

CCDS-222 Database II

Project

Statement purpose

To use any programming language (Java, Python, etc) to create a web-based or mobile application to interact with SQL and NoSQL databases.

Activity Outcomes

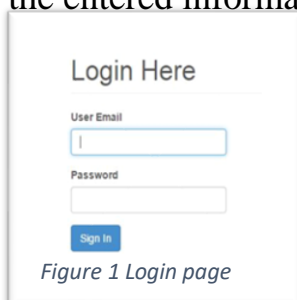
Students will be able to use any programming language to create an application using server-client framework approach to interact with SQL and NoSQL databases.

Project Description:

Create two HTML pages one with the login information as in figure 1. You will need to create a table (using any SQL database) with the user information to login to your application. You must have at least 5 users and allow a new user to register. The other page will allow the user to search for restaurants (that store in MongoDB) using several fields (i.e. street, borough, cuisine, grade, name). The HTML pages will serve as a client side (front-end) and on the server side (back-end) you will have your code running to interact with the HTML pages.

Steps to run the project:

- 1- Create a table with the login information.
- 2- Create a mongodb with restaurant information that you used in lab 6.
- 3- At server sides, you need to connect to your SQL (page 1) and NoSQL database (page 2).
- 4- User enters the login information. If succussed, will go to page 2. If not, a message will display that the information isn't correct.
- 5- New user will be able to register.
- 6- In page 2, user will enter information in any of the fields (street, borough, cuisine, grade, name) and you must display the result back to user. If no restaurant matches the entered information, display a message to the user that no result.



The image shows a login form titled "Login Here". It contains two input fields: "User Email" and "Password". Below the "Password" field is a blue "Sign In" button. The form is enclosed in a light gray border.

Figure 1 Login page



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One member of the team needs to submit the project. **No deadline extension!!**

What to submit:

- 1- Report with the following information:
 - a. Team information.
 - b. Outline.
 - c. Steps to implement the project.
 - d. What you learn from this project.
 - e. Obstacles that you face during the project.
 - f. Resources that you use during the implementation.
 - g. Team roles.
- 2- Your codes as a zip files.

This project worth 15% of your final grade.

Grade distribution:

1	Report	30%
2	Running application	50%
	User login page	10%
	New user registration	5%
	Search for the restaurant	10%
	Results display	15%
	No result found	5%
	Overall design of the application	5%
3	Answer questions to change and modify the code during the demo	20%

Project milestones:

- 1- Group information submission. Each team includes four students. (19/03/2025)
- 2- Login page with full functions. (17/04/2025)
- 3- Complete project. (30/04/2025)

Good luck!



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START EARLY ON THE PROJECT. IF YOU DO THAT, YOU WILL FINISH EARLY.

Some of the resources for the project:

<https://codeforgeek.com/render-html-file-in-flask/>

<https://medium.com/techcrush/how-to-render-html-file-in-flask-3fbfb16b47f6>

<https://www.digitalocean.com/community/tutorials/how-to-make-a-web-application-using-flask-in-python-3>

https://www.tutorialspoint.com/sqlite/sqlite_python.htm

<https://www.geeksforgeeks.org/mongodb-and-python/>