



Project Report

Project Name: online tutor management system

Course Code: CSE 410

Course Title: Software Development

Project members

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Purpose/ objectives of the project: The main goal of the online tutor management system is to help students overcome academic challenges. Here a student can choose any teacher easily. It is a special kind of teaching management system that is different from the other it is mainly help students and tutors meet and interact with each other to make tuition classes.

Problem definition: Online tutor Management System is very helpful to the users. The aim of this project is to provide quick, immediate interact with students and tutors to meet and make tuition classes.. Login module helps the user to login to the site from anywhere. For that he/she must type the username and password correctly. Before that he/she must complete their registration

Benefits of the project:

1. Parents can get highly qualified tutors at affordable prices.
2. Elimination of travel time for both parents and tutors.
3. Tutors share a wealth of knowledge, experience, and academic degrees which they have.
4. Can be used anywhere any time as it is a easy application
5. This system can be used by many students who love Teaching as a part time job.

Investigation: feasibility study

ECONOMIC FEASIBILITY:

Economic analysis is most frequently used for evaluation of the effectiveness of the system. More commonly known as cost/benefit analysis the procedure is to determine the benefit and saving that are expected from a system and compare them with costs, decisions is made to design implement the system. This part of feasibility study gives the top management the economic justification for the new system. This is an important input to the management, because very often the top

management does not like to get confounded by the various technicalities that bound to be associated with a project of this kind. In the system, the organization is most satisfied by economic feasibility. Because, if the organization implements this system, it need not require any additional hardware resources as well as it will be saving a lot of time.

TECHNICAL FEASIBILITY:

Technical feasibility centers on the existing manual system of the test management process and to what extent it can support the system. According to feasibility analysis procedure the technical feasibility of the system is analyzed and the technical requirement such as software facilities, procedure, inputs is identified. It is also one of the important phases of the system development activities. Since processing speed is very high and the work is reduced in the

Maintenance point of view management convinces that the project is operationally feasible.

BEHAVIOURAL FEASIBILITY:

People are inherently resistant to change and computer has been known to facilitate changes. An estimate should be made of how strong the user is likely to move towards the development of computerized system. These are various levels of users in order to ensure proper authentication and authorization and security of sensitive data of the organization.

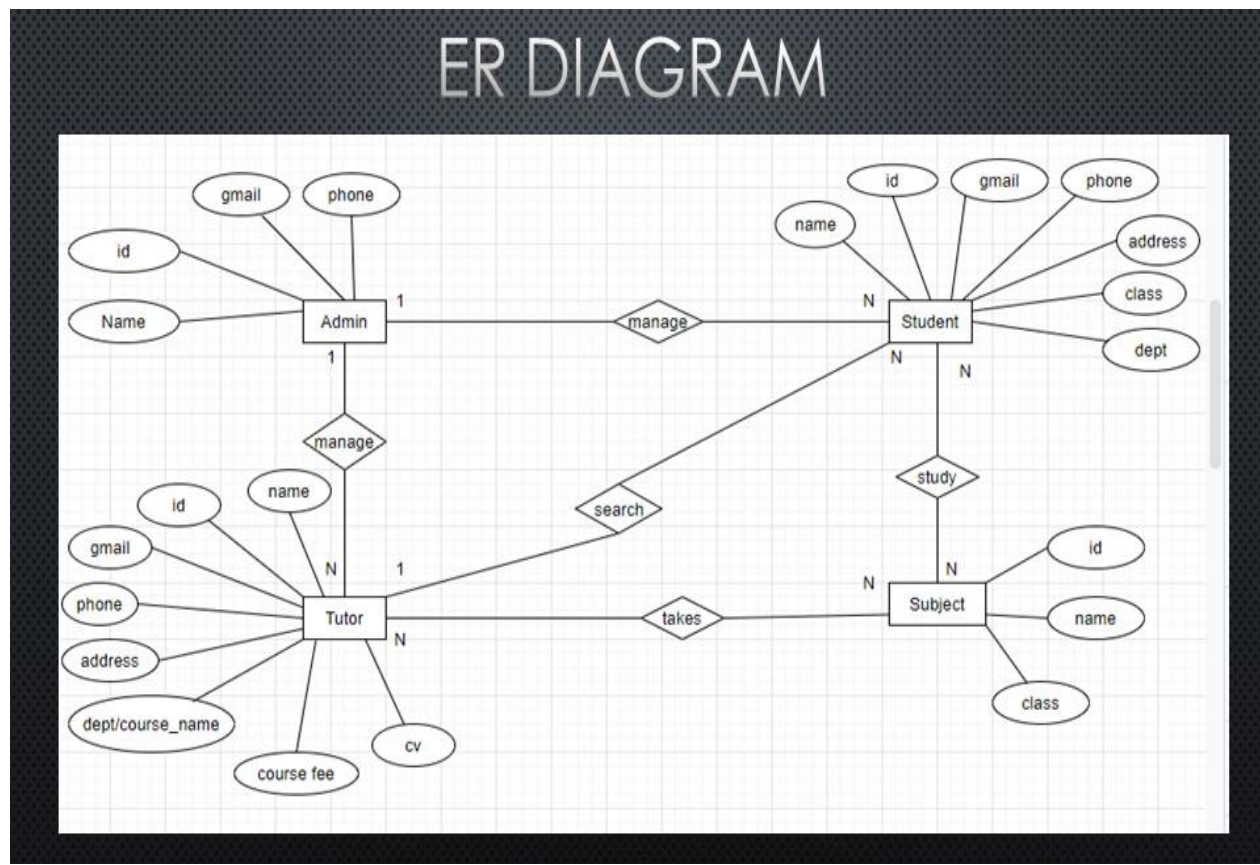
Project management and finance:

Project management refers to how a project is designed and organized to produce an end product that will make an impact on an organization. It is where knowledge, skills, experience, and processes are applied to meet an organization's objectives. Projects that are new, time-bound, involve multiple parties and require risk control need project management. In this project we spent more than 3 months. And total we spent 10000 Tk for this project thought it is a small project.

