



Advanced Software Engineering

Course # CSEE 5551 0001

Semester: Spring 2017

Final Project Report

Submission Date: 5/5/2017

TEAM 10

Ravali Bolem (Class ID: 7)

Ashwini Gutha (Class ID: 33)

Pranathi Gopidi (Class ID: 29)

Satya Sai Deepthi Katta (Class ID: 41)

Instructor: Dr. Yugyung Lee

Email: LeeYu@umkc.edu

Welcome to Advanced Software Engineering Project Report!

PROJECT TITLE:

PLANOVAC (MEANS “SCHEDULER” IN CZECH LANGUAGE)

I. INTRODUCTION:

➤ Problem Statement:

It is scientifically proved that work tensions make people stressful, which directly effects their functioning of the mind. This ineffective functioning mainly causes people to loss some parts of their memory. This leads to lack of proper work, not able to meet their deadlines, couldn't manage time and work, no work life balance.

As we all are aware of many remainder apps in the market. But the questions raised are mentioned below:

QUESTIONS?

How effective are the apps in the market?

What is the percentage utility of the apps?

Are these for all kinds of people like business people, students, professionals etc.?

By using the app effectively, what is the significant increase in their managing of time?

How many App's mainly focus on students?

II. PROJECT GOALS

➤ **Overall Goal:**

In the scenario of vast set of people, students are the main focused study group who needs to meet the deadlines without fail. Many people have the backup plans if they miss the scheduled dates, what if students skip their deadlines, their grades go down, re-registering the course, redoing the work, need to spend lots of money etc. etc. In order to deal with such issues, our application makes on making the application which portraits the problems faced by students and gives the simple solution called the PLANOVAC which means Scheduler in Czech Language.

➤ **Specific Features:**

- Students can register all their class schedules in the application and set the time for alerts (For example 10 mins before the class starts).
- Then the application notifies the user regarding important tasks.
- It reads all the contacts from the user's phone and allows collaboration with those who possess an account in this application.
- The students can then initiate individual or group chats.
- Even the instructors can also communicate with the subjects through discussion forums.
- This application also displays the location of various classrooms according to our class schedule.

➤ **Significance/ Uniqueness:**

This application can be particularly very useful for students. Students will be able to register all their important tasks in the application and the application sends periodic alerts to users regarding the status of these tasks.

Project Increment #1:

III. DETAILED DESIGN OF FEATURES

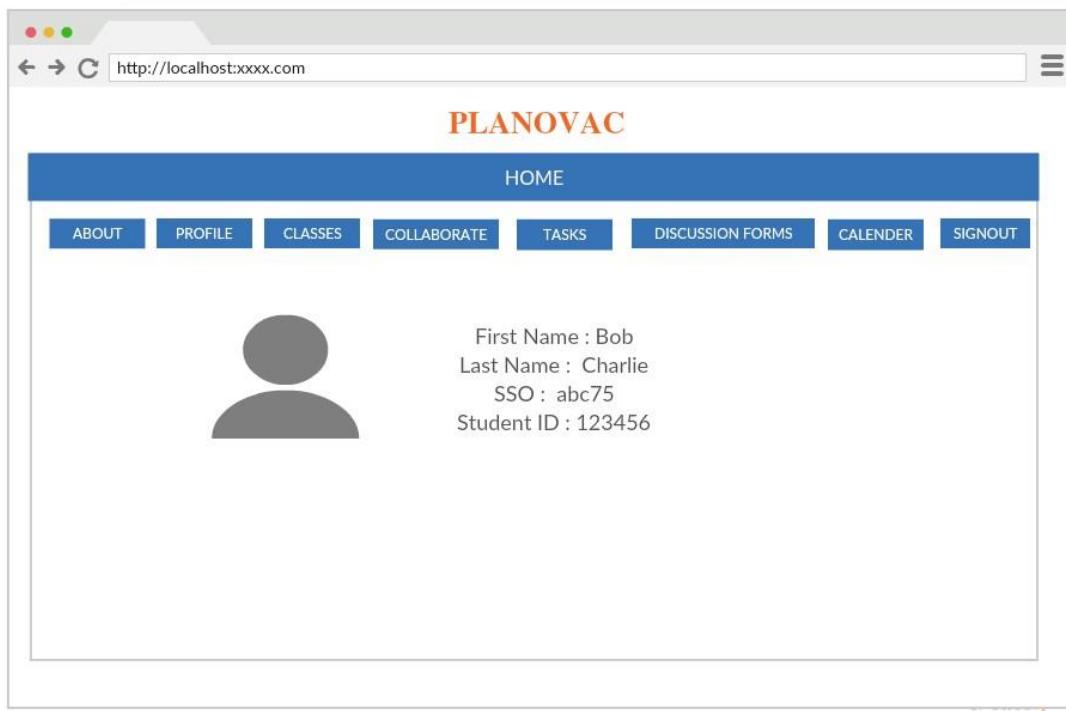
The features in our Web Application ‘Planovac’ are discussed giving every detail through Wireframes, Architecture diagrams etc.

(a) WIREFRAMES AND MOCKUPS:

Wireframes are created through a web service for designing called **CREATELY.COM**.

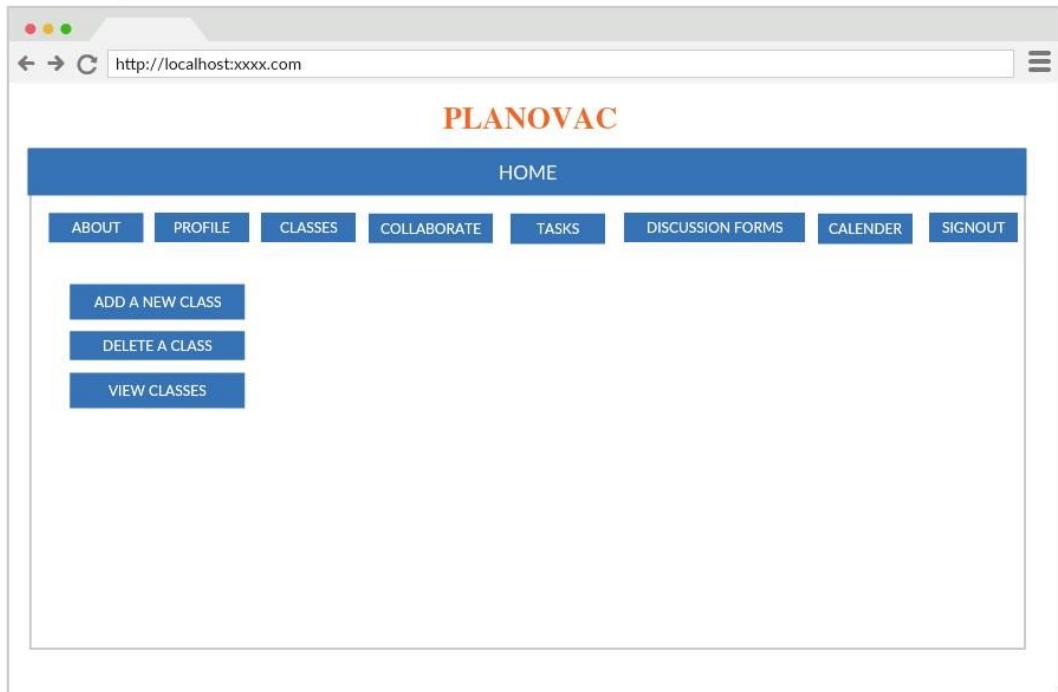
Feature 1 - Profile

Profile is the basic feature of any application which showcases the user account details of the login user. This provides the information of the user when logged in from gmail. The profile information is stored in Mongo Database.



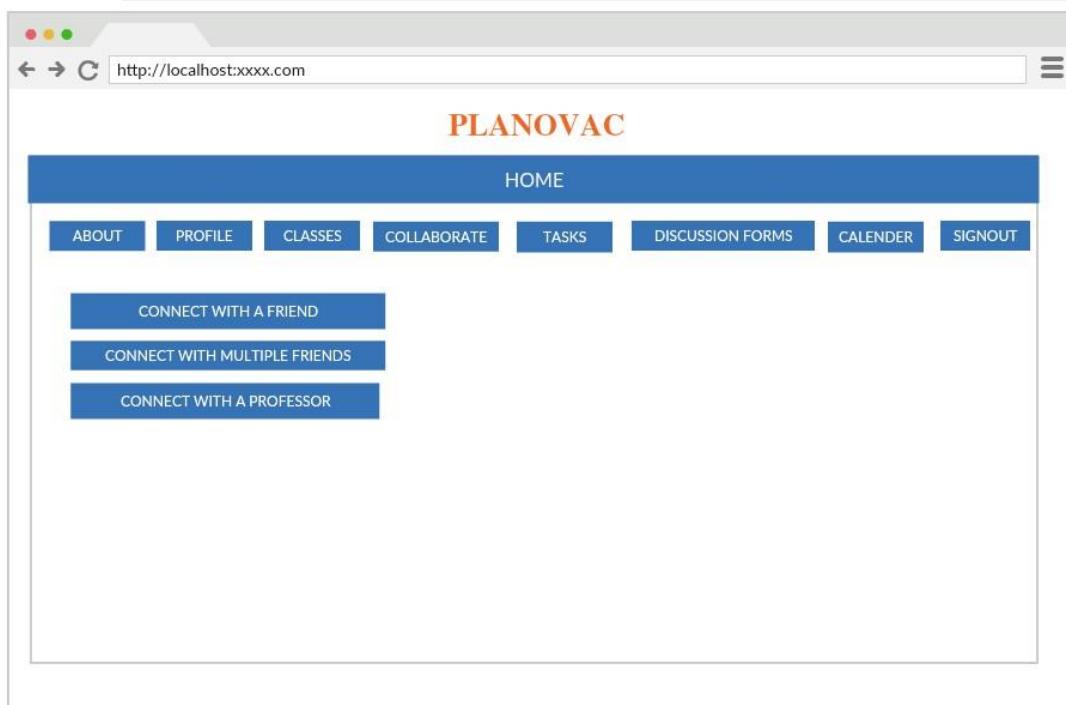
Feature 2 - Classes

Planovac gives the student an opportunity to store their class schedule, so that they get notifications time to time to maintain their schedules well. The schedules are given stored in Mongo Database which is interlinked with Google calendar to access the events.



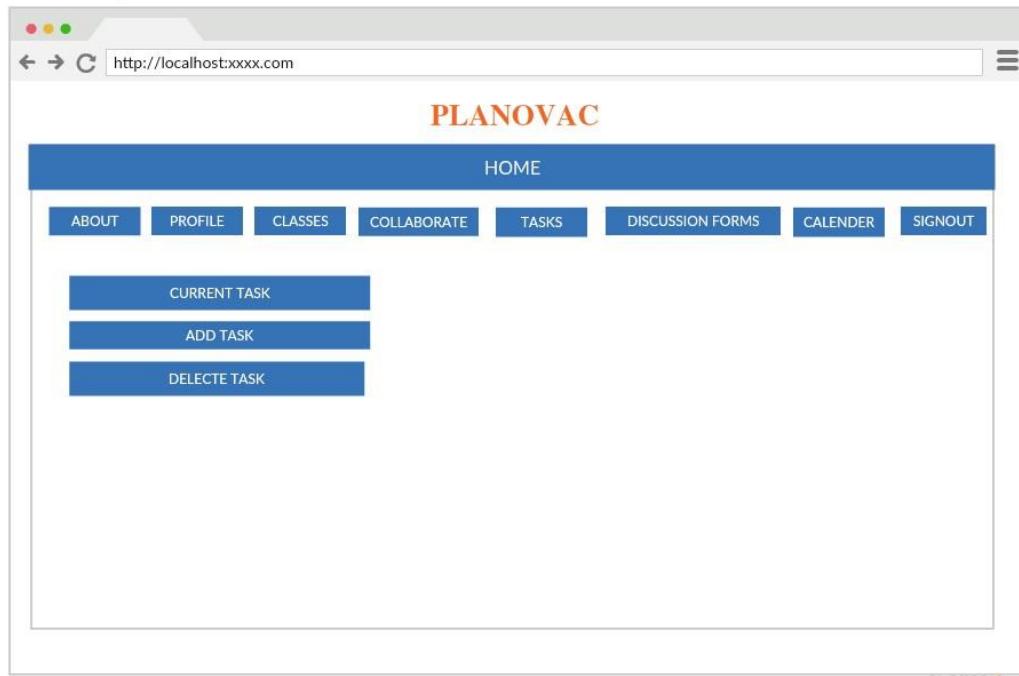
Feature 3 - Collaborate

Collaborate is similar to the Chat Applications which are in the market like Whatsapp, Facebook Messenger. But Planovac gives the flexibility only for the students to interact with each other or with couple of other friends to chat privately.



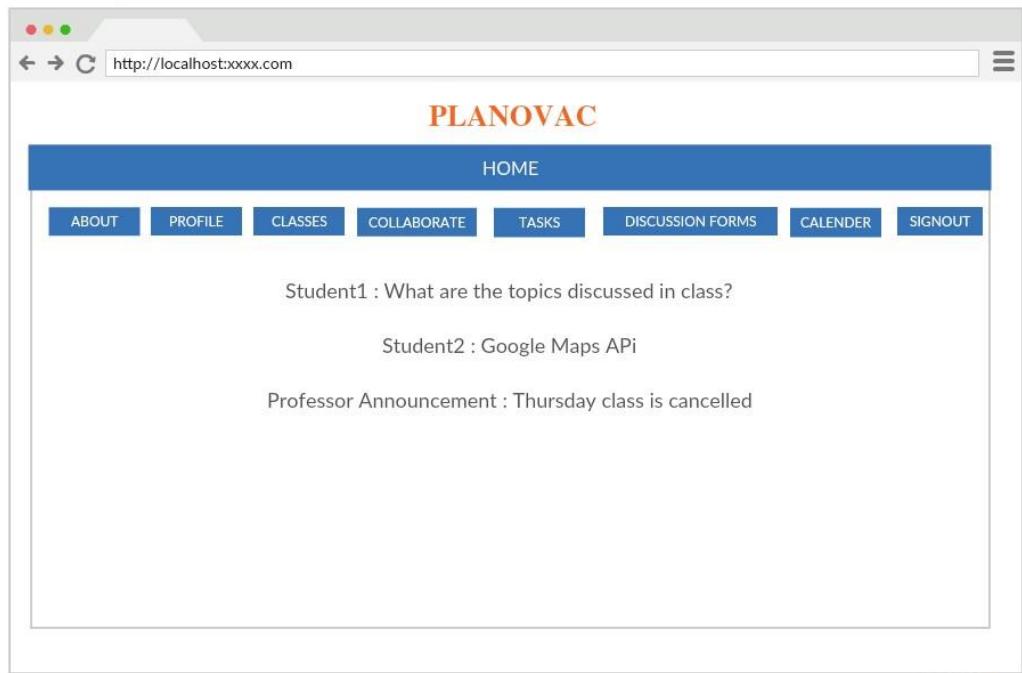
Feature 4 - Tasks

Students need to plan their work to complete their assignments on time, so they can assign tasks in Planovac. These tasks remind them of their work yet to complete.



