Software Systems Lab
CS251 Project Report
Course Networking

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Contents

1 Title

Course Networking

2 Abstract

- Social networking website for courses, with emphasis on notifications, discussion forums and student feedback. Separate interfaces for instructors and students, profiles for all users.

- Students

  · maintain profile

  · have a calender containing events highlighted

  · receive notifications for upcoming events such as exams, assignment deadlines and feedback deadlines based on the events created by instructors.

  · can view his weekly timetable for all courses.

  · can post a question in the discussion forum, search the forum for a question, give answer to one, comment , upvote or downvote an answer.

- An instructor

  · can upload course material, make announcements.

  · can put up a feedback form, view the responses(anonymous),

  · answer a question in discussion forum.

  · has the feature to signup using social media account

3 Problem Statement

Creating a **social networking site** for courses with a **user friendly interface** for instructors, students with a platform for **Discussions**, **Timely notifications** for important events, **Feedback forms** and Display of **timetables**.

4 Login Signup

We extended django's default user model (one-one) to make Student and Instructor models. Login url : 'http://127.0.0.1:8000/' . The Login (Figure 1) and Signup (Figure 2) pages are shown below.
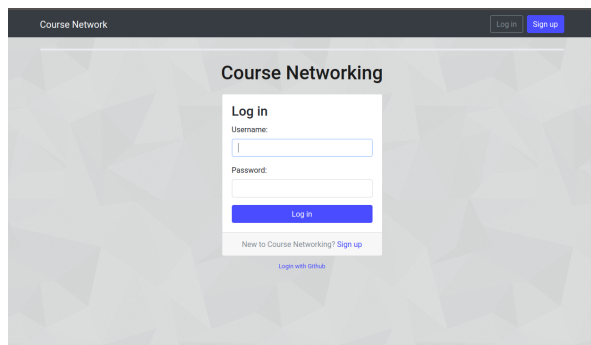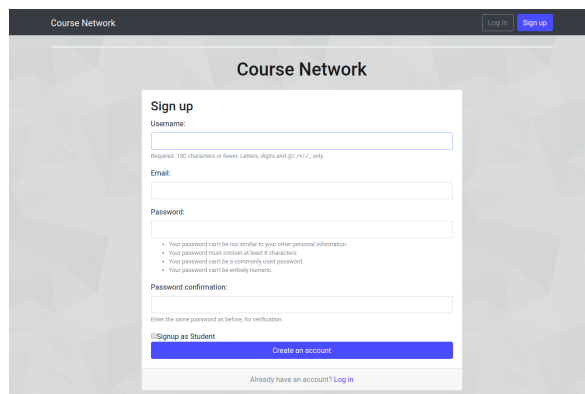

Figure 1: Login

Figure 2: Signup

During signup after the above filling form user is shown a student or an instructor signup form after filling it he is redirected to homepage.
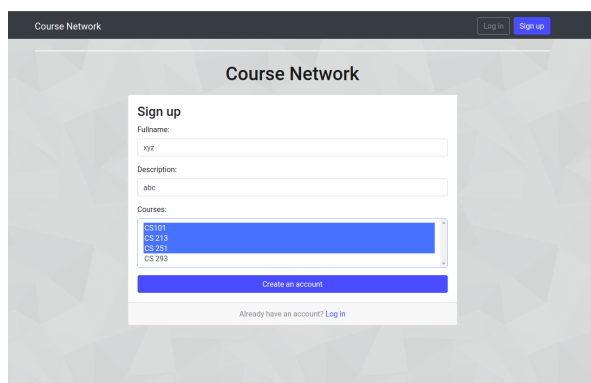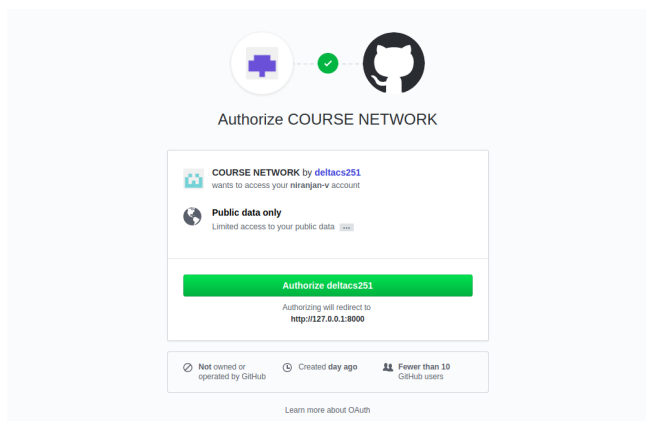

Figure 3: Student signup

Figure 4: Git Signup

There is also an option for Git-Signup/Login (Figure 4)

5 Homepage

The homepages are different for student (Figure 5) and instructor(Figure 6). After login user is redirected to his corresponding home page. The courses taken (given) by student (instructor) are displayed.

