Rajeshwari Reddy Gummadi

U2276440

Reflection of Lab Exercise week 10

**Web and Mobile Application Development**

I will create a directory name footballcollection and then inside this directory I will create two folders one will be backend and the other will be frontend. First, ensure you have the necessary packages installed. npm install express mongoose mongo cors –save, npm init will create package json in this folder. Create three files Server.js, schema js file, mongodbconnection js file write the code and save run node Server.js in terminal window it will connect to the server and mongodb using the port number and mongo url you that is provided in the code.

**Design Description**

**For each REST API endpoint, you need to specify the MongoDB query that will be executed. This helps in understanding how data will be manipulated or retrieved from the database.**

For the back-end part of the coursework, I have planned the following REST API endpoints:

1. **POST /add**: Adds a new record to the collection.

Add Data to MongoDB

Endpoint: POST /add MongoDB Query: This endpoint will use the save method to insert a new document into the collection.



1. **POST /update**: Updates an existing record for a given team.

Update Data to MongoDB

**Endpoint:** POST /update **MongoDB Query:** This endpoint will use the findOneAndUpdate method to update an existing document based on the team name.



1. **POST /delete**: Deletes a record for a given team.

**Delete a record from MongoDB**

**Endpoint:** POST /delete **MongoDB Query:** This endpoint will use the findOneAndDelete method to remove a document based on the team name.



1. **GET /stats/:year**: Retrieves total games played, draw, and won for a given year.

Get Total Games Played, Draw, and Won for a Given Year

**Endpoint:** GET /stats/:year **MongoDB Query:** This endpoint will use the aggregate method to group and sum the fields for a given year.

A computer code with black text

Description automatically generated

1. **GET /top-teams/:wins**: Displays the first 10 records with wins greater than a given value.

**Display First 10 Records with Wins Greater than a Given Value**

**Endpoint: GET /top-teams/:wins MongoDB Query: This endpoint will use the find method with a condition and limit to retrieve the top 10 records.**



1. **GET /average-goals/:year**: Displays teams with average goals for a given year.

**Endpoint:** GET /average-goals/:year **MongoDB Query:** This endpoint will use the aggregate method to calculate the average goals for each team for a given year.

A computer screen shot of a program

Description automatically generated

For each REST API endpoint, you need to specify the MongoDB query that will be executed. This helps in understanding how data will be manipulated or retrieved from the database.