

# Product Delivery

Jie Feng  
Telvin Zhong  
Yiman Liu

## **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

Home Workspaces Reports Explore

Search Postman

My Workspace New Import

Overview GET http://localhost:8080/user

Params Authorization Headers (6) Body Pre-request Script Tests Settings

Query Params

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body Cookies Headers (5) Test Results

Status: 200 OK Time: 258 ms Size: 12.36 MB Save Response

Pretty Raw Preview Visualize JSON

```
1 {
2   "id": "60d68b14539ace9138f9506",
3   "date": "20130209",
4   "summary": {
5     "activity": "walking", "group": "walking", "duration": 3845, "distance": 3562, "steps": 2254, "calories": 783,
6     "activity": "transport", "group": "transport", "duration": 2623, "distance": 17662}
7   },
8   "segments": [
9     {
10      "type": "place", "startTime": "20130209T063407-0800", "endTime": "20130209T132707-0800", "place": {"id": "6552482", "name": "Home", "type": "home",
11        "location": {"lat": 47.67645, "lon": -122.323053}, "lastUpdate": "20140801T025232Z"},
12      "type": "move", "startTime": "20130209T132707-0800", "endTime": "20130209T133415-0800", "activities": [{"activity": "walking", "group": "walking",
13        "manual": false, "startTime": "20130209T132707-0800", "endTime": "20130209T133415-0800", "duration": 428, "distance": 588, "steps": 593, "calories": 25,
14        "trackPoints": []}], "lastUpdate": "20130209T111823Z"},
15      "type": "place", "startTime": "20130209T133415-0800", "endTime": "20130209T144452-0800", "place": {"id": "7187779", "name": "Forza Coffee Co.", "type": "fourSquare",
16        "fourSquareId": "4f18b993e4d0a995c26d7021", "fourSquareCategoryId": [{"id": "4bf586d84898b169417351", "location": {"lat": 47.67877626216485, "lon": -122.3267572769863}], "lastUpdate": "20140609T164619Z"},
17      "type": "move", "startTime": "20130209T144452-0800", "endTime": "20130209T145054-0800", "activities": [{"activity": "walking", "group": "walking",
18        "manual": false, "startTime": "20130209T144452-0800", "endTime": "20130209T145054-0800", "duration": 362, "distance": 378, "steps": 479, "calories": 19,
19        "trackPoints": []}], "lastUpdate": "20130210T111823Z"},
20      "type": "place", "startTime": "20130209T145054-0800", "endTime": "20130209T171309-0800", "place": {"id": "6552482", "name": "Home", "type": "home",
21        "location": {"lat": 47.67645, "lon": -122.323053}, "activities": [{"activity": "walking", "group": "walking", "manual": false, "startTime": "20130209T162222-0800", "endTime": "20130209T162232-0800", "duration": 10, "distance": 3, "steps": 6, "calories": 0, "trackPoints": []}], "lastUpdate": "20140801T025232Z"},
22      "type": "move", "startTime": "20130209T171309-0800", "endTime": "20130209T174745-0800", "activities": [{"activity": "transport", "group": "transport",
```

## 2. create request

Home Workspaces Reports Explore

Search Postman

My Workspace New Import

Overview POST http://localhost:8080/create

Params Authorization Headers (9) Body Pre-request Script Tests Settings

Headers 8 hidden

KEY	VALUE	DESCRIPTION
<input checked="" type="checkbox"/> Content-Type	application/json	
Key	Value	Description

