

CodeCraftHub: Prework - Crafting the Server-Side Architecture



Estimated time needed: 1 hour

Welcome to the Final Project - CodeCraftHub! As a key member of the development team, you're tasked with architecting the server-side components for creating a personalized learning platform. Your role involves harnessing the capabilities of Generative AI along with a diverse set of technologies to bring your vision of CodeCraftHub to life.

Imagine the excitement of building a learning platform that caters to the unique needs of developers, providing them with a tailored and enriching learning experience. You have the opportunity to shape the foundation of CodeCraftHub using cutting-edge tools like Node.js and MongoDB. This project is not just about coding, it's about crafting a space where developers can thrive and grow.

Get ready to embark on this journey, turning your innovative ideas into a reality that will impact the learning experiences of countless developers.

Setting up the GitHub Repository:

1. Create an GitHub repository for your project named "CodeCraftHub". Please refer to the provided link for guidance on setting up a GitHub account and creating the repository for your project. [Click Here!!](#) You will use this to set it as origin.

2. Open a terminal, click on "Terminal", and then select the "New Terminal" option.

3. Create a new directory for your project:

```
mkdir user-management-service
```

4. Navigate into the newly created directory:

```
cd user-management-service
```

Note: user-management-service will be the name of the project directory that will be used in the up coming lab.

5. Initialize a new Git repository:

```
git init
```

6. Copy the repository URL provided by GitHub.

7. Link your local repository to the GitHub repository:

```
git remote add origin <repository-url>
```

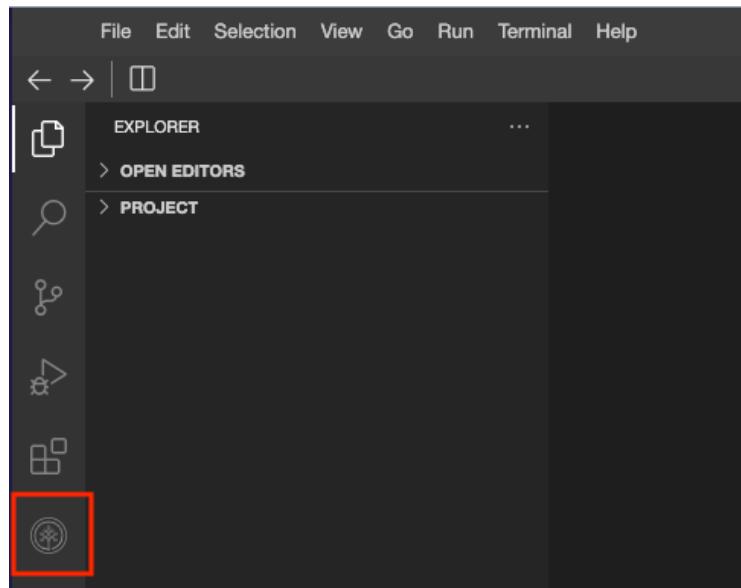
Replace <repository-url> with the URL of your GitHub repository.

Now, your project directory is set up, and it's linked to a GitHub repository. You can proceed with the next steps in your project development.

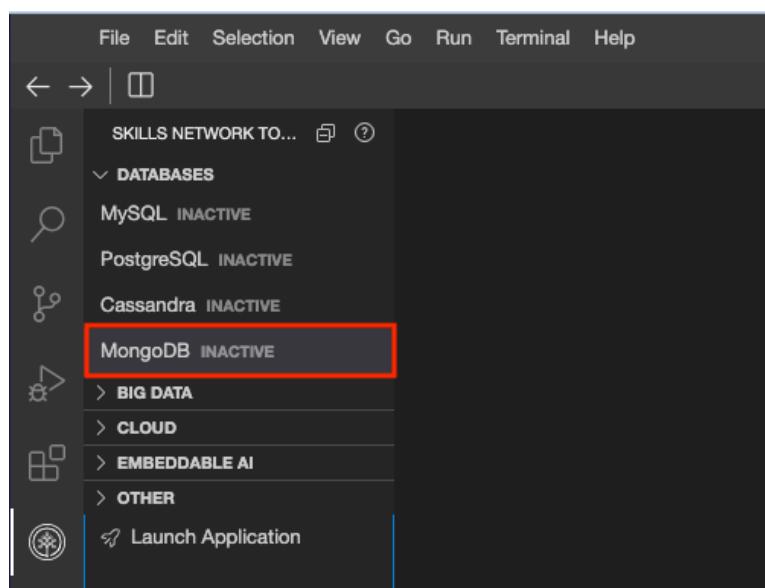
Setting Up MongoDB Server:

In this project, we are using MongoDB as the server-side database for developing the learning platform because of its versatility, scalability, and effective management of varied and dynamic data.

