Indian Institute of Technology, Kharagpur
Department of Computer Science and Engineering
Software Engineering Lab, Spring 2023
Submission of test plan and test cases

MASTER TEST PLAN

ONLINE CLASSROOM MANAGEMENT SYSTEM (OCMS)

Prepared by

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c. User Logout
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f. Student Update View
g. Write Message
h. Message List
i. Class Notice
j. Student Mark List
k. Teachers List
l. Class Assignment
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b. User Login
c. User Logout
d. Change Password
e. Teacher Detail View
f. Teacher Update View
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h. Students All Marks List
i. Add Marks
j. Update Marks
k. Add Notice
l. Message List
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1) Test Plan Identifier:-

- OCMS_TEST_PLAN
- Company Name: - KGP_LEARNINGS
- This test plan represents a Master plan.

2) References:-

- IEEE Test Plan
- SRS submitted as a part of Assignment 5
- Project Description

3) Introduction:-

- This is the Test Plan for the Online Class Management System (OCMS). This plan will address the testing of all items and elements that are related to the OCMS, both directly and indirectly. The project will have unit testing, the details for each test are addressed in the appropriate section.

4) Test Items:-

A. Student Class

- name- string
- roll_no -string

- Email - string
- Phone - string
- Student_profile_pic- file(png, jpg)

a. Student Sign Up

This function will provide the facility to create an account. If students click on the sign-up button then the Sign-up form will be opened and there will be some fields some of which are mandatory and non-mandatory which have to be filled.

b. User Login

This function has the facility to help the user to login into the student interface.

c. User Logout

This function has the facility to help the user to log out from the Student interface.

d. Change Password

For some security or other reasons if the user wants to change the password then the person can take the help of this function for changing the password, the user will need the previous password.

e. Student Detail View

This function will open the user profile. Through this, the student can view his/her profile.

f. Student Update View

The students can update any of their user profile information through this function.

g. Write Message

The student can write messages to the teacher through this function.

h. Class Notice

Through this function the student can see all the notices given by their teacher.

i. Student Mark List

This function is to see the list of all the marks given by the teacher to a specific student.

j. Teachers List

This function is to see the list of all the teachers present in the portal.

k. Class Assignment

With the help of this function the student can see all the assignments uploaded by the teacher.

l. Submit Assignment

This function is to provide the facility to submit the assignment by the student at a particular deadline.

B. Teacher Class

a. Teacher Sign Up

This function will provide the facility to create an account. If the teacher clicks on the sign-up button then the Sign-up form will be opened and there will be some fields some of which are mandatory and non-mandatory which have to be filled.

b. User Login

This function has the facility to help the user to login into the teacher interface.

c. User Logout

This function has the facility to help the user to log out from the Student interface.

d. Change Password

For some security or other reasons if the user wants to change the password then the person can take the help of this function for changing the password, the user will need the previous password.

e. Teacher Detail View

This function will open the user profile. Through this, the teacher can view his/her profile.

f. Teacher Update View

The teachers can update any of their user profile information through this function.

g. Class Students List

This function will provide the list of all the students added by the teacher.

h. Add Marks

The function will help the teacher to add marks to the student through the evaluation.

i. Update Marks

This will allow the teacher to update the marks of the students.

j. Add Notice

This will allow the teacher to give various notices to the student from time to time.

k. Message List

This will help the teacher to see all the messages sent by the students.

l. Add Student

This will help the teacher to add specific students for the class of any particular subject.

m. Student List

This will allow the teacher to see all the students for a class of any particular subject.

n. Upload Assignment

Through this function the teacher will be able to upload assignments in the scheduled time.

o. Assignment List

This will help the teacher to see all the assignments uploaded by him/herself.

p. Update Assignment

Through this function the teacher will be able to update the assignments.

q. Assignment Delete

This will help the teacher to delete any assignment for some reason.

r. Submit List

This function is to see all the submissions done by the students.

5) Software Risk Issues:-

- The third-party APIs which we are using for our web application might be unable to synchronize with this application in the future.
- Version up-gradation of the libraries used may affect the working of the web application in the future, so regular maintenance is required.
- Backup and Recovery of the local login, accounts, and databases, must be carefully checked.
- The ability to restart the application in the middle of the process is a critical factor to application reliability. This is especially true in the case of the database files as it needs to be protected locally.
- Database security and access must be defined and verified, especially for files shared between the Account holders and the Interfaces.

6) Features to be Tested:-

Signup Interface: -

The validation of information is done in the constructors of the User class and its children.

The following scenarios are checked for while considering the signup functionality:

1. Signup of new user with a new email ID in some category (Student, Teacher)
2. Signup of a new user with the same email ID in some different category in which the user has not registered before.
3. Signup of a new user with the same email ID in some category the user has already registered for before.

Login Interface: -

The following scenarios are checked for while considering the login functionality:

1. Checking username
2. Checking password (tests the verify password() of User class)

Change Password Interface: -

1. This functionality will require the old password, to change old password.

User Profile Interface: -

This interface will fetch the details from the sqlite3 database and show them.

Upload Assignment Interface: -

This interface will open a form that will allow the teacher to set the deadline and attach the file for an assignment.

Assignment List Interface: -

This interface will arrange in increasing order or decreasing order according to their upload date.

Submit assignment interface: -

This interface will allow the student to upload the assignment on schedule time but if the deadline is exceeded then the interface will not accept any submission.

Add Marks interface:-

This interface will allow the teacher to evaluate the assignment submitted by students and add marks to them.

Assignment delete interface:-

If by mistake the teacher uploaded the wrong assignments then he/she can delete the assignment from this interface.

Class assignment interface:-

This interface will show all the assignments according to their upload time to the students.

Class notes interface:-

This interface will show all the notices given by the teachers for the students according to their publishing date.

Class student list interface:-

This interface will show the list of students present in a particular class taken by the professor.

Message List interface:

This interface will list all the messages sent by the students to the teachers.

Student all marks list interface:

This interface will help the teacher to see the list of marks achieved by all the students in a particular subject.

Student marks list interface:-

This interface will help the student to see the marks achieved by him /her in a particular subject.

Update Marks interface:-

If the teacher does the evaluation incorrectly then he or she can update the marks of the students in a particular subject.