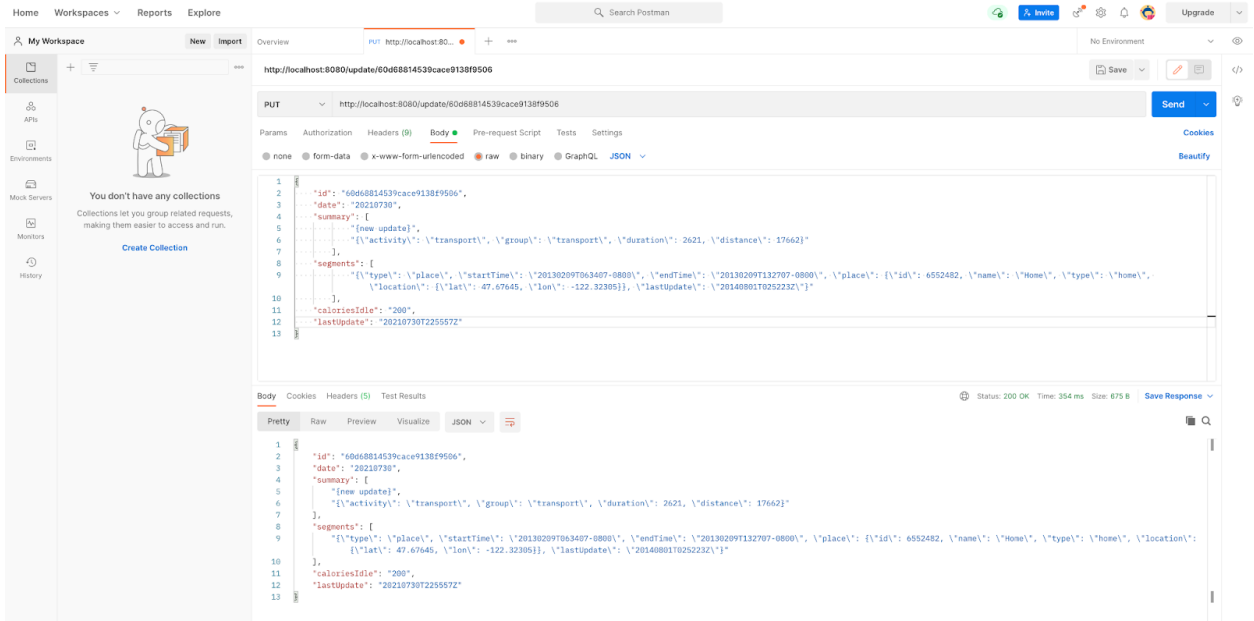
Body Cookies Headers (5) Test Results

Status: 200 OK Time: 362 ms Size: 790 B Save Response

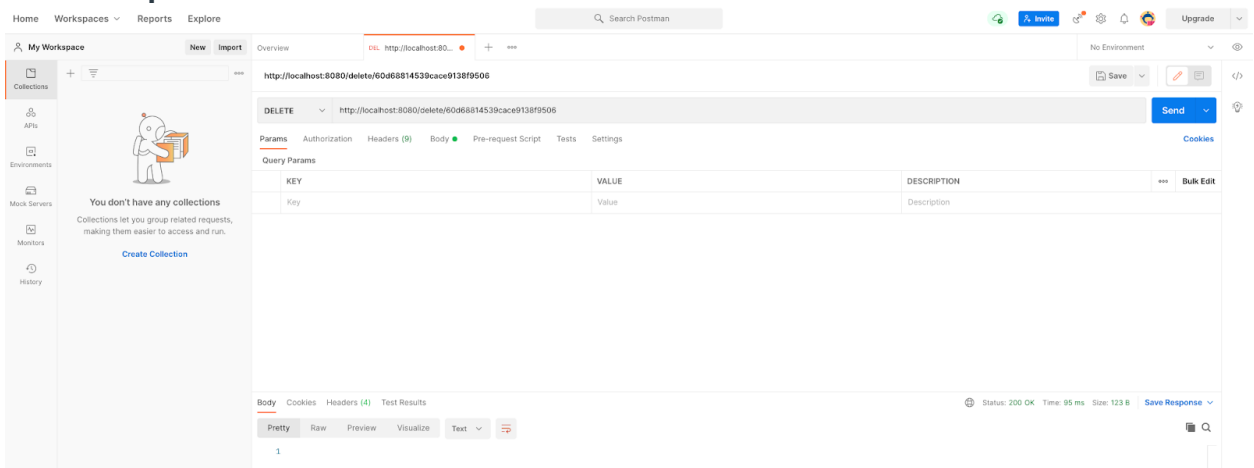
Pretty Raw Preview Visualize JSON

