

NANYANG TECHNOLOGICAL UNIVERSITY

SINGAPORE

Course: CI6206 Internet Programming Mini Web Project

Title: ONLINE EDUCATION PLATFORM

Submitted By:

| Group Member | Matriculation Number | E-mail |
|---------------|----------------------|------------------------|
| HE XUANRAN | G2002017H | XHE015@e.ntu.edu.sg |
| ZHANG MENTIAN | G2001384F | MZHANG035@e.ntu.edu.sg |

Submitted to: Professor Wong Twee Wee

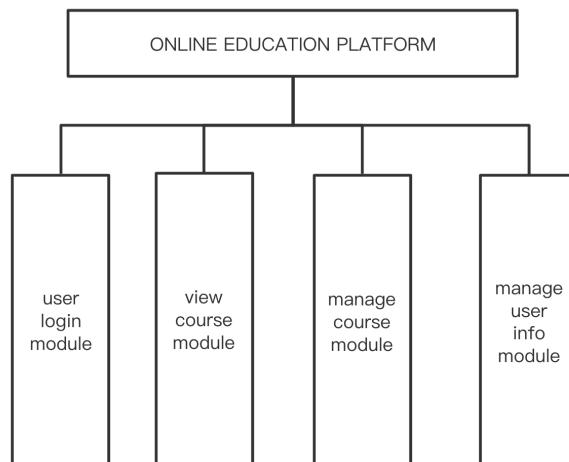
1. Project Scenario

1.1 Project Proposal

- To prevent the further spread of COVID-19, offline teaching is becoming increasingly difficult. We launch an ONLINE EDUCATION PLATFORM(OEP) to create a convenient learning environment for NTU students.
- The ONLINE EDUCATION PLATFORM(OEP) aims at increasing students' interest in learning. For this purpose, we provide a variety of learning resources covering computer, humanities, art and other fields.
- Students can choose their own study materials and manage their courses on our platform, which will not only make study easier for them, but also help them explore the boundaries of their skills.

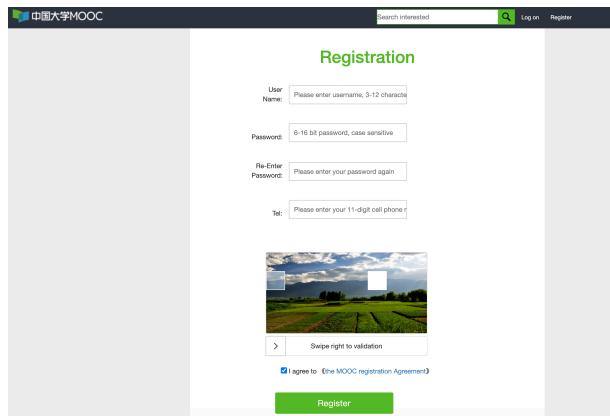
1.2 Project Modules

The ONLINE EDUCATION PLATFORM contains four modules: user login module, view course module, manage course module, manage user info module.

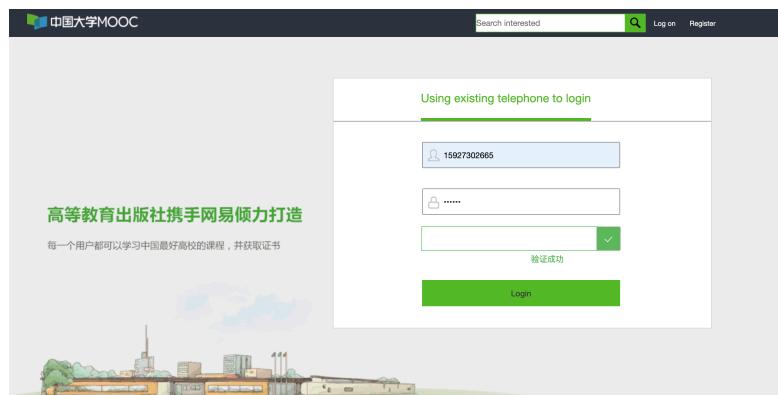


1.3 Project Features

1. Register: A new user should use their username, password and telephone number to register OEP system. We use double check for this part if there is anything wrong or blank, the registration won't be approved.