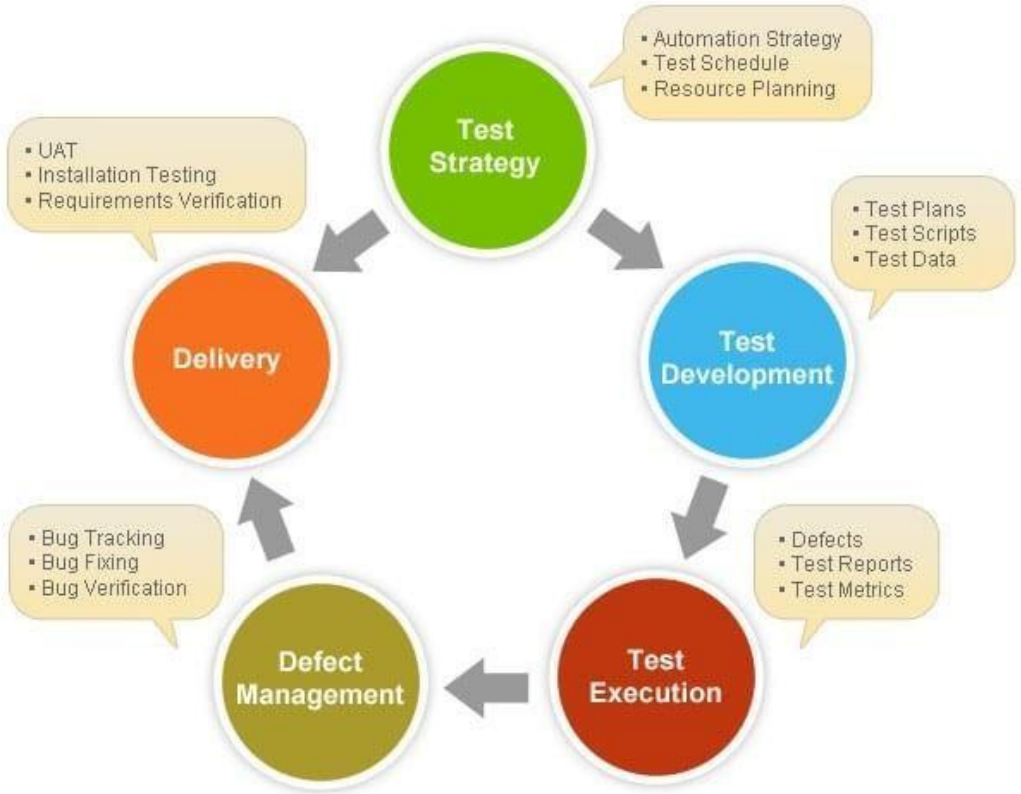
Write message interface:-

Through this interface, the students will be able to send messages to the teachers regarding any queries or doubts.

7) Features not to be Tested:-

- The database deployed via Sqlite3 would NOT be tested.
- The server-side code written using Django would NOT be tested.
- The feature of the live class will NOT be tested.
- The feature of the remainder will NOT be tested.
- The features provided by 3rd party APIs will NOT be tested.

8) Approach (Strategy):-



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The approach that is used is Analytical, therefore, in accordance with the requirements-based strategy, where an analysis of the requirements specification forms the basis for planning, Test Plan 4 estimating and designing tests. Test cases will be created during exploratory testing. All test types are determined in Test Strategy. The team also must use experience-based testing and error guessing to utilize testers' skills and intuition, along with their experience with similar applications or technologies. The project is using an agile approach, with weekly iterations. At the end of each week, the requirements identified for that iteration will be delivered to the team and will be tested.

9) Item Pass/Fail Criteria:-

We will be providing golden outputs for all unit tests, which need to be matched for a unit test to be considered as “Passed”, any other result would be treated as “Failed”.

10) Suspension Criteria and Resumption Requirements:-

The test is considered suspended if any of the following is encountered:

1. The software crashes
2. The software produces incorrect output.
3. If some of the features are interdependent on each other and if any of them fails, then there is no need to test other features because that will consume resources unnecessarily.
4. The software takes more than expected time to produce the Output.
5. The build contains many serious defects which seriously or limit testing progress.
6. Significant change in requirements suggested by the client.
7. Software/Hardware problems.
8. Assigned resources are not available when needed by the test team.
9. Resumption will only occur when the problem(s) that caused the suspension have been resolved.

11) Test Deliverables:-

- Acceptance test plan
- System/Integration test plan
- Unit test plans/turnover documentation
- Test logs and turnover reports

12) Remaining Test Tasks:-

- The feature of the live class will be tested when it will be implemented.
- The feature of the remainder will be tested when it will be implemented.

13) Environmental Needs:-

The following elements are required to support the overall testing effort at all levels within the reassigned project:

- Access to the master control tables (data bases) for controlling the production/testing environment on both production and development systems.
- Access to the backup/recovery process.

Support level (browsers):

1. Windows 8: Edge, Chrome (latest), Firefox (latest), Safari (latest)
2. Mac OS X: Chrome (latest), Firefox (latest), Safari (latest)

3. Linux: Chrome (latest), Firefox (latest)
4. Windows 7: IE 9+, Chrome (latest), Firefox (latest), Safari (latest)
5. Windows XP: IE 8, Chrome (latest), Firefox (latest), Safari (latest)

14) Staffing and Training Needs:-

This is a small training course to improve the skills of resources in theproject to achieve the desired goals.

Pre-Requisites:

Install Git Version Control

Install Python Latest Version

Install Pip (Package Manager)

Alternative to Pip is Homebrew

Installation

1. Create a folder where you want to save project
2. Create a Virtual Environment and Activate

Install Virtual Environment First

$ pip install virtualenv

Create Virtual Environment

For Windows

$ python -m venv venv

For Linux/Mac

$ python3 -m venv venv

Activate Virtual Environment

For Windows

$ venv/scripts/activate

For Linux/Mac

$ source venv/bin/activate

Now Run Server

Command for Windows/Linux/Mac:

$ python manage.py runserver

Create Super User (ADMIN)

$ python manage.py createsuperuser

Then Add Email, Username, and Password.

15) Responsibilities:-

Role	Member Name	Responsibilities
Project Manager	Soumojit Chatterjee, Swapnil Ghosh, Bhavna Sri Harshitha	1. Acts as primary contact for development and QA team. 2. Responsible for Project schedule and the overall success of the project
QA Lead	Soumojit Chatterjee, Swapnil Ghosh, Bhavna Sri Harshitha	1. Participation in the project plan creation/update process. 2. Planning and organization of the test process for the release. 3. Coordinate with QA analysts/engineers on any issues/problems encountered during testing. 4. Report progress on work assignments to the Project Manager
QA	Soumojit Chatterjee, Swapnil Ghosh, Bhavna Sri Harshitha	1. Understand requirements 2. Writing and executing Test cases 3. Defect reporting and tracking 4. Retesting and regression testing 5. Bug Review meeting 6. Preparation of Test Data 7. Coordinate with QA Lead for any issues or problems encountered during test preparation/execution/defect handling.

NOTE: - Since we all team members have worked on each field collaboratively.

16) Schedule: -

The following testing activities have been scheduled in the project plan. The project plan timetable specifies the particular dates and hours for each task.

1. Review of the Requirements document by test team people (in collaboration with other team members) and the establishment of Inventory classes, sub-classes, and goals.
2. Development of a master test plan by the test manager and testing, with time allotted for at least two plan reviews.
3. Personnel from the test team review the System design paper. This will provide the team with a better grasp of the application structure and will allow them to further define the Inventory classes, sub-classes, and objectives.
4. Development of System/Integration and Acceptance test plans.
5. Unit test time within the development process.
6. Time allocated for both System/Integration and Acceptance test processes.

17) Planning Risks and Contingencies: -

- Inadequate resources, such as an internet connection, when testing is to commence.
- Inadequate availability of necessary hardware, software, data, or tools.
- Modifications to the original specifications or designs.