In student home page, links to view his timetable, event calendar are displayed. Also notifications and links to feedback forms to be filled are displayed. When clicked on a notification, its detailed description is showed.

Figure 5: Student home

Figure 6: Instructor home

6 Student timetable

Student's timetable (Figure 7) is generated from Slot field the Courses he has taken up.

Figure 7: Timetable

7 Course homepage

The course homepages for Instructor (Figure 9) and Student (Figure 8) are shown below.

Figure 8: Student course home

Figure 9: Instructor course home

In course home page, the instructors for the course, the students who have taken up the course are showed (these are also links to their profiles). The events related to that course are displayed in this page. There are links to discussion forum and course resources page. Similarly in instructor page there are also options to add/edit/delete an event. Add feedback form, view responses.

8 Course resources

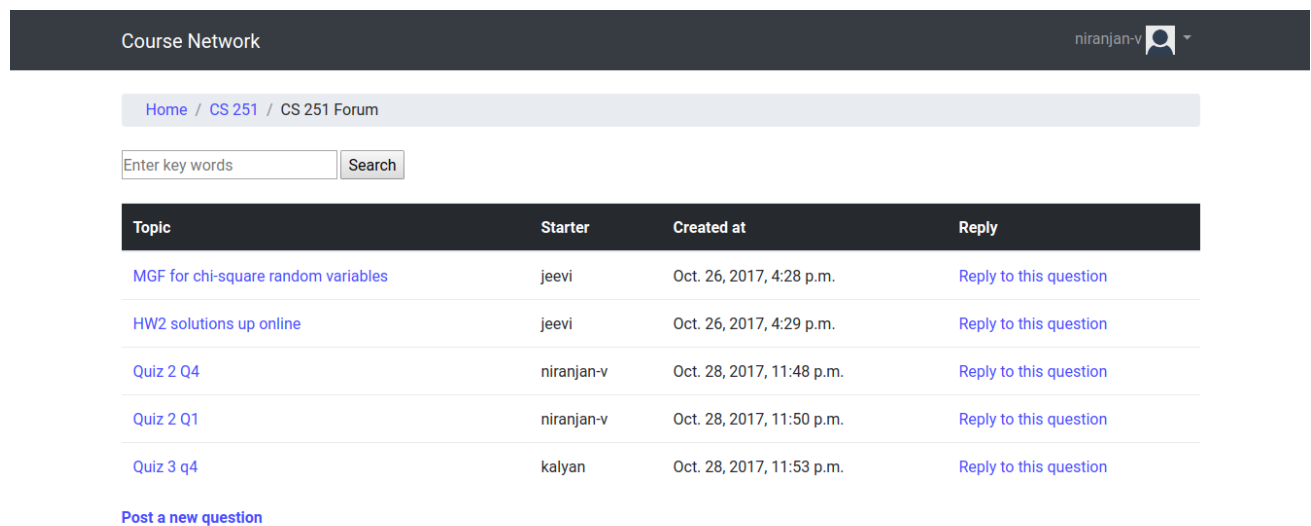Instructor's course resources page is shown below. The download link for the resource is given

Figure 10: Course resources page

in the table. Student's page looks the same except that there is no upload a new resource link.

