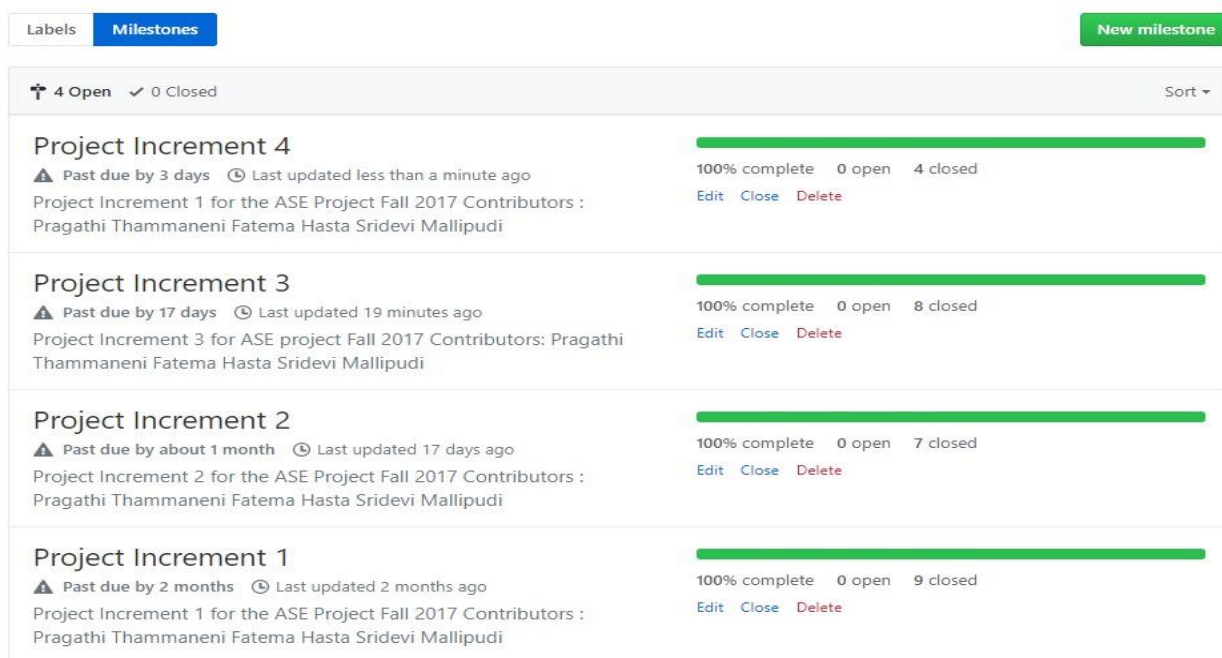
### 4. Project Plan

**Agile Model** is used to develop the project which helped us to develop the project in increments. In agile model, each increment is tested to maintain the quality of application. Due to Agile process changes are easily adapted.

The entire project is divided into **4 increments** and issues are created under each increment. The tasks are assigned to individual team members. Once the tasks are completed it is moved to closed state. The progress of each increment is visualized in Burndown Chart.

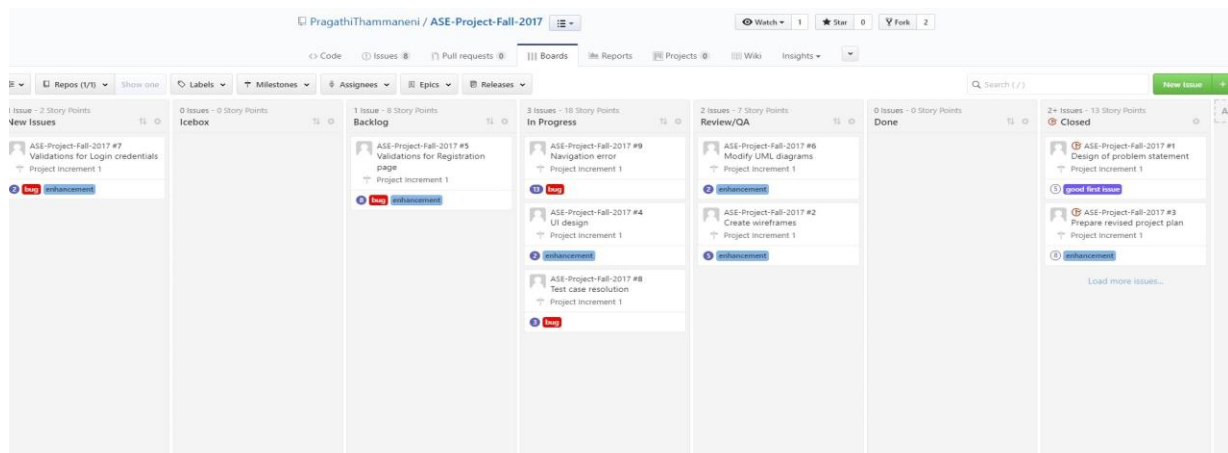
Increment	Start Date	End Date	Work Planned
Increment 1	9/01/2017	9/22/2017	User Login and Registration Page Hard Stop Validations
Increment 2	9/23/2017	10/13/2017	Google calendar to display schedule for classes Using google forms for feedback form Google Authenticator for authenticating users MongoDB for Storage
Increment 3	10/14/2016	11/23/2017	OTP generation and email verification for login Generating dynamic recursive events for calendar Location capture using Geolocation API Sentimental Analysis for Feedback
Increment 4	11/24/2017	12/04/2017	Dynamically exporting the Feedback data in form of excel sheet from mongoDB Google charts Visualization for Feedback Data

In ZenHub 4 Milestones are created for each increment and issues are created under each milestone and assigned to respective team member.