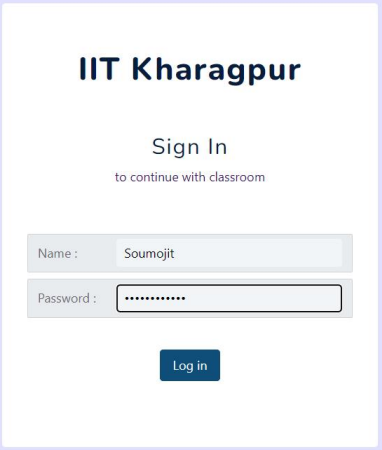
18) Approvals

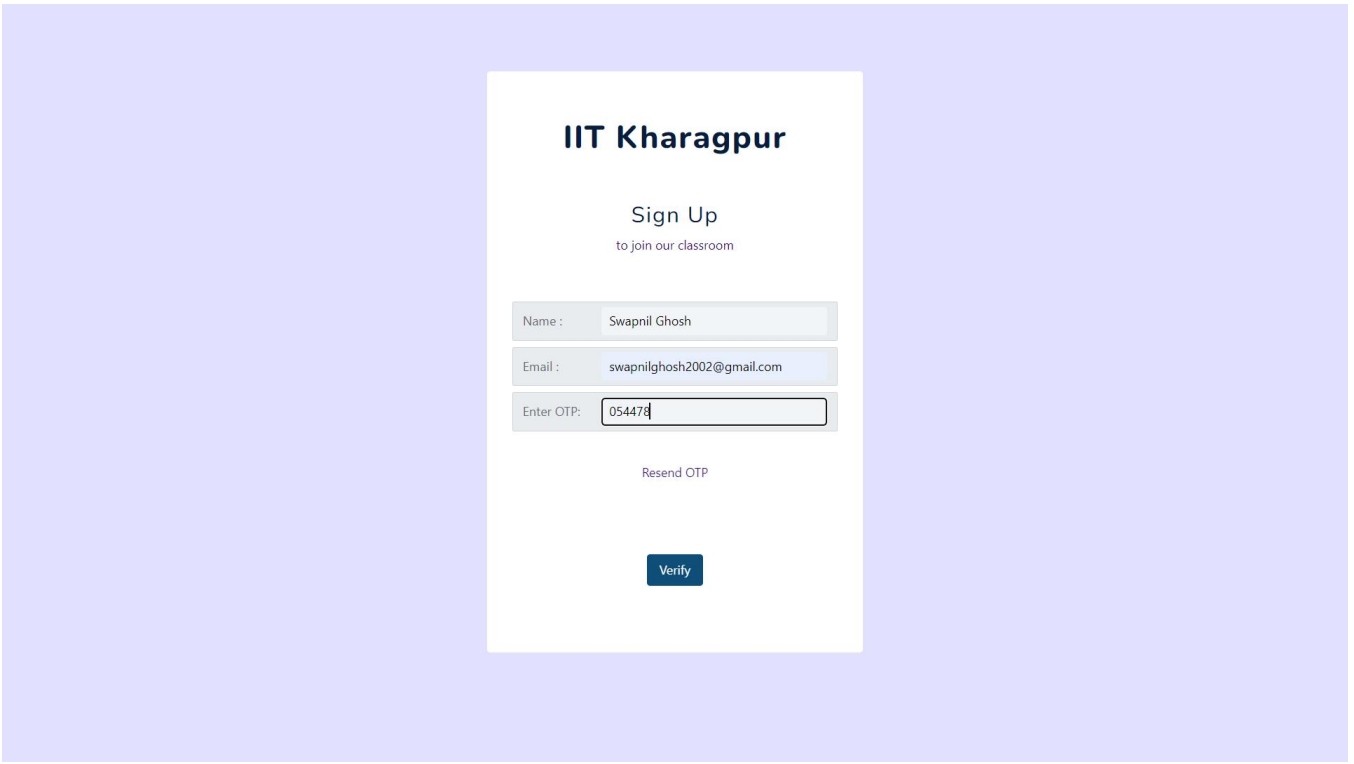
Prof. Abir Das	
Prof. Sourangshu Bhattacharya	
TA Ashish Gaur	

19) Glossary

- **OCMS -** online class management system
- **IEEE -** Institute of Electrical and Electronics Engineers
- **PNG -** Portable Network Graphics
- **Jpg -** Joint Photographic Experts Group
- **QA -** Quality Assurance