9 Discussion forum

In discussion forum page(Figure 26), the topics are displayed in a tabular format. There is a search feature (implemented using django filter). The search results page (Figure 12) is shown below.
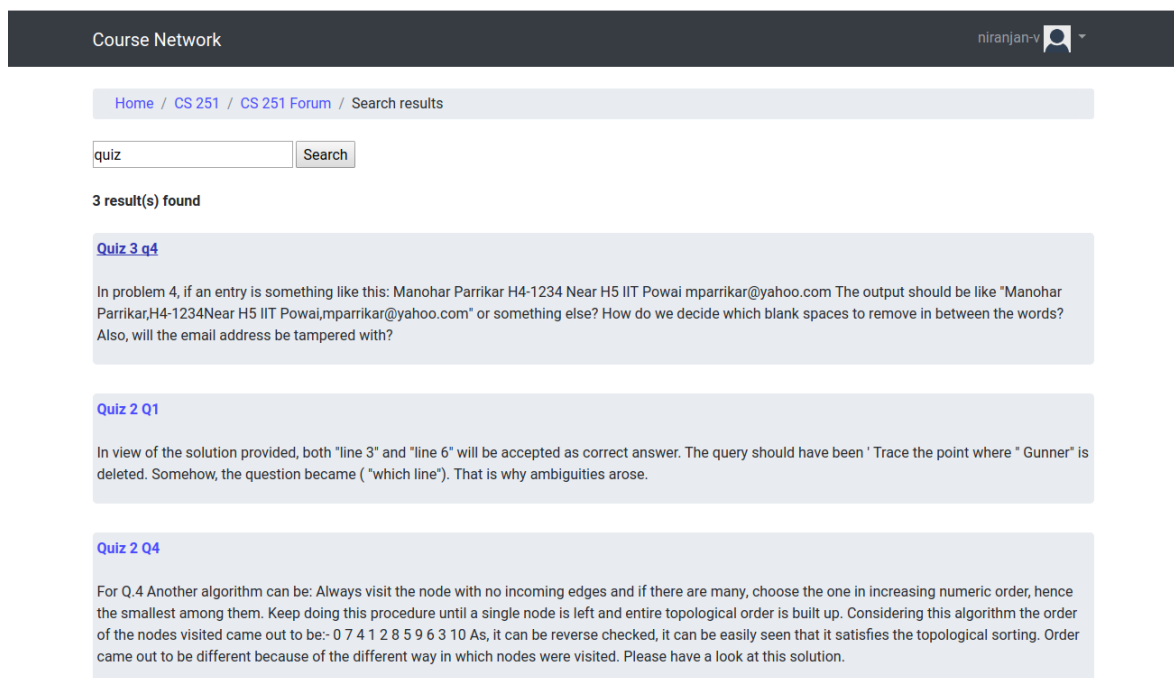

Figure 11: Forum page

Figure 12: Search results

When clicked on a topic, it takes to the page of that topic. In that page the question and the replies for that question are displayed (sorted by the number of upvotes for the reply) are displayed. And the instructor's reply is shown first mentioning it as an instructor's reply. For this page we have used Javascript to update the number of votes when user clicks on either of the buttons. Also we dynamically update this page every 30 seconds(this interval can be changed in the JS function).

Course Network

niranjan-v ▾

MGF for chi-square random variables
Please note that the MGF for a chi-square random variable with n degrees of freedom, is defined only for t < 1/2. I have now added this statement in the slides for Families of Random Variables (download the slides from the class website again).

by : jeevi   Oct. 26, 2017, 4:28 p.m.

Reply to this question

License checkout error is being displayed currently due to a multitude of active users. We're unable to complete the first two questions.

Replied by : kalyan   Oct. 26, 2017, 4:31 p.m.

Upvote
4
Downvote
0

Then you have 2 options (and perhaps more): 1) Compute the information that the boxplot needs yourself and display that information using standard curve plots. For this you'd need to find percentiles (25, 50, 75) of the data within each "box" of the box plot. 2) Use some other software just to display the boxplot (python, SciLab, etc).

Replied by : kalyan   Oct. 26, 2017, 4:31 p.m.

Upvote
2
Downvote
2

Use octave it is very similar to MATLAB

Replied by : niranjan-v   Oct. 28, 2017, 11:55 p.m.

Upvote
0
Downvote
0

Post a new question

Figure 13: Topic page

Course Network

suraj ▾

MGF for chi-square random variables
Please note that the MGF for a chi-square random variable with n degrees of freedom, is defined only for t < 1/2. I have now added this statement in the slides for Families of Random Variables (download the slides from the class website again).

by : jeevi   Oct. 26, 2017, 4:28 p.m.

Reply to this question

INSTRUCTOR REPLY
Try Python or R or octave.There will be a class on: Thu 5:30 pm - 7 pm, Oct 5 (this week) LH-101, Also, the assignment has been posted on moodle. Best Suraj

Replied by : suraj   Oct. 29, 2017, 1:13 p.m.

License checkout error is being displayed currently due to a multitude of active users. We're unable to complete the first two questions.

Replied by : kalyan   Oct. 26, 2017, 4:31 p.m.