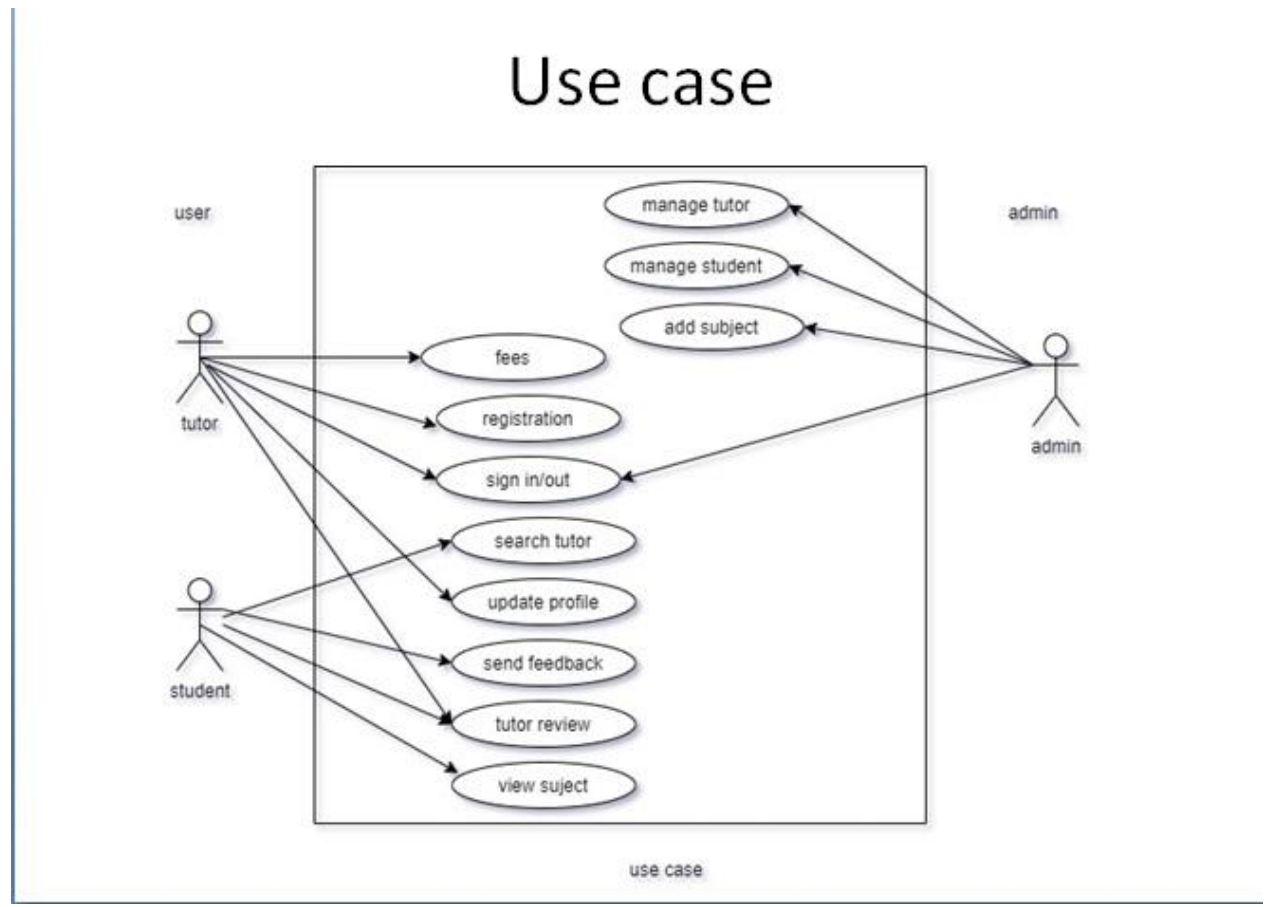
Model of solution/ Complex Engineering Problem

Solution: different types of diagram:

ER diagram:



Use Case diagram:

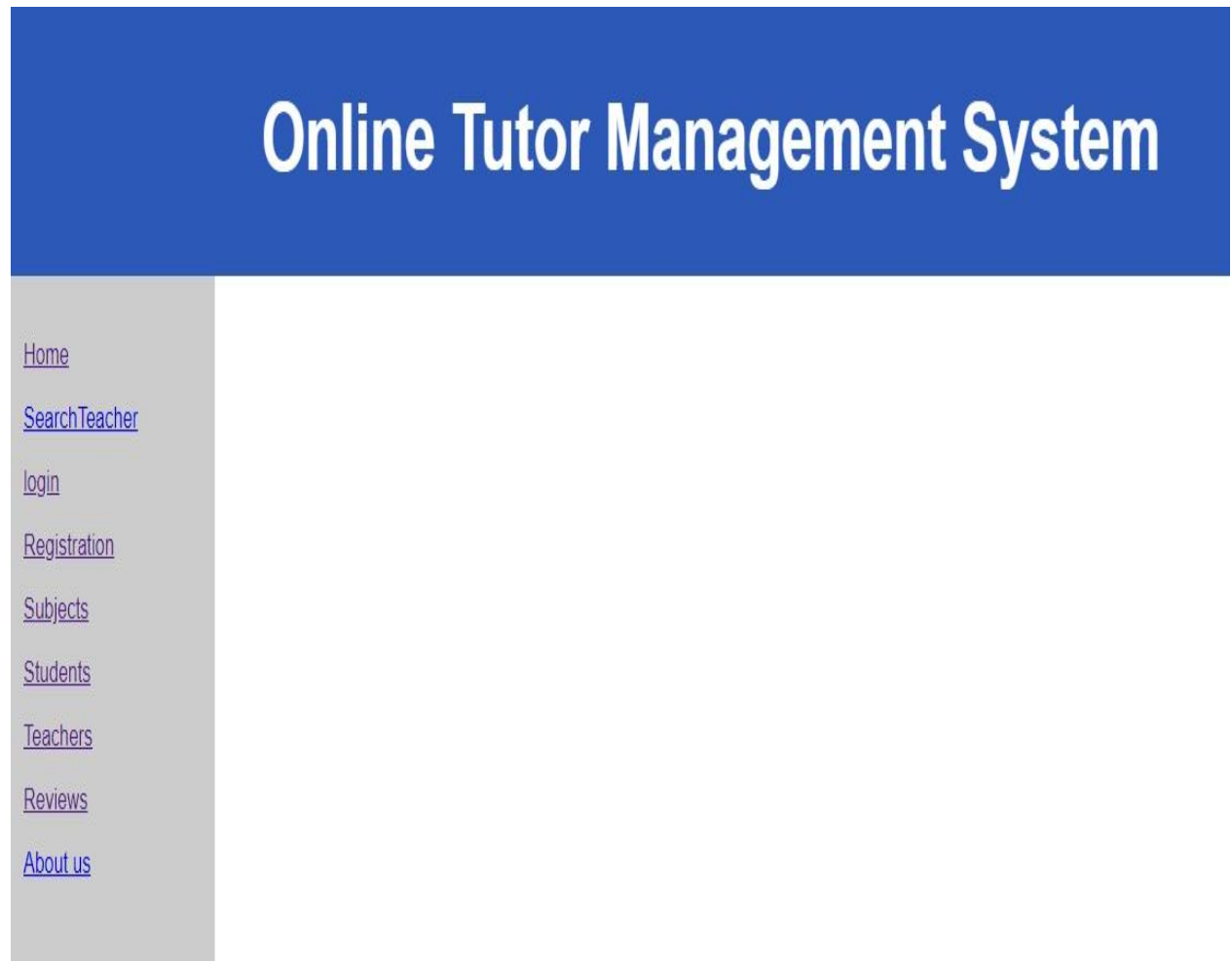


Risk Analysis:

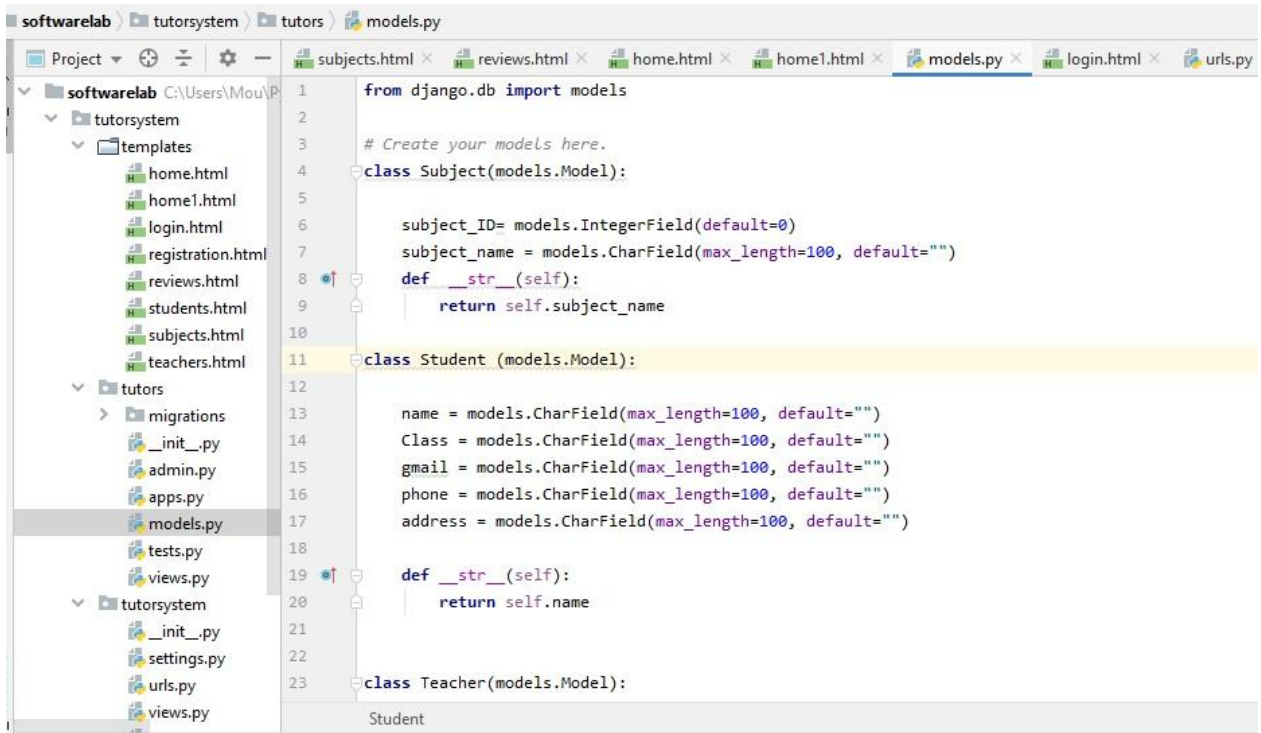
1. Development of risk response

2. Monitoring and controlling risks we face

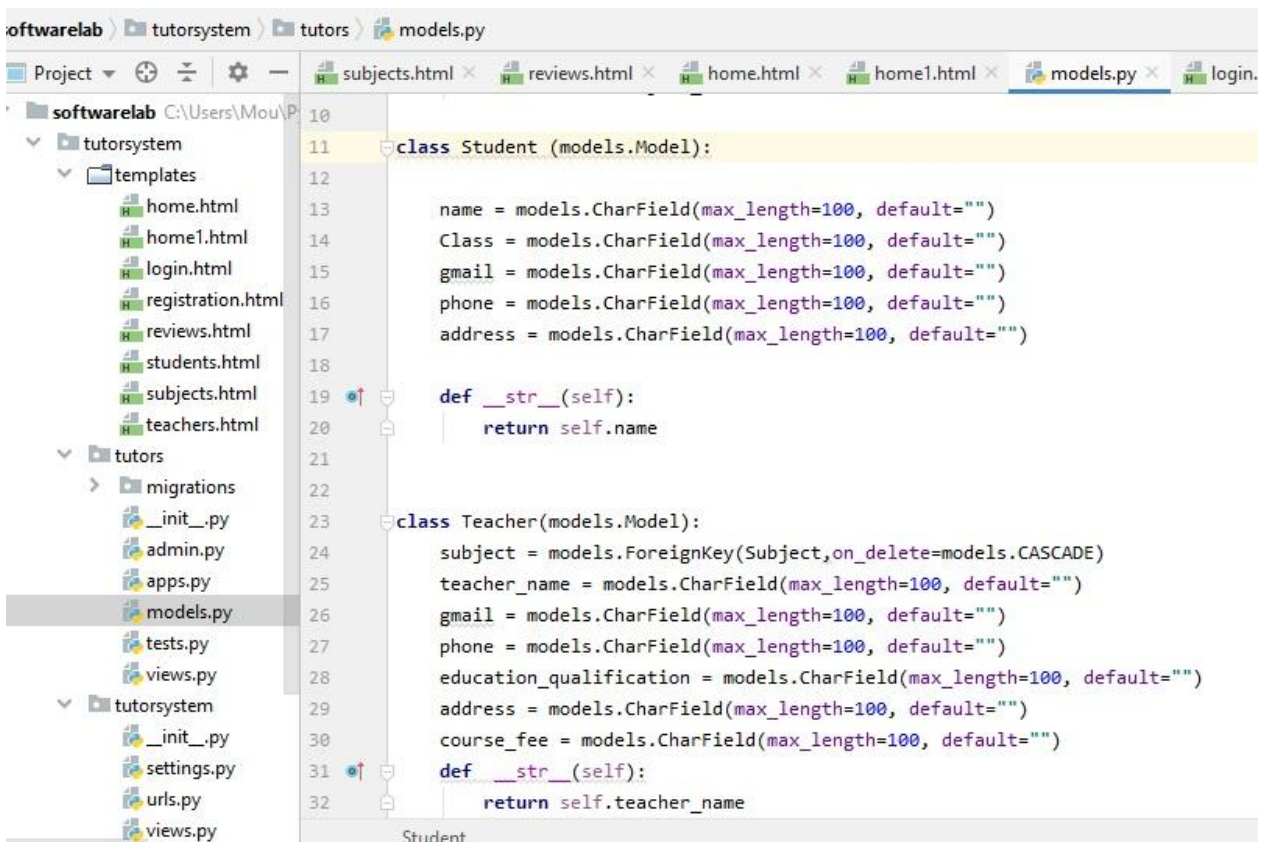
Final Project : Sample picture of our website:



2.Database: model.py

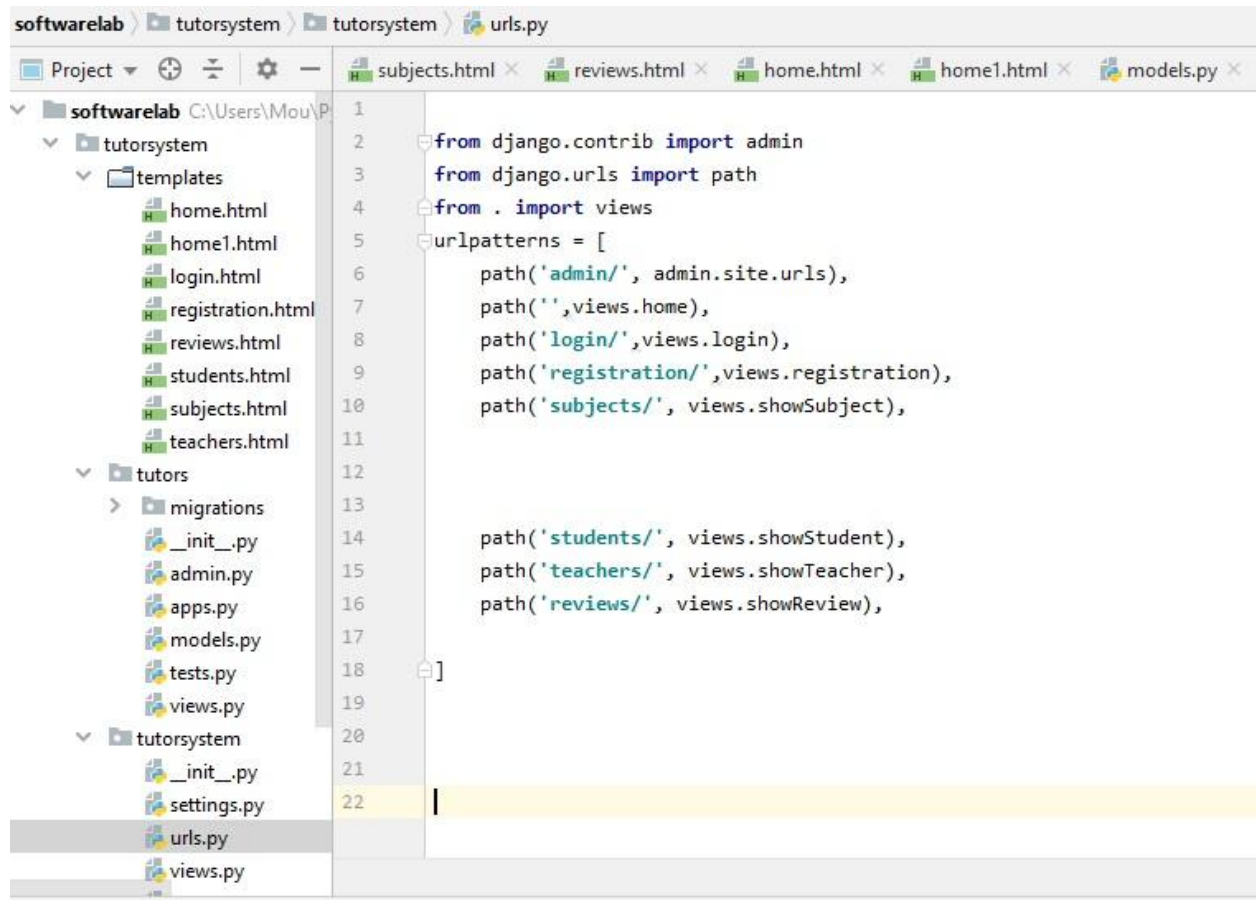


```
1 from django.db import models
2
3 # Create your models here.
4 class Subject(models.Model):
5
6     subject_ID= models.IntegerField(default=0)
7     subject_name = models.CharField(max_length=100, default="")
8     def __str__(self):
9         return self.subject_name
10
11 class Student (models.Model):
12
13     name = models.CharField(max_length=100, default="")
14     Class = models.CharField(max_length=100, default="")
15     gmail = models.CharField(max_length=100, default="")
16     phone = models.CharField(max_length=100, default="")
17     address = models.CharField(max_length=100, default="")
18
19     def __str__(self):
20         return self.name
21
22
23 class Teacher(models.Model):
```