Images of the test cases: -




IIT Kharagpur
Sign Up
to join our classroom
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Swapnil Ghosh
Email :
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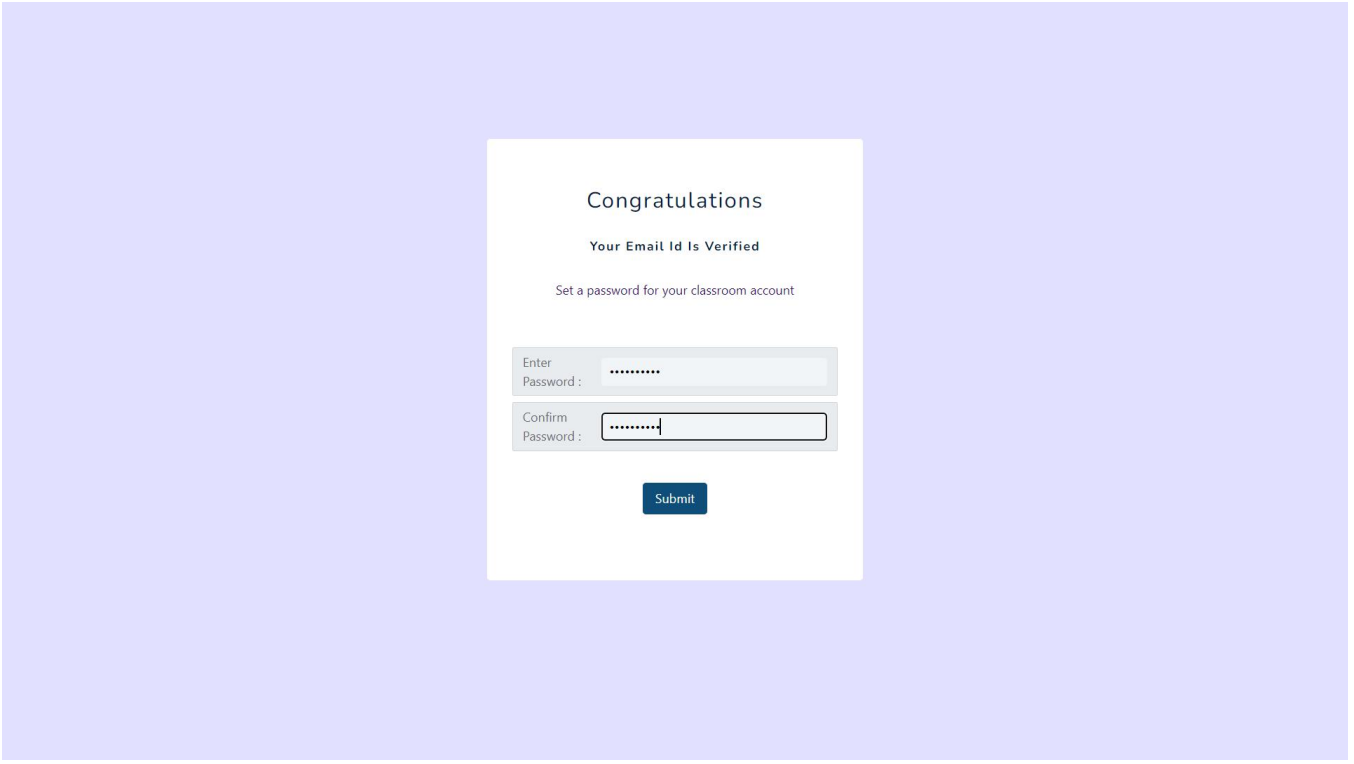
Verify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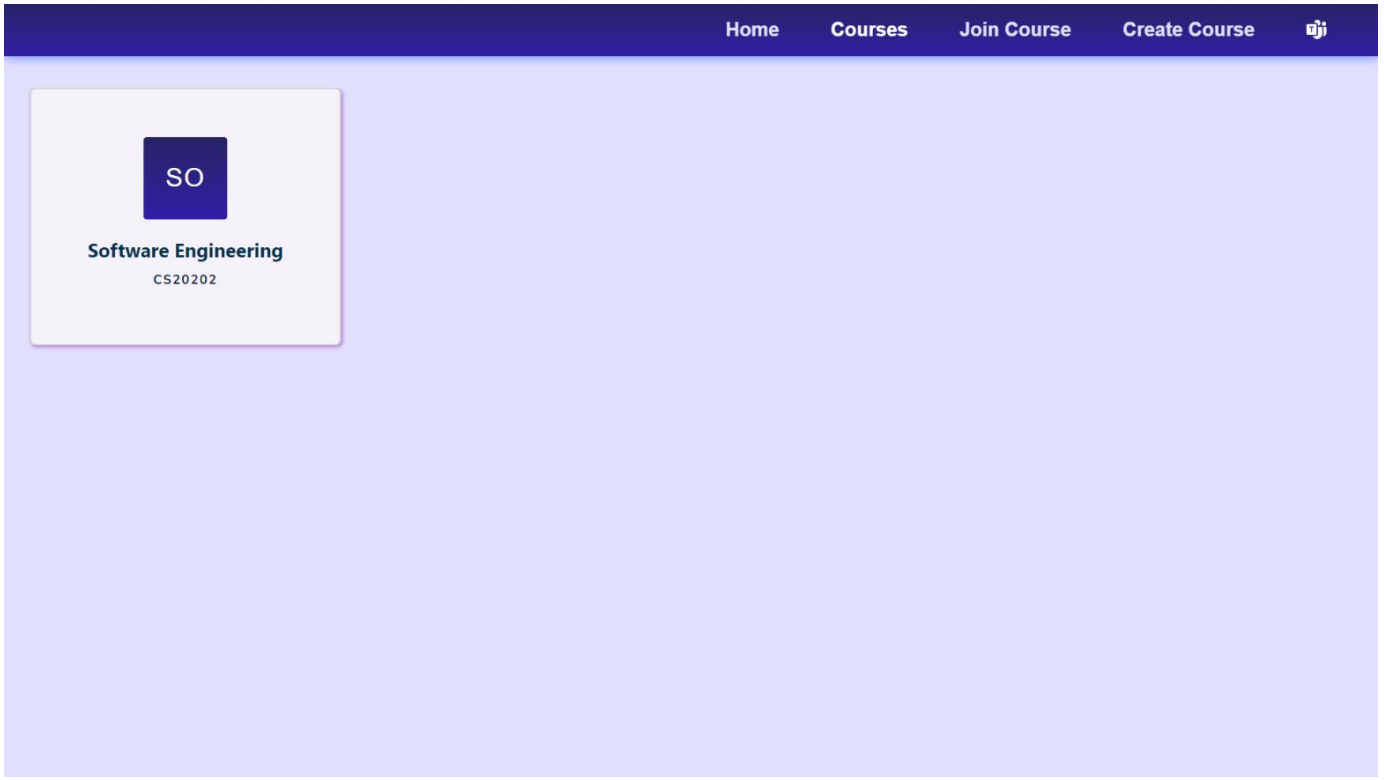
Your Email Id Is Verified
Set a password for your classroom account
Enter Password :
Confirm Password :
Submit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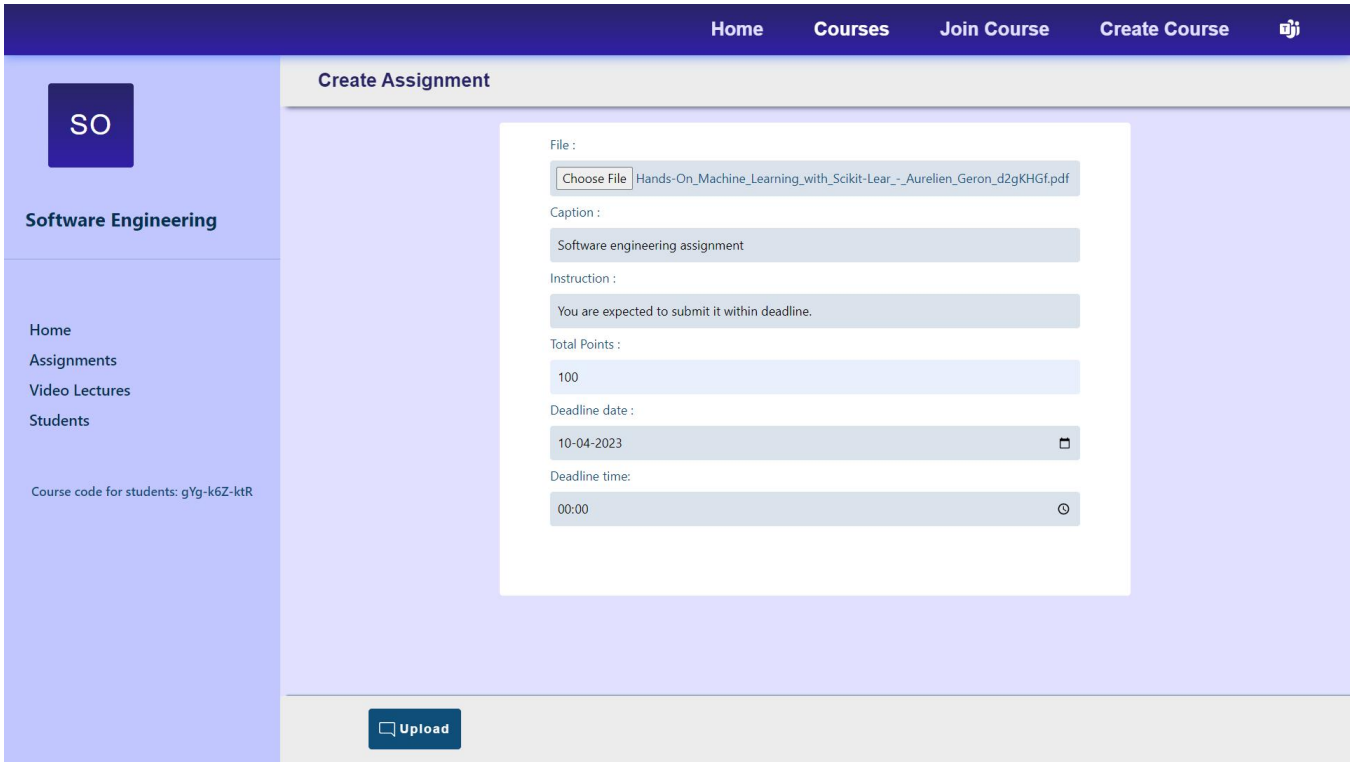
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Software Engineering