Upvote
4
Downvote
0

Then you have 2 options (and perhaps more): 1) Compute the information that the boxplot needs yourself and display that information using standard curve plots. For this you'd need to find percentiles (25, 50, 75) of the data within each "box" of the box plot. 2) Use some other software just to display the boxplot (python, SciLab, etc).

Replied by : kalyan   Oct. 26, 2017, 4:31 p.m.

Upvote
3
Downvote
1

Figure 14: Instructor's reply shown first

There are options to post a new topic(for student only) and reply for a question in the forum page and the topic page.

Figure 15: New Topic

Figure 16: New reply

10 My Drive

User's My Drive page (Figure 17) and upload page (Figure 18) are shown below.

Figure 17: My drive

Figure 18: Upload

Every User has their own personal drive where he can upload files

11   User Profile

User's Profile page (Figure 23) and Edit Profile page (Figure 24) are shown below.

Figure 19: My Profile

Figure 20: Edit Profile

My Profile contains Fields of Username ,Full name, Email, Description,Phone,City,Website and Courses Undertaken.

Edit Profile contains edit Fields of Fullname,website,description,phone,city and profile image

Figure 21: Course Info page

On clicking a course in Courses Undertaken we get info in this way as above.

Figure 22: Profile page

Other Profiles can be viewed through their id's and we have used default profile image as shown.

12   Events

Events of a Course are Created by it's Instructor with name,description,deadline time and date, and they appear in the notifications of students and also in instructor's homepage

Figure 23: Add Event

Figure 24: Editing Event

Figure 25: Display of event in instructor's page

Instructor can edit/delete the event in the course's homepage and in same way events are displayed in student's home page with no edit,delete option sorted in deadlinetime order

Cicking on an event it redirects to event info containing information about event
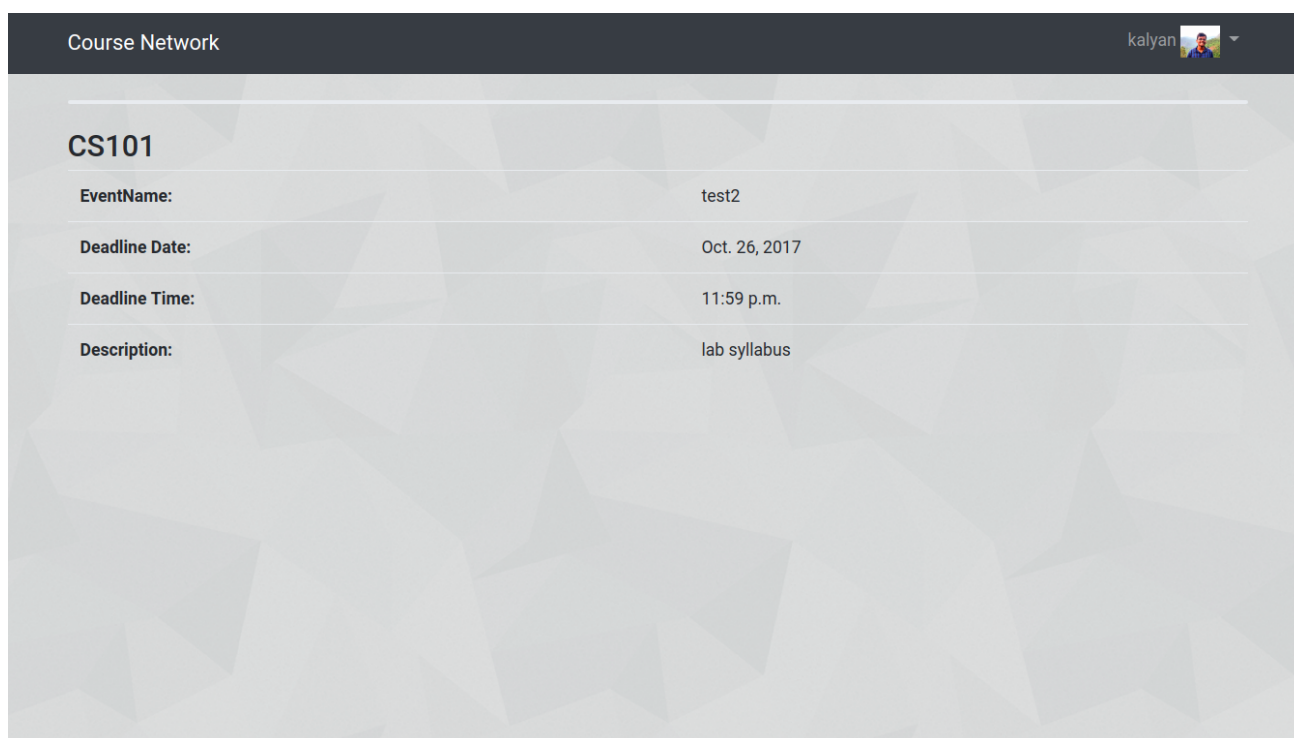
Figure 26: Event details page