Navigate to Skills Network Toolbox.



You will notice MongoDB listed there, but inactive, which means the database is not available to use.



Once you click on the database, you will see more details and a button to create the database.

The screenshot shows the Skills Network Labs interface. On the left, there's a sidebar with various icons and a list of databases: MySQL (INACTIVE), PostgreSQL (INACTIVE), Cassandra (INACTIVE), and MongoDB (INACTIVE). The MongoDB entry is selected. The main panel displays the MongoDB configuration screen with the following details:

- MongoDB** (Status: INACTIVE)
- Version: 3.6.3 | Node.js: 0.54.0 | MongoDB: 2.0.2
- Text: "Connect to MongoDB and mongo-express directly in your Skills Network Labs environment."
- Buttons: **Create** (highlighted with a red box) and **Delete**.

Clicking Create button runs a background process to configure and start your MongoDB server.

The screenshot shows the Skills Network Labs interface after the Create button was clicked. The MongoDB status has changed to STARTING. The main panel displays the following details:

- MongoDB** (Status: STARTING)
- Version: 3.6.3 | Node.js: 0.54.0 | MongoDB: 2.0.2
- Text: "Connect to MongoDB and mongo-express directly in your Skills Network Labs environment."
- Buttons: **Create** and **Delete**.
- Section: **Summary**, **Connection Information**, **Details**.
- Text: "Starting your database. This process can take up to a minute."
- Fields: **Username:** and **Password:**
- Text: "You can manage MongoDB via:"
- Text: "Or to interact with the database in the terminal, select one of these options:"

Soon, your server is ready for use. This deployment has access control enabled and MongoDB enforces authentication. So, take note of the password. You will need this password to login as root user.

Note: For Password and other information click on Connection Information. Subsequently, replace this copied password in the final project as directed. Finally, click on MongoDB CLI to open the server in the new terminal.

MongoDB X

MongoDB ACTIVE

3.6.3 | 0.54.0 | 2.0.2

Connect to MongoDB and mongo-express directly in your Skills Network Labs environment.

Create **Delete**

Summary **Connection Information** **Details**

MONGO_USERNAME: root

MONGO_HOST: 172.21.41.238

MONGO_PORT: 27017

URL: <https://labs-mongo-thundering-most-fall.mongo.databases.labs.skills.network>

MONGO_URL: <https://labs-mongo-thundering-most-fall.mongo.databases.labs.skills.network>

MongoDB CLI Command: mongosh mongodb://root:aPmca0TKv1vxBt1ANcooAChH@172.21.41.238:27017

MONGO_COMMAND: mongosh mongodb://root:aPmca0TKv1vxBt1ANcooAChH@172.21.41.238:27017

MONGO_PASSWORD: aPmca0TKv1vxBt1ANcooAChH

MONGO_TITLE: MongoDB Database

MONGO_ID: labs-mongo-thundering-most-fall

The screenshot shows the 'Connection Information' tab of a MongoDB configuration page. It displays several input fields with placeholder values: 'MONGO_USERNAME' (root), 'MONGO_HOST' (172.21.41.238), 'MONGO_PORT' (27017), 'URL' (https://labs-mongo-thundering-most-fall.mongo.databases.labs.skills.network), 'MONGO_URL' (https://labs-mongo-thundering-most-fall.mongo.databases.labs.skills.network), 'MongoDB CLI Command' (mongosh mongodb://root:aPmca0TKv1vxBt1ANcooAChH@172.21.41.238:27017), 'MONGO_COMMAND' (mongosh mongodb://root:aPmca0TKv1vxBt1ANcooAChH@172.21.41.238:27017), 'MONGO_PASSWORD' (aPmca0TKv1vxBt1ANcooAChH), 'MONGO_TITLE' (MongoDB Database), and 'MONGO_ID' (labs-mongo-thundering-most-fall). The 'MONGO_PASSWORD' field is highlighted with a red border. The 'ACTIVE' status is shown in a green box at the top right.

Note: Please ensure to keep this lab session active until you've finished the final project. In the subsequent lab, you'll leverage Generative AI to gather the requirements and obtain the necessary code for developing your learning platform.

Author(s)

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