2. Log in: Old users use their username and password to login in. Here we do a password encryption by using MD5 technology.



3. Home page: In the home page, we can see a course list, users can also choose the type of the courses.

4. Course details: When users find a course they like, they can click on the course name for details. In this page, users can see how many people have attended this course and read the overview and the outline of this course to determine whether to choose or not.

The screenshot shows the course details page for 'Principles of Computer Composition'. At the top, there's a navigation bar with 'Search interested' and 'Logout'. Below the title 'Principles of Computer Composition' is a sub-section for 'NANYANG TECHNOLOGICAL UNIVERSITY' under 'Introductory Computer Course'. It shows '2025 people have signed up' and a button labeled 'Immediately to attend'. On the right, there's a 'Course Overview' section with a detailed description of the course, its objectives, and its content structure across three chapters.

5. Attend course and manage courses: After click 'Immediately to attend', users will enter the profile page and see all the courses that was selected. Click the course name users will see the 'Content', 'Assignments', 'Files', 'Discussion Board'. After attending, users can also delete the course if they like.

The screenshot shows the user profile page with a sidebar for 'Classroom' and 'Account Management'. The main area is titled 'My Courses' and lists the course 'Principles of Computer Composition'. A 'Delete' button is visible next to the course name. Below this, there's a 'Catalogue' section for the course, listing its chapters and sub-chapters.

6. Play the course video: When users click 'View the course', they will start course study. In this page, they will see the course text and play the videos.

The screenshot shows a video player interface for the course 'Principles of Computer Composition'. The video thumbnail displays a dark scene with vertical blinds. The video controls show '00:03 / 02:55'. Above the video, there are buttons for 'Get CourseText', 'Get CourseVideo', and 'Return'. To the right of the video, there's a 'Catalogue' section with a list of chapters and sub-chapters.

7. Profile Page: If users want to change their password or avatar, they can enter the profile page to do this operation.

My Center33

Head Image:

Name: hehehe

Phone No.: 15927302665

Sex: Male Female

Password: ***** [Change](#)

Email:

ID Number:

[Submit](#)

2. Database Design

2.1 The design of database

1. **user_login_info:** This table is used to save login information of each user. In our design ‘id’ is the PRIMARY KEY to identify each user, The more details:

| Field | Type | Length | Comment |
|-----------|---------|--------|-------------------|
| id | INT | 11 | PRIMARY KEY |
| headImg | VARCHAR | 100 | |
| username | VARCHAR | 20 | |
| telephone | BIGINT | 20 | UNIQUE KEY |
| password | VARCHAR | 255 | |
| state | INT | 11 | 0 VALID/1 INVALID |

2. **user_basic_info:** This table is used to save basic information of each user, such as the email,sex and id card. The more details:

| Field | Type | Length | Comment |
|--------|---------|--------|-------------|
| id | INT | 11 | PRIMARY KEY |
| userid | INT | 100 | |
| email | VARCHAR | 20 | |
| sex | BIT | 20 | 0 F/ 1 M |
| card | VARCHAR | 255 | |

3. **student_course:** This table is used to save course information of each user. We can search all the courses that a user has selected. The more details:

| Field | Type | Length | Comment |
|----------|------|--------|-------------|
| id | INT | 11 | PRIMARY KEY |
| userid | INT | 11 | |
| courseid | INT | 11 | |

4. coursebase: This table is used to save course information. The more details:

| Field | Type | Length | Comment |
|-----------------|------------|--------|--------------------|
| id | INT | 11 | PRIMARY KEY |
| coursename | VARCHAR | 255 | |
| coursesummary | MEDIUMTEXT | | |
| count | INT | 255 | User participation |
| courseimg | VARCHAR | 255 | |
| courseintroduce | VARCHAR | 255 | |
| teacherid | INT | 11 | 0 VALID/1 INVALID |
| clickRate | INT | 11 | Course clicks |