13 Calendar

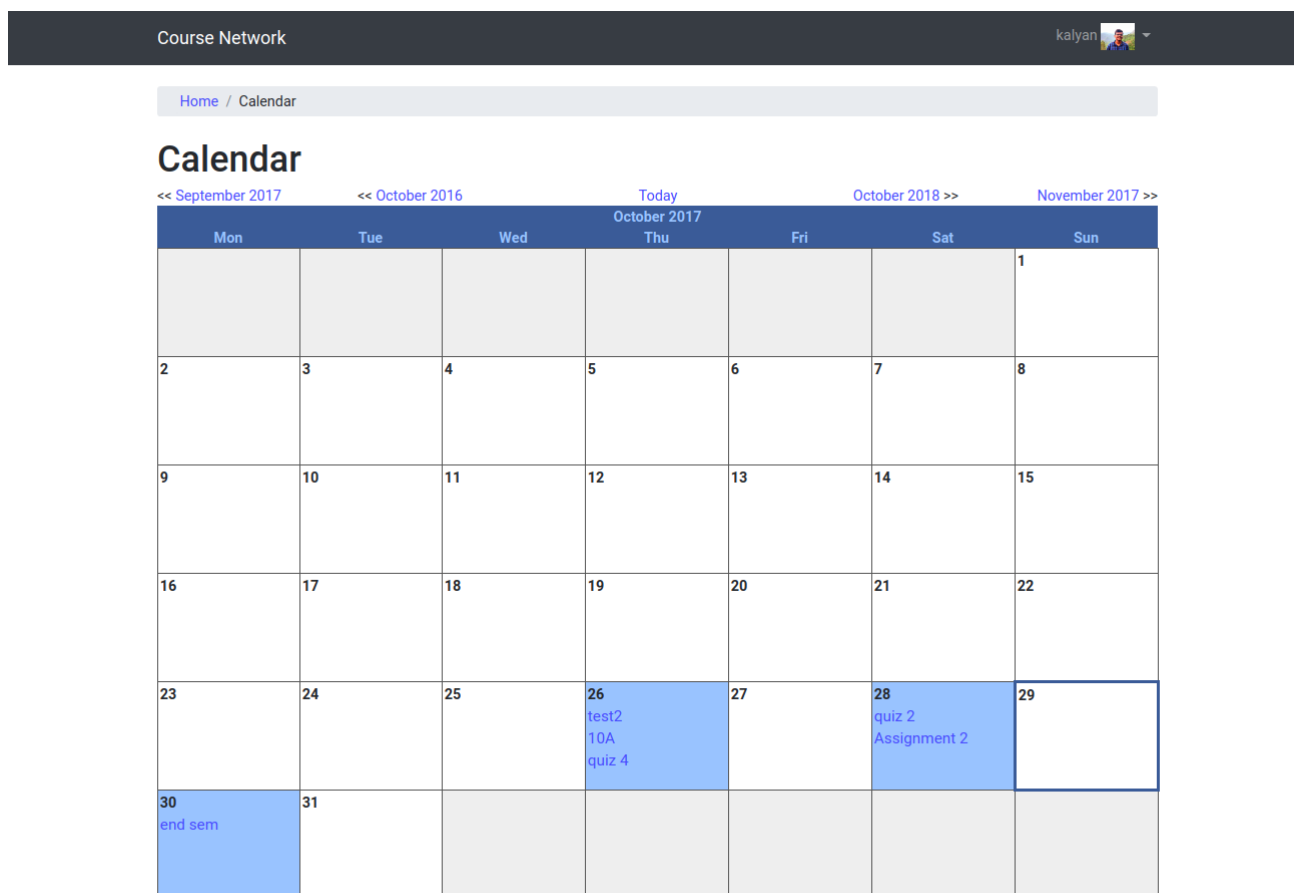Student's Calendar is generated from Event Deadlines of the Courses he has taken up.

Figure 27: Timetable

- Each Day contain all its events listed

- On clicking an event we get redirected to event info page

- If a day contains events its highlighted in blue

- Today is bordered with blue as shown

- we can access other months events through navigation above

14 Feedback

The instructor can add a feedback form with subjective and objective questions.

