CSC587

Modern Web Applications Using Server-Side Technologies

Project #2 Theme: JSON and MongoDB

Part I: Create a MongoDB/Mongoose Database

1. Download MongoDB 7.0  
2. Install MongoDB 7.0.  
 a. Click the .msi file

b. Once download completes, click the file to start the installation.  
3. Installation the MongoDB as a network service (default option button).

4. Once done, we can bring up a copy of the MongoDB server by entering the commands:  
 a. Bring up a Command Prompt window and go to the root directory by entering  
 “cd”.  
 b. Create a database directory: >mkdir db  
 c. Enter “mongod --dbpath=”./db”.

A black and white screen

Description automatically generated

A screen shot of a computer screen

Description automatically generated

5. Before we can run the MongoDB database server, we still need to download the MongoDB Shell.

6. We need to open another Command Prompt window or Terminal for entering REPL MongoDB shell commands. Enter mongosh” to bring up the command shell prompt.

A screenshot of a computer

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7. The screenshot shows that the database name is “test”. The database collection “contacts” originally does not contain any “JSON document”. After inserting one record, the collection contacts contain one record.  
8. Now we can use database management tools to check the contains inside a database and collections before using Node.js to access the MongoDB databases.

A screenshot of a computer

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Part II Access MongoDB Database via JavaScript Code

In the second part of the project, we will allow a user to enter the name and the gender via a form. Then, the newly entered name and gender will be added to the database. If we click the “Users” tab, we should see the new user. If we restart the browser, the newly added user may not be lost. We will be able to access the database and list all users, if needed.

Web Page:

A screenshot of a computer

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Contact Tab:

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Database before adding the user:

A screenshot of a computer

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Add a user:

A screenshot of a computer

Description automatically generated

Users Tab: Here we can see the user that we added.

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Database after adding the user: We can see the added user in the database.

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Update the user: When we click the update button a form will be displayed to update the user.

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We update the user name from Supraja Rama Meka to Supraja Rama.

A screenshot of a computer

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The user is updated.

A screenshot of a computer

Description automatically generated

The update can be seen in the Database.

A screenshot of a computer

Description automatically generated

Delete a user:

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

The user is deleted from the database.

A screenshot of a computer

Description automatically generated

Terminal:

A screenshot of a computer

Description automatically generated

I have terminated the job and restarted the browser. The added user has not been lost.

A screenshot of a computer screen

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A screenshot of a computer

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homeController.js

A screenshot of a computer program

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app.js:

A screenshot of a computer program

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