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Assignments
Video Lectures
Students
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Create Assignment
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Choose File
Hands-On_Machine_Learning_with_Scikit-Lear_-_Aurelien_Geron_d2gKHGf.pdf
Caption :
Software engineering assignment
Instruction :
You are expected to submit it within deadline.
Total Points :
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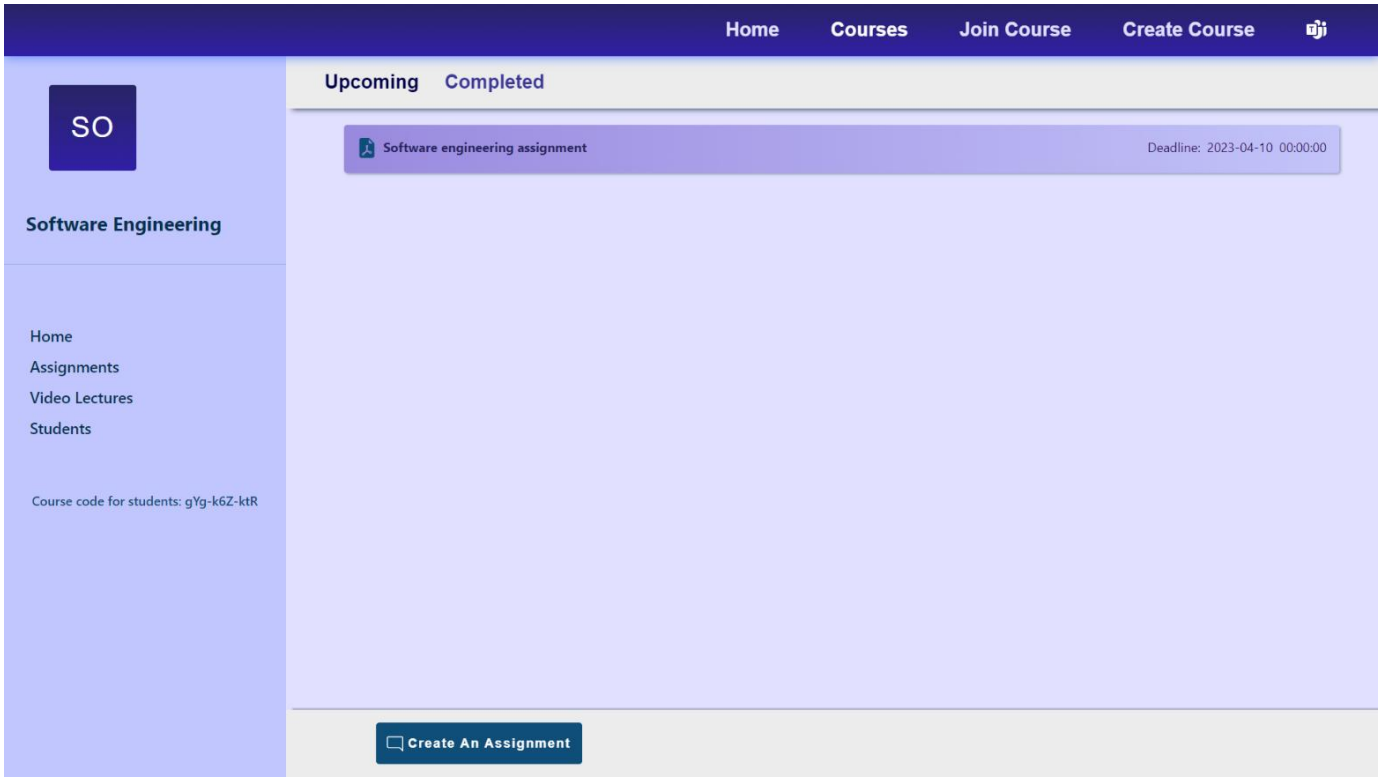
Deadline date :
10-04-2023
Deadline time:
00:00
Upload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Software Engineering
Upcoming
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Video Lectures
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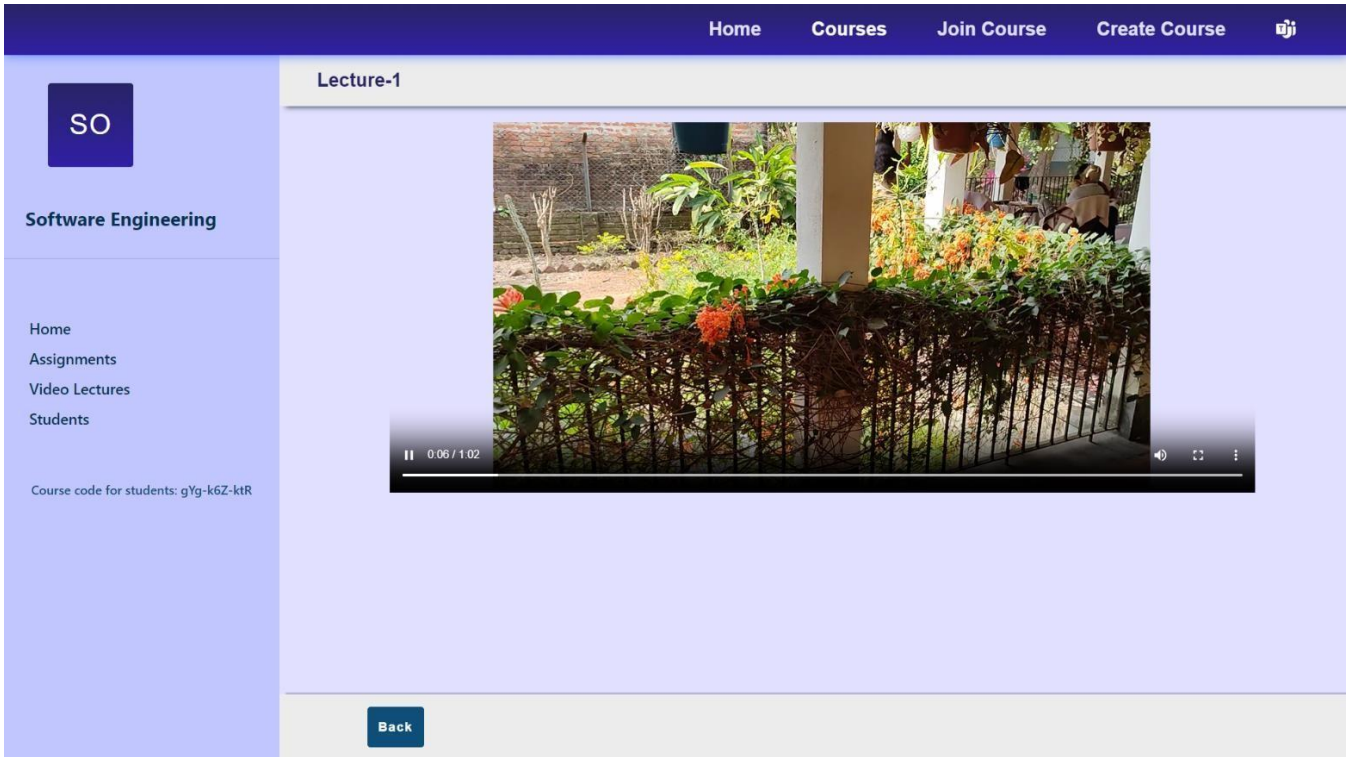
Create An Assignment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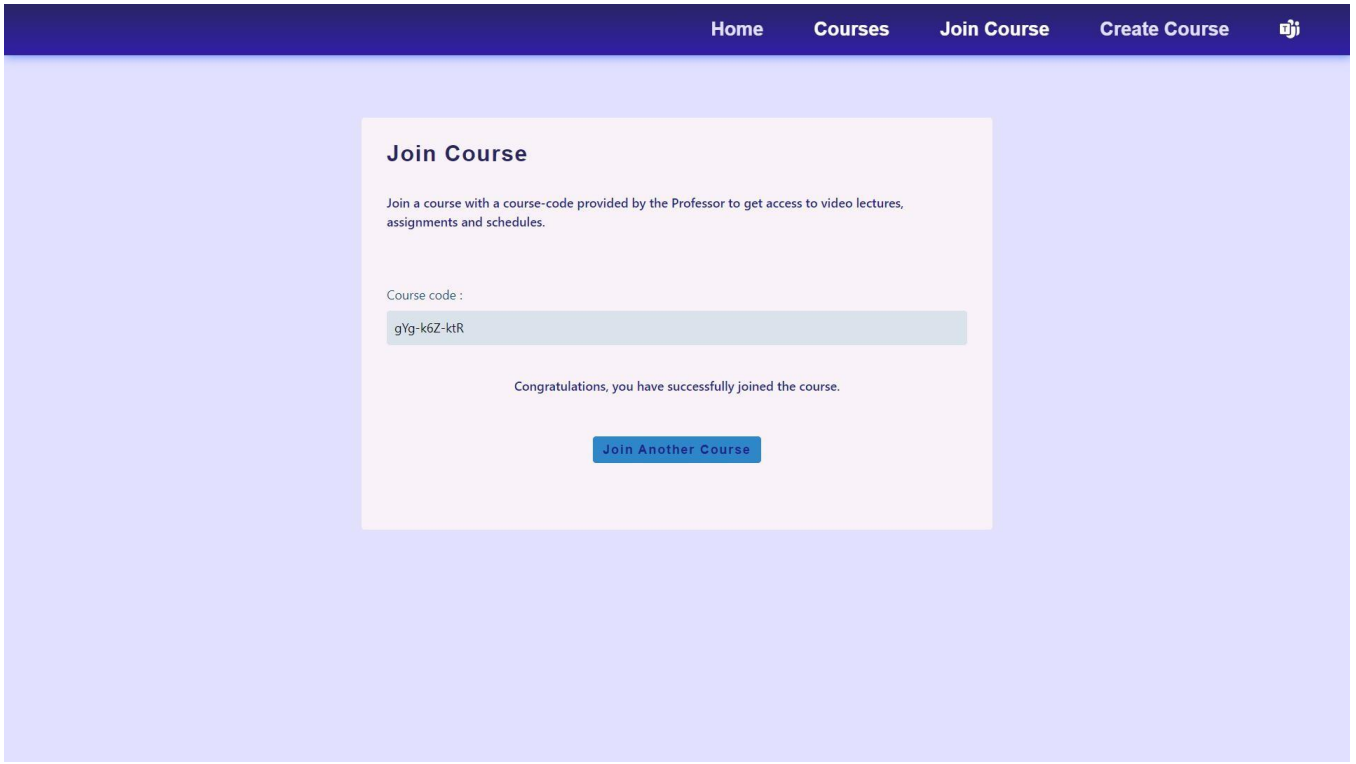
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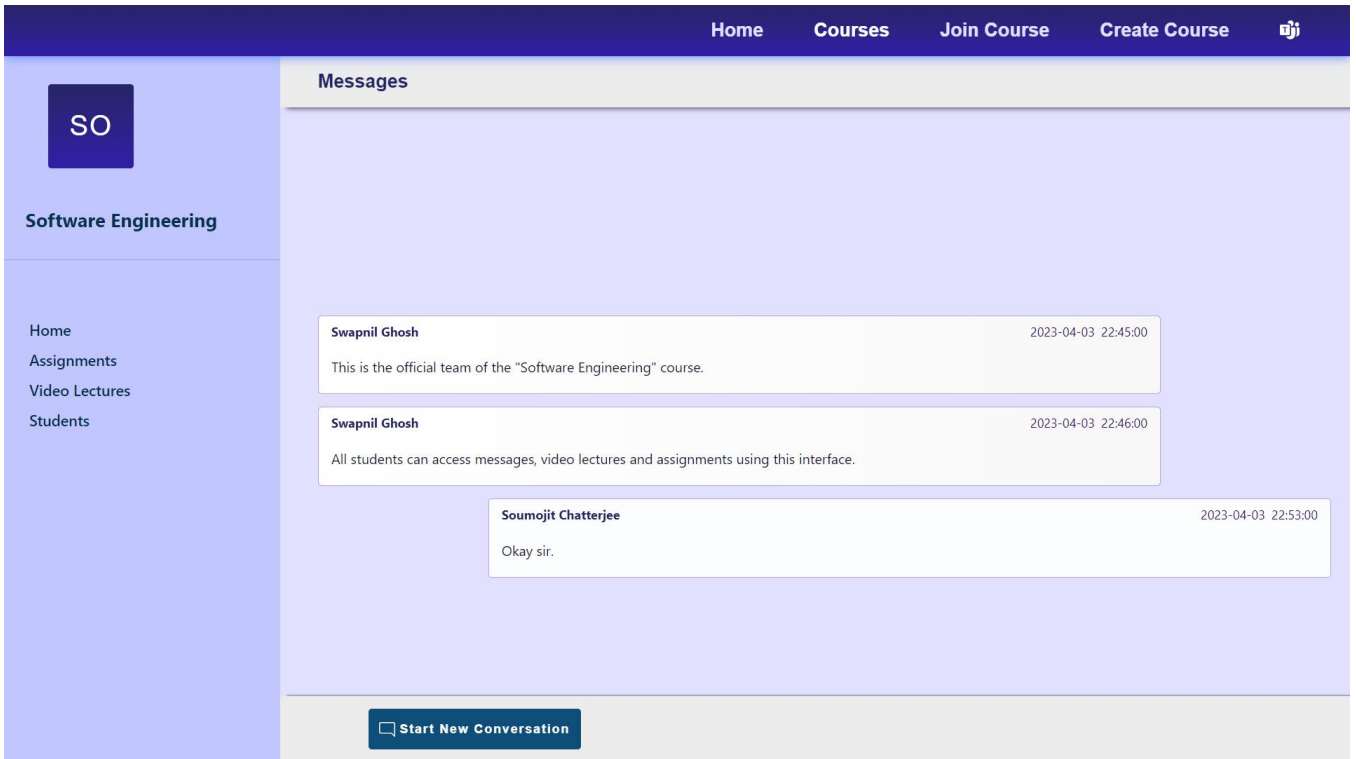
Courses
Join Course
Create Course
Join Course
Join a course with a course-code provided by the Professor to get access to video lectures, assignments and schedules.
Course code :
gYg-k6Z-ktR
Congratulations, you have successfully joined the course.
Join Another Course


Home
Courses
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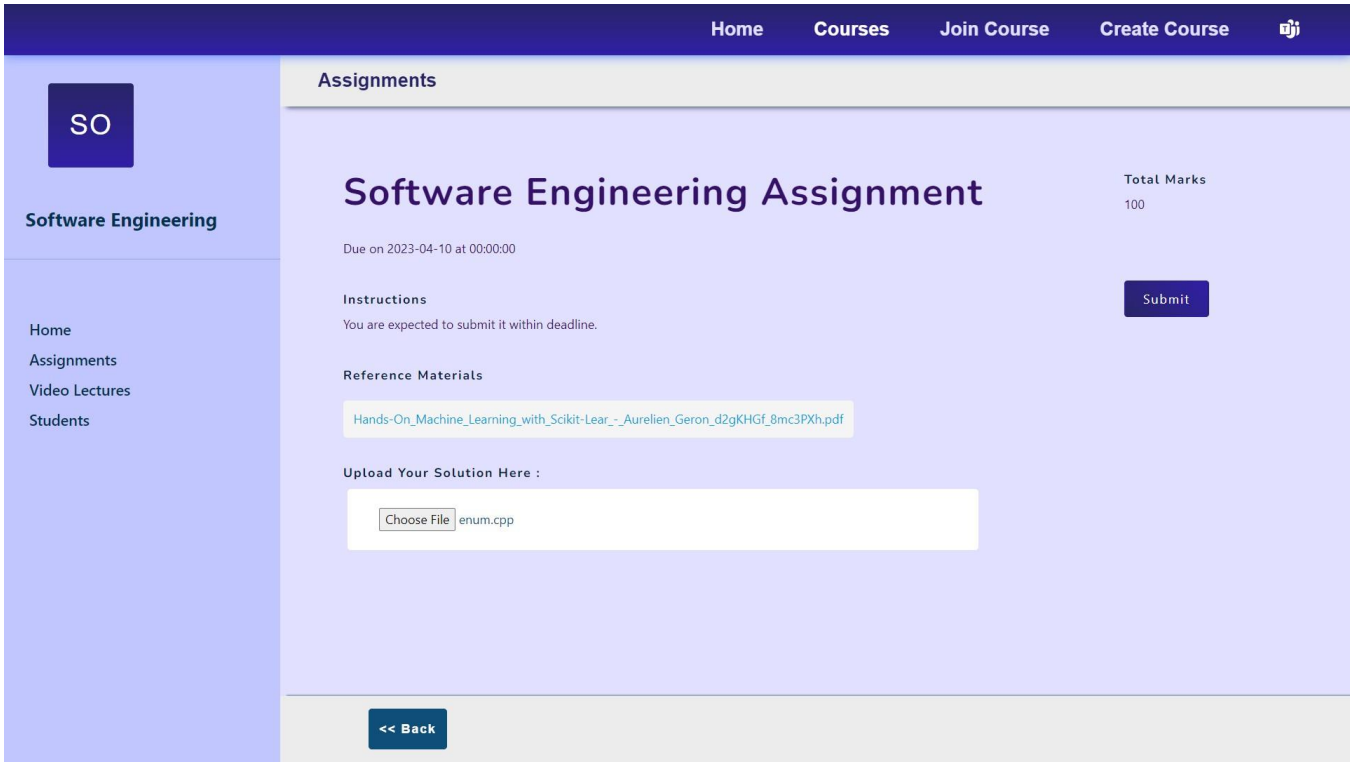
SO
Software Engineering
Home
Assignments
Video Lectures
Students
Messages
Swapnil Ghosh
2023-04-03 22:45:00
This is the official team of the "Software Engineering" course.
Swapnil Ghosh
2023-04-03 22:46:00
All students can access messages, video lectures and assignments using this interface.
Soumojit Chatterjee
2023-04-03 22:53:00
Okay sir.
Start New Conversation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Due on 2023-04-10 at 00:00:00
Instructions
You are expected to submit it within deadline.
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Reference Materials
Hands-On_Machine_Learning_with_Scikit-Lear_-_Aurelien_Geron_d2gKHGf_8mc3PXh.pdf
Upload Your Solution Here :
Choose File
enum.cpp
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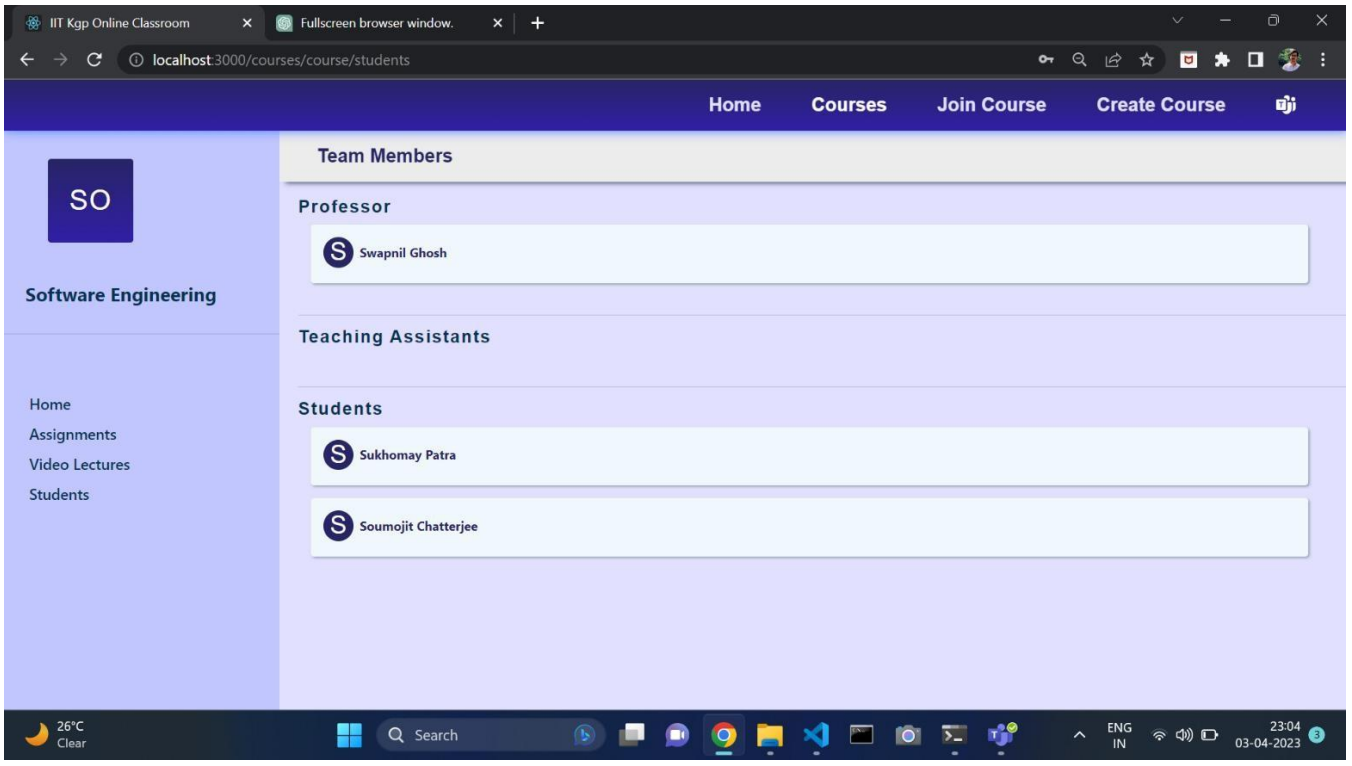
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Team Members
Professor
Swapnil Ghosh
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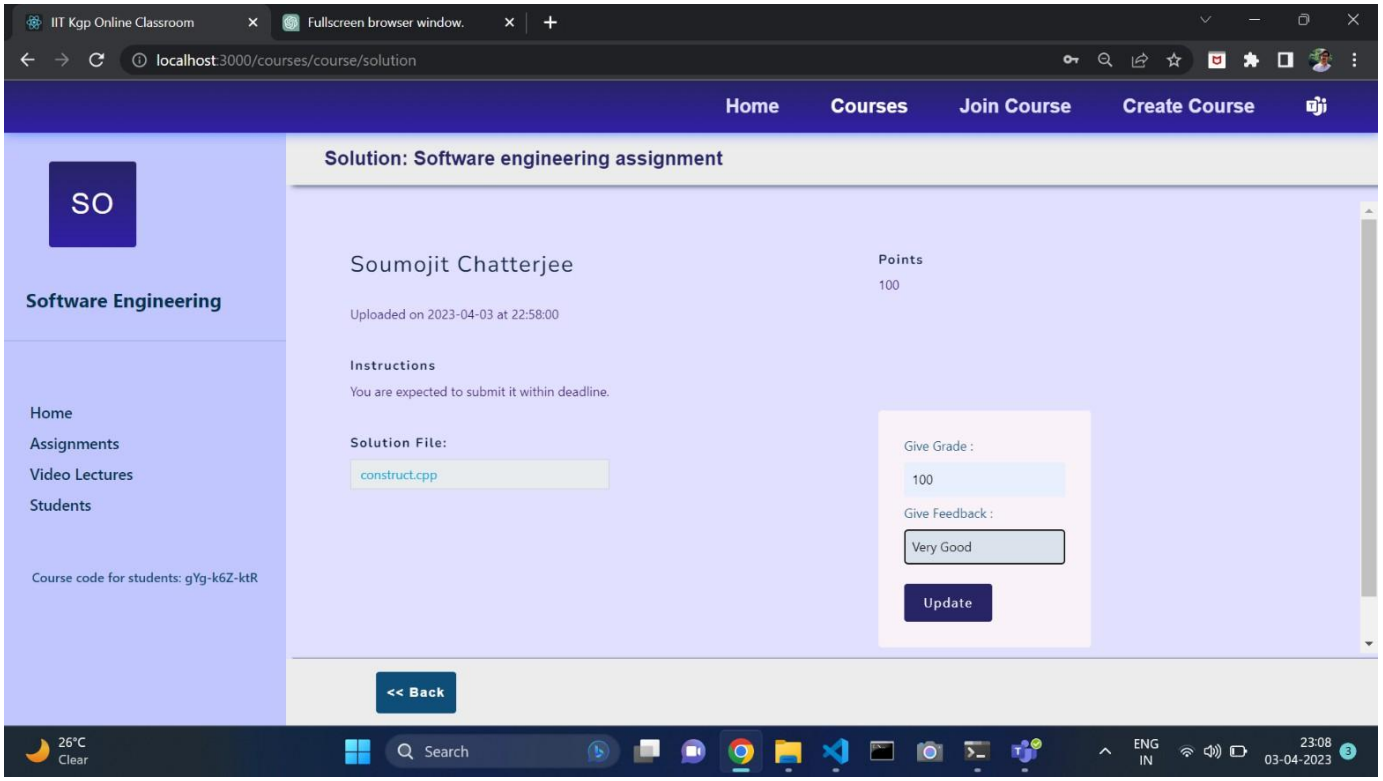
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Assignments
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Students
Course code for students: gYg-k6Z-ktR
Solution: Software engineering assignment
Soumojit Chatterjee
Uploaded on 2023-04-03 at 22:58:00
Points
100
Instructions
You are expected to submit it within deadline.
Solution File:
construct.cpp
Give Grade :
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Give Feedback :
Very Good
Update
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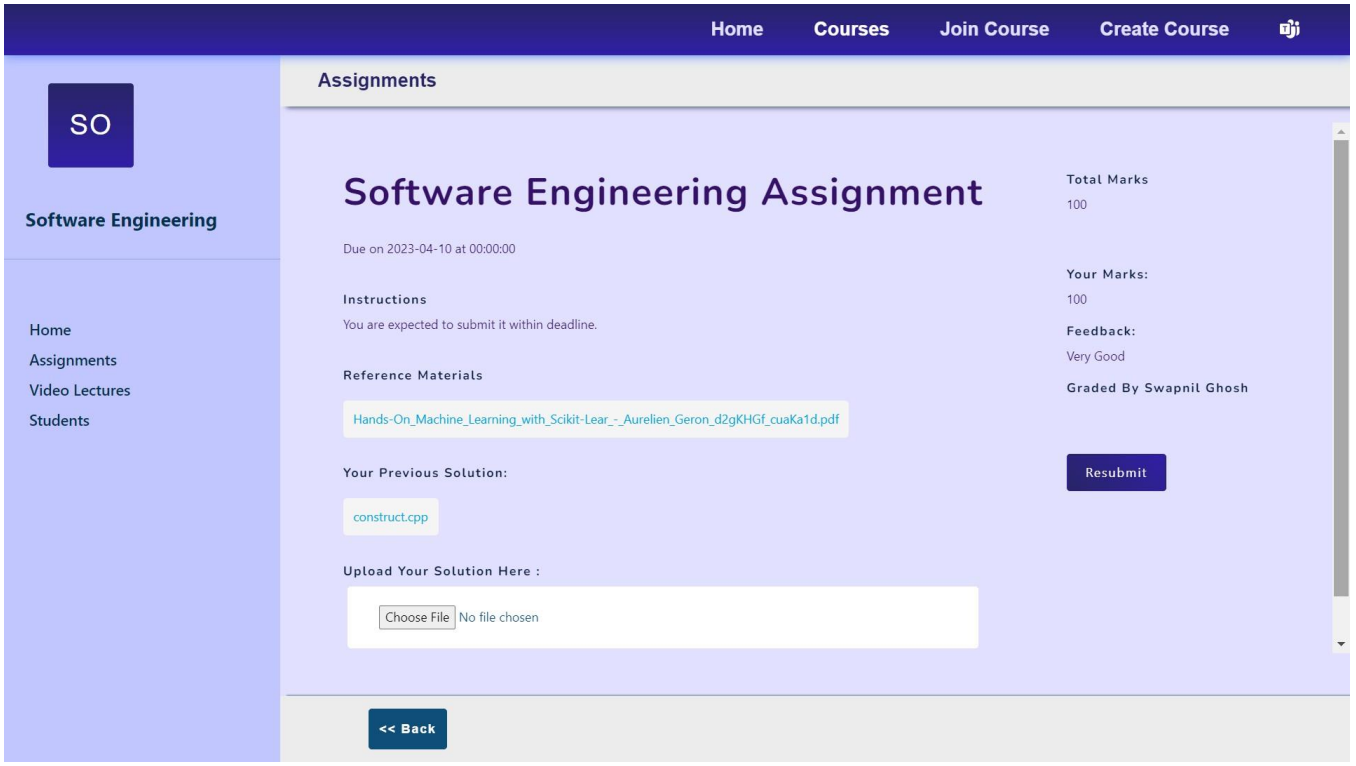
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Software Engineering Assignment
Due on 2023-04-10 at 00:00:00
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Your Previous Solution:
construct.cpp
Upload Your Solution Here :
Choose File
No file chosen
Total Marks
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Your Marks:
100
Feedback:
Very Good
Graded By Swapnil Ghosh
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