Figure 28: Add Feedback Form

The student must fill the form and submit it. If a student submits a form more than once, his/her responses will be overwritten.

Figure 29: View Feedback

The instructor can then view the collected responses. The answers are anonymous and the rating answers are shown in the form of a graph.

15 Site setup and maintenance by admin

We have used default django admin in this project. To create a an admin (superuser), go to main directory of project and run this command: 'python3 manage.py createsuperuser'
Next run this command : 'python3 slot_setup.py' - this command create some Slot instances we've used in this project.
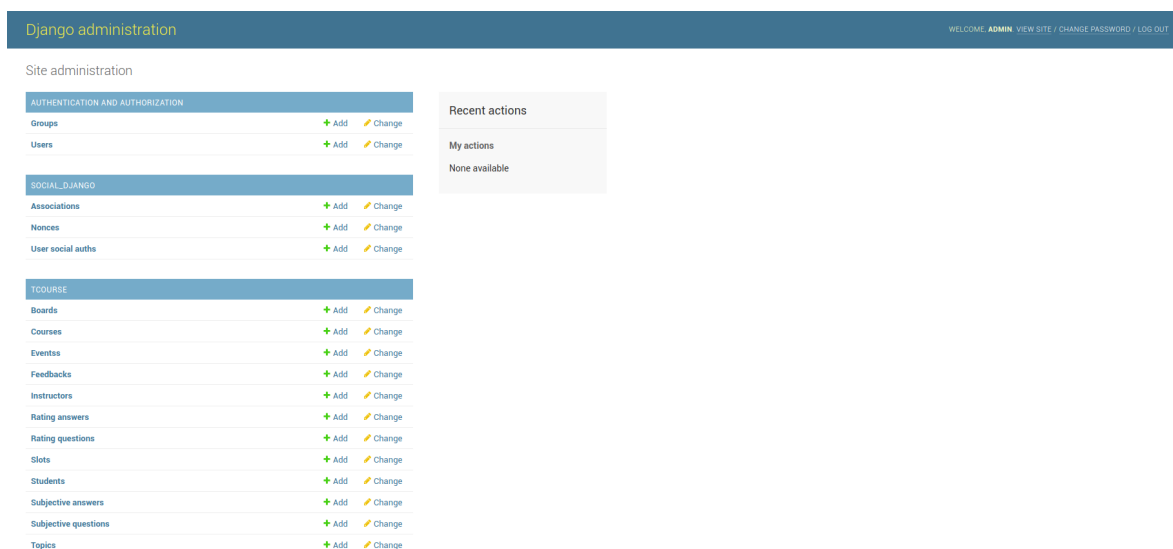admin login page - `http://127.0.0.1:8000/admin/login`

Figure 30: Admin home page

We have registered some models in admin.py file, so that the admin can **view/edit/add/delete**

instances of these models. To create a coruse, go to Courses model, click on add Course, enter Course name and description ,select instructor and slot from available instances of those. Also admin has to create a Board model (for discussion forum) for this Course, which can be done in a similar fashion.

Figure 31: Creating a course

Figure 32: Creating a board

Setting up git-hub login service:

Step1: Go to `https://github.com/settings/applications/new`
give the url of your homepage

Step2: Authorization callback URL: your_homepage_url/oauth/complete/github/

Step3: Get Client ID and Client secret

Step4: In your project-2/mysite/settings.py add this:
SOCIAL_AUTH_GITHUB_KEY = <Client ID>
SOCIAL_AUTH_GITHUB_SECRET = <Client secret>

Now we are all set. To start server run: 'python3 manage.py runserver'

16 Features

Promised	Delivered
Allowing instructor to sign up through social media account	Instructor can signup/login through github
Feedback forms	Feedback forms with subjective and rating questions
Calendar	Monthly Calendar with events displayed with hyperlinks.
Profile of individual(instructor and student)	Each user has a profile
Notifications	Students see events in their homepage when an instructor creates them
Timetable generation for a particular student	Student's weekly timetable based on his/her courses
Discussion forum with votes, comments and special status for instructor	Everything mentioned, and real time changes in the forum
Uploading of files	Personal drive for all users and Instructor can upload resources visible to everybody

Apart from these, we have been able to develop these extra features:

- Search in Discussion Forum

- Graphical feedback viewing for instructor

- User can see changes in topic view page without refreshing ie page is dynamically updated without actually refreshing it