Product Delivery

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Trello Link:

https://trello.com/b/ytqCp3R9/2021-cs5500-full-summer

Github Link:

https://github.com/telvinzhong/Java-Database-Analytics

Programming language: Java
Database Cloud : Mongodb Atlas

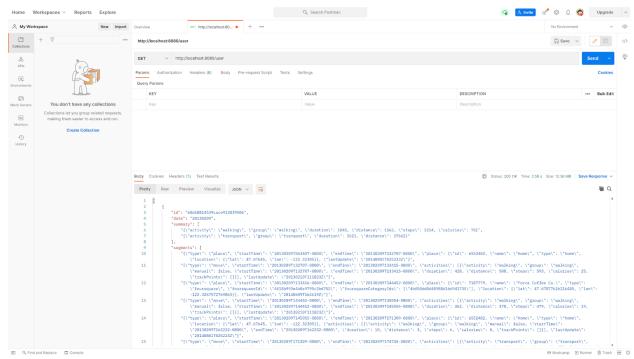External libraries:
Gson
JDBC

User Stories:

- User wishes to receive a subset of the data limited by location, so he or she inputs a restriction (Latitude above a certain coordinate) and the output is the set of data matching this (4 points)
- The user wishes to get data directly from the dataset, such as how long he or she spent walking on a particular day. He or she enters the date and receives the number representing the time they spent walking that day (3 points)
- A user may want to be able to be able to modify existing data and add new data points (2 points)
- A user wants to receive a subset of the data limited by location, so he/she inputs a restriction (Latitude above a certain coordinate) and the output is the set of data matching this(4 points)
- The user wants to get data directly from the dataset, such as how long he/she spent on a certain activity, such as walking

or cycling on a particular day, how many calories he/she burns off on a certain day(3 points)

- A user may want to be able to be able to modify existing data and add new data points (2 points)
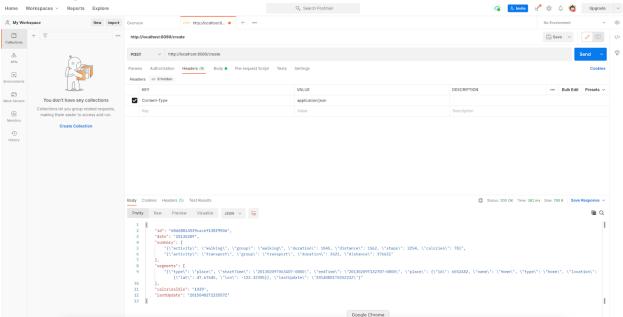- Generate 3 different web pages displaying the data, using the REST API (4 points)

Our codes will be available on github and can be downloaded from the Github Link above.

- **How to build the code: After downloading the code, and unzipping it from github, we can see the package called Spring and that's our product name, we can open it up with Intellij and set up to the latest JDK 16 and run the code from RestServiceApplication.**

- **How to setup/install the product : Codes contain CRUD(Create, read, update and delete). Can be able to make request with Postman**

  - **Get http://localhost:8080/ will read and return Home information**
  - **Get http://localhost:8080/user will read and return all the Users**
  - **Get http://localhost:8080/index will read and return user Activities(date, calories and some activities during that date)**
  - **Get http://localhost:8080/duration will read and return duration showing the date and total activity time**
  - **Get http://localhost:8080/activity will read and return Activities with date and specific are walking, transport or running.**
  - **Delete http://localhost:8080/delete/{id} can delete specific User ID.**
  - **Post http://localhost:8080/create can create User and save to cloud**
  - **Put http://localhost:8080/update/{id} can Update a User**

- **Known problems : there may be Spring or SDK problems due to individual set up and depends on the system.(please use the latest SDK "JDK 16.0.2")**

- **Any other relevant documents : There will be a README.txt in the github will show how to run the repo.**
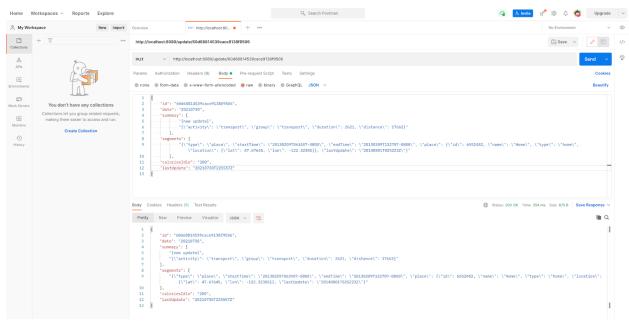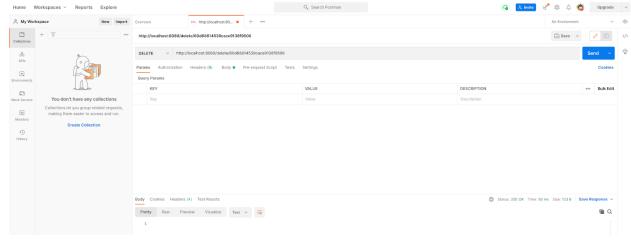- **Tests That we did:**

1. **get request**

2. create request

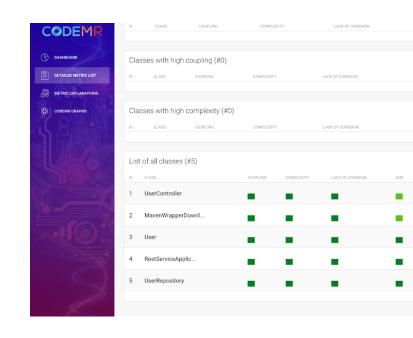**1. update request**

2.   delete request

Code analysis:

Classes with high coupling (#0)

ID	CLASS	COUPLING	COMPLEXITY	LACK OF COHESION		SIZE	LOC	CBO	CBO APP	CBO LIB	RFC

Classes with high complexity (#0)

ID	CLASS	COUPLING	COMPLEXITY	LACK OF COHESION		SIZE	LOC	WMC	RFC	NOM	NOF	DIT

List of all classes (#5)

ID	CLASS	COUPLING	COMPLEXITY	LACK OF COHESION	SIZE	LOC	COMPLEXITY	COUPLING	LACK OF COHESION	SIZE
1	UserController	■	■	■	■	74	low	low	low	low-medium
2	MavenWrapperDownl...	■	■	■	■	60	low	low	low	low-medium
3	User	■	■	■	■	41	low	low	low	low
4	RestServiceApplic...	■	■	■	■	9	low	low	low	low
5	UserRepository	■	■	■	■	1	low	low	low	low