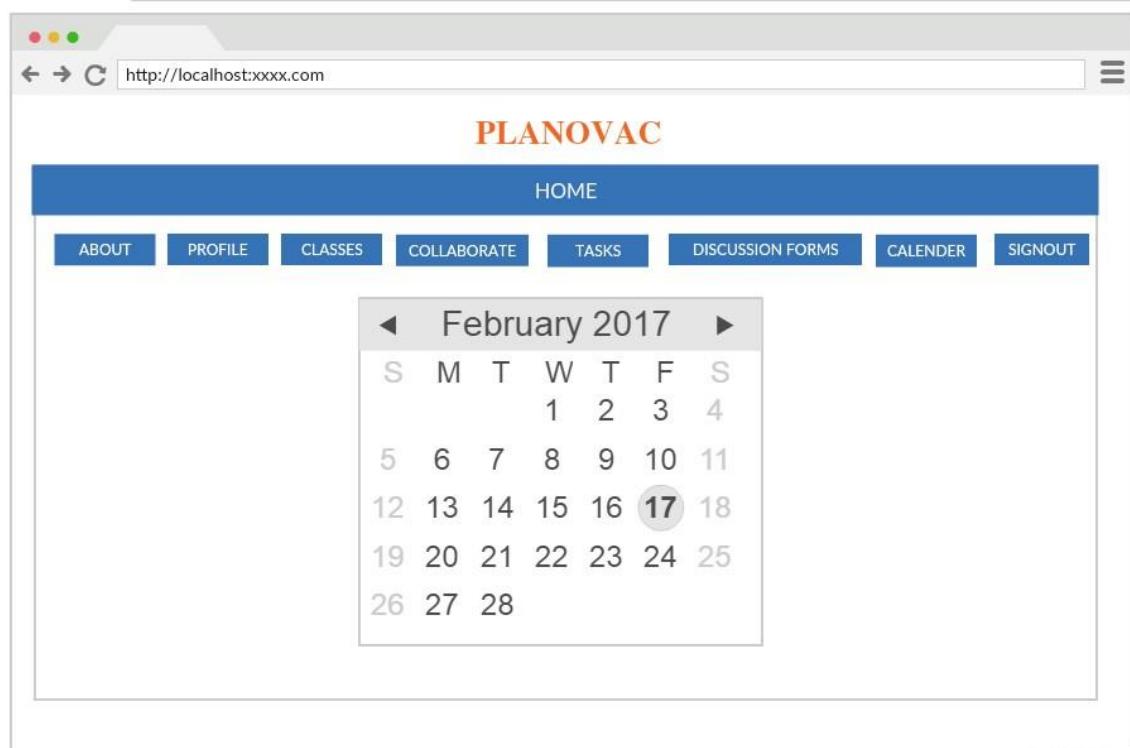
Feature 5 - Discussion Forum

This is different to the collaborate of Planovac. The discussion forum helps the students to discuss the knowledge and clarify the doubts with friends and even with professor. Professor can post important information about test syllabus, cancellation of classes etc in Discussion Forum. This Forum helps students to expand their knowledge by having healthy discussion with their classmates.



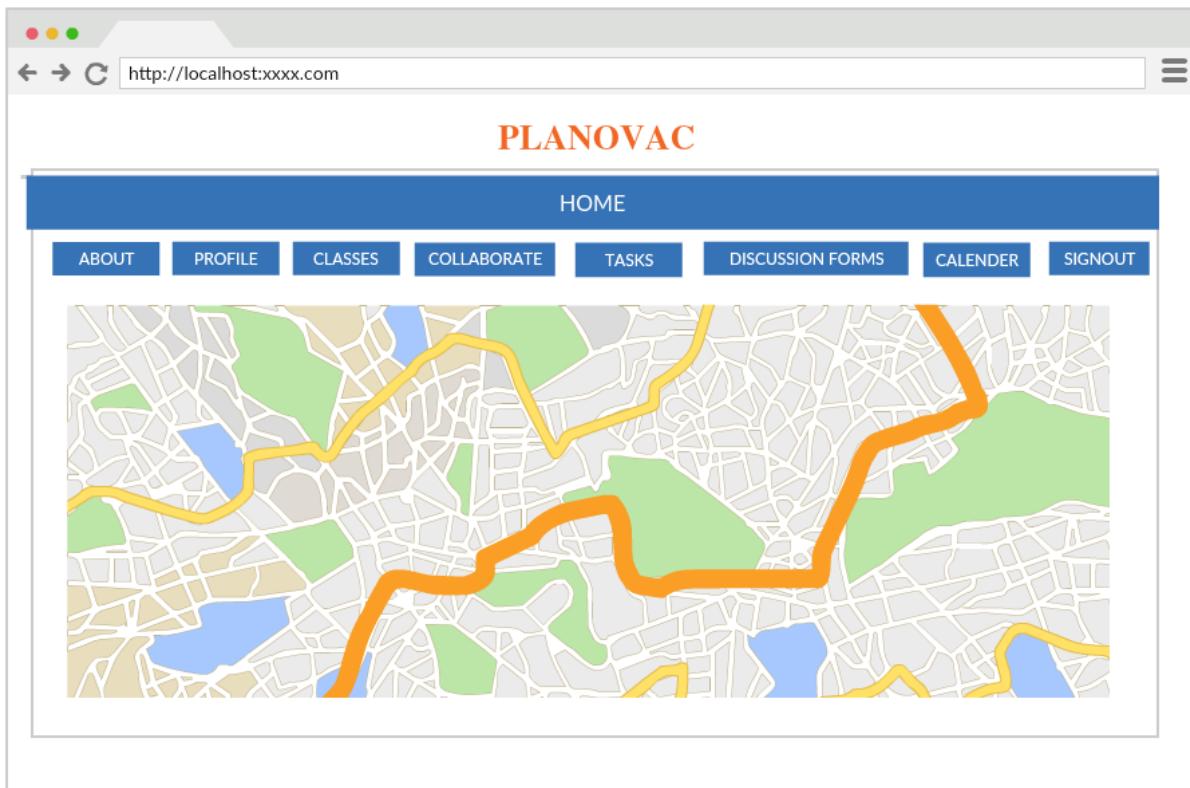
Feature 6 – Calendar

Planovac calendar includes the dates of important events and shows added by the students. This runs with the Google Calendar API. Notifications also send to students based on the events stored in the Mongo database.



Feature 7 – Maps and Weather

Planovac gets the location and provides route to the class location. This feature helps students to find the routes if they are new to campus. In addition to location, Planovac also gives the weather predictions before starting to the class. This runs with Google Location and Weather API.



(b) UML MODELING

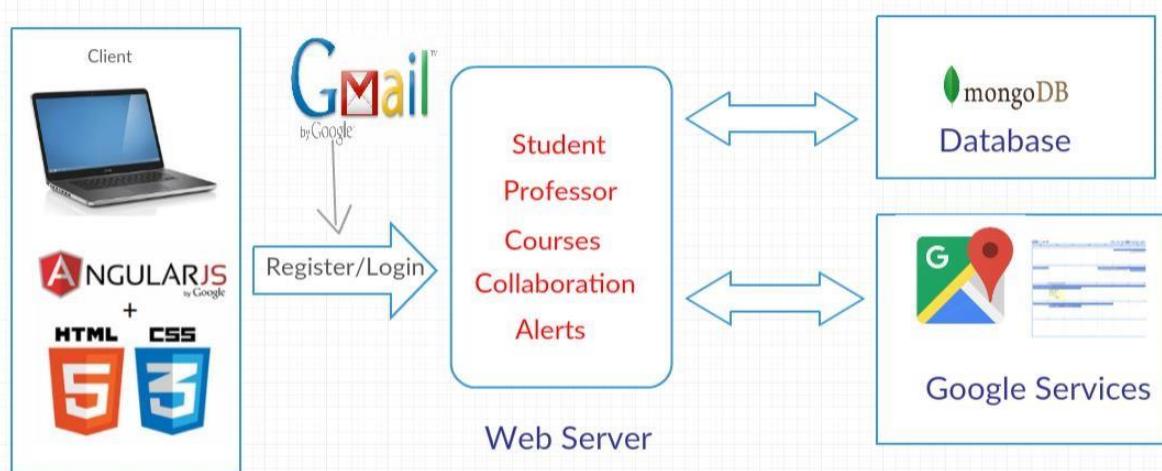
The best way to understand the features of the project is to look for their diagrammatic representations. UML diagramming is the Unified Modeling Language which portraits the project particulars through pictures and helps the user to have complete idea of the diagram. Three of such representations are used in our project to show case the features of the application.

- Architecture Diagram
- Class Diagram
- Sequence Diagram

1. Architecture Diagram:

Architecture Diagram is the pictorial representation of the internal functioning of the software. The components like system, database etc. are indicated as the blocks in the picture. The connected lines heading with arrows picturizes the direction of the connection.

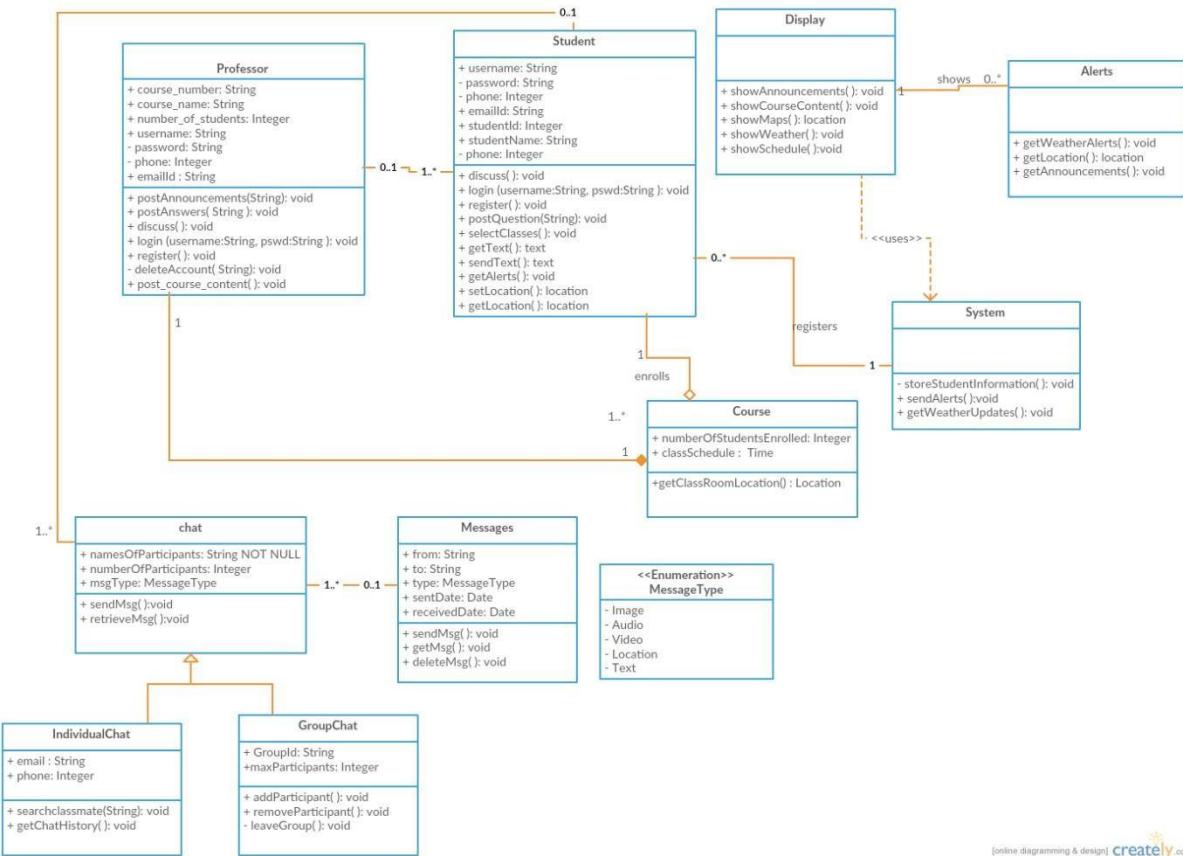
The architecture diagram for our project is presented below:



2. Class Diagram:

For any software, the tasks are modeled and detailed descriptions are present in the form of classes. The Multiplicity, navigability etc. are presented with the arrows showing aggregation, composition and generalization between the classes.

The class diagram for the project is presented below:



In the class diagram, the classes named professor, students, display, system, alerts, class and chat are created.

The relation between student and class describes the Aggregation (whole-part relationship) where a student is a part of a class.

Chat contains individual and group chat where a person can even share multimedia messages like audio, video, location and images.

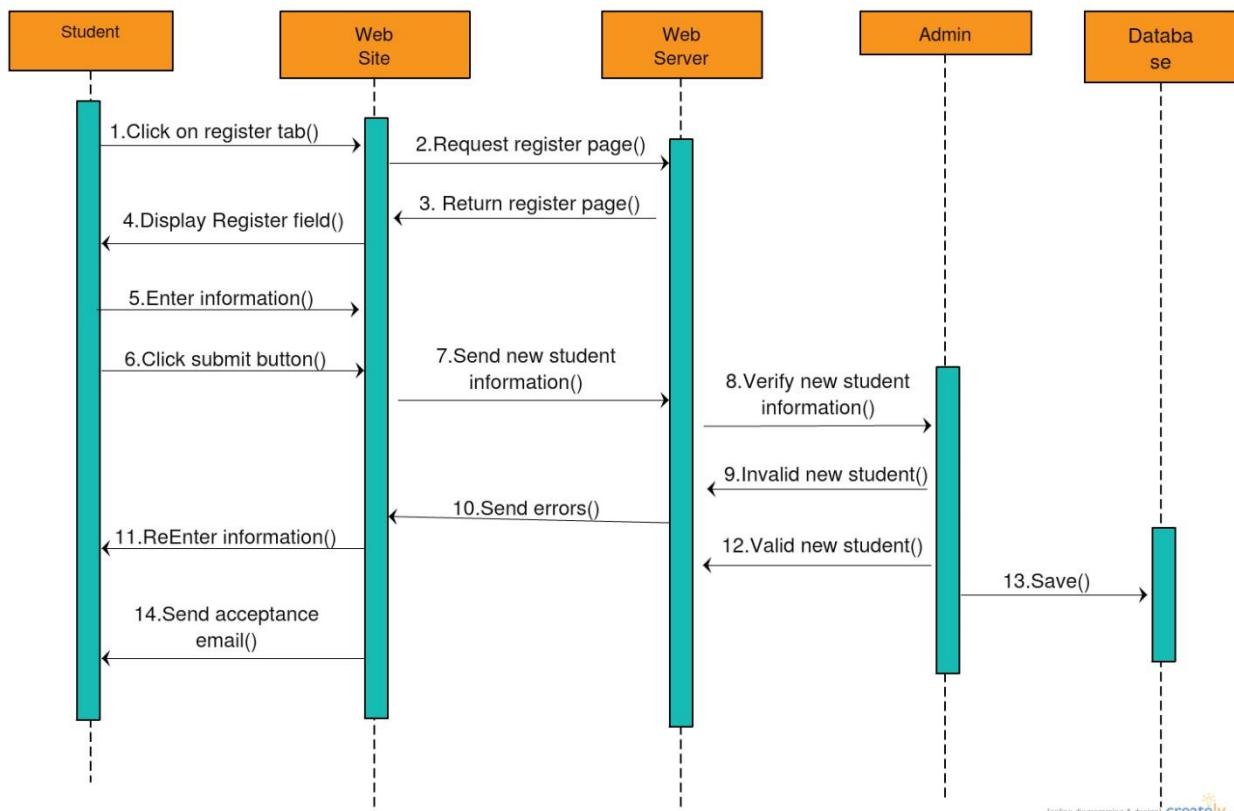
Professor can post announcements, course contents, provide answers for the questions posted by the students and involve in the discussion with the students.

Students can login using their credentials, post questions, get the location to the class, get class schedule and get alerts regarding weather updates as well.

3. Sequence Diagram:

A Sequence diagram is the interactive diagram displaying how the objects operate or communicate with one other. This diagram is usually drawn for a particular use case. This handles are the possible ways for the given use case.

The Sequence diagram depicted below has the use case for New Student Registration into Web Application.



(c) USER STORIES

The User Story is the helpful operational tool which gives the information of what user requires from the application developed. The user stories can be developed by taking feedback, conducting surveys etc. The user story helps to improve the application which makes it circulate to more and more people. The significance of the user story is to give sufficient information for a developer to develop an application effectively and accurately.

Feedback:

The feedback obtained from the technical people who viewed our application while conducting survey for the user stories for the project documentation.

Q1. How useful is “Planovac”?

It is easy to operate as it is Web Application. Its main focus is students which makes it unique from market applications today. Students find it easy to make schedules and tasks which helps them to meet their deadlines.

Q2. How comfortable is the application?

It is challenging to Web Application which contains multiple applications like chat feature, including tasks, storing in larger database.

The best part of the application is to implement discussion board which helps students to not only interact with students but also professors without any prior appointment.

It involves multiple features like getting route and weather, chatting etc. involved in one application rather than using different applications for each feature.

Q3. What do you dislike about the app?

This is a web application which doesn't give the flexibility to convert to mobile application.

IV. EXISTING API

An API is the application programming interface which have the set of protocols, rules and design components which specifies the software components how to interact among themselves. Many leading companies like Google, Facebook, Twitter give the developer their programmable API's which give the developers to access their unique features in their own applications.

Google Calendar API:

In PLANOVAC, we have used Google Calendar API for Calendar feature. This web application uses the Google calendar API, where students can add their events and seminars on the desired dates. This also provides the students with remainder mails and notifications before the class timings or any important seminars. This constantly updates itself based on the settings provided by the user like the remainder set for every hour before class starts or alarm beeps before seminar starts. The updates are posted through emails.

Mongo Database:

Mongo DB is the larger database which stores the values of created in the applications. In PLANOVAC, we have used Mongo DB to store the values created in the Web Application. As the application have lots of values to be stored like the profile synced through google amount, discussion forums created while discussing an issue etc. Whenever the application needs any information to be displayed on the Webpage, it retrieves the information stored from the database.

Google Location and Weather API:

In Planovac, we have used Google location and Weather API to get the route and the weather forecast in Online. This feature helps the students to find route to the class location by getting route from current location. This also gives the students to predict the weather and make any arrangements for bad weather.

V. TESTING

Testing is the basic operation which gives the information about how good the application is running. This is created in many ways. Basically the required information about the status of the application is given by doing Unit Testing.

Unit Testing:

This is the software development process. In this, a small testable parts are used called Units. Various units of the application like the login, registration, etc are to know the operation status of the application being developed.

Among various ways to do Unit Testing both manually and through software tools. As manual testing results are shown in Increment. We have used three renowned tools to unit test our web application in Increment 2.

(1) Selenium IDE :

Selenium IDE is integrated development environment suitable mainly for Mozilla Firefox web browser. This testing records each click on the application and gives the unit test results and their status in a tabular format. This also allows to have suite cases which involves testing for more than two web applications at a time.

(2) YSlow

Yslow is an open source website performance testing plugin. This plugin is compatible with Google Chrome web browser. This gives grading for the websites which helps to understand the standards of the website by looking at the grades. The overall grade is based on the average of all the grades given to each unit test done on the website.

(3) Firebug

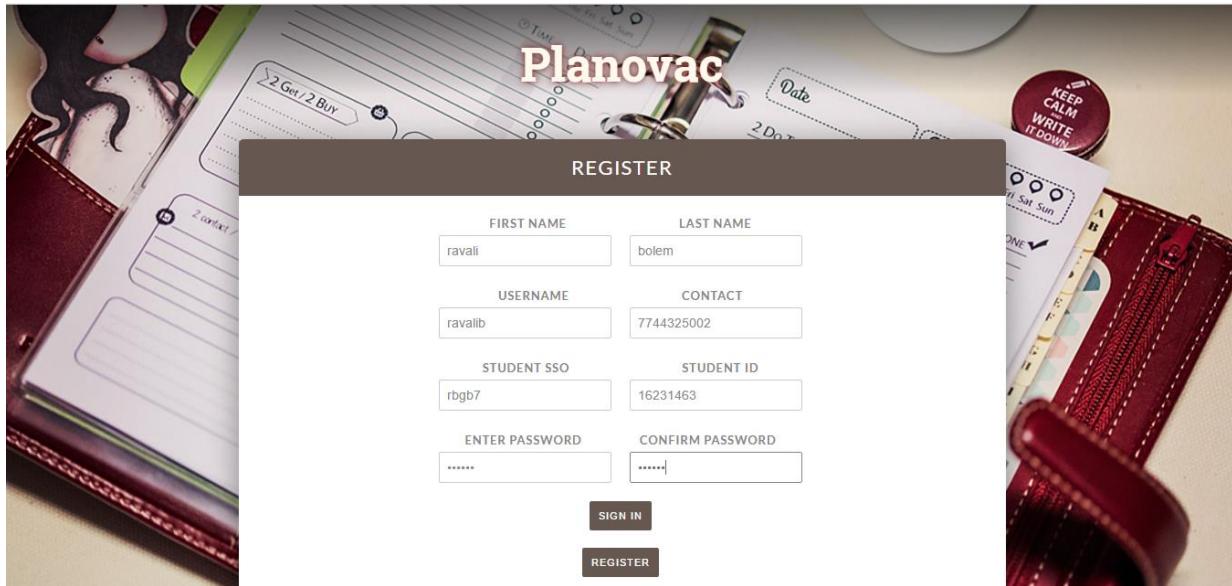
Firebug is the web development tool which is flexible to Mozilla Firefox web browser. This takes into account of all CSS, Javascript and HTML code involved in developing the application. Firebug analyses all these code structures and presents errors and debug comments which helps to improve the level of coding in Webpage.

VI. IMPLEMENTATION

Project Increment #2:

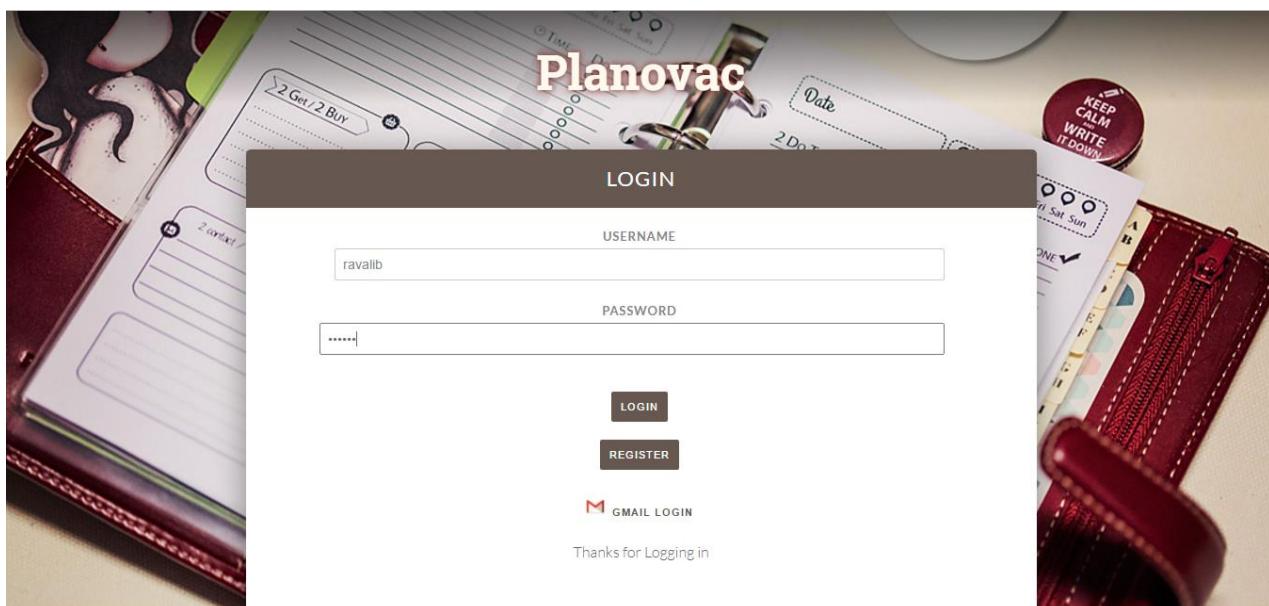
Registration

A new user is created in the application by signing into Register Page of Planovac.

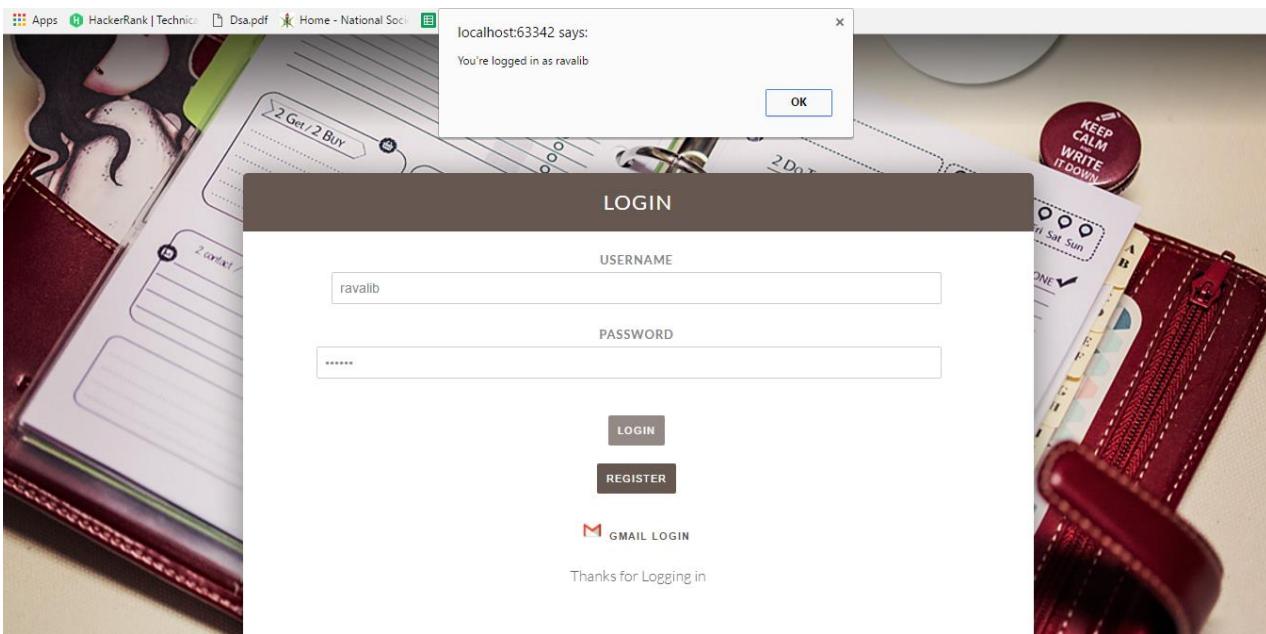


Login:

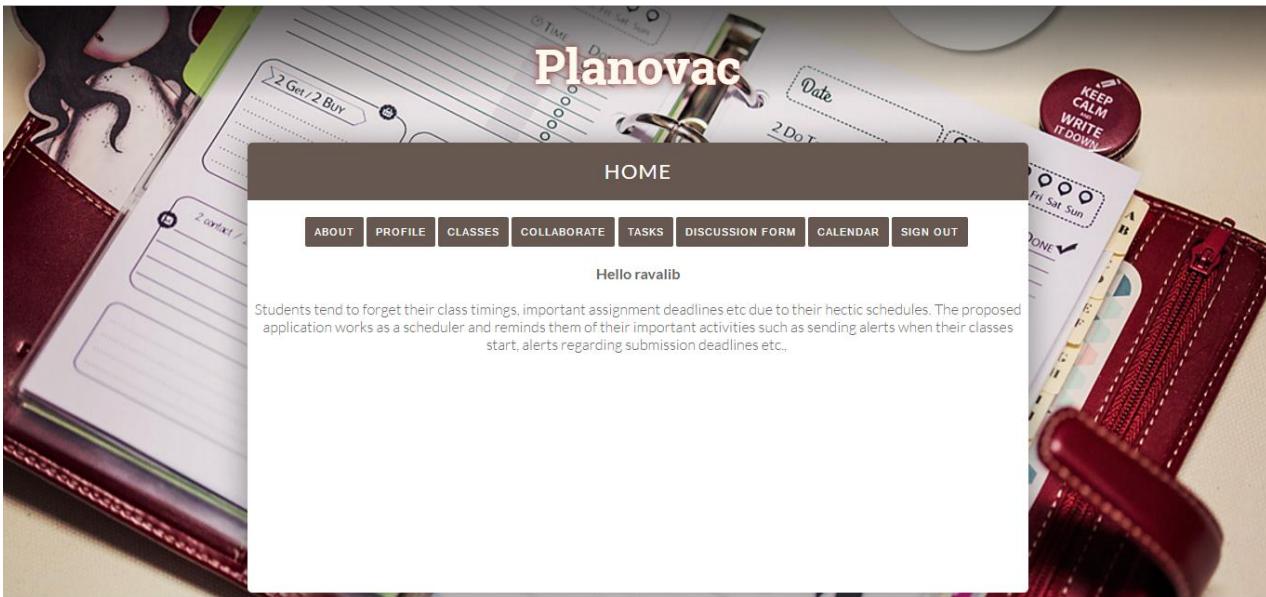
After successful registration, the user is directed to the login page where the user credentials need to be entered to log in to the Web application.



After successful login, a pop up message is shown on the top on the webpage.



The about page is shown with the user created name showing “hello user”.



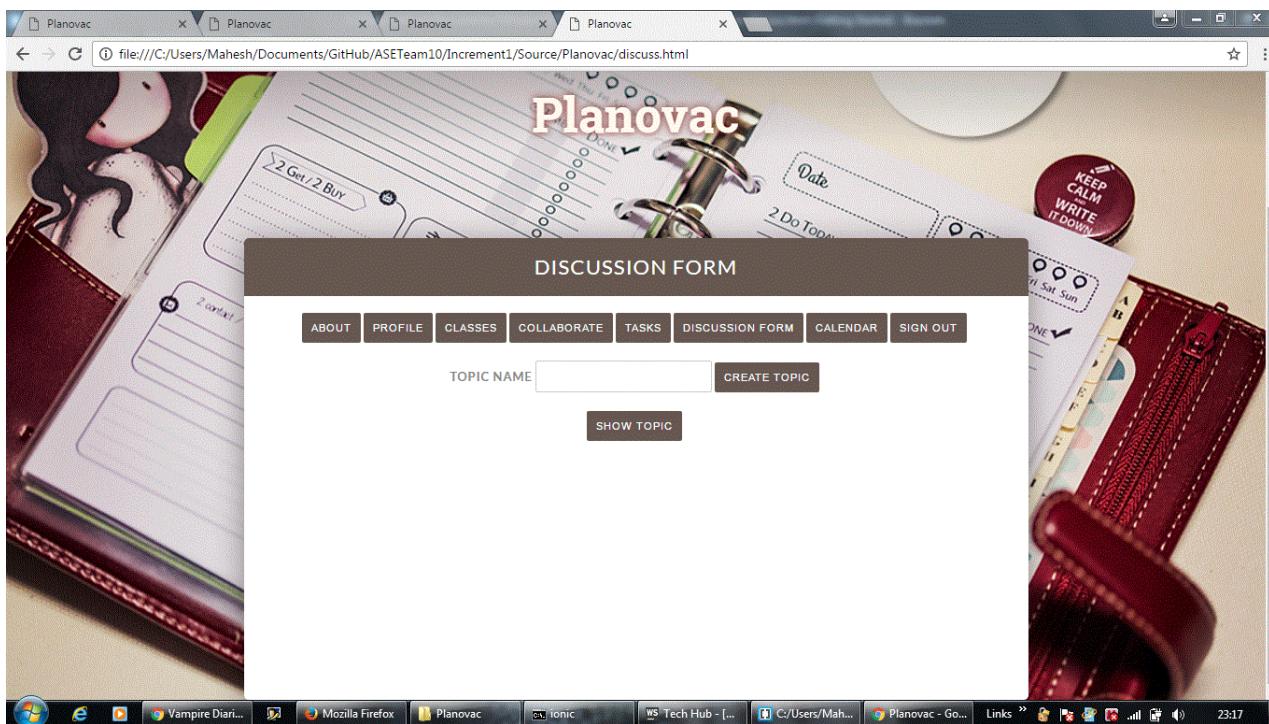
Profile:

In the profile the user details are shown by which the user created the account.

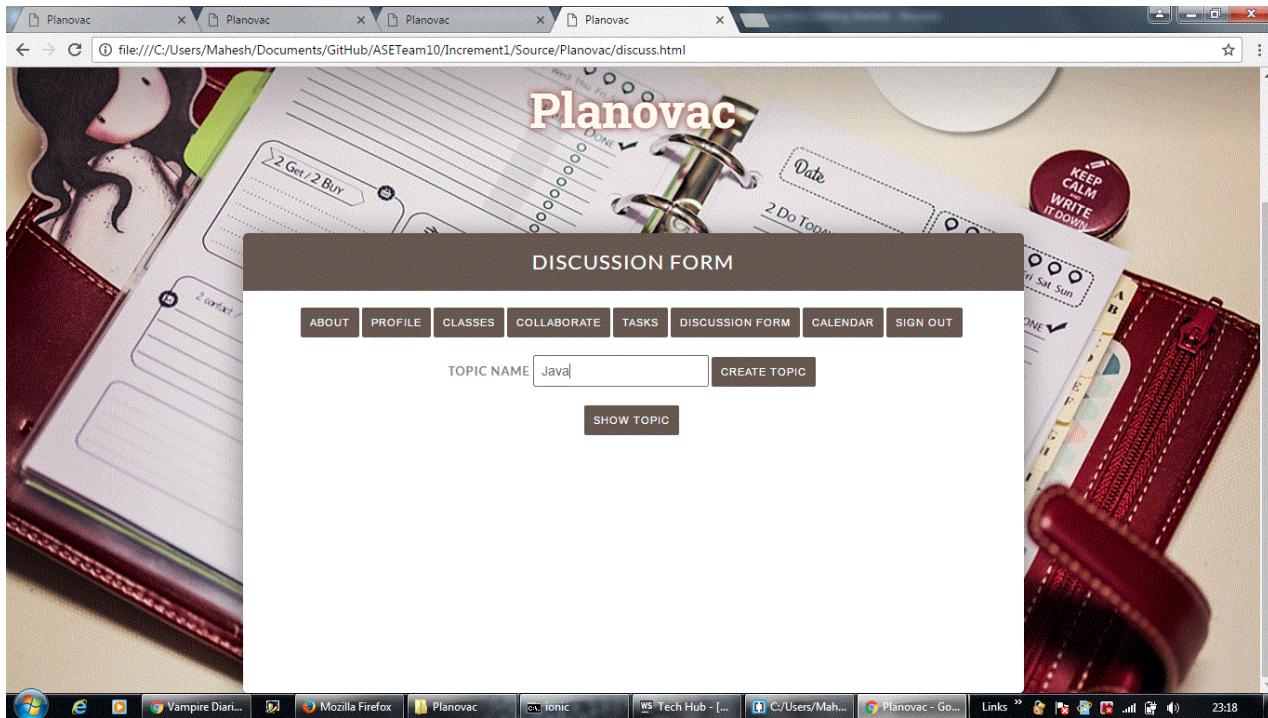


Discussion Form:

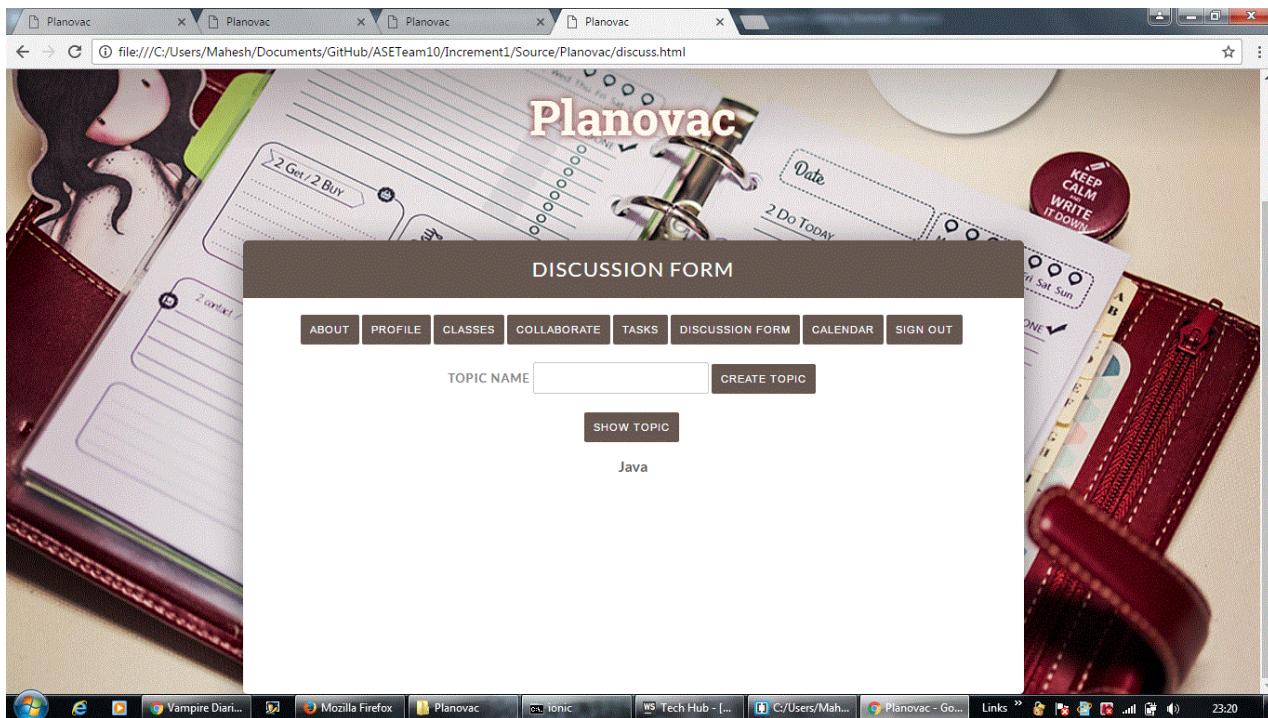
The discussion forum is created where new topics are created and the last topics created are shown by clicking in ‘Show Topics’ button.



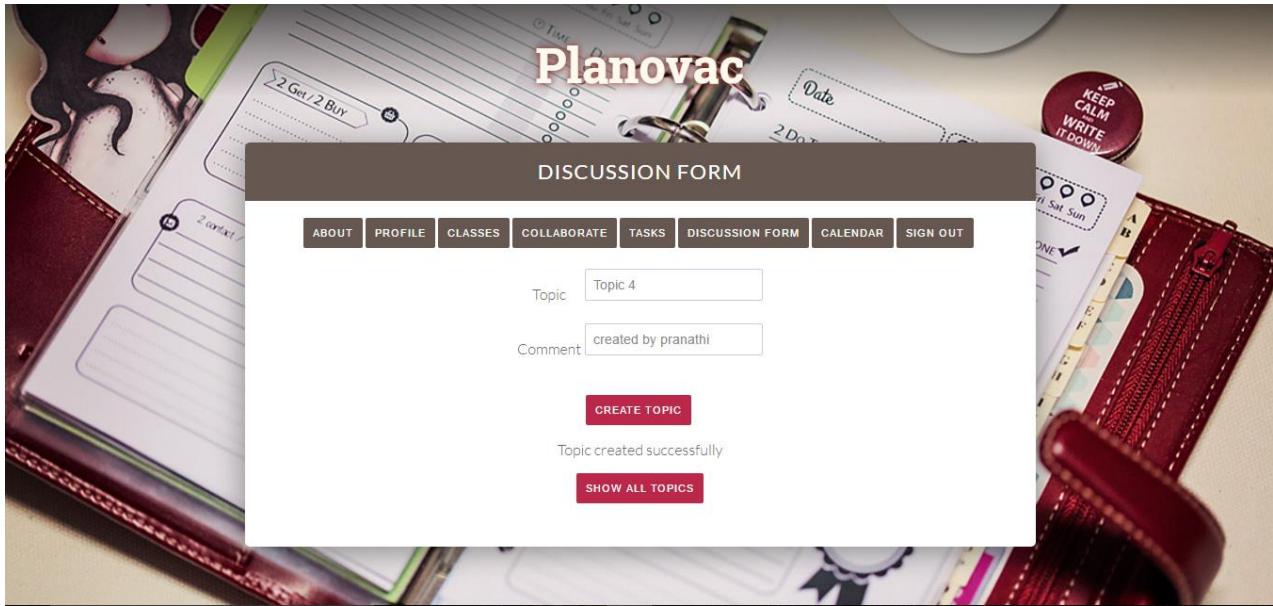
A new topic ‘Java’ is created in Discussion forum.



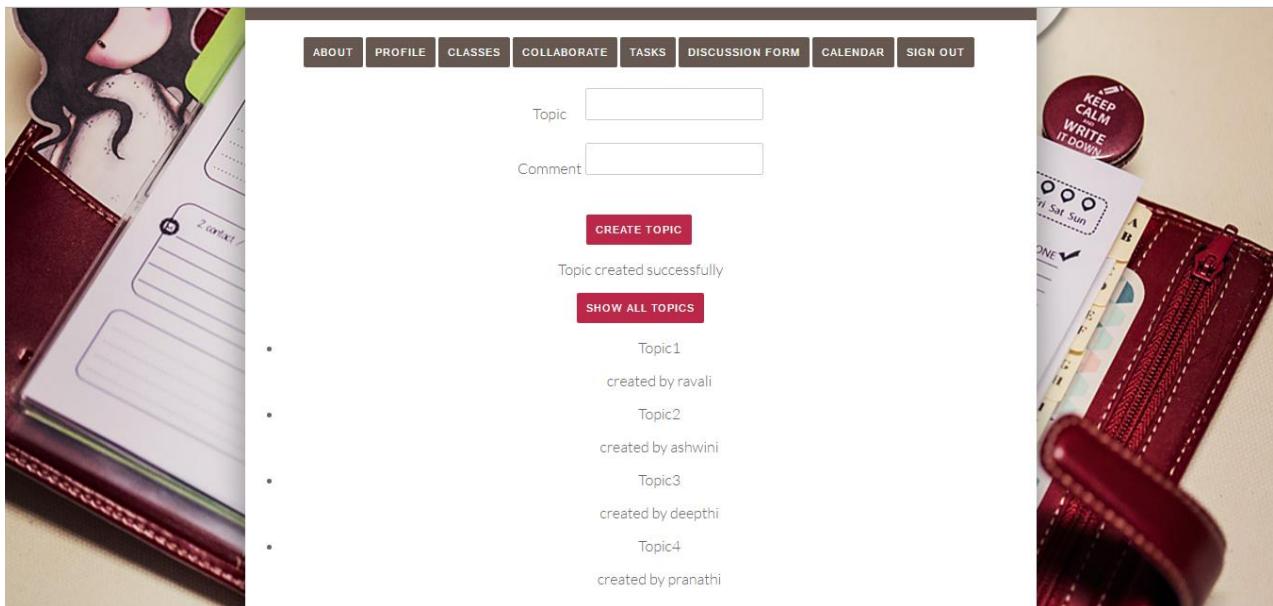
Created topic ‘Java’ is shown in list of all topics stored in the database.



In further increments, we made modifications to discussion form adding comments to the topic created.



Comments are displayed below the topics and students are given opportunity to enhance their knowledge by making knowledgeable discussions.



MongoDB API

The database shows the creations of the values from the web application. The database stores the values which are

- Given by user during Registration or
- From the Gmail Account if User register through OAuth Gmail Login.

The screenshot shows the mLab MongoDB interface for the 'planovac' database. At the top, there are connection instructions for the mongo shell and a MongoDB URI. A note states that Sandbox databases do not have redundancy and are not suitable for production. Below this, the 'Collections' tab is selected, showing a single collection named 'users' with 2 documents. The document details are shown as:

```

{
  "_id": {
    "$oid": "58c31c0dc2ef166a0f095f9d"
  },
  "fname": "ravali",
  "lname": "bolem",
  "uname": "ravalibolem"
}

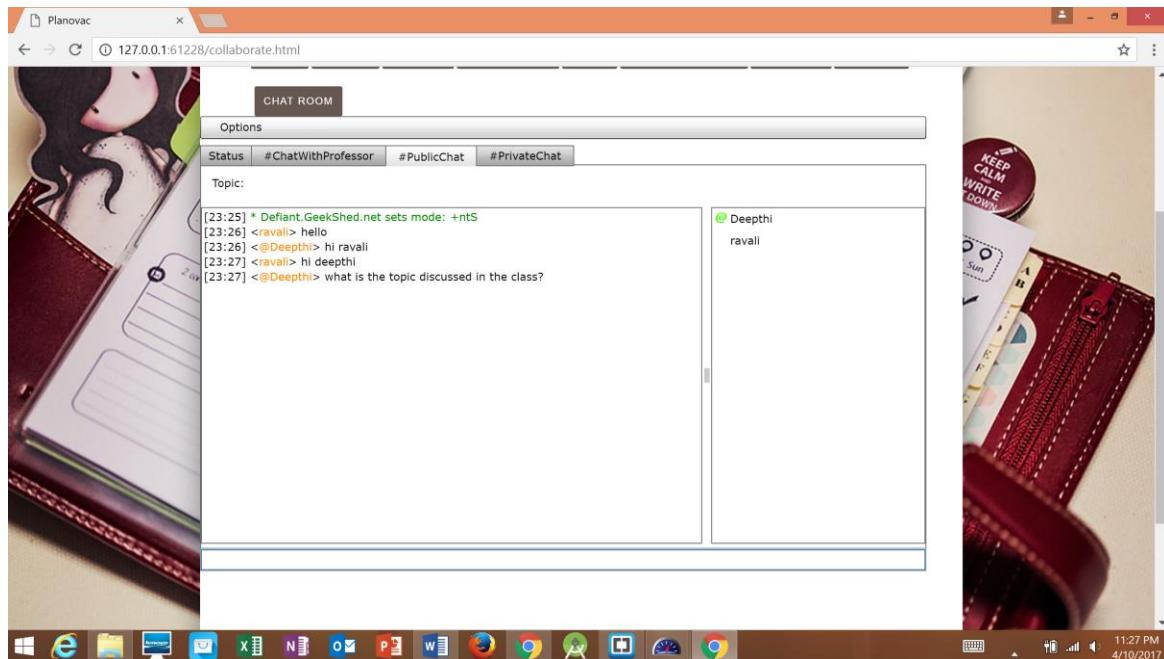
{
  "_id": {
    "$oid": "58c32f39c2ef166a0f09df532"
  },
  "fname": "abc",
  "lname": "xyz",
  "uname": "shevva"
}
  
```

On the right, a sidebar titled 'Documents (aka Objects)' provides information about the collection and its objects.

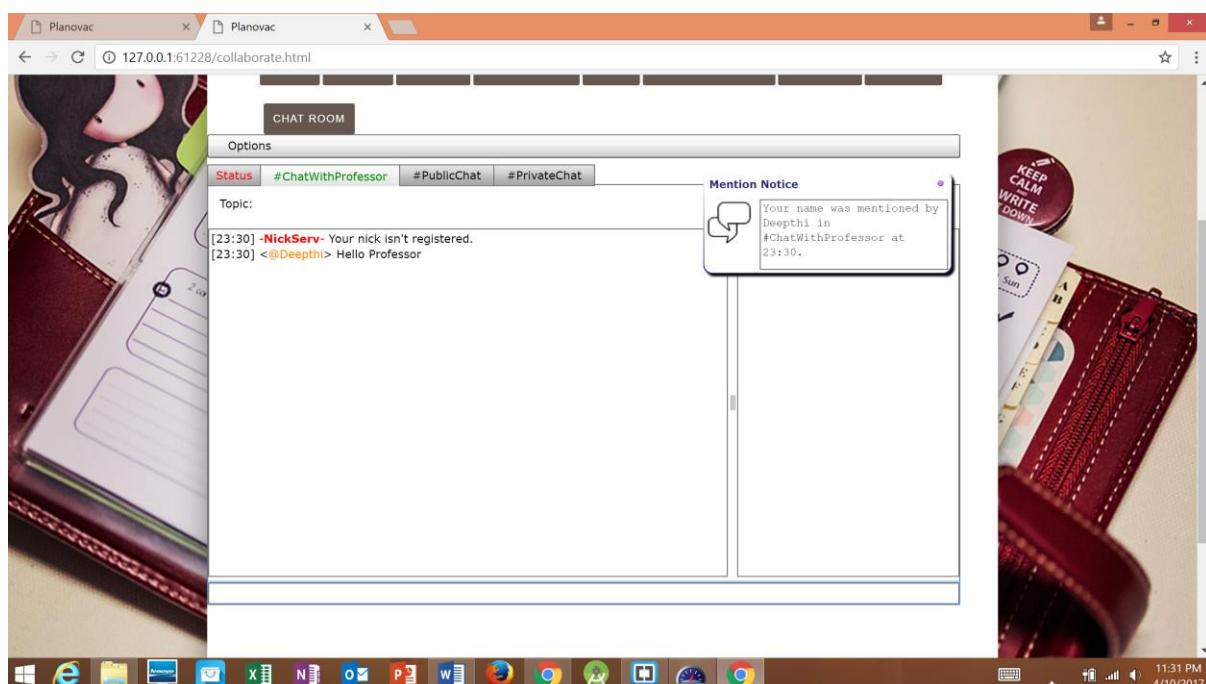
Project Increment #3:

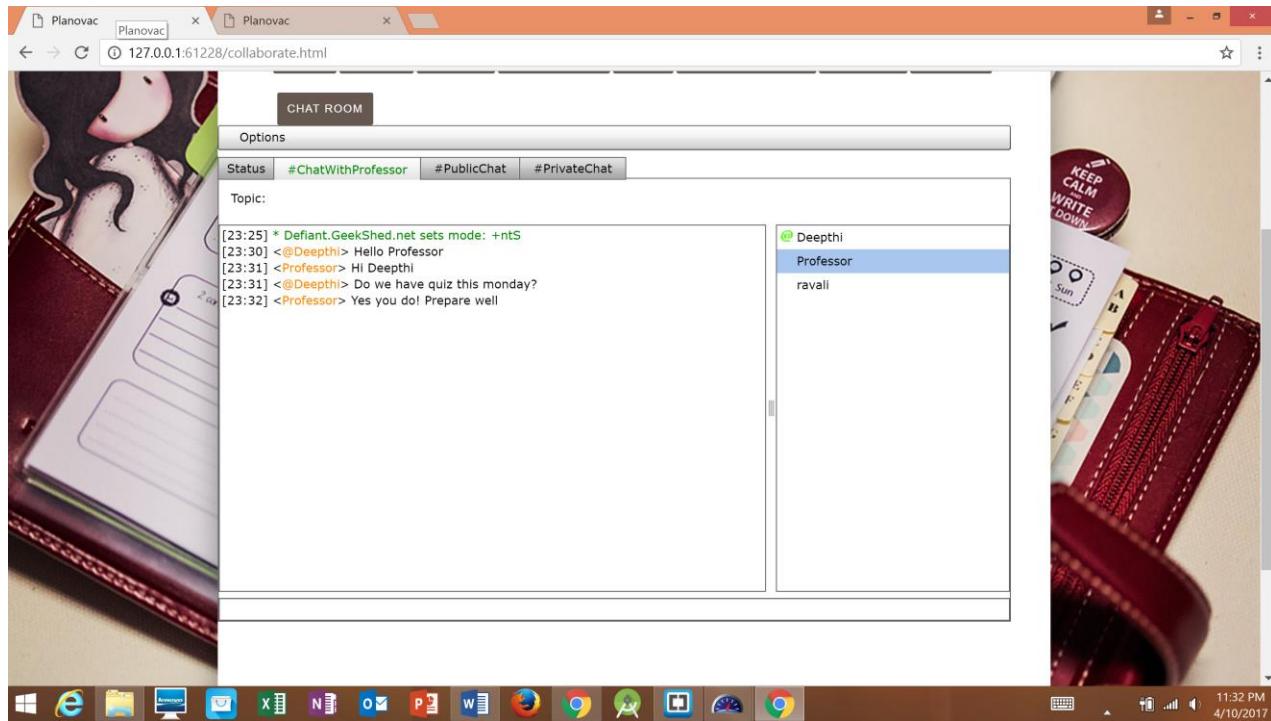
Collaboration:

The chat room is created for students in the class to discuss topics privately and also in groups to enhance their knowledge. A chatting channel is created with the professor to clarify doubts online without making any prior appointments

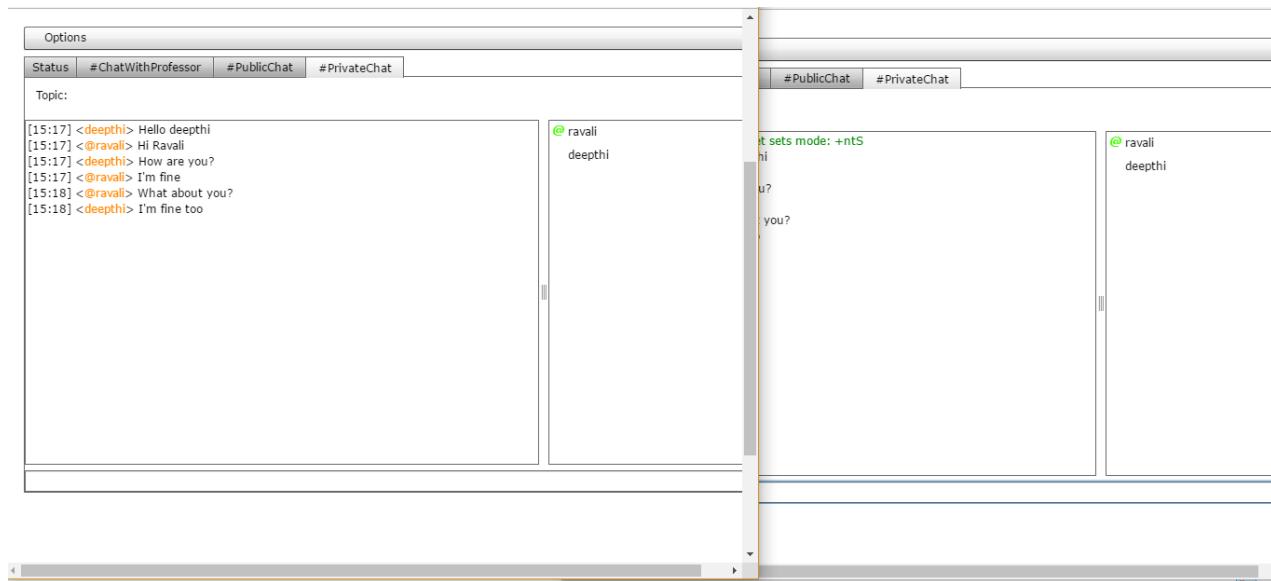


When names are mentioned in the chats then the notifications pop up at the corner of the chat window.



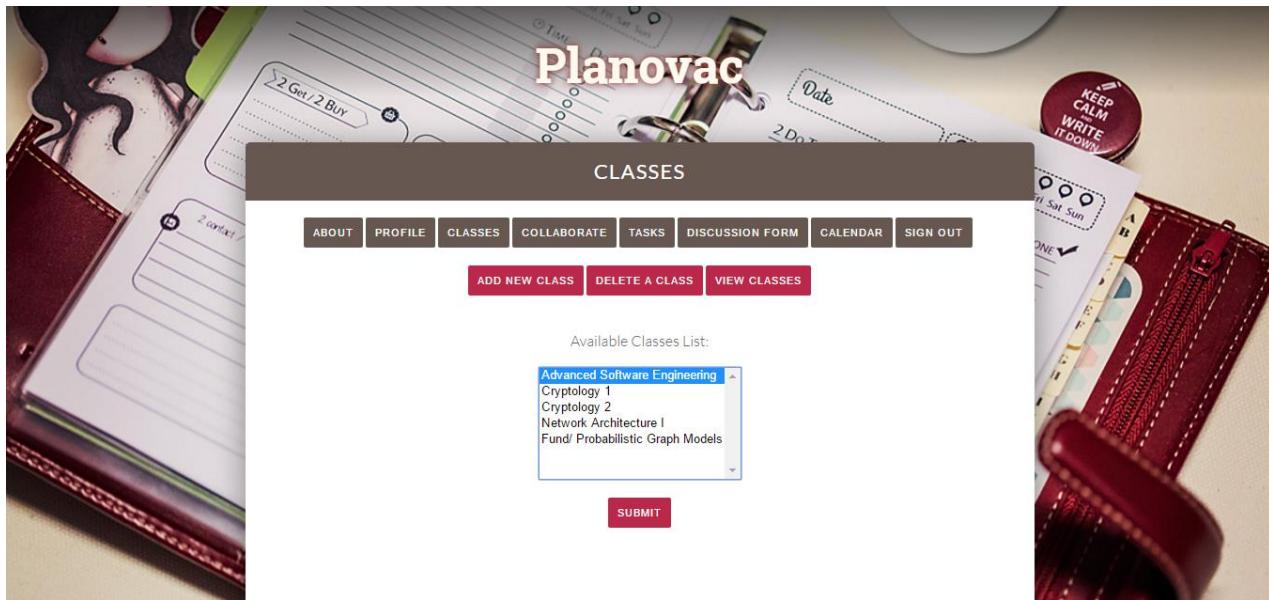


Private chat are provided to have one to one discussion instead with the group.

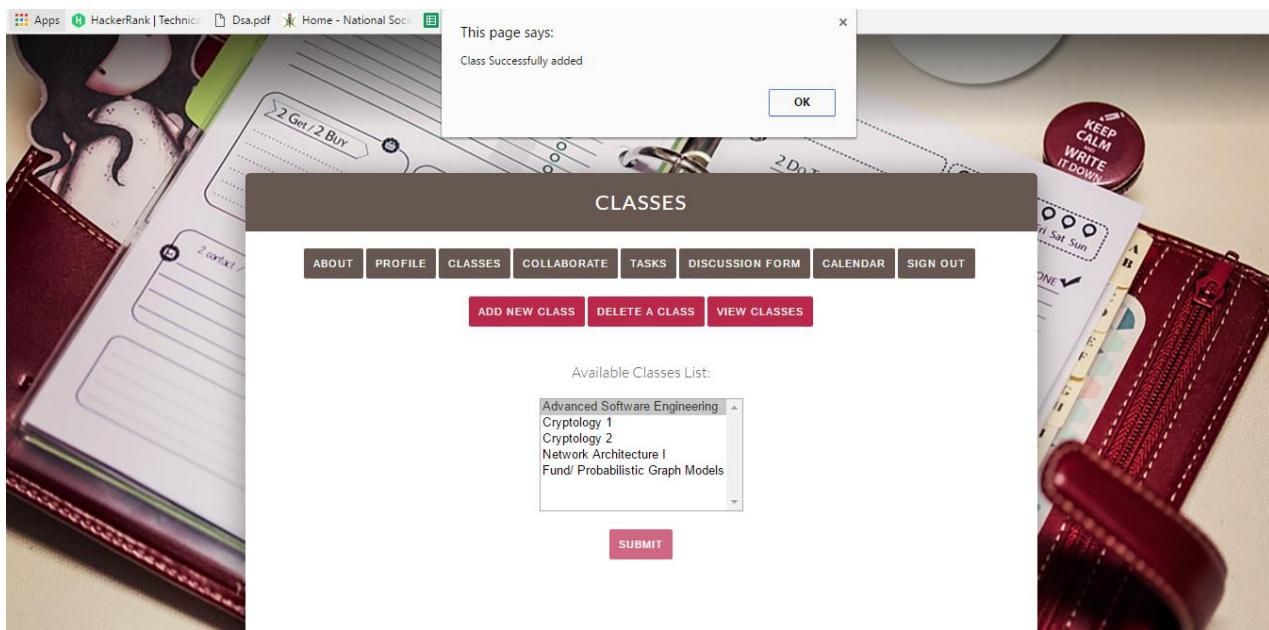


Classes:

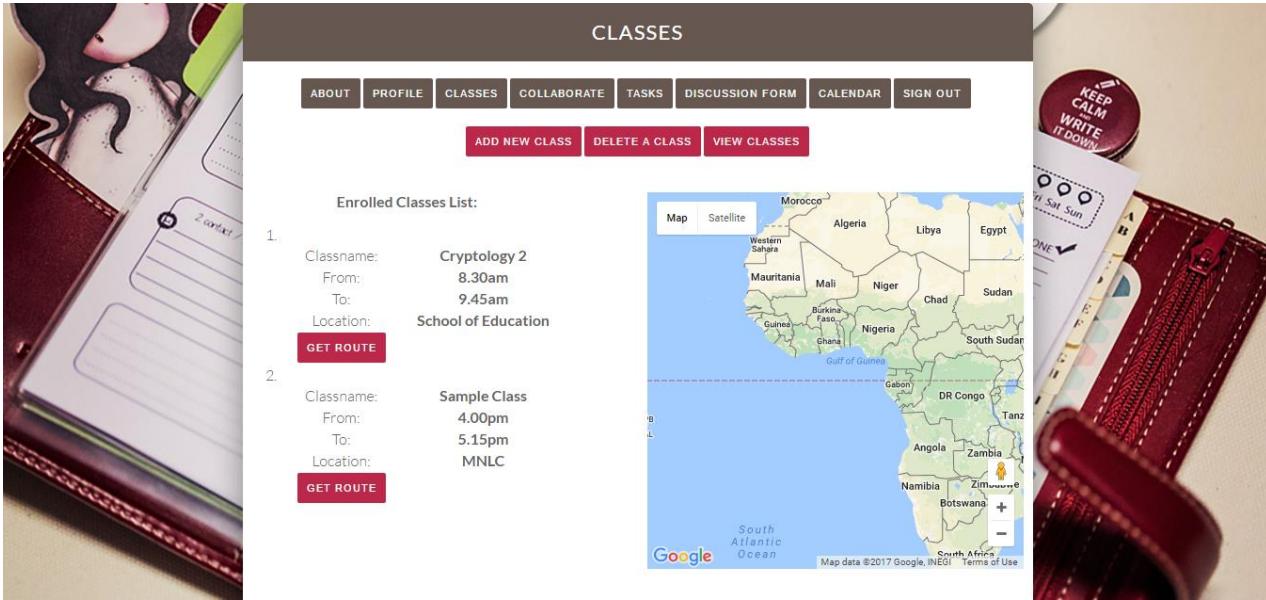
The classes are added to the profile based on the courses taken in the semester. The total list of the courses added are displayed in the webpage.



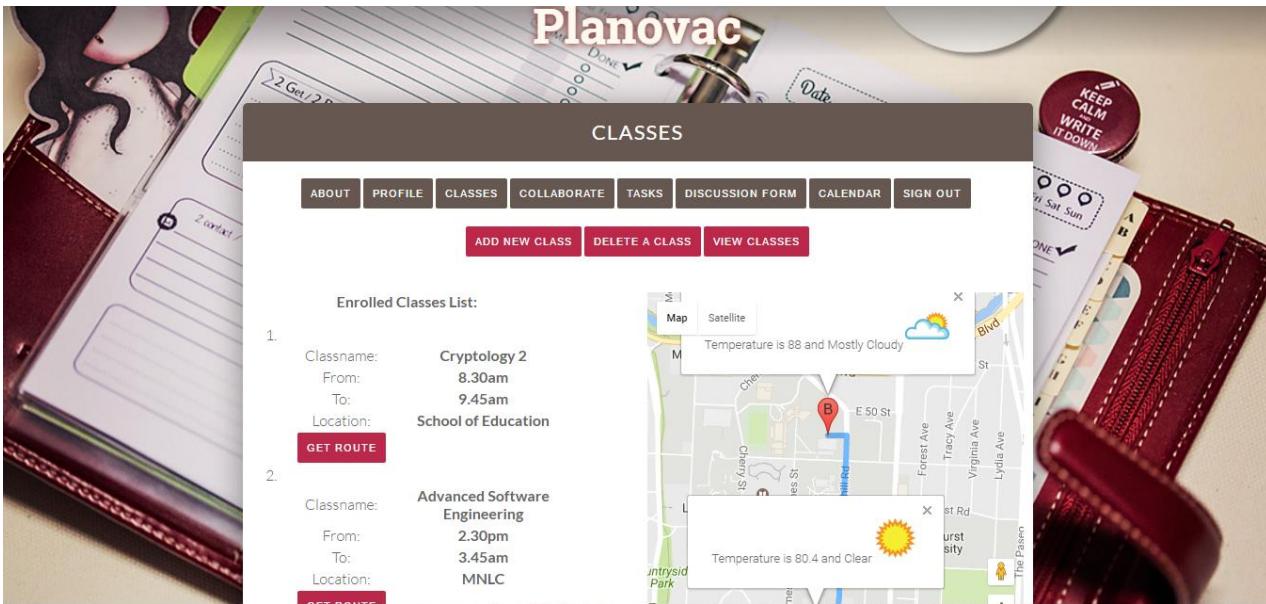
The user can decide which courses are to be added to Planovac. After successful addition of the courses, a notification pops up at the top of the browser.



The Classes added to the application are displayed in 'View Classes'. To get the directions from current to class, a GET ROUTE button is provided. This is developed using Google Maps API.

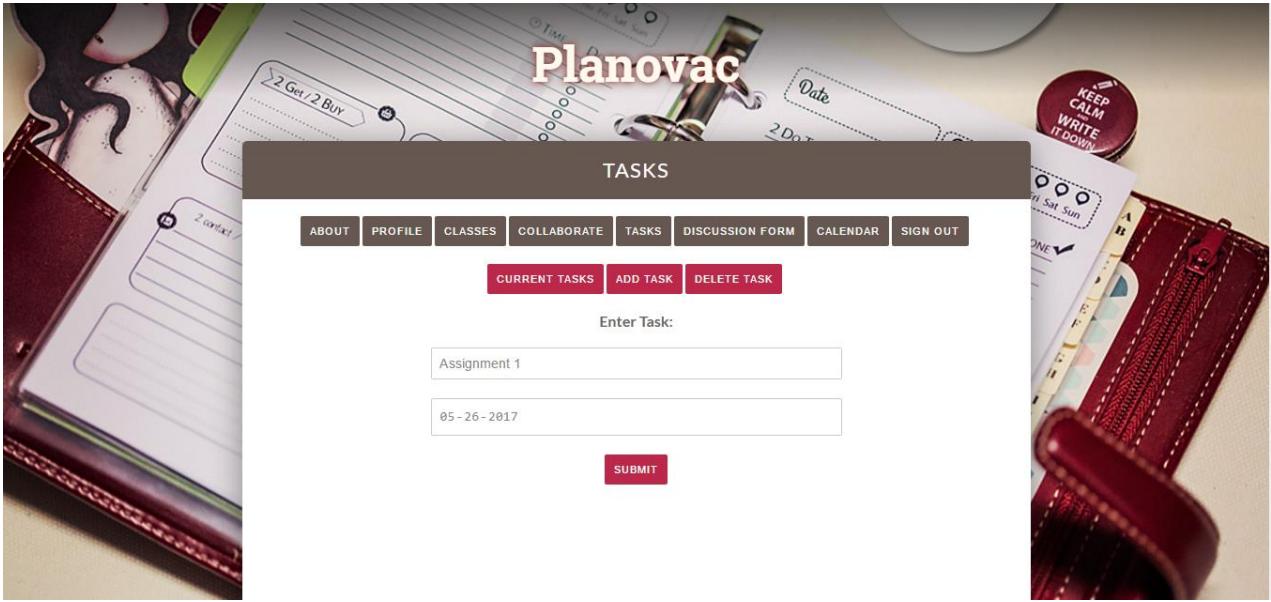


The Google Weather and Maps API are used to generate routes and weather implementations in Classes tab. Students will be able to see the weather conditions and make any preparations needed for the bad weather.

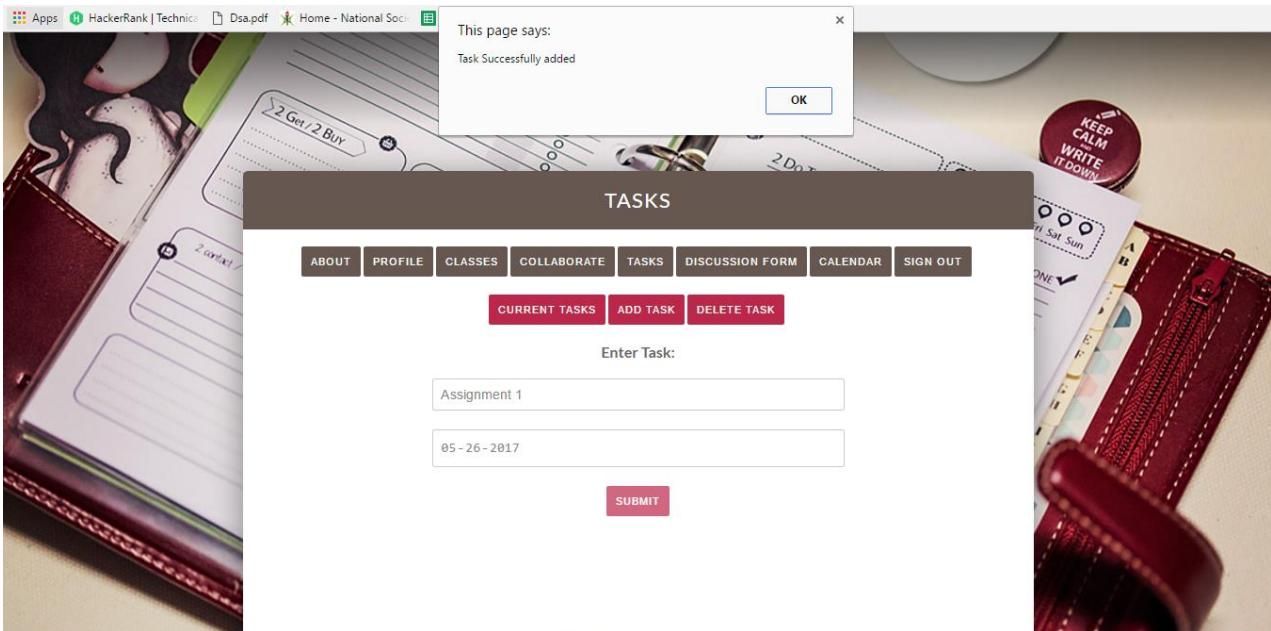


Tasks:

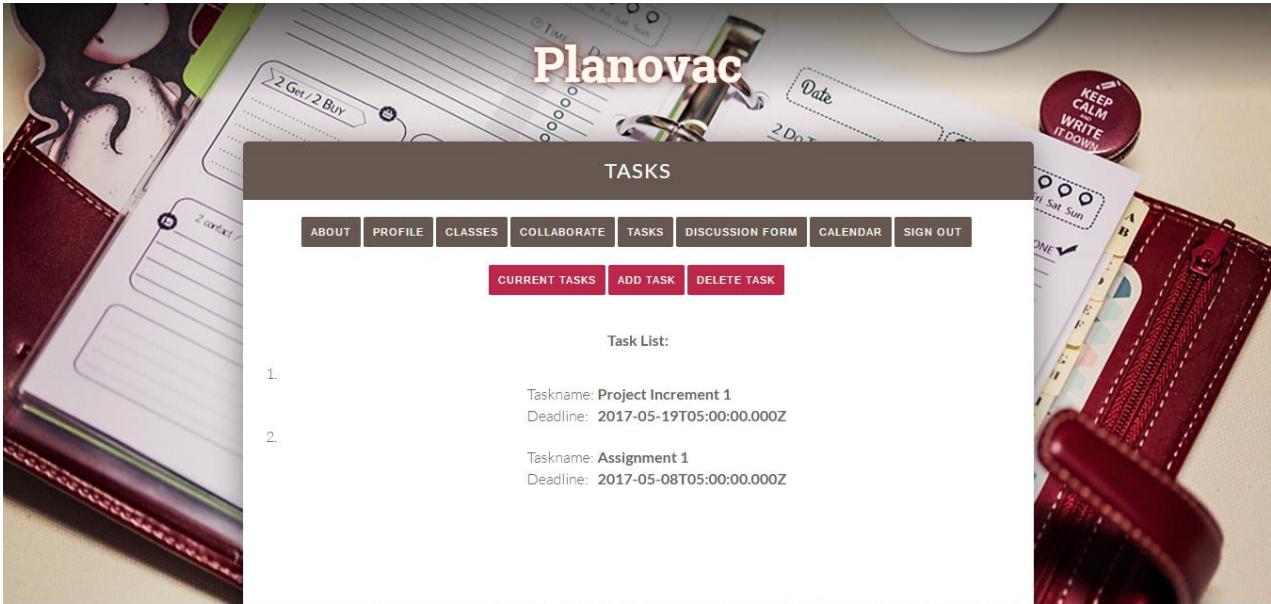
Basic operations for tasks like Adding, deleting and viewing current tasks are provided in Planovac. Task is added with a title and date.



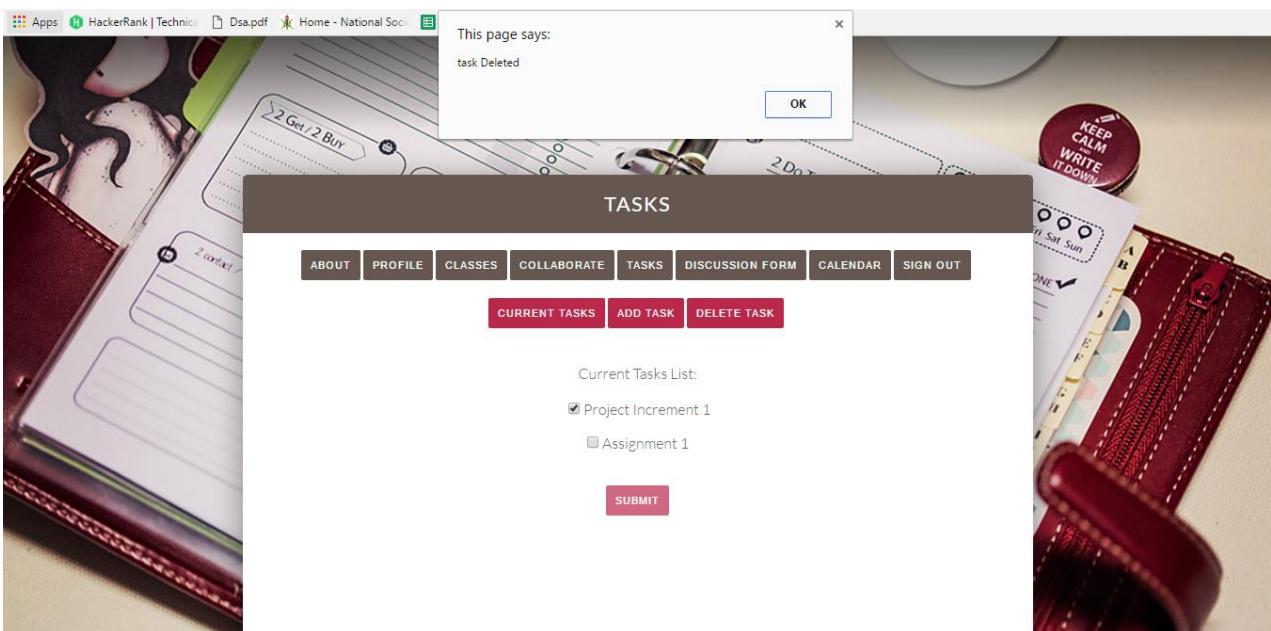
After task is being added, a successful notification pops up at the top of the browser in the application.



To view all the current tasks running up-to-date, we have provided the Current tasks button where list of tasks are displayed.



After a task is deleted, notification pops up stating task deleted successfully.



Project Increment #4:

The unique feature of PLANOVAC is SENDING ALERTS to the students. The mail notifications will be sent to the students before the desired time set by the students in order to remind them of their class schedule.

The screenshot given below shows the Gmail notification stating that class starts in 20 min.

The screenshot displays a Gmail inbox interface. On the left, there's a sidebar with navigation links: 'Inbox (5)', 'Starred', 'Important', 'Sent Mail', 'Drafts (5)', and 'More labels'. A red 'COMPOSE' button is at the top of the sidebar. The main area shows an 'Inbox' tab selected, with 'Primary', 'Social', and 'Promotions' tabs below it. The 'Promotions' tab has a '1 new' badge. A search bar is at the top right, and a message count '1-50 of 1,356' is also present. Below the tabs, a list of emails is shown:

From	Subject	Date
planovacapp	Class Alert - Hello User, You have Sample Class class in 20 mins	3:39 pm
Amazon Web Services	AWS Support (Basic) Cancellation - Greetings from Amazon Web Services, This e-mail confirms that you have cancelled your acce	May 4
gutha ashwini (2)	chudu idi - indulo tool demo esa chudu On Thu, May 4, 2017 at 1:34 AM, gutha ashwini <gutha.ashwini08@gmail.com> wrote:	May 4
gutha ashwini (2)	(no subject) - A lot of research is still going on this topic Suppose the Steganographic algorithm is more complex and spreads the er	May 3
Pranathi Reddy Gopidi	travel i20 form - fill it and go to isao along with current i20	May 3
Amazon Web Services	AWS Unified Registration Cancellation - Greetings from Amazon Web Services, This e-mail confirms that you have closed your Am	May 3
Uber Receipts	Your Wednesday afternoon trip with Uber - \$12.01 Thanks for choosing Uber, Ravali May 3, 2017 uberX 04:30pm 400 Grand Blv	May 3
Amazon Web Services	Amazon Web Services Billing Statement Available - Greetings from Amazon Web Services, This e-mail confirms that your latest bil	May 2
Pranathi Reddy Gopidi	Fwd: crypt final doc - Forwarded message From: Pranathi Reddy Gopidi <pranathireddy.1704@gmail.com> Date: Tue, May 2, 201	May 2
Satya Sai Deepthi Katta	PS 12	May 2
Sri Naga Sarvani Jakkula	color print pls	May 2
(no subject)	(no subject) - weather! background #D2D2D2; height:150px; width:250px; border: 1px dashed #ccc; padding: 1em; } #box1 { width:101	May 1

Below the inbox, a message is selected: 'Class Alert' from 'planovacapp@gmail.com' at '3:40 PM (0 minutes ago)'. The message content is: 'Hello User, You have Sample Class class in 20 mins'. The bottom of the screen shows account statistics: '3.36 GB (22%) of 15 GB used' and 'Last account activity: 0 minutes ago'.

Testing done through Yslow plugin which gives Grades for Planovac Web Application.

The screenshot shows a web browser window for the 'COLLABORATE' page of the Planovac application. The URL is <http://127.0.0.1:61228/collaborate.html>. The YSlow extension is active, displaying a grade of **A** with an overall performance score of 90. The page content includes a navigation bar with links to About, Profile, Classes, Collaborate, Tasks, Discussion Form, Calendar, and Sign Out. Below the navigation is a main content area with a heading 'Grade A' and a detailed breakdown of performance issues. The sidebar on the left lists specific recommendations like 'Make fewer HTTP requests' and 'Use a Content Delivery Network (CDN)'. The bottom of the screen shows the Windows taskbar with various pinned icons.

The screenshot shows a web browser window for the 'map.html' page of the Planovac application. The URL is <http://127.0.0.1:61228/map.html>. The YSlow extension is active, displaying a grade of **C** with an overall performance score of 79. The page content includes a map interface with location input fields and route buttons. The YSlow report highlights 'Make fewer HTTP requests' as a primary issue. It notes that the page has 5 external JavaScript scripts and 4 external stylesheets, both of which are recommended to be combined into one. The report also suggests combining multiple scripts into one script and multiple CSS files into one style sheet. The bottom of the screen shows the Windows taskbar with various pinned icons.

VII. PROJECT DEPLOYMENT

USER MANUAL

Table of Contents

S.No	Topic Name	
1	Introduction to Planovac	
2	How to Use Planovac Application?	
	2.1	Register
	2.2	Login
	2.3	Home Page
	2.4	Profile
	2.5	Classes <ul style="list-style-type: none">- To ADD a Class- To Delete a Class- To View list of Classes- To Get Route and Weather
	2.6	Task
	2.7	Collaborate <ul style="list-style-type: none">- Chat with Professor- Public Chat- Private Chat
	2.8	Calendar
3	Error Recognition	
4	Video Demonstration	
5	Bugs and Deficiencies	

1. Introduction to Planovac

Students tend to forget their class timings, important assignment deadlines etc. due to their hectic schedules. In order to eliminate difficulties to students, we have developed a web application called **PLANOVAC** (means “Scheduler” in Czech language).

This application works as a scheduler and reminds them of their important activities such as sending alerts when their classes start, alerts regarding submission deadlines etc., This also gives the directions and weather from the application from the current location.

2. How to use Planovac Application?

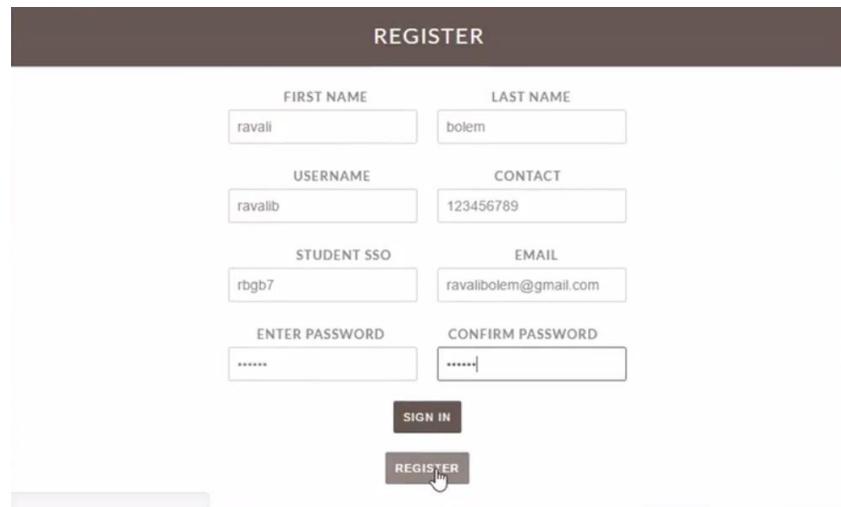
Planovac is web based application which is compatible on all types of web browsers like

- Google Chrome
- Mozilla Firefox
- Safari etc.

This application is mostly effective on Google Chrome.

Step1:

Register: The new user need to register in Registration Page of the Application. The user can register by giving his details and setting credentials to login into their account.



The image shows a registration form titled "REGISTER". The form consists of several input fields and buttons. At the top, there is a dark header bar with the word "REGISTER" in white capital letters. Below the header, there are two rows of input fields. The first row contains "FIRST NAME" and "LAST NAME" fields, both containing the value "ravali". The second row contains "USERNAME" and "CONTACT" fields, both containing the value "ravalib" and "123456789" respectively. The third row contains "STUDENT SSO" and "EMAIL" fields, both containing the value "rbgb7" and "ravalibolem@gmail.com" respectively. Below these rows are two password fields: "ENTER PASSWORD" and "CONFIRM PASSWORD", both containing four dots. At the bottom of the form are two buttons: a dark "SIGN IN" button and a light blue "REGISTER" button, which has a cursor icon pointing to it.

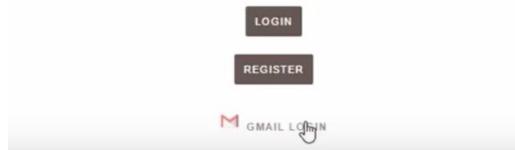
Step2:

Login:

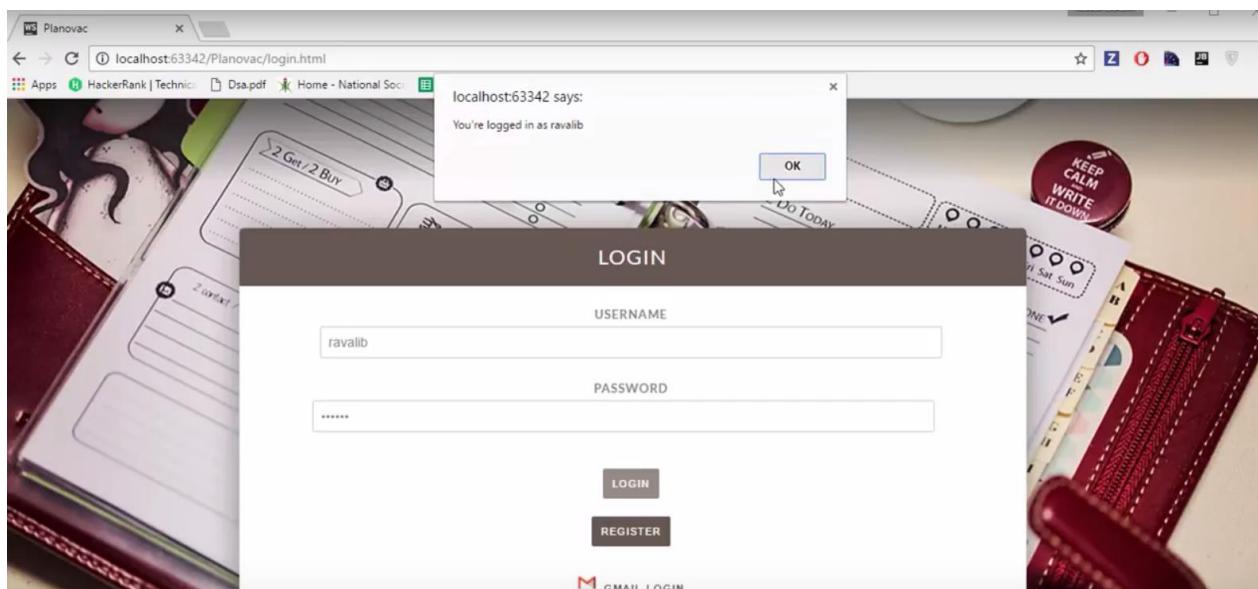
- After registration, the user needs to enter the credentials to enter into the application. The username and the password are to be entered and click Login to enter into Planovac application.

The screenshot shows the Planovac login interface. At the top is a dark header bar with the word "LOGIN". Below it is a "USERNAME" field containing "ravalib". Below that is a "PASSWORD" field containing "*****". Underneath the fields are two buttons: "LOGIN" (which has a hand cursor icon over it) and "REGISTER". Further down is a "GMAIL LOGIN" button with a red "M" icon. A message at the bottom says "Thanks for Logging in".

- The other way to login into Planovac is through the user Gmail Account. An OAuth button for Gmail Account is presented below Login button, so that user can login into Planovac by entering their Gmail Account Credentials.



- After successful login into the account, the user gets a notification showing the successful status of the login at the top of the browser.



Step3:

Home Page: About

The user can know the brief description of the Planovac application he is using, by clicking About tab on Home Page.



Step4:

Profile:

The account details of the user are displayed by clicking on Profile tab. The details are synced from the google account if the user is signing in from the Gmail Account.



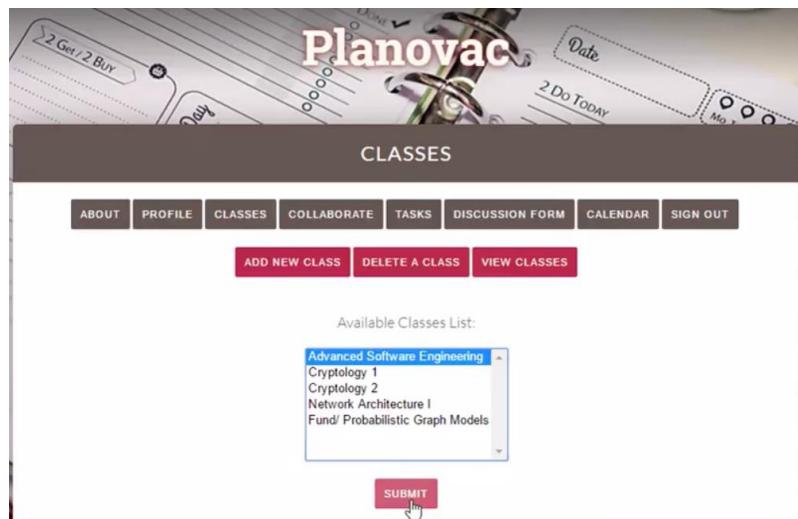
Step5:

Classes:

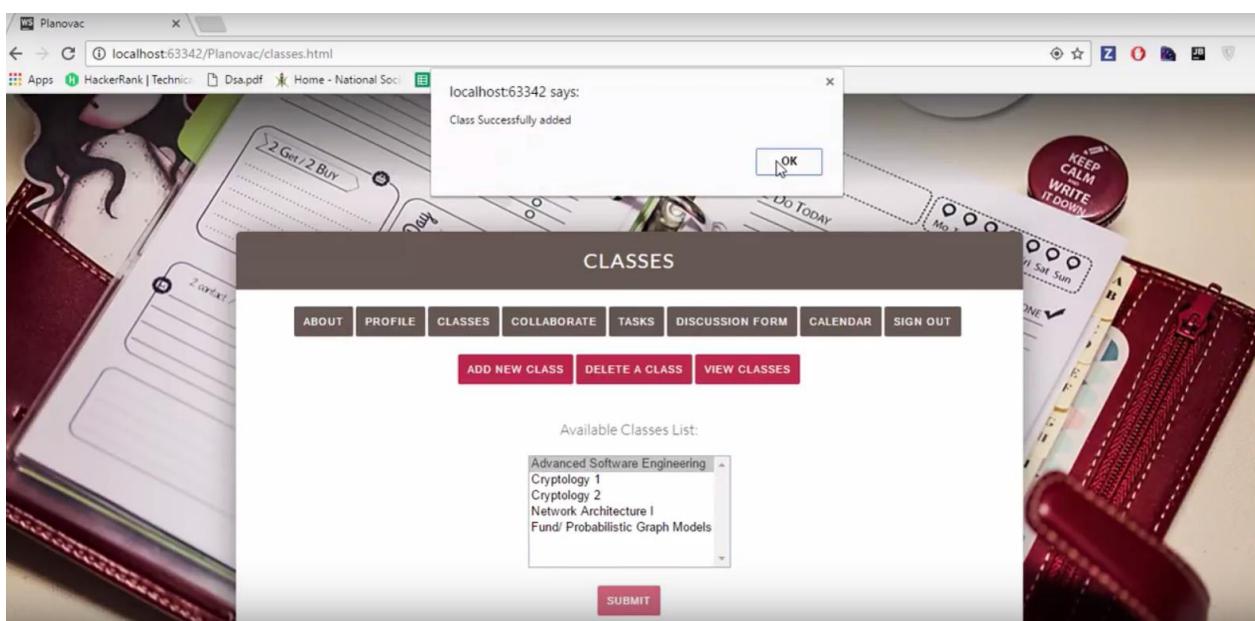
The basic operations to add, delete and view classes are provided in the application.

To ADD a Class:

- Go to Classes Tab, click on ADD NEW CLASS button.
- Select the class to be added from “Available List of Courses”.
- Click on Submit.

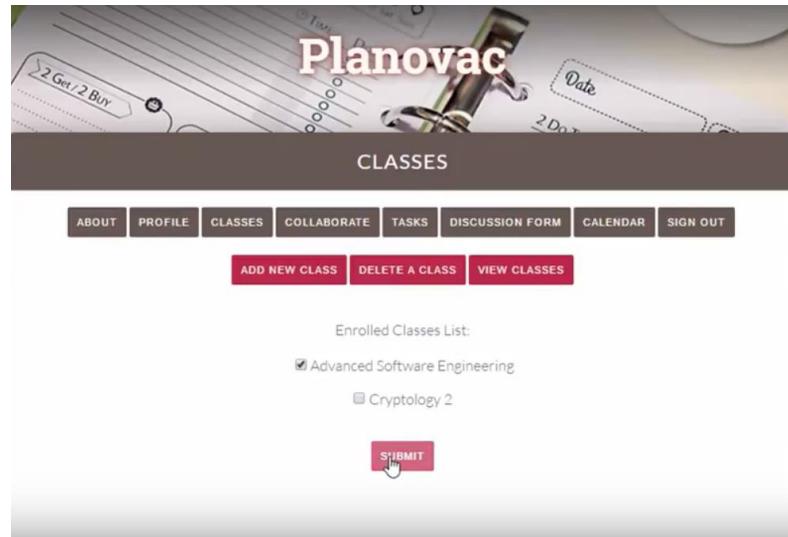


- A successful notification is show if a class is added.

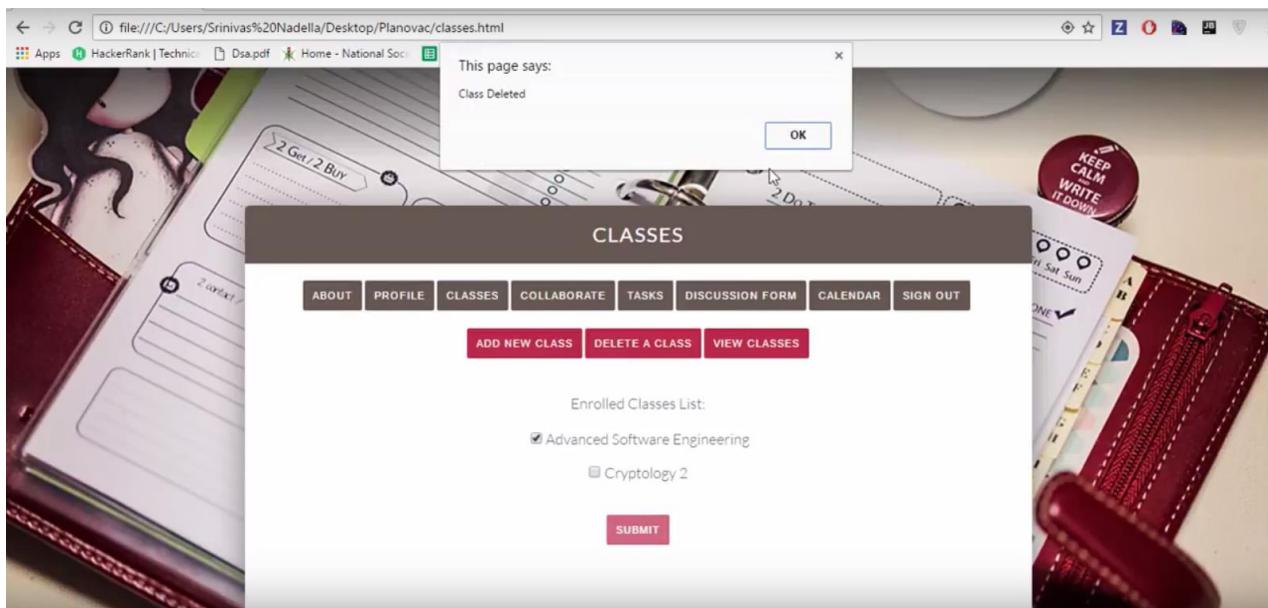


To DELETE a Class:

- Go to Classes tab and select DELETE A CLASS button.
- From the given “Enrolled Classes List”, select the class to be deleted.
- Click on Submit.



- A notification pops up at the top pf the browser stating that Class is deleted.
- You can see that class will be deleted from the lost which can be viewed in VIEW CLASSES.



To View Classes:

- Go to Classes tab and select VIEW CLASSES to see the list of classes added in the application.

[ADD NEW CLASS](#)
[DELETE A CLASS](#)
[VIEW CLASSES](#)

Enrolled Classes List:

1. **Advanced Software Engineering**
 Classname: Advanced Software Engineering
 From: 2.30pm
 To: 3.45pm
 Location: MNLC

[GET ROUTE](#)
[EDIT](#)
[DELETE](#)
2. **Cryptology 2**
 Classname: Cryptology 2
 From: 8.30am
 To: 9.45am
 Location: School of Education

[GET ROUTE](#)
[EDIT](#)
[DELETE](#)



A map of West Africa showing the coastline of the Atlantic Ocean and the locations of various countries. The map includes labels for Morocco, Western Sahara, Mauritania, Mali, Niger, Chad, Sudan, Nigeria, DR Congo, Angola, and Zambia. The Gulf of Guinea is also labeled.

To GET ROUTE and Weather:

- Now to get the directions from current location to the class, select GET ROUTE button which is present under the class details.

Enrolled Classes List:	
1.	<p>Classname: Advanced Software Engineering From: 2.30pm To: 3.45pm Location: MNLC</p> <p>GET ROUTE</p>
2.	<p>Classname: Cryptology 2 From: 8.30am To: 9.45am Location: School of Education</p> <p>GET ROUTE</p>

A map of Africa centered on the continent, showing coastal areas in blue and land areas in green. Two red lines represent driving routes. One route starts at a location labeled 'MNLC' in Mali and ends at 'DR Congo'. The other route starts at 'DR Congo' and ends at 'School of Education'. The map also labels several countries: Morocco, Algeria, Libya, Egypt, Mauritania, Mali, Niger, Chad, Sudan, South Sudan, DR Congo, Angola, Namibia, Botswana, Zimbabwe, Zambia, Tanzania, Kenya, Uganda, Rwanda, Burundi, Congo, and Central African Republic. The 'Gulf of Guinea' is visible to the west. The 'South Atlantic Ocean' is to the south. A legend at the top left shows 'Map' and 'Satellite' options. A scale bar and a compass rose are at the bottom right.

- The map beside the list of classes shows the directions and weather for the route.

The screenshot shows the 'Enrolled Classes List' section with two entries:

1. Classname: Advanced Software Engineering
From: 2.30pm
To: 3.45pm
Location: MNLC
GET ROUTE
2. Classname: Cryptology 2
From: 8.30am
To: 9.45am
Location: School of Education
GET ROUTE

To the right of the list is a map showing a route from point A (Advanced Software Engineering) to point B (School of Education). The map includes a weather overlay indicating 'Temperature is 73 and Mostly Cloudy' at point B. The map also shows other locations like E 50 St, Forest Ave, and Virginia Ave.

Step6:

Task:

Tasks can be added in the application, deleted if completed and also list of tasks can be viewed in the Planovac.

To ADD a task:

- Go to Task tab, select ADD A TASK
- Enter the Task name and the date.
- Click Submit.

The screenshot shows the 'TASKS' tab selected in the navigation bar. Below the tabs are three buttons: CURRENT TASKS, ADD TASK (which is highlighted), and DELETE TASK.

The main area has two input fields: 'Enter Task:' and 'mm - dd - yyyy'. A 'SUBMIT' button is located below these fields.

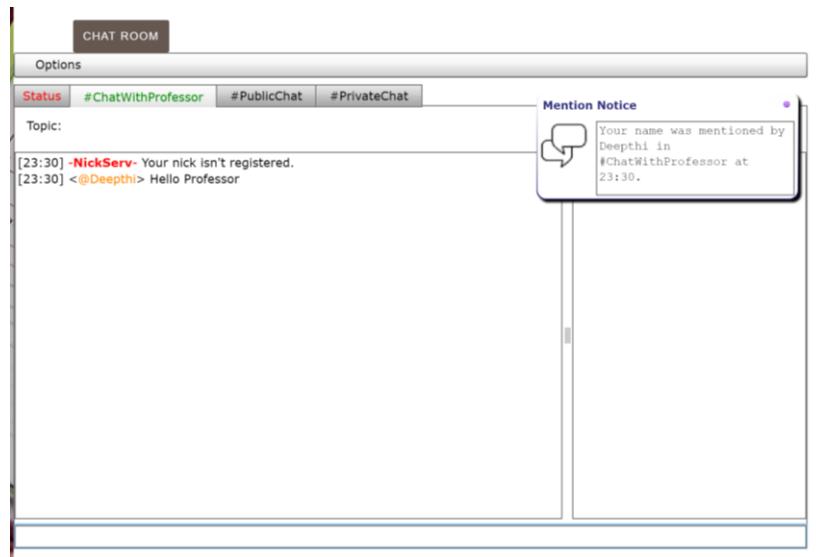
Step7:

Collaborate:

To get into collaboration with friends either privately or in group and also to chat with professor use Collaborate Tab in the application.

To Collaborate in Chat Room:

- Go to Collaborate tab and select various options like
 - o Private Chat
 - o Public Chat
 - o Chat with Professor
- To chat with friend in public chat, click on friend name from the list provided on the right side of Chat room.
- The chat room also provides notifications if the messages are intended to particular person.

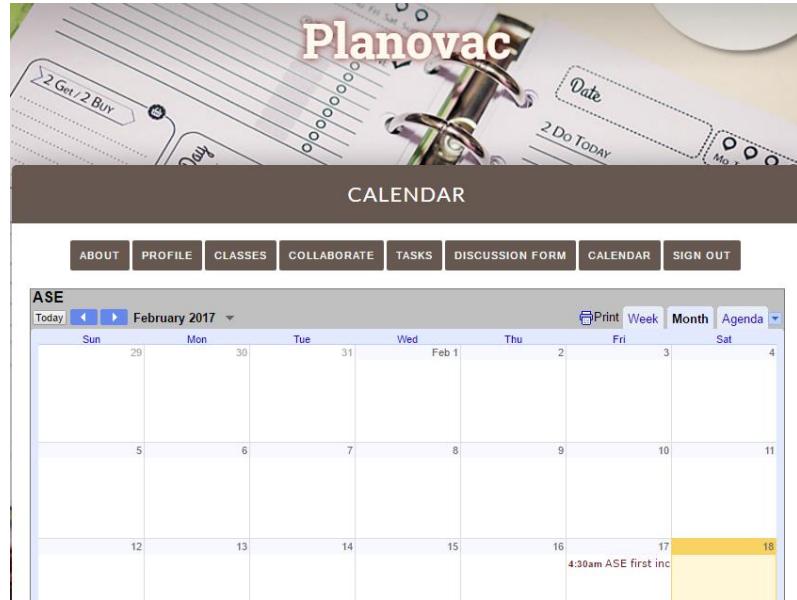


Step8:

Calendar:

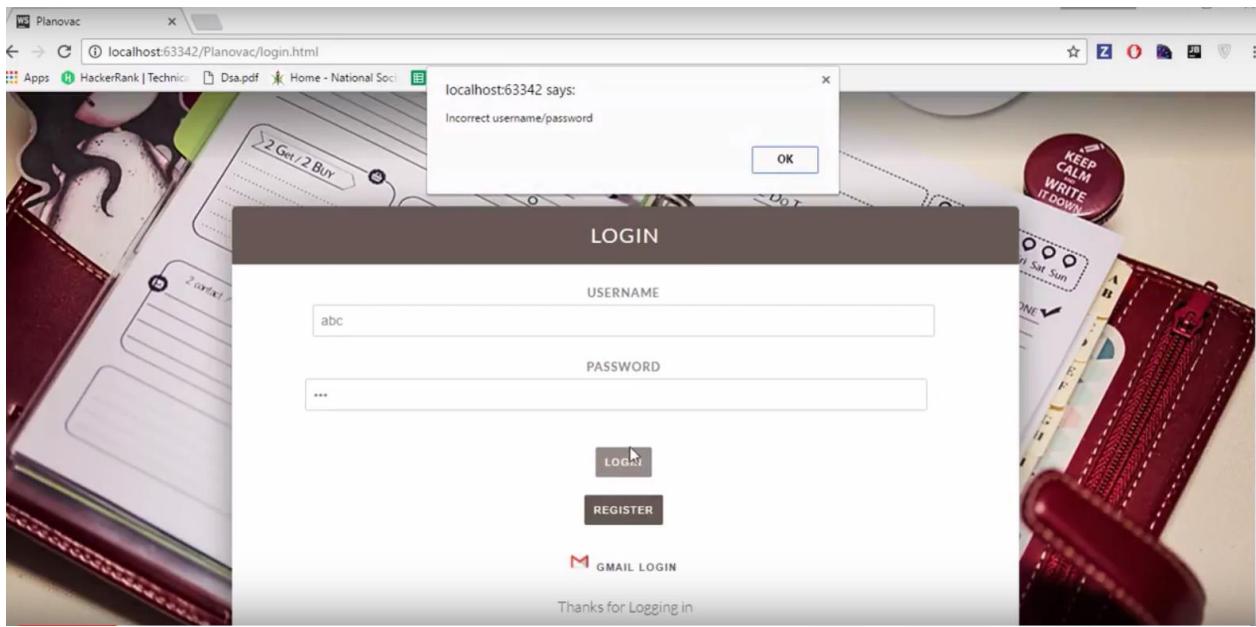
The user can view the calendar events which are in the Google calendar through Planovac. As the account is synced with the Gmail account, the user google calendar events can be displayed in Planovac.

- Click on Calendar tab provided on Home Page to access Google Calendar.



3. Error Recognition

- If the user gives any invalid credentials while logging into the application, a message notification stating invalid information is displayed on the top of web-browser.



- While requesting for 'Get Route', the application needs to access the current location. So the location allow access is sent to user if location services are off.
- The browser incompatible with the application won't show the wallpaper. So switching to the application compatible browsers listed above is also recommended.

4. Video Demonstration

A demonstration video is uploaded in YouTube which pictures:

- ✓ All the features of Application
- ✓ Back-End running for Sending Alerts is shown.

The link is provided below:

<https://www.youtube.com/watch?v=PqOnywPzXl8>

5. Bugs and Deficiencies

- Various Performance testings are applied on the application where few bugs are spotted and are rectified in the incremental stages of the project.
- The major deficiency of the project is being a Web-Based Application but also gives the scope of future work to deploy this application in Ionic environment to make it applicable for both mobile and web.

VIII. PROJECT MANAGEMENT

Work Completed:

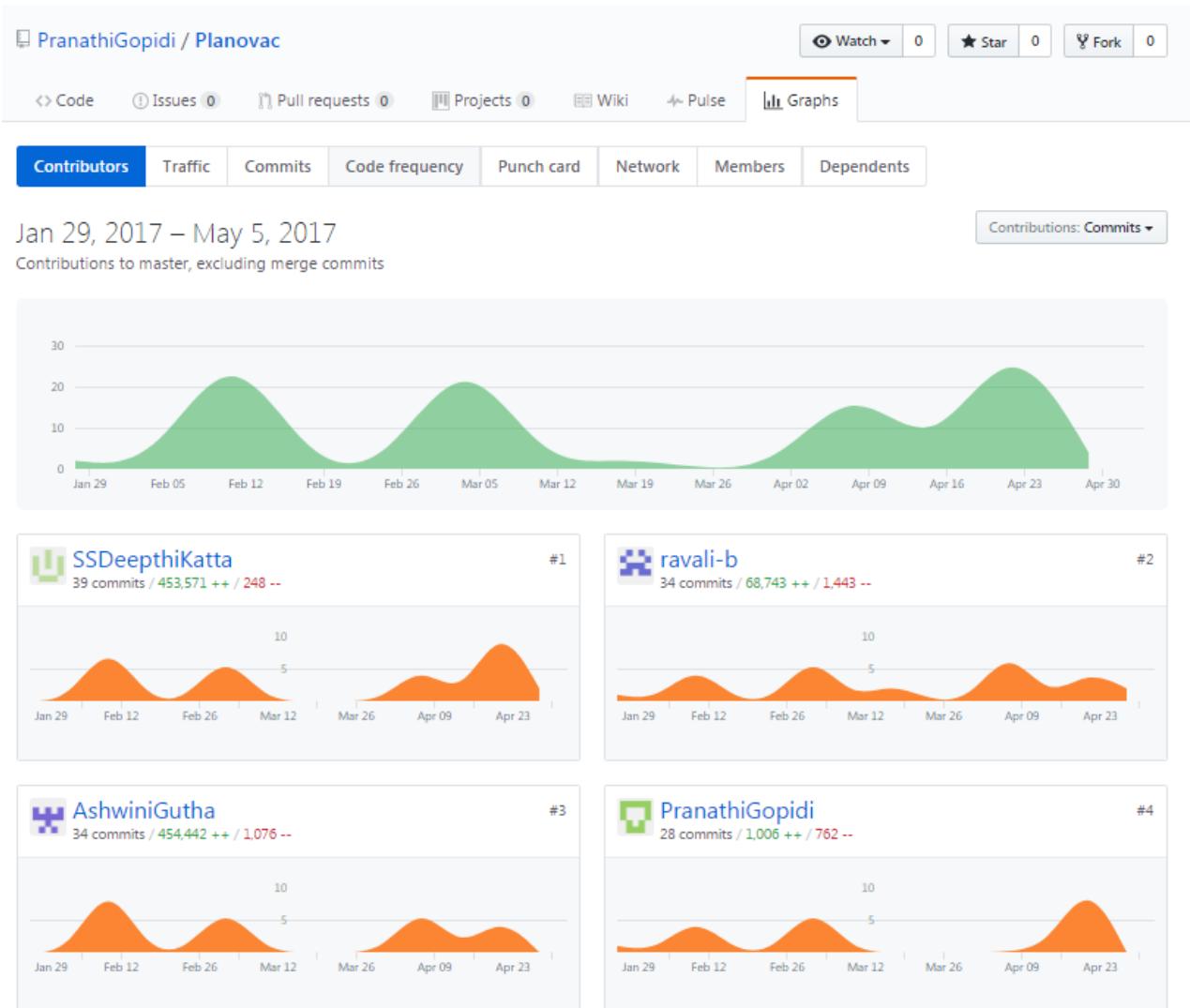
- Overall Completion of Project.

TEAM CONTRIBUTION:

Name	Contribution
Ravali Bolem (7)	<code> Login, Register, Mongo API <design> Web Page User Interface <code> Classes Tab, Sending Alerts & Integration <report> User Stories
Aswini Gutha (33)	<code> Google Calendar & Maps API, Discussion Form <design> (UML) Architecture Diagram <code> Sending Alerts & Integration <report> Wiki Page Creation
Pranathi Gopidi (29)	<code> Gmail OAuth, Google Weather API, Task tab <design> (UML) Class Diagram <code> Sending Alerts & Integration <testing> Unit Testing
Satya Sai Deepthi Katta (41)	<code> Collaboration-Chat Room <code> Sending Alerts by NodeJS <design> Wireframes, (UML) Sequence Diagram <testing> Performance Testing <report> Overall data collection required for Report, WIKI Page Creation & ZenHub

Contributions:

Equal Contribution by everyone.

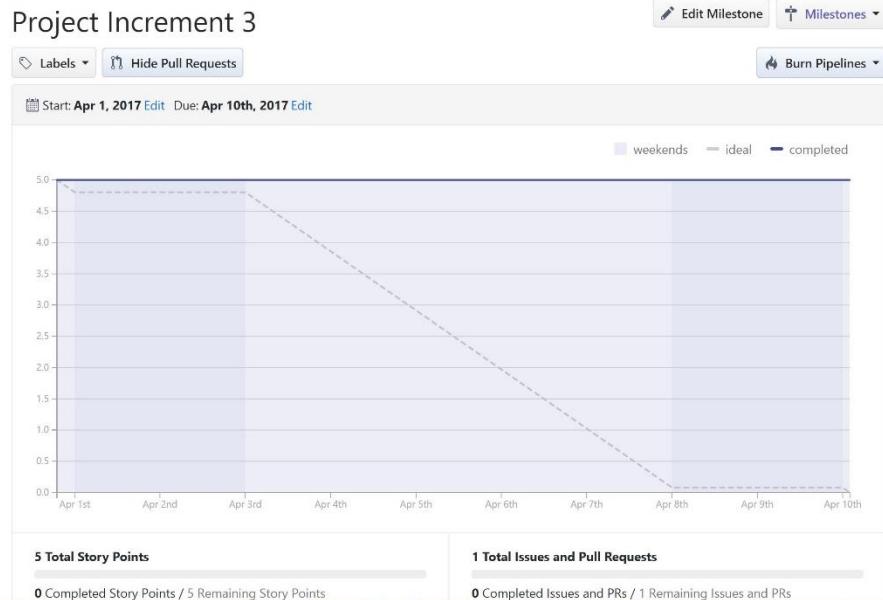


Milestone Graphs for Each Increment:

Project Increment 1



Project Increment 3



Project Increment 4

[Edit Milestone](#) [Milestones](#)

Completing whole idea of the project.



Presentation Slides

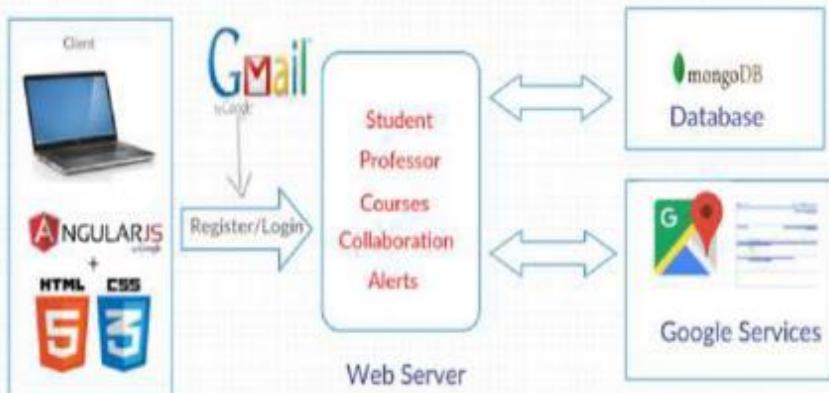
Planovac

Presented by
Ravali Bolem (7)
Ashwini Gutha (33)
Pranathi Gopidi (29)
Satya Sai Deepthi Katta (41)

Problem Statement

- ▶ PLANOVAC (means “Scheduler” in Czech language)
- ▶ Students tend to forget their class timings, important assignment deadlines etc due to their hectic schedules.
- ▶ This application works as a scheduler and reminds them of their important activities such as sending alerts when their classes start, alerts regarding submission deadlines etc.,

Software Architecture



Technologies

- ▶ **HTML 5**
- ▶ **CSS**
- ▶ **ANGULAR JS**
- ▶ **MONGO DB**
- ▶ **NODE JS**

Features

- ▶ Students can create an account in our application through registration page.
- ▶ The user can also log into our application through Gmail log in.
- ▶ This application provides a list of all the available classes. The user can choose all the classes he/ she is registered in.
- ▶ The user gets an alert in the form of an email notification, 15 min before the class starts.

Features

- ▶ Similarly, the user can also register his/ her other tasks such as assignment or project deadlines, and get alerts.
- ▶ There is a chat room available for students to communicate with each other and also with the professor, through our application.
- ▶ Students can also get the directions and weather details of their class rooms.



Thank You 😊

Links:

GitHub (Source Code & Documentation)

<https://github.com/PranathiGopidi/Planovac>

YouTube (Video Demo)

<https://www.youtube.com/watch?v=PqOnywPzXl8>

Related Work:

- ✓ UMKC Blackboard
- ✓ When I Work Schedule Planner
- ✓ Team Snap

Bibliography

(i) When I Work

<http://wheniwork.com/l/aw-schedule-maker>

(ii) Team Snap

<http://developer.teamsnap.com/>

(iii) MongoDB Documentation

<https://docs.mongodb.com/>

(iv) Google Calendar API

<https://developers.google.com/google-apps/calendar/>

(v) Creately Web Service

<https://creately.com/Draw-UML-and-Class-Diagrams-Online>