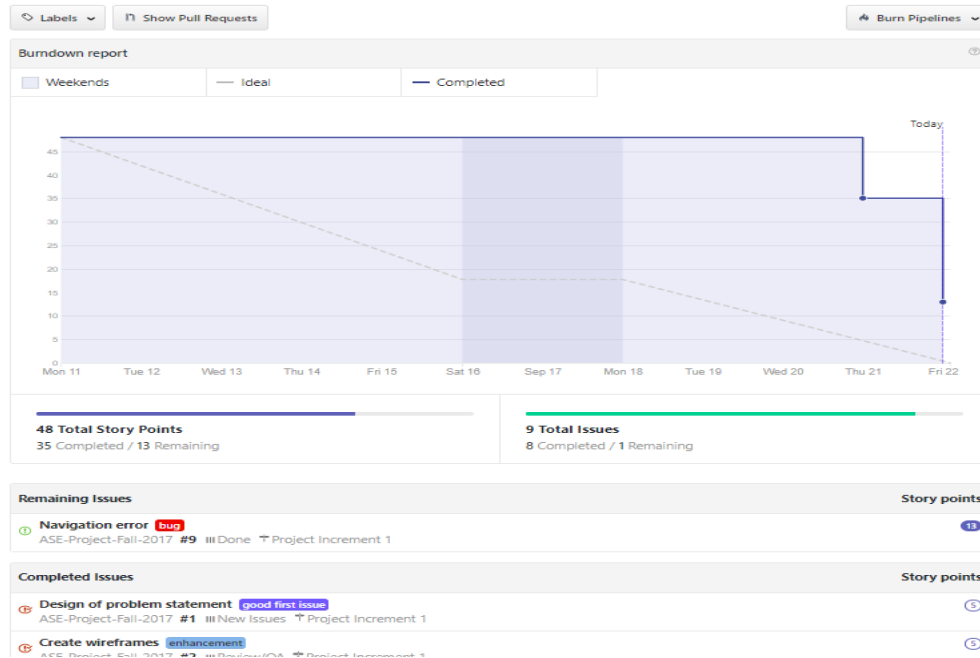
## 4.1 ZenHub Issues Burndown Charts

### 4.1.1 Project Increment 1

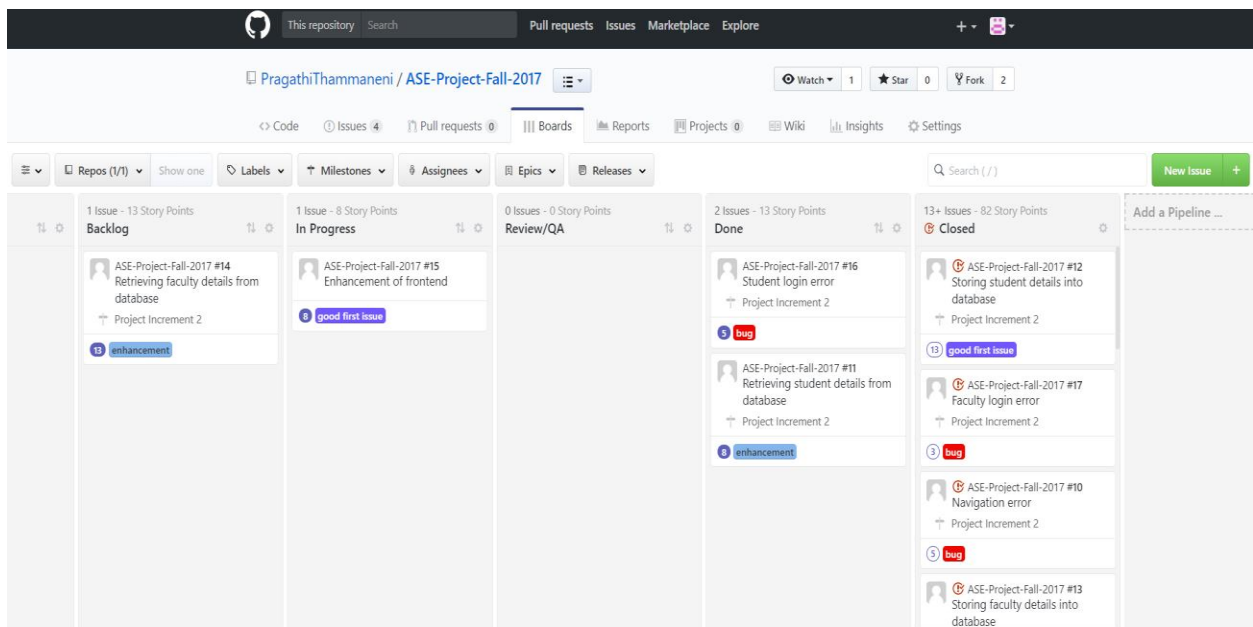


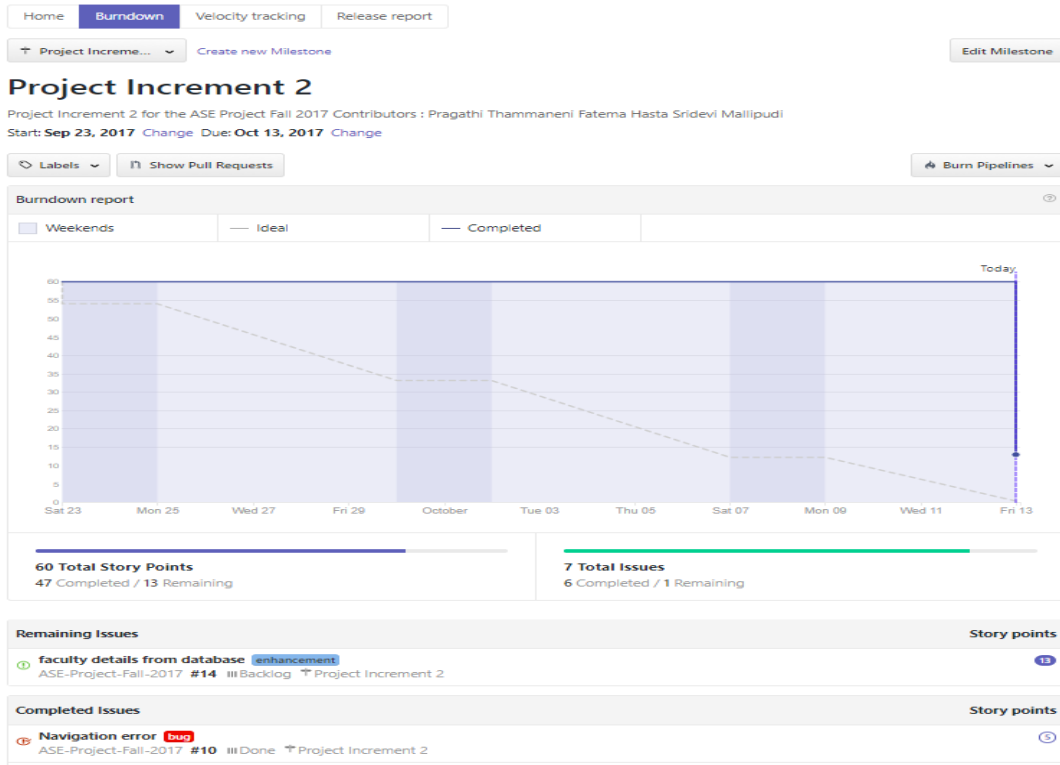
## Project Increment 1

Project Increment 1 for the ASE Project Fall 2017 Contributors : Pragathi Thammaneni Fatema Hasta Sridevi Mallipudi  
Start: Sep 11, 2017 Change Due: Sep 22, 2017 Change



### 4.1.2 Project Increment 2





### 4.1.3 Project Increment 3

Boards - PragathiThammaneni

GitHub, Inc. [US] | <https://github.com/PragathiThammaneni/ASE-Project-Fall-2017/issues#boards?repos=104394281>

This repository Search Pull requests Issues Marketplace Explore

PragathiThammaneni / ASE-Project-Fall-2017 Watch 1 Star 0 Fork 2

Code Issues Pull requests **Boards** Reports Projects Wiki Insights

0 Issues - 0 Story Points New Issues

0 Issues - 0 Story Points Icebox

0 Issues - 0 Story Points Backlog

0 Issues - 0 Story Points In Progress

0 Issues - 0 Story Points Review/QA

5 Issues - 12 Story Points Done

- ASE-Project-Fall-2017 #20 Generating the calendar events dynamically Project Increment 3 duplicate
- ASE-Project-Fall-2017 #21 Unable to capture the current location Project Increment 3 good first issue
- ASE-Project-Fall-2017 #23 Facing issues when generating email for verification Project Increment 3 invalid
- ASE-Project-Fall-2017 #22 Unable to send the Feedback data to API Project Increment 3
- ASE-Project-Fall-2017 #24 Integrating OTP generation with existing code

20+ Issues - 121 Story Points Closed

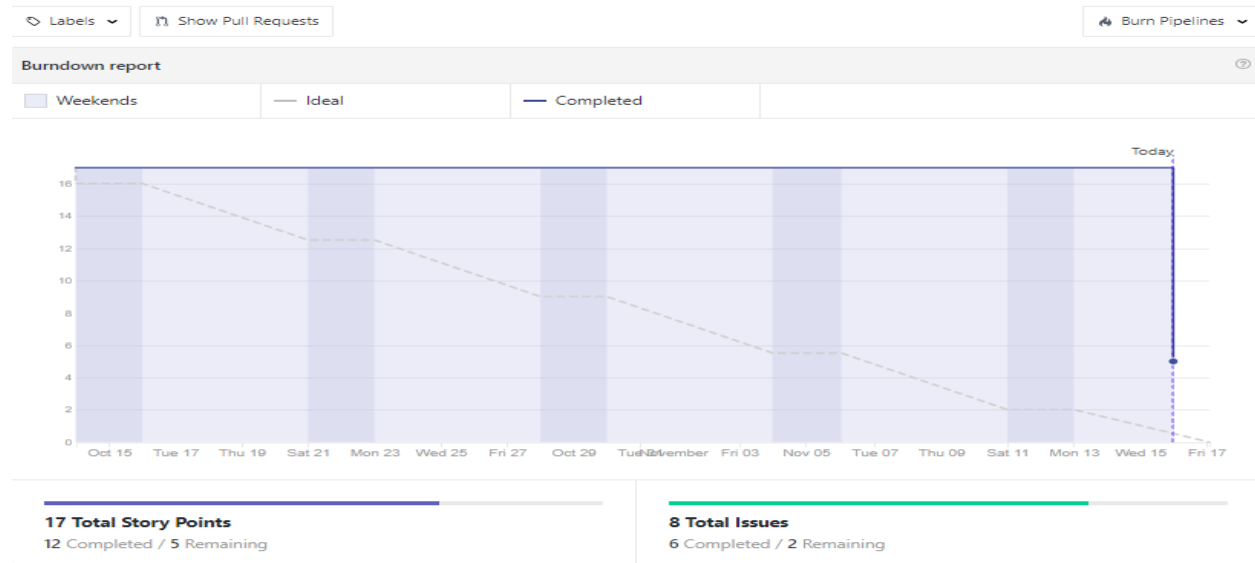
- ASE-Project-Fall-2017 #19 Creating calendar events recursively Project Increment 3 enhancement
- ASE-Project-Fall-2017 #18 Retrieving details from database Project Increment 3 help wanted
- ASE-Project-Fall-2017 #23 Unable to export the mongodb data to excel sheet Project Increment 3 enhancement
- ASE-Project-Fall-2017 #14 faculty details from database Project Increment 2 enhancement
- ASE-Project-Fall-2017 #11 Retrieving student details from database Project Increment 2

Type here to search

7:46 PM 11/16/2017

## Project Increment 3

Project Increment 3 for ASE project Fall 2017 Contributors: Pragathi Thammaneni Fatema Hasta Sridevi Mallipudi  
Start: Oct 14, 2017 Change Due: Nov 17, 2017 Change



Remaining Issues	Story points
<div>Unable to capture the current location <span>good first issue</span></div> <div>ASE-Project-Fall-2017 #21 III Done Project Increment 3</div>	3
<div>Integrating OTP generation with existing code <span>enhancement</span></div> <div>ASE-Project-Fall-2017 #24 III Done Project Increment 3</div>	2

## 4.1.4 Project Increment 4

Boards · PragathiThammaneni

GitHub, Inc. [US] | https://github.com/PragathiThammaneni/ASE-Project-Fall-2017/issues#boards?repos=104394281

Apps Student Email NW Online Photos Radio Garden KCPL - Power Kansas Gas Service Time Warner Cable Cerner Careers Cerner: Onboarding Jasmine - JavaScript CS551 - ASE 2017 F

This repository Search Pull requests Issues Marketplace Explore

PragathiThammaneni / ASE-Project-Fall-2017 Watch 1 Star 0 Fork 2

Code Issues Pull requests Boards Reports Projects Wiki Insights

Repos (1/1) Show one Labels Milestones Assignees Epics Releases

0 Issues - 0 Story Points Icebox

0 Issues - 0 Story Points Backlog

0 Issues - 0 Story Points In Progress

0 Issues - 0 Story Points Review/QA

1 Issue - 3 Story Points Done

28+ Issues - 140 Story Points Closed

ASE-Project-Fall-2017 #26 Unable to fetch the mongodb data to csv file Project Increment 4 good first issue

ASE-Project-Fall-2017 #29 Retrieving the enrolled course details dynamically from database Project Increment 4 duplicate

ASE-Project-Fall-2017 #27 unable to visualize the data Project Increment 4 enhancement

ASE-Project-Fall-2017 #28 Error in verifying the otp Project Increment 4 bug

ASE-Project-Fall-2017 #21 Unable to capture the current location Project Increment 3 good first issue