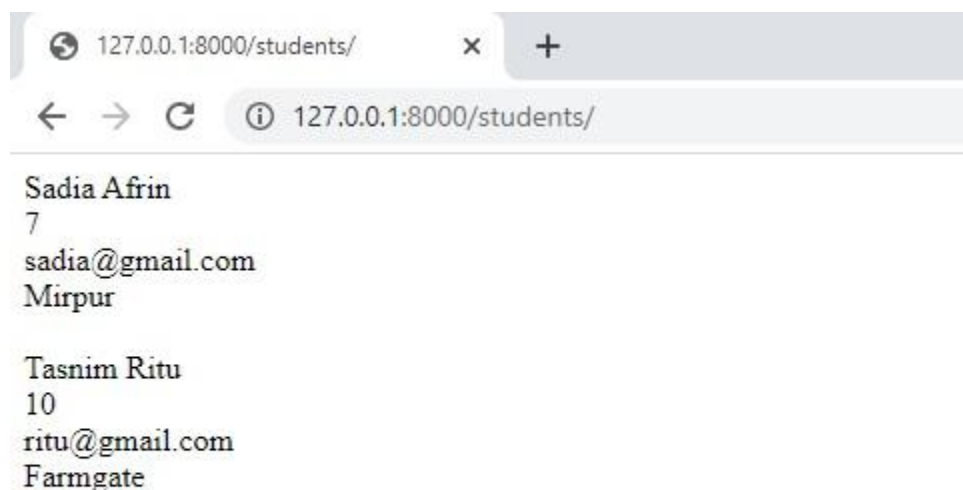
```
10
11 class Student (models.Model):
12
13     name = models.CharField(max_length=100, default="")
14     Class = models.CharField(max_length=100, default="")
15     gmail = models.CharField(max_length=100, default="")
16     phone = models.CharField(max_length=100, default="")
17     address = models.CharField(max_length=100, default="")
18
19     def __str__(self):
20         return self.name
21
22
23 class Teacher(models.Model):
24     subject = models.ForeignKey(Subject,on_delete=models.CASCADE)
25     teacher_name = models.CharField(max_length=100, default="")
26     gmail = models.CharField(max_length=100, default="")
27     phone = models.CharField(max_length=100, default="")
28     education_qualification = models.CharField(max_length=100, default="")
29     address = models.CharField(max_length=100, default="")
30     course_fee = models.CharField(max_length=100, default="")
31     def __str__(self):
32         return self.teacher_name
```


3. Urls.py



```
1
2 from django.contrib import admin
3 from django.urls import path
4 from . import views
5 urlpatterns = [
6     path('admin/', admin.site.urls),
7     path('', views.home),
8     path('login/', views.login),
9     path('registration/', views.registration),
10    path('subjects/', views.showSubject),
11
12
13
14    path('students/', views.showStudent),
15    path('teachers/', views.showTeacher),
16    path('reviews/', views.showReview),
17
18 ]
19
20
21
22
```