5. coursefirstcatalog: It is the first of catalog. The more details:

| Field | Type | Length | Comment |
|-------------|----------|--------|---------------------|
| id | INT | 11 | AUTO_INCREMENT |
| courseid | INT | 11 | Course belongs to |
| catalogname | VARCHAR | 255 | Catalog name |
| cvideo | VARCHAR | 255 | Save the video name |
| corder | INT | 255 | Catalog order |
| ctext | LONGTEXT | | Catalog text |

6. coursesecondcatalog: It is the second of catalog. The more details:

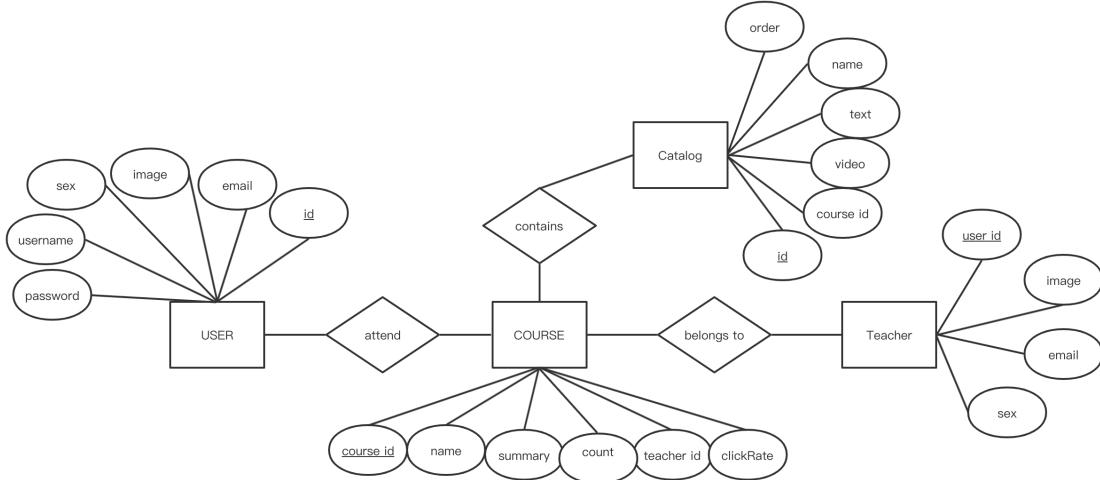
| Field | Type | Length | Comment |
|-------------|----------|--------|---------------------|
| id | INT | 11 | AUTO_INCREMENT |
| courseid | INT | 11 | Course belongs to |
| catalogname | VARCHAR | 255 | Catalog name |
| cvideo | VARCHAR | 255 | Save the video name |
| corder | INT | 255 | Catalog order |
| ctext | LONGTEXT | | Catalog text |

7. teacher: This table is used to save basic information of a teacher, as each course belongs to a teacher. The more details:

| Field | Type | Length | Comment |
|--------|------|--------|----------------|
| id | INT | 11 | AUTO_INCREMENT |
| userid | INT | 11 | |

| | | | |
|--------------|---------|-----|---------------|
| teacheremail | VARCHAR | 50 | Teacher email |
| teacherImg | VARCHAR | 255 | Teacher image |
| teachersex | BIT | 255 | 0 F/ 1 M |

2.2 ER chart



3. Description of Roles

HE XUANRAN: Design the database and build the connection of the project to mysql. Design and develop the login module.

ZHANG MENGTIAN: Design the database and build the connection of the project to mysql. Design and develop the course module.

4. Main Technology

- We use a Model-View-Controller architectural pattern. Besides, we introduce a DAO layer to design some API that can connect to the database
- We use a MD5 algorithm to encrypt the password. In our user_login_info table, you can only see anonymous password.

5. Set up guide

1. create a database named ‘mooc’ in mysql. And then import ‘mooc.sql’, run the script to finish database building.
2. Import ‘moocgd’ project in eclipse, find the path and add all packages in build path ‘/Users/hexuanran/IdeaProjects/mooc1.0version/moocgd/web/WEB-INF/lib’.
3. Make sure the version of tomcat is version 8.0. Then run the project, and paste

url to the chrome.' <http://localhost:8080/moocgd/views/before/register.jsp>'.