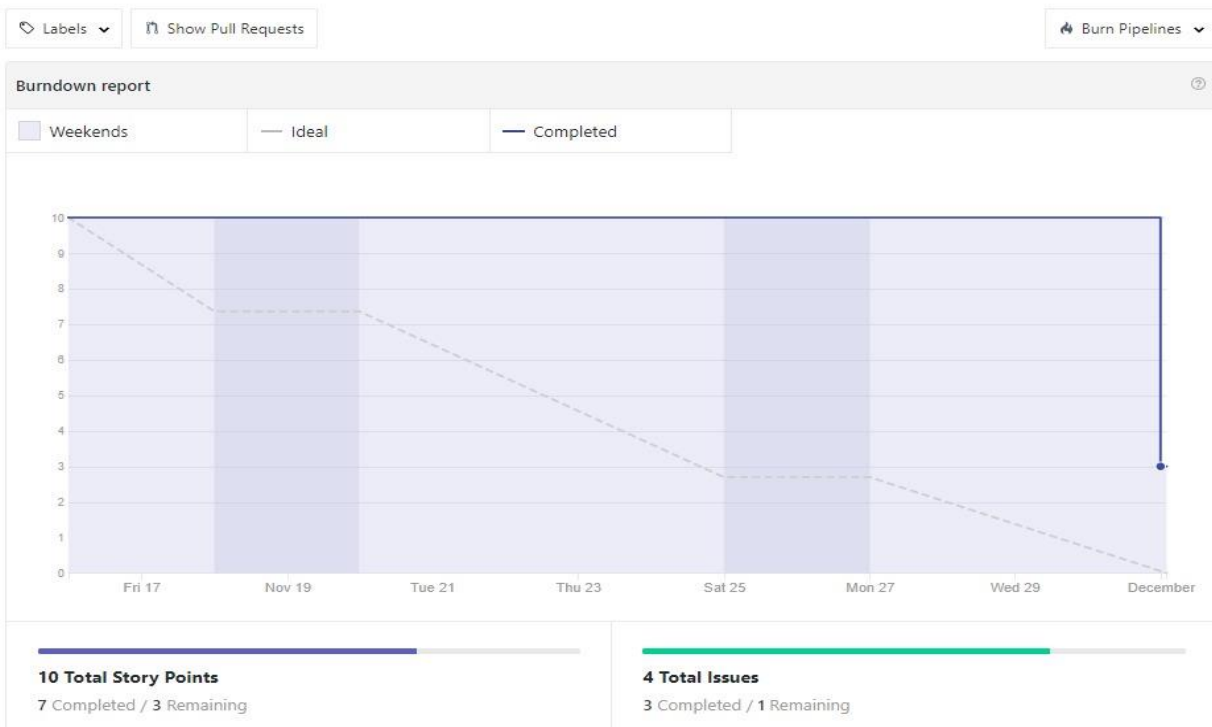
Type here to search 7:15 PM 12/3/2017



## Project Increment 4

Project Increment 1 for the ASE Project Fall 2017 Contributors : Pragathi Thammaneni Fatema Hasta Sridevi Mallipudi

Start: **Nov 16, 2017** [Change](#) Due: **Dec 1, 2017** [Change](#)



## 5. Technologies Used & Internal Flow of System

### 5.1 System Requirements

UMKC Attendance and Feedback is an web application which uses **WebStorm** as IDE. The front end of the application is developed using **HTML, CSS, Bootstrap, JavaScript, Google AppScript** and back-end logic is handled in **Angular JS. MongoDB** is used as a database for storing student & faculty details, students enrolled course details and Attendance & Feedback data.

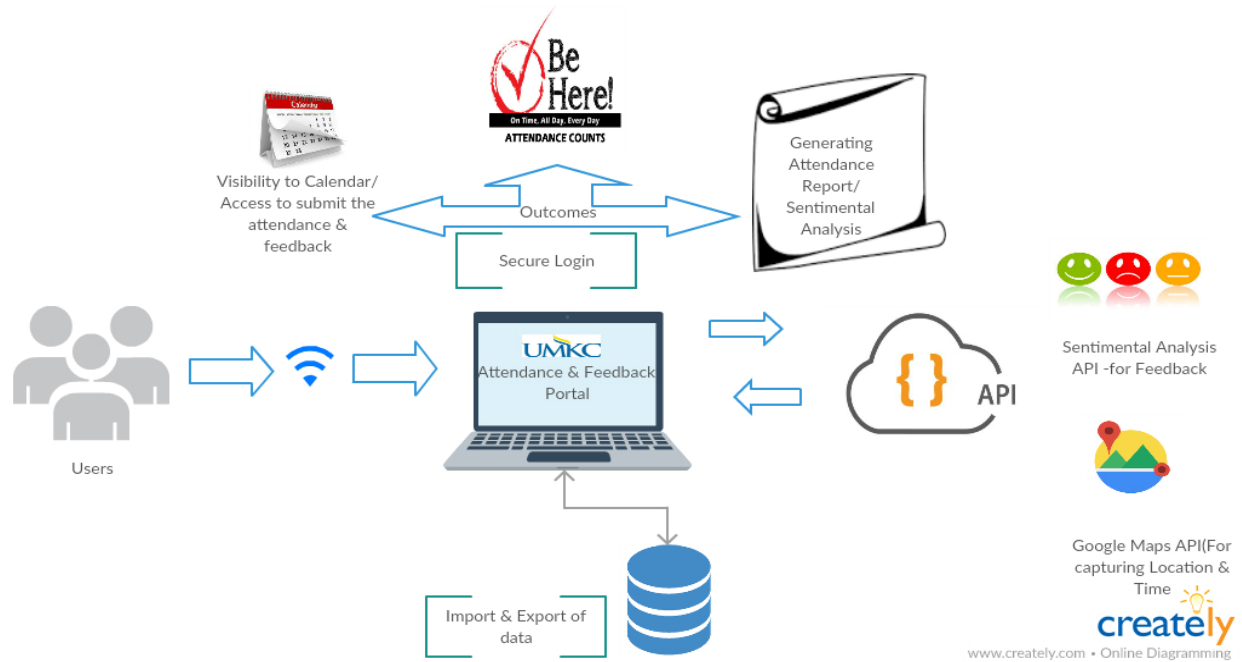
IDE: WebStorm / Brackets

Languages Used: Angular JS, HTML, CSS, Bootstrap, JavaScript, Google AppScript

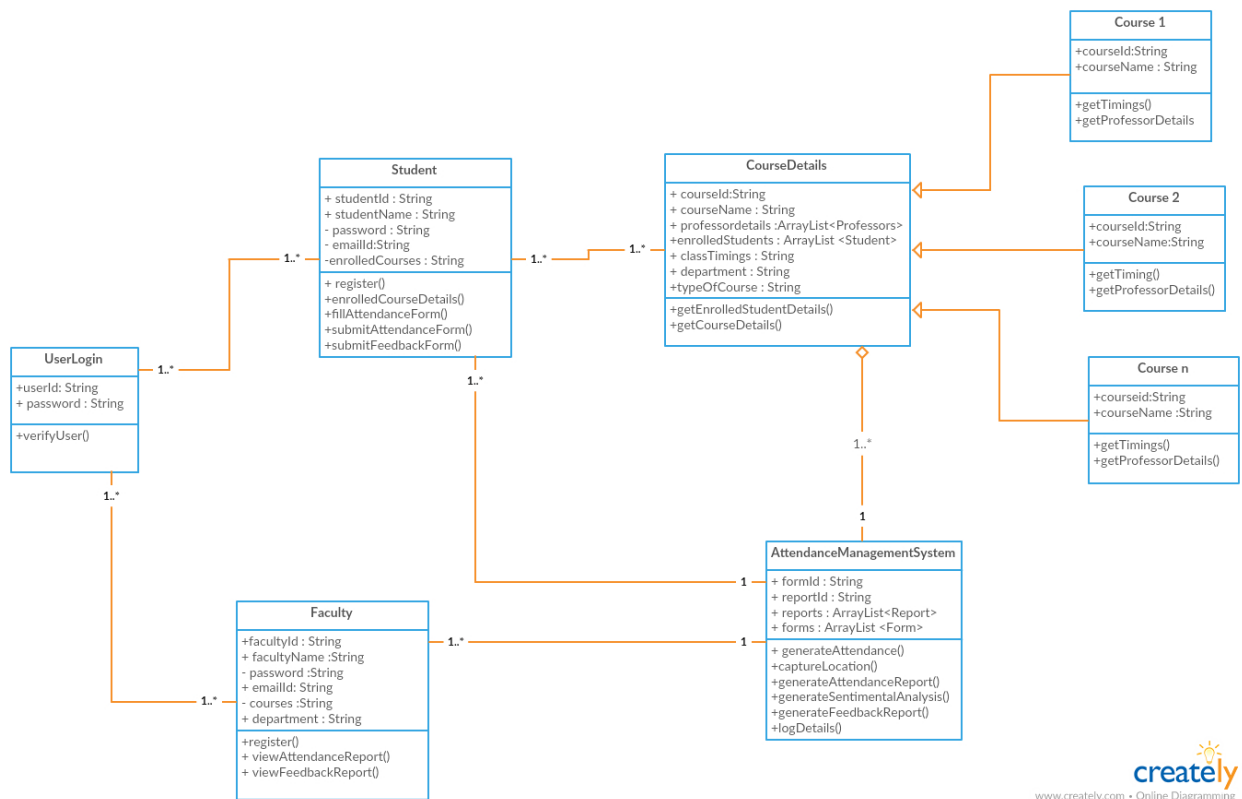
Database: MongoDB

APIs Used: GeoLocation API, Sentimental Analysis API, Google Authenticator, Google Charts API

## 5.2 System Architecture

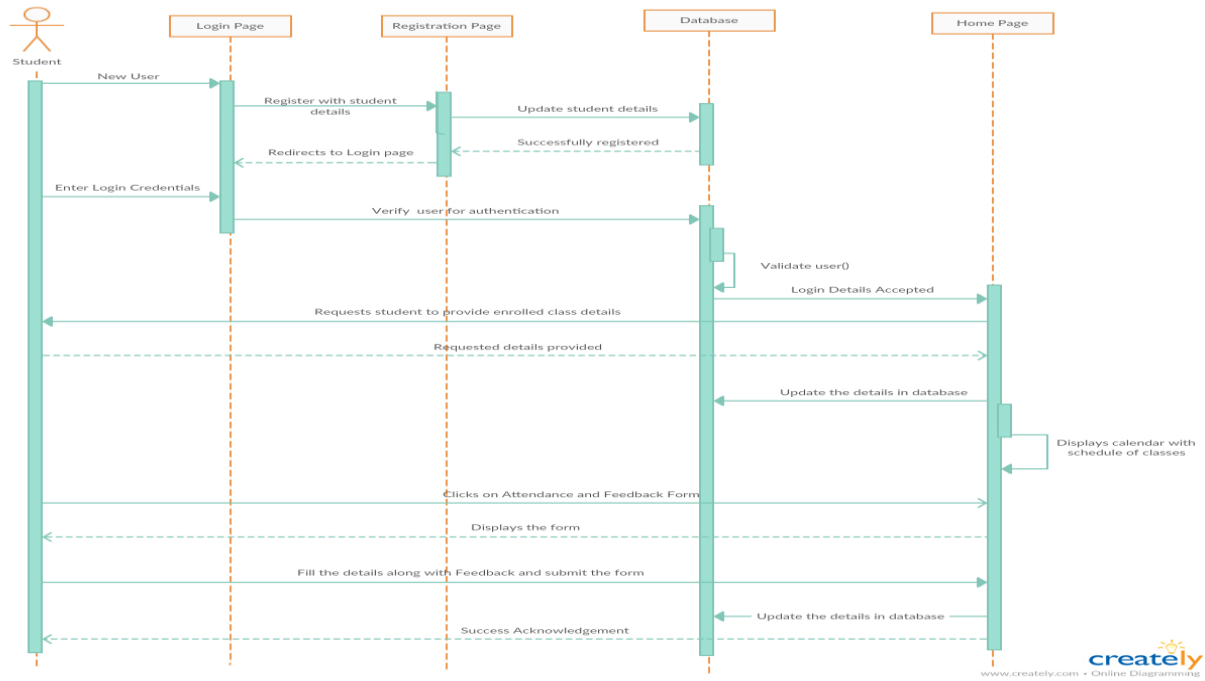


## 5.3 Class Diagram

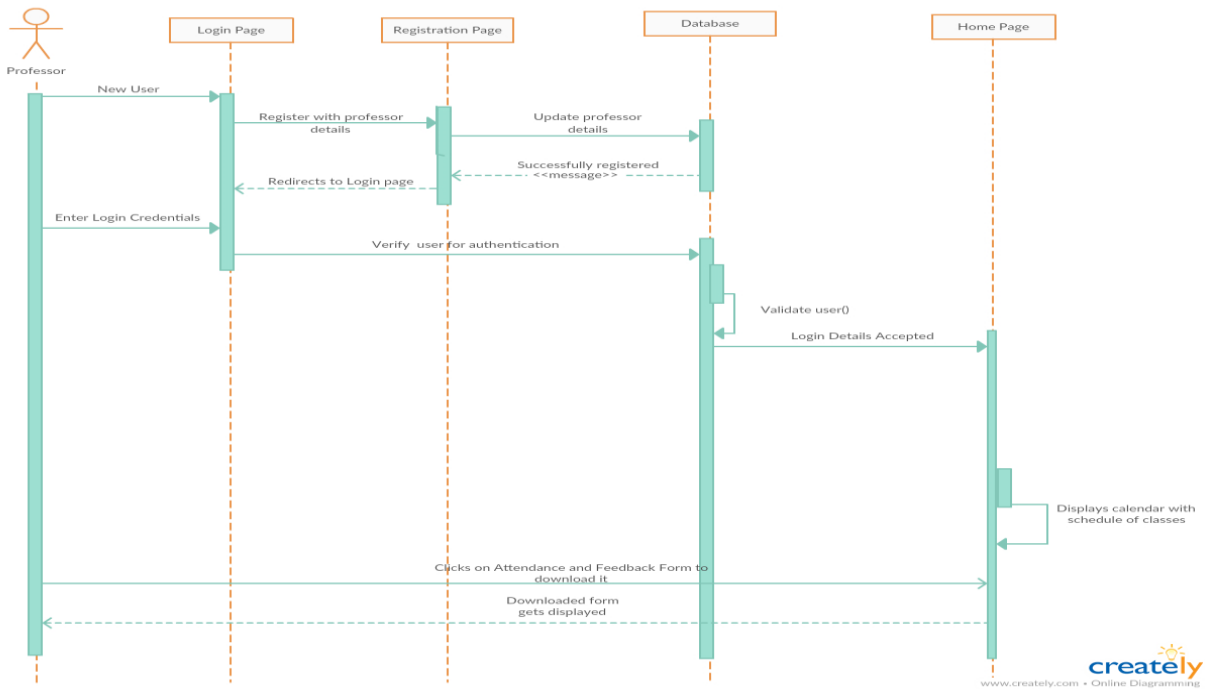


## 5.4 Sequence Diagram

### 5.4.1 Sequence Diagram for Student:



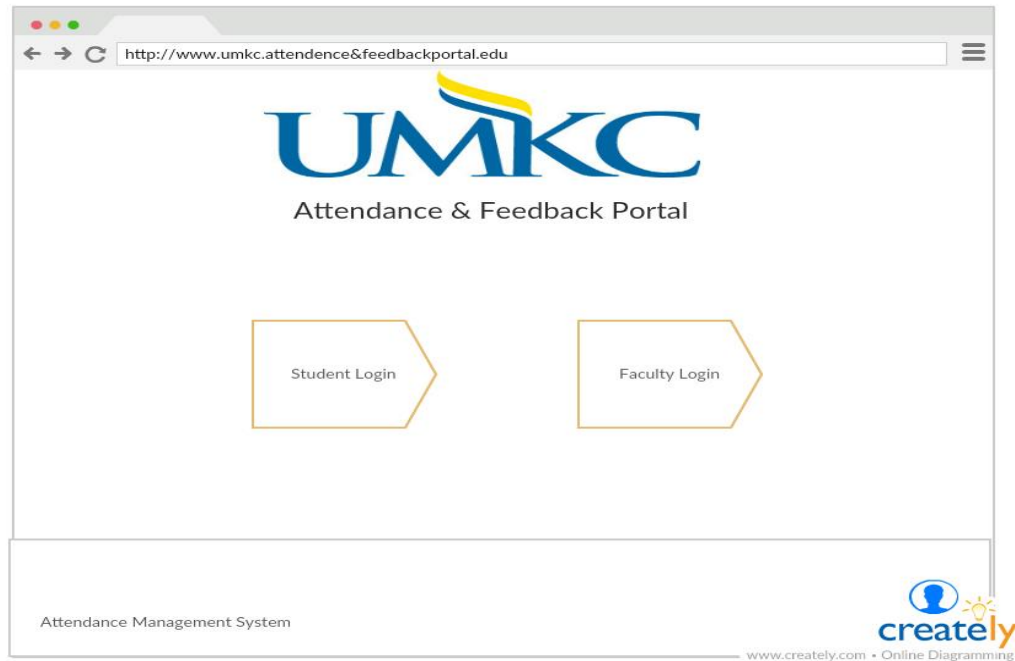
### 5.4.2 Sequence Diagram for Faculty:



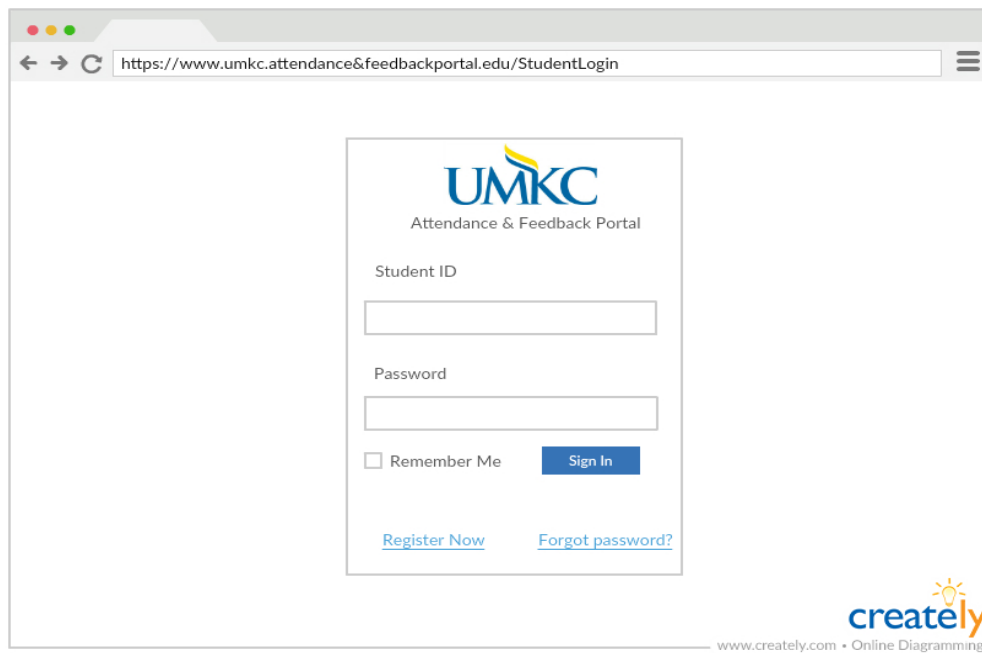
## 6. Detail Design of Features

### 6.1 Wireframes

#### Main Page:



#### Student Login:



## Faculty Login:

A screenshot of a web browser displaying the UMKC Attendance & Feedback Portal Faculty Login page. The browser's address bar shows the URL: <https://www.umkc.attendance&feedbackportal.edu/ProfessorLogin>. The page features the UMKC logo at the top, followed by the text "Attendance & Feedback Portal". Below this, there are input fields for "Email ID" and "Password". A checkbox labeled "Remember Me" is positioned to the left of a blue "Sign In" button. At the bottom of the form, there are two links: "Register Now" and "Forgot password?". The footer of the page includes the "creately" logo and the text "www.creately.com • Online Diagramming".

UMKC  
Attendance & Feedback Portal

Email ID

Password

☐ Remember Me

[Register Now](#) [Forgot password?](#)

creately  
www.creately.com • Online Diagramming

## Student Registration:

A screenshot of a web browser displaying the UMKC Attendance & Feedback Portal Student Registration page. The browser's address bar shows the URL: <https://www.umkc.attendance&feedbackportal.edu/StudentSignup>. The page features the UMKC logo at the top, followed by the text "Attendance & Feedback Portal". Below this, there are input fields for "Student ID", "Email ID", "Password", and "Retype Password". A blue "Register Now" button is located below the "Retype Password" field. At the bottom of the form, there is a link "Login" preceded by the text "Already have an account?". The footer of the page includes the "creately" logo and the text "www.creately.com • Online Diagramming".

UMKC  
Attendance & Feedback Portal

Student ID

Email ID

Password

Retype Password

Already have an account? [Login](#)

creately  
www.creately.com • Online Diagramming

## Faculty Registration:

The screenshot shows a web browser window with the URL <https://www.umkc.attendance&feedbackportal.edu/ProfessorSignup>. The page features the UMKC logo and the text "Attendance & Feedback Portal". Below this, there are three input fields for "Email ID", "Password", and "Retype Password". A blue "Register Now" button is positioned below the password fields. At the bottom of the form, there is a link "Already have an account? Login". The footer of the page includes the "creately" logo and the text "www.creately.com • Online Diagramming".

UMKC  
Attendance & Feedback Portal

Email ID

Password

Retype Password

[Register Now](#)

Already have an account? [Login](#)

www.creately.com • Online Diagramming

## Course Details:

The screenshot shows a web browser window with the URL <https://www.umkc.attendance&feedbackportal.edu/CourseForm>. The page features the UMKC logo and the text "Attendance & Feedback Portal". Below this, there is a section titled "Please choose the term of study" with a dropdown menu showing "Fall 2017". Another section titled "Please select the courses you have enrolled in" contains three dropdown menus for "Course 1" (ASE), "Course 2" (ISL), and "Course 3" (PB). Below these, there is a link "Click on the button to add more courses" with a plus icon. A blue "Submit" button is at the bottom of the form. The footer of the page includes the "creately" logo and the text "www.creately.com • Online Diagramming".

UMKC  
Attendance & Feedback Portal

Please choose the term of study

Fall 2017

Please select the courses you have enrolled in

Course 1 ASE

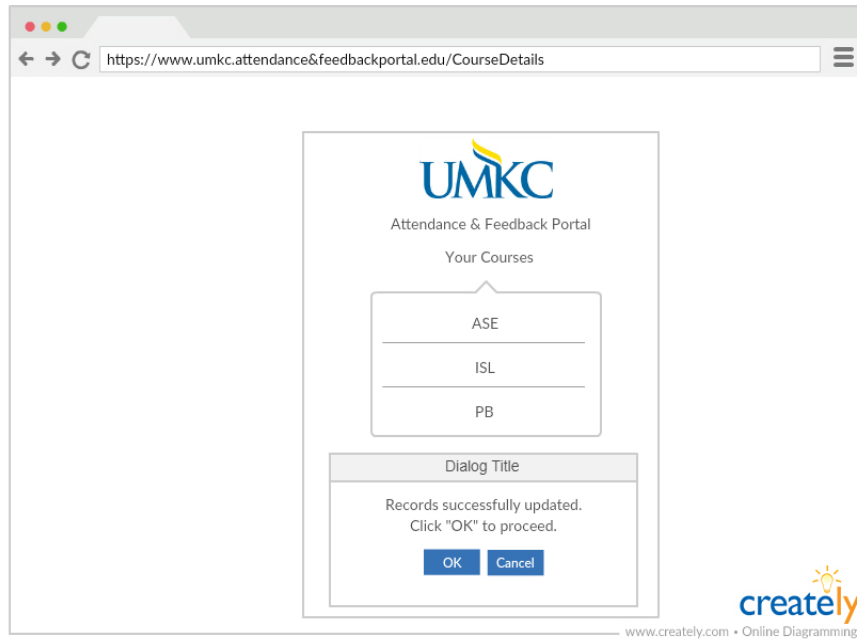
Course 2 ISL

Course 3 PB

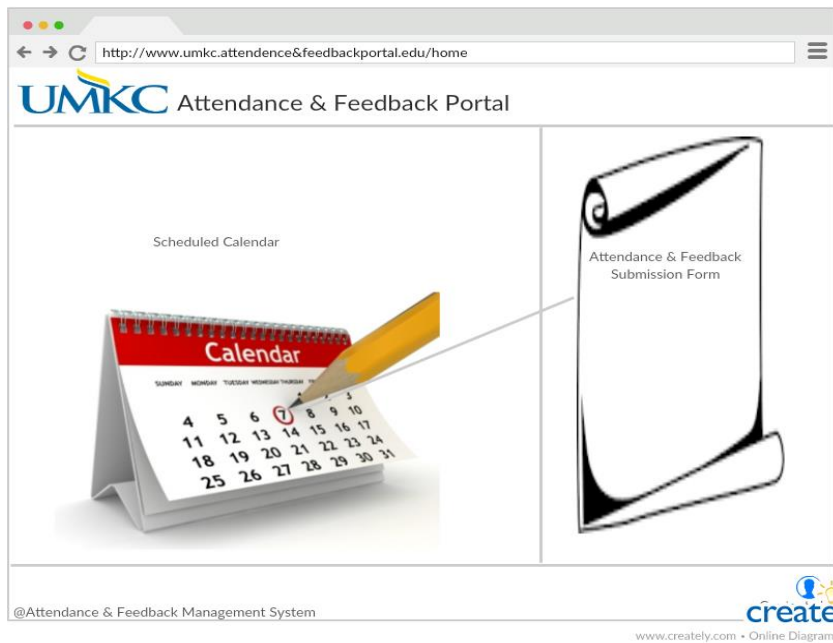
Click on the button to add more courses +

[Submit](#)

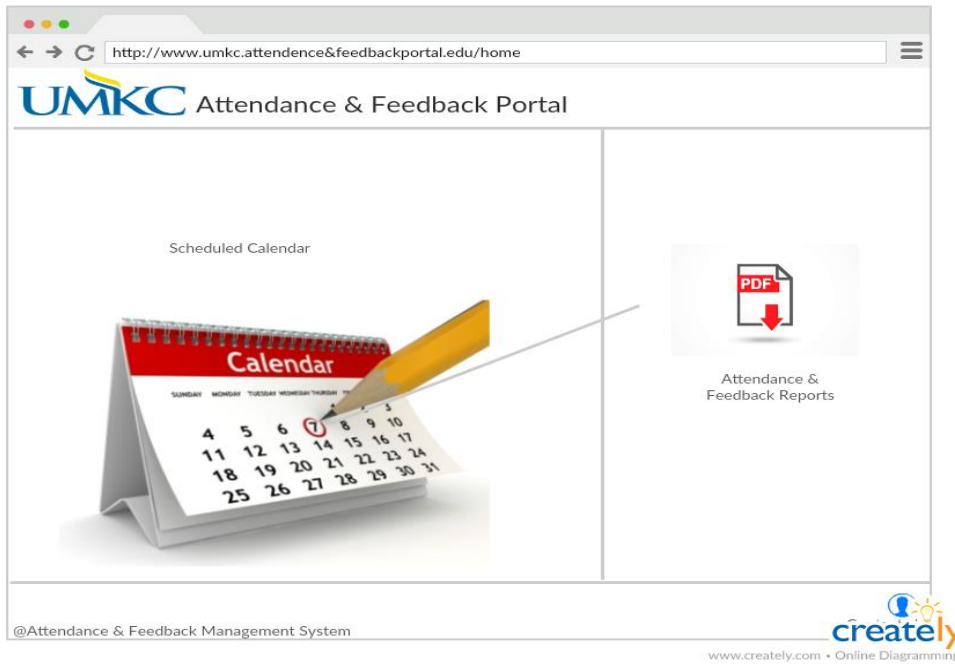
www.creately.com • Online Diagramming



### Student Home Page:



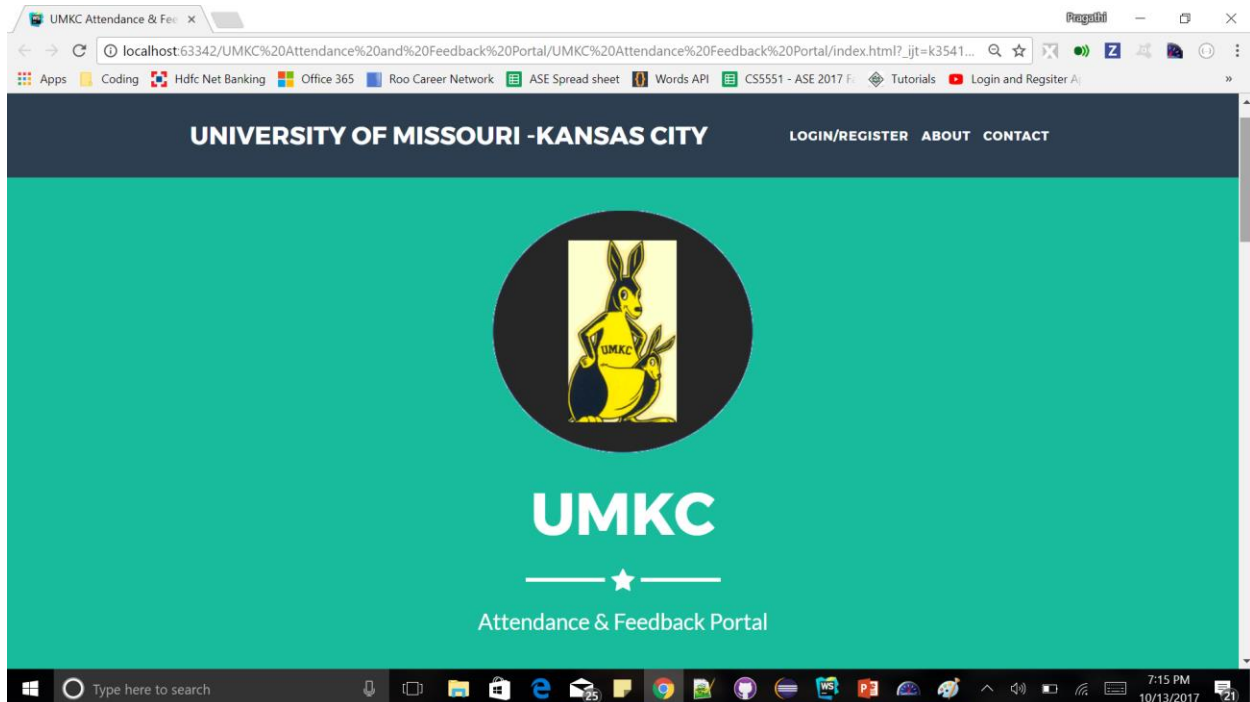
## Faculty Home Page:



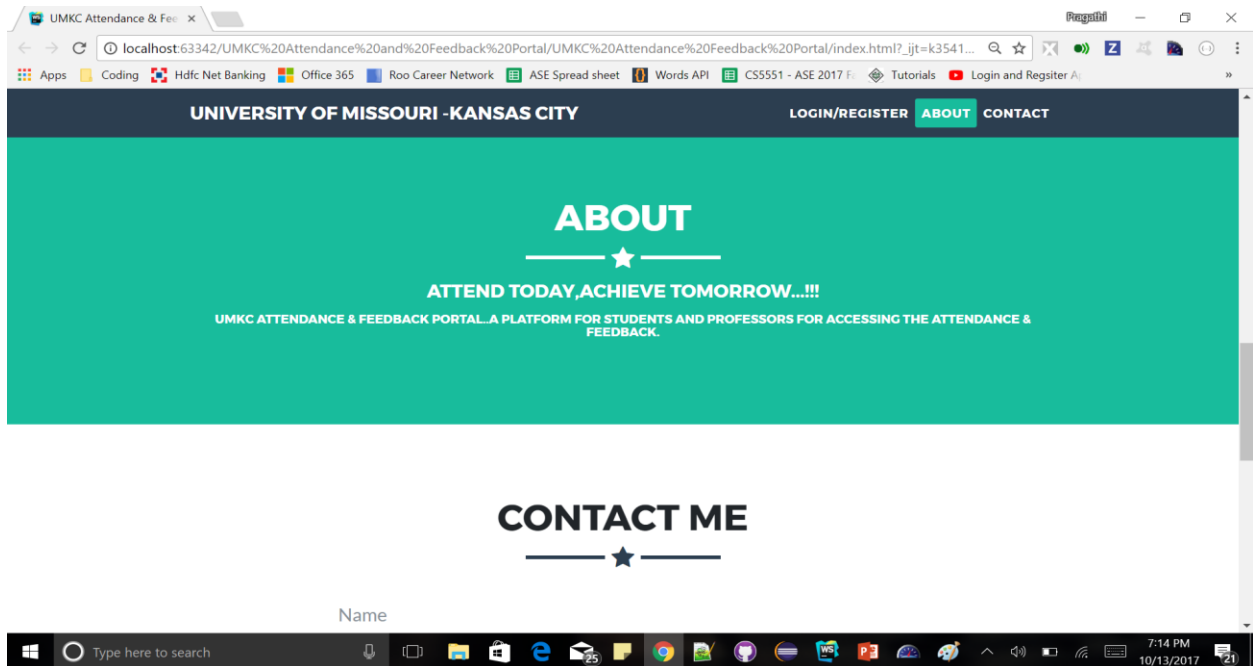
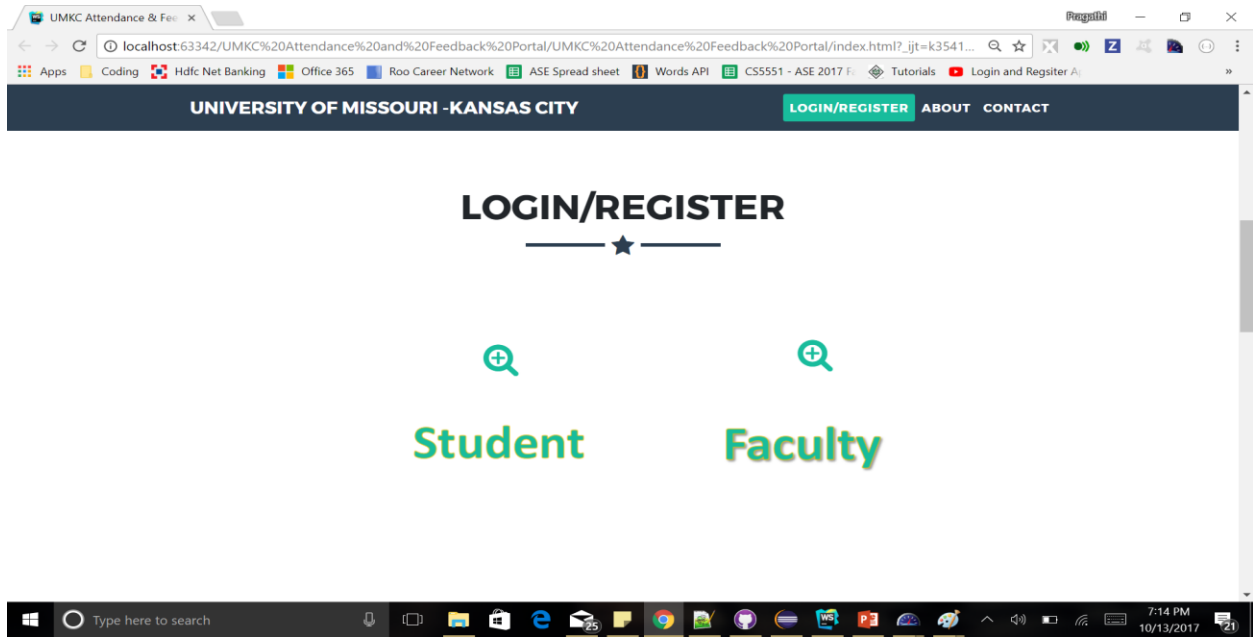
## 7. How to Use Attendance & Feedback Portal

### 7.1 Index Page

The index page of the application contains the options to Login/Register, About and Contact. Below are the screenshots.







UNIVERSITY OF MISSOURI - KANSAS CITY

LOGIN/REGISTER ABOUT CONTACT

## CONTACT ME

Name

Email Address

Phone Number

Message

Send

The details entered by the users in contact me page are stored in database. Later the admins access these details and contact back the users.

## 7.2 Registration Process

Initially every new user (student and faculty) should create account by giving StudentID or FacultyID, Email Id, Password. If user has not entered all the details validation will be thrown. Also, validation is thrown if the user entered invalid email id and password. If the user selected already registered email id, then validation will be thrown.

### Registration Details Requirements:

All the details are mandatory

Phone Number should be only 10 digit numeric

Email address should contain '@' and '.'

Already registered email id should not be used again

Password should be minimum of 6 characters

## 7.3 Login Process

Once the new user account is created successfully, login to the application through login page.

For student login, OTP is generated through email and students must verify the generated OTP within a minute in order to login into application.

### Login Page Requirements:

All the details are mandatory

Only the registered user email address is valid (Details stored in MongoDB)

Email address should contain '@' and '.'

Password should be same as password entered during registration

OTP entered must match with generated OTP (only for students)

Below is the Registration & login page for Student where user must enter all valid details.

The screenshot shows a web browser window with the URL `localhost:63342/Source/StudentLoginRegister.html`. The page has a teal background and two main sections: "LOGIN TO OUR SITE" and "SIGN UP NOW".

**LOGIN TO OUR SITE** (with a lock icon):

- Enter username and password to log on:
- Input fields: `16234197`, `dnr38@mail.umkc.edu`, and a masked password field.
- Input field: "Enter OTP"
- Buttons: "Generate OTP" and "Verify OTP & Sign in!"

**SIGN UP NOW** (with a pencil icon):

- Fill in the form below to get instant access:
- Input fields: "Student ID", "Email...", "Contact Number", "Password...", and "Retype Password..."
- Button: "Sign me up!"

The browser's taskbar at the bottom shows the Windows logo, a search bar, and various application icons. The system clock indicates 10:03 PM on 12/4/2017.

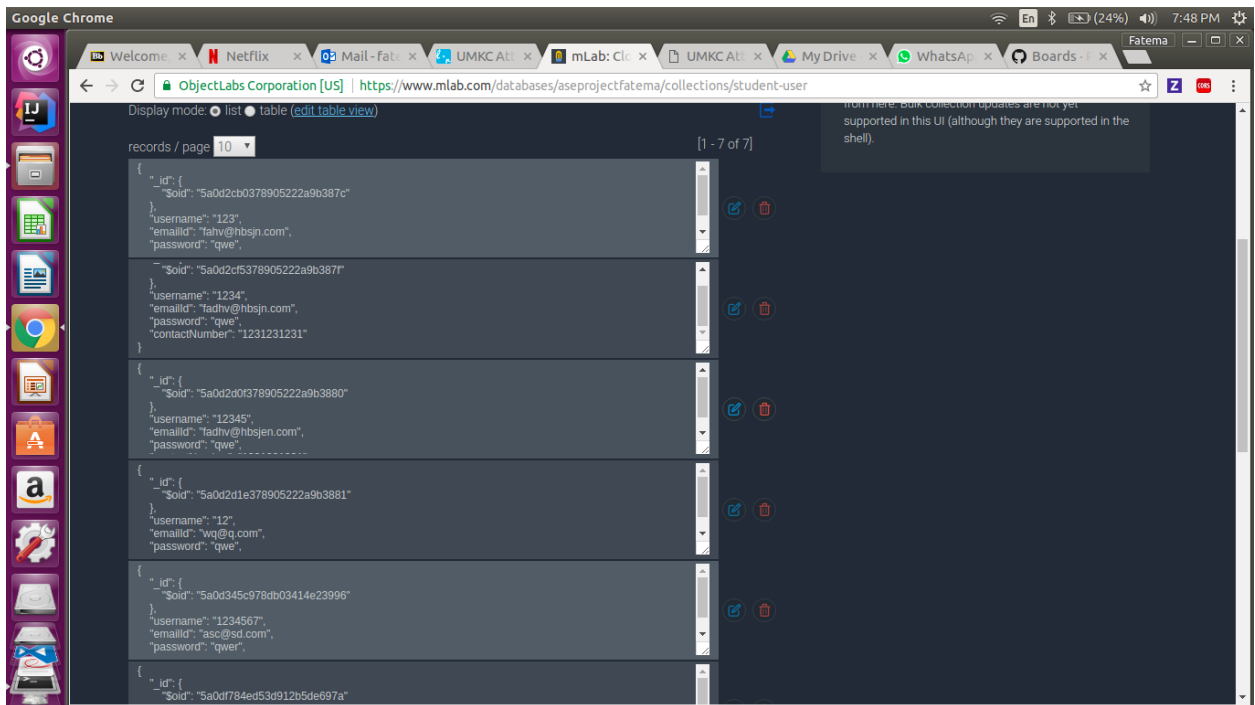
Below is the Registration & login page for Faculty

The screenshot shows a web browser window with the URL `localhost:63342/UMKC%20Attendance%20and%20Feedback%20Portal/UMKC%20Attendance%20Feedback%20Portal/FacultyLoginRegister.h...`. The page has a dark blue header with the text "UMKC ATTENDANCE & FEEDBACK PORTAL" and navigation links "HOME ABOUT CONTACT". The main content area has a teal background and contains two white boxes. The left box, titled "LOGIN TO OUR SITE", has a lock icon and asks the user to "Enter username and password to log on:". It contains input fields for "Email ID" and "Password" (masked with dots), and a red "Sign in!" button. The right box, titled "SIGN UP NOW", has a pencil icon and asks the user to "Fill in the form below to get instant access:". It contains input fields for "Faculty ID", "Email Id", "Password...", and "Retype Password...", and a red "Sign me up!" button. The Windows taskbar at the bottom shows the search bar and various application icons, with the system clock displaying "7:20 PM 10/13/2017".

Validation thrown if the user has not entered the mandatory details.

This screenshot shows the same web page as the previous one, but with a validation error. A white dialog box is displayed in the center of the screen, with the text "localhost:63342 says: Please enter password" and an "OK" button. The "LOGIN TO OUR SITE" box on the left now has a blue "Sign in!" button, and the "SIGN UP NOW" box on the right has a red "Sign me up!" button. The input fields for "Password" and "Retype Password" in the login box, and "Password..." and "Retype Password..." in the sign-up box, are highlighted with blue borders, indicating they are required fields. The Windows taskbar at the bottom shows the search bar and various application icons, with the system clock displaying "7:22 PM 10/13/2017".

The user details entered during registration are stored in MongoDB database.  
The details are further used to validate user login.



## 7.4 Enrolled Courses Details Page

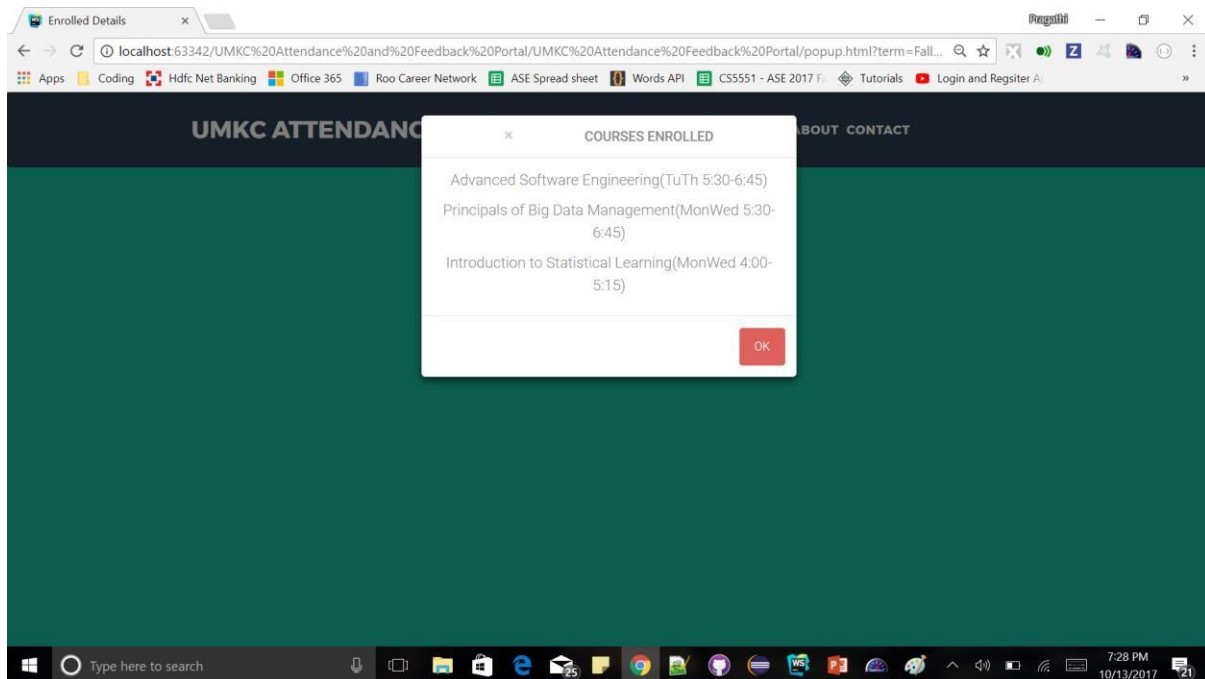
Once the student logs in successfully, for the first time the below page is displayed to the student to submit the details of the enrolled courses for the semester. These details are stored in database and later used to display the schedule for the classes as events in calendar.

A screenshot of a web browser showing a form titled "ENROLLED COURSE DETAILS". The form is set against a green background. It contains the following fields and controls:

- A dropdown menu labeled "Please choose the term of study" with a "Select" button.
- A label "Please select the courses and the timings you have enrolled in".
- Three sections for course selection, each with a "Course" label and three dropdown menus for "Start Time", "End Time", and a third unlabeled dropdown.
- A red "Submit the Details" button at the bottom.

## 7.5 Pop-up Message

Once the user submitted the enrolled course details then a pop-up message will be displayed to the students with the courses that student enrolled for the semester. Once the users clicks on OK then user will be redirected to home page.



## 7.6 Student Home Page

The student home page contains the calendar and Feedback form. Students can view the enrolled courses schedule in calendar. The events for the calendar are dynamically generated with the data from enrolled course details page and these events are recursive and may vary for the students depending upon the enrolled courses.

The home page also contains the feedback form, students can submit the feedback for the classes with this form. For this page, at the backend we are find the location of the student from which they are submitting the form with the help of Geo Location API. And we are doing the sentimental analysis for the feedback in the backend with the help of Watson Sentiment Analysis API. Then all these details are stored in the database.

FeedBackForm - Google Chrome

UMKC Attendance & Feedback Portal

HOME ABOUT CONTACT LOGOUT

### Calendar Events

Today December 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat
26 4pm ISL Class 5:30pm PBD Class	27 5:30pm ASE Class	28 4pm ISL Class 5:30pm PBD Class	29 5:30pm ASE Class	30 5:30pm ASE Class	1 Dec	2
3 4pm ISL Class 5:30pm PBD Class	4 5:30pm ASE Class	5 4pm ISL Class 5:30pm PBD Class	6 5:30pm ASE Class	7	8	9
10 4pm ISL Class 5:30pm PBD Class	11 5:30pm ASE Class	12 4pm ISL Class 5:30pm PBD Class	13 5:30pm ASE Class	14	15	16
17 4pm ISL Class 5:30pm PBD Class	18 5:30pm ASE Class	19 4pm ISL Class 5:30pm PBD Class	20 5:30pm ASE Class	21	22	23
24 4pm ISL Class 5:30pm PBD Class	25 5:30pm ASE Class	26 4pm ISL Class 5:30pm PBD Class	27 5:30pm ASE Class	28	29	30
31 4pm ISL Class 5:30pm PBD Class	1 Jan 5:30pm ASE Class	2 4pm ISL Class 5:30pm PBD Class	3 5:30pm ASE Class	4	5	6

Events shown in time zone: Central Time

### FEED BACK FORM

PROF NAME:

STUDENT NAME:

STUDENT ID:

Advanced Software Engineering    Software Methods and Tools

Advanced Operating Systems

SUMMARISE WHAT YOU HAVE LEARNED FROM TUTORIAL:



## 7.7 Faculty Home Page

In faculty home screen download and visualization buttons are present to get the attendance reports and to visualize the feedback given by the students.

FeedBackForm - Google Chrome

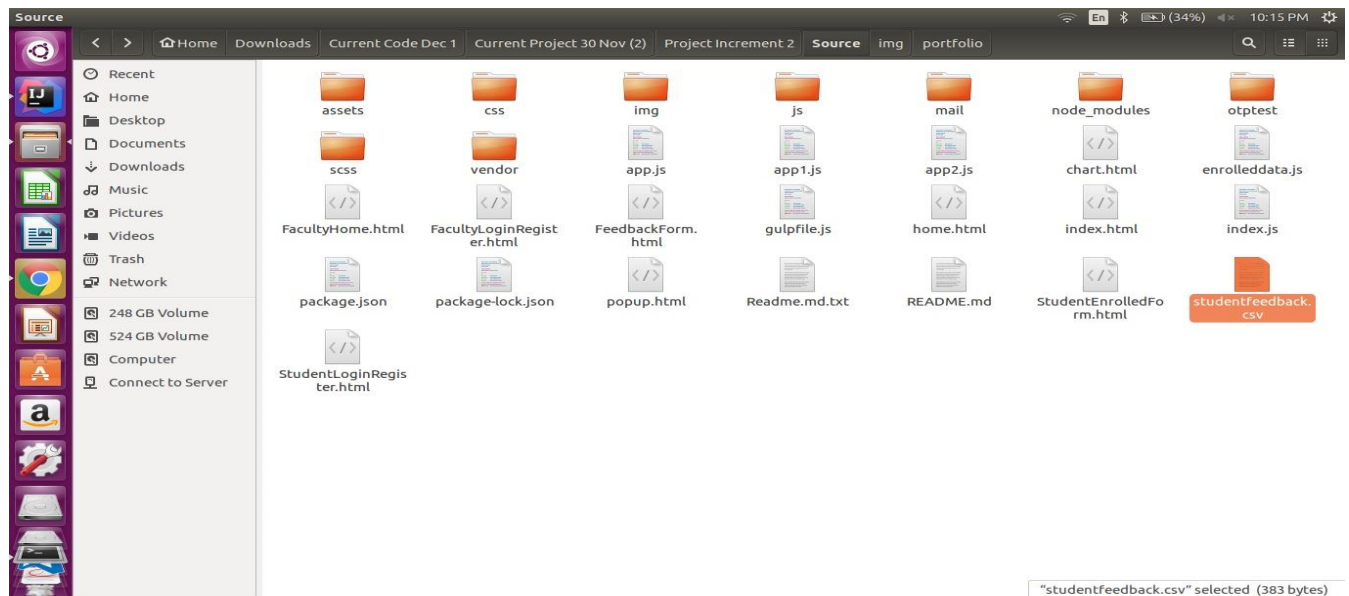
UMKC Attendance & Feedback Portal

HOME ABOUT CONTACT

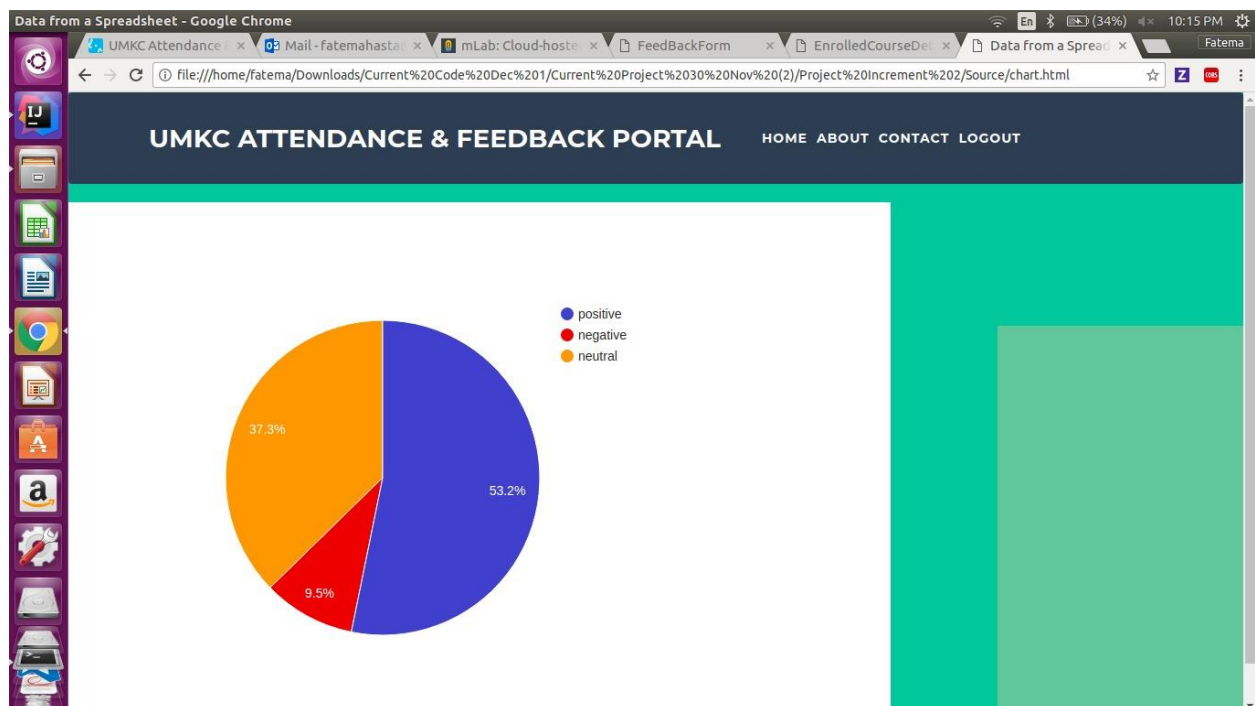



Download    Visualize

Documents that are downloaded are stored in the local machine as shown below:



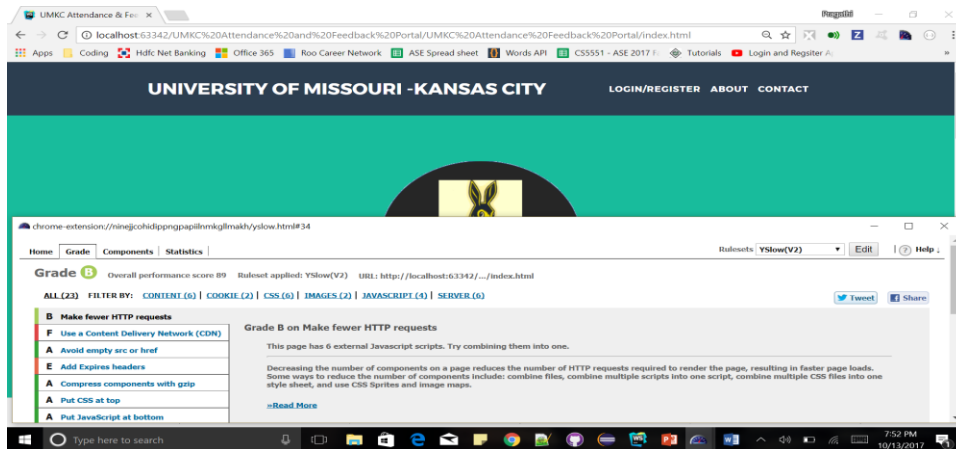
And faculty can view the feedback data given by the students in the form of Visualization as shown below





## 8. Testing

Page performance and ranking is checked using YSLOW analyzer



### Test cases:

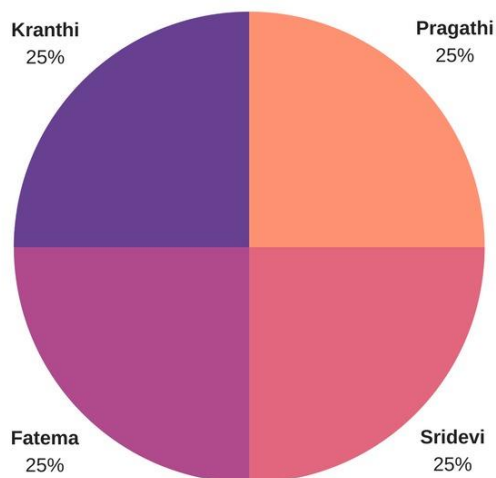
Below are the test cases

S.No	Test Case	Description	Expected Outcome	Result
1.	Issue in verification the OTP which has generated	The OTP received for the student whenever should be verified .	The OTP successfully verified for the login user.	PASS
2.	Issue while retrieving the data from the mongo db to pop the enrolled details of each particular student.	The data should be fetched from the mongo Db and should be pop up on the application.	Successfully the enrolled details are being fetched from the Mongo Db collections and be able to display to the user while the first login	PASS
3.	Issue while exporting the data from mongo Db to excel/csv for further operations	While exporting the collections to the excel/csv data some data formatting is missing.	Exported the data from the Mongo Db to excel/csv with perfect data with including the id 's of each cell.	PASS
4.	Issue for the recursively generating the events in the google calendar	Trying to dynamically change the google calendar events by using zap for multi user	In progress	IN PROGRESS
5.	Issue while saving the data of the newly generated feedback form	The data which is captured for the text areas has to be saved in to the mongo db.	Successfully saved the data in to the mongo Db for the text area fields which are used in the feedback form	PASS
6.	Issue while doing the sentimental analysis on the strings	The data collected as strings/characters feedback will be further processed to perform sentimental analysis.	Successfully performed the sentimental analysis on the data for the feedbacks submitted by the individual user.	PASS

## 9. Related Information

<b>GITHUB</b>	<a href="https://github.com/PragathiThammaneni/ASE-Project-Fall-2017">https://github.com/PragathiThammaneni/ASE-Project-Fall-2017</a>
<b>FIRST INCREMENT REPORT</b>	<a href="https://github.com/PragathiThammaneni/ASE-Project-Fall-2017/blob/master/Project%20Increment%201/Documentation/Increment%201.pdf">https://github.com/PragathiThammaneni/ASE-Project-Fall-2017/blob/master/Project%20Increment%201/Documentation/Increment%201.pdf</a>
<b>SECOND INCREMENT REPORT</b>	<a href="https://github.com/PragathiThammaneni/ASE-Project-Fall-2017/blob/master/Project%20Increment%202/Documentation/Increment-2.pdf">https://github.com/PragathiThammaneni/ASE-Project-Fall-2017/blob/master/Project%20Increment%202/Documentation/Increment-2.pdf</a>
<b>THIRD INCREMENT REPORT</b>	<a href="https://github.com/PragathiThammaneni/ASE-Project-Fall-2017/blob/master/Project%20Increment%203/Documentation/Project%20Increment-3.pdf">https://github.com/PragathiThammaneni/ASE-Project-Fall-2017/blob/master/Project%20Increment%203/Documentation/Project%20Increment-3.pdf</a>
<b>FOURTH INCREMENT REPORT</b>	<a href="https://github.com/PragathiThammaneni/ASE-Project-Fall-2017/blob/master/Project%20Increment%204/Documentation/Increment-4.pdf">https://github.com/PragathiThammaneni/ASE-Project-Fall-2017/blob/master/Project%20Increment%204/Documentation/Increment-4.pdf</a>
<b>PRESENTATION</b>	<a href="https://drive.google.com/open?id=1Ja6stCuDOQ-8k2Ju7DLK9vC8aYMv9MyV">https://drive.google.com/open?id=1Ja6stCuDOQ-8k2Ju7DLK9vC8aYMv9MyV</a>
<b>YOUTUBE</b>	<a href="https://youtu.be/5YLKwWvRy_w">https://youtu.be/5YLKwWvRy_w</a>

## 10. Project Management



## Final Project Evaluation

The accomplishment of each venture includes in great coordinated effort with colleagues, keeping up nature of undertaking, having great comprehension of prerequisites, testing of each module productively, distinguishing blockers early and attempting to comprehend them promptly.

## 11.Future Work

The application can be enhanced with the dynamic feedback loading depending on the schedules

## 12.Bibilography

<http://stackoverflow.com/>