4. (a) Student database

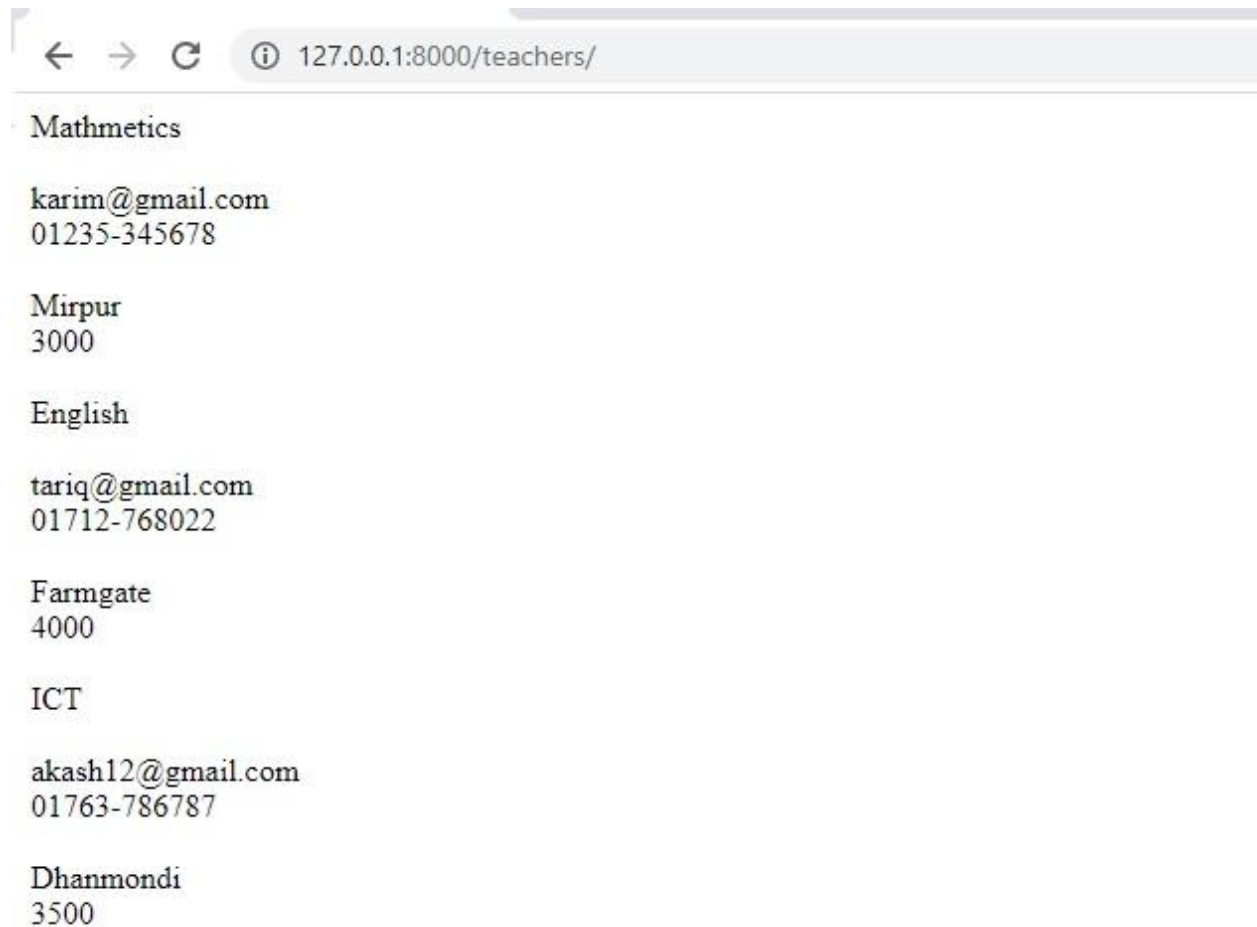


127.0.0.1:8000/students/

Sadia Afrin
7
sadia@gmail.com
Mirpur

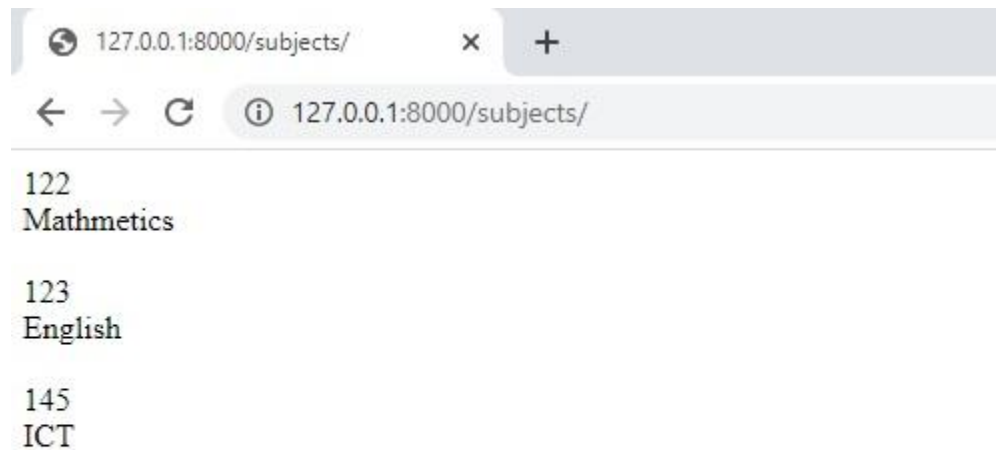
Tasnim Ritu
10
ritu@gmail.com
Farmgate

(b)Teacher database



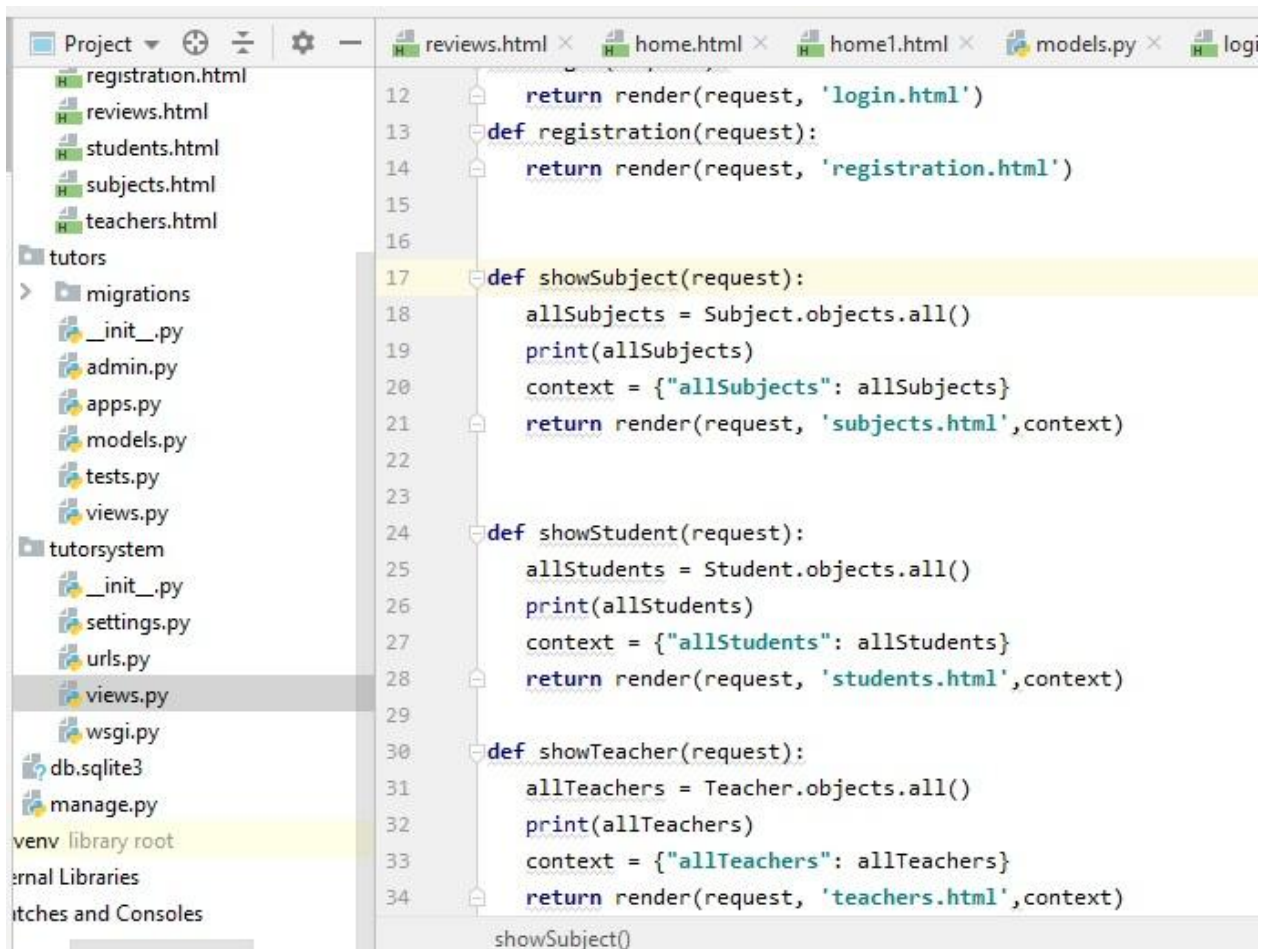
Mathmetics
karim@gmail.com 01235-345678
Mirpur 3000
English
tariq@gmail.com 01712-768022
Farmgate 4000
ICT
akash12@gmail.com 01763-786787
Dhanmondi 3500

(c)Subject database



122
Mathmetics
123
English
145
ICT

5. Views.py

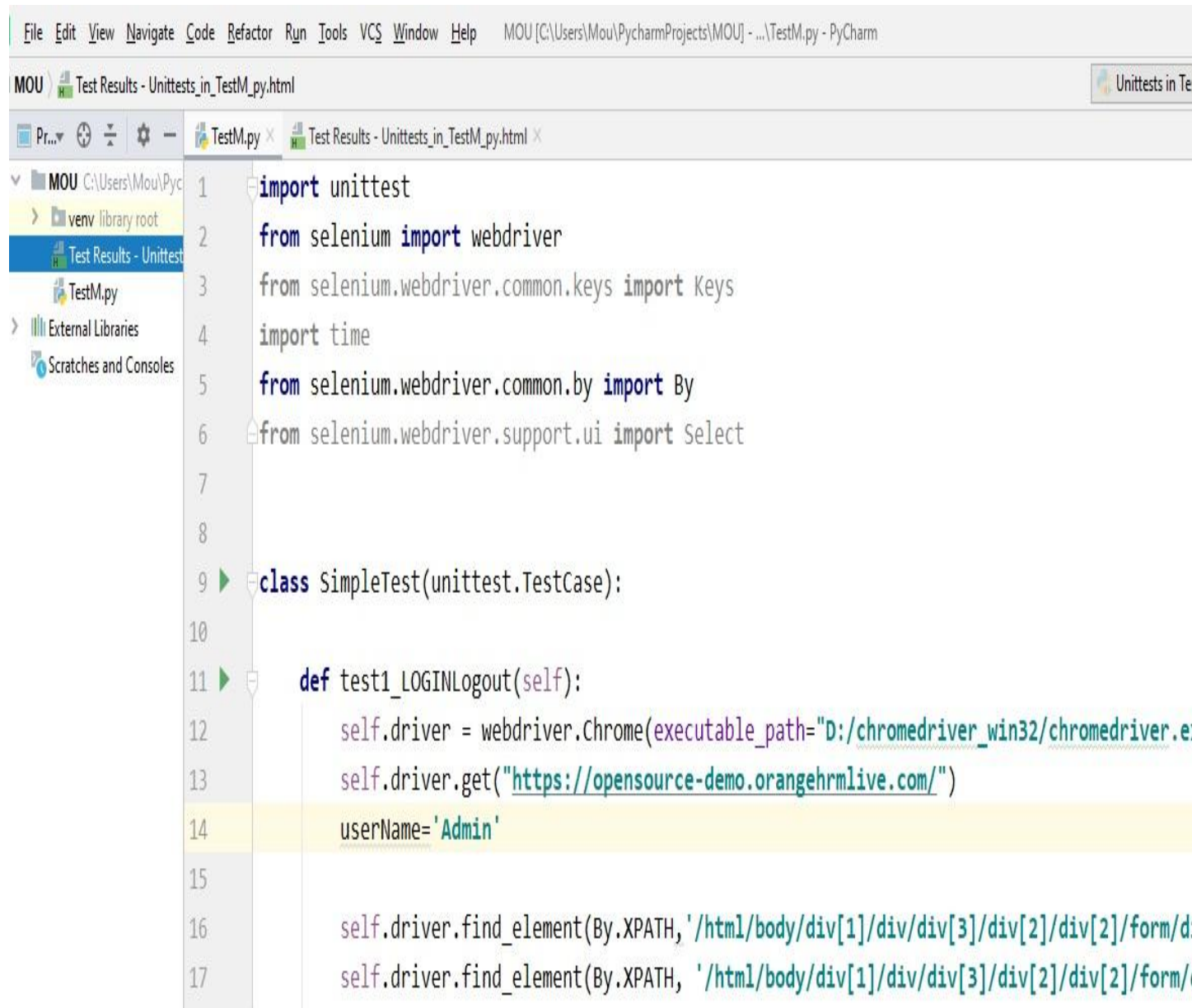


```
12     return render(request, 'login.html')
13
14 def registration(request):
15     return render(request, 'registration.html')
16
17 def showSubject(request):
18     allSubjects = Subject.objects.all()
19     print(allSubjects)
20     context = {"allSubjects": allSubjects}
21     return render(request, 'subjects.html', context)
22
23
24 def showStudent(request):
25     allStudents = Student.objects.all()
26     print(allStudents)
27     context = {"allStudents": allStudents}
28     return render(request, 'students.html', context)
29
30 def showTeacher(request):
31     allTeachers = Teacher.objects.all()
32     print(allTeachers)
33     context = {"allTeachers": allTeachers}
34     return render(request, 'teachers.html', context)
```

Testing and Debugging:

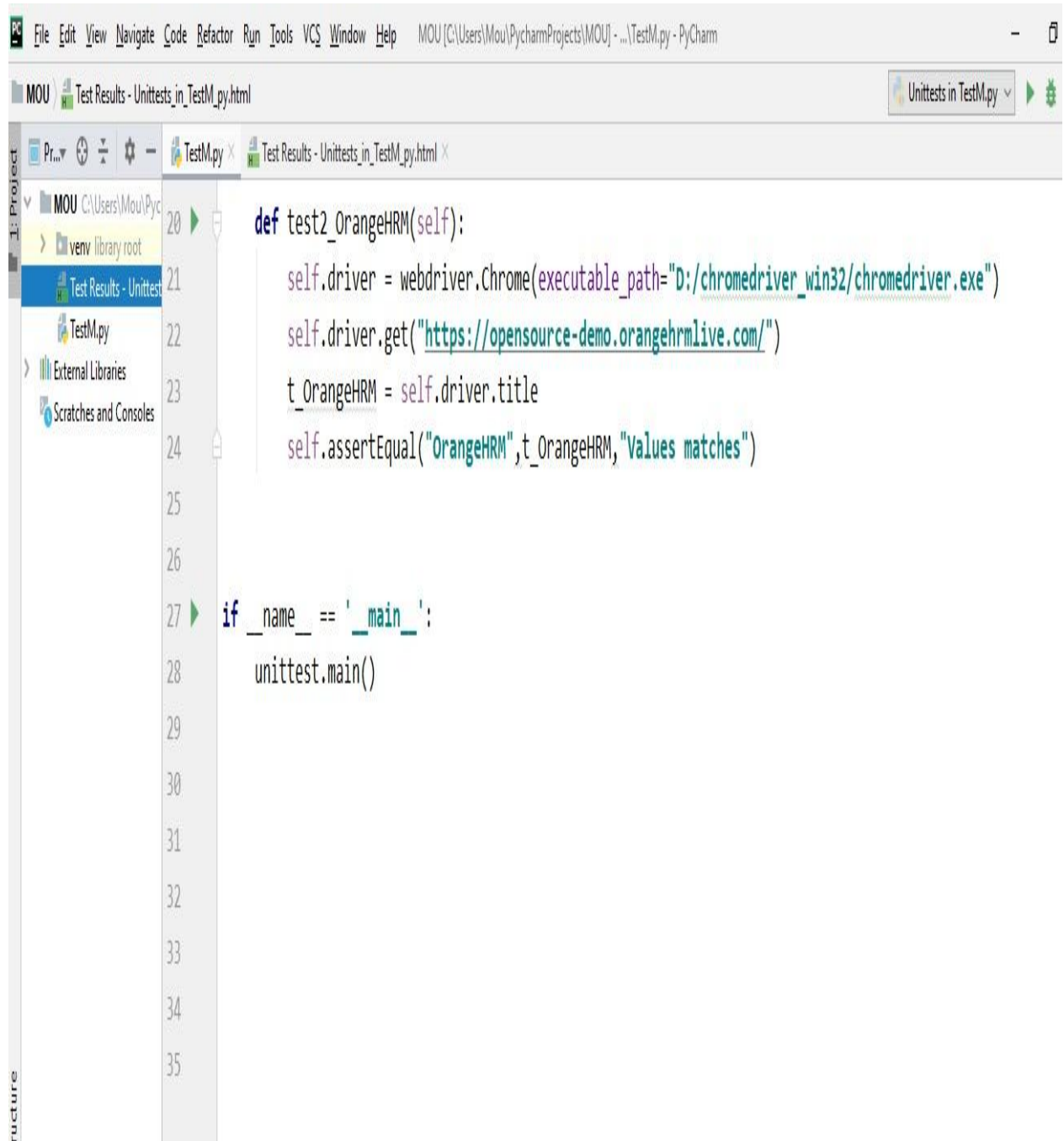
A simple scenario has been made since the main idea behind to cover and test all possible combinations of students or teachers in different modules, find the faults and fix them.

Testing code screenshot:



The screenshot shows the PyCharm IDE interface. The top menu bar includes File, Edit, View, Navigate, Code, Refactor, Run, Tools, VCS, Window, and Help. The title bar indicates the project is 'MOU' and the file is 'TestM.py'. The left sidebar shows the project structure with folders for 'MOU', 'venv', 'Test Results - Unittests_in_TestM_py.html', and 'TestM.py'. The main editor window displays the following Python code:

```
1 import unittest
2 from selenium import webdriver
3 from selenium.webdriver.common.keys import Keys
4 import time
5 from selenium.webdriver.common.by import By
6 from selenium.webdriver.support.ui import Select
7
8
9 class SimpleTest(unittest.TestCase):
10
11     def test1_LOGINLogout(self):
12         self.driver = webdriver.Chrome(executable_path="D:/chromedriver_win32/chromedriver.exe")
13         self.driver.get("https://opensource-demo.orangehrmlive.com/")
14         userName='Admin'
15
16         self.driver.find_element(By.XPATH, '/html/body/div[1]/div/div[3]/div[2]/div[2]/form/d
17         self.driver.find_element(By.XPATH, '/html/body/div[1]/div/div[3]/div[2]/div[2]/form/
```



HTML report for testing:

Unittests in TestM.py: 2 total, 2 passed		28.98 s
Collapse Expand		
TestM		28.98 s
SimpleTest		28.98 s
test1_LOGINLogout	passed	13.89 s
test2_OrangeHRM	passed	15.08 s

Generated by PyCharm on 4/18/21, 12:57 AM

FEASIBILITY CHECKS:

The system is feasible because the student can easily log in and find suitable teachers, send request to the teachers.

VALIDITY CHECKS ON INPUT DATA:

Checks are performed on entering wrong email id, password.

Learnings from this work (Project):

Every project provides valuable experience. Positive as well as negative.

The good news is you can derive new insights and benefits from both! In the end, every experience can be helpful for future projects – and thus contribute substantially to future successes. As a CSE student I have learned many things in this project such as

1. Realise the mistakes or Avoidance of mistakes.
1. Stop and fix the problem
2. Having regular project team and stakeholder meetings is much more productive than a “Client Escalation” meeting, once a project is in danger of failure.
3. Use the lessons learned
4. Reduced risks & Seizing of opportunities.
5. How to Increased project quality.

Every project provides valuable experience. Positive as well as negative.

Deployment: To run our project:-

Step1: In django terminal, pip install django == 2.2

Step2: python manage.py runserver

FUTURE SCOPE AND EVALUATION:

Any student can give exam and get the result.

A payment method can be added.

Can add new features as and when require.

CONCLUSION: Fast processing and results shows immediately.

. Minimize human effort and cost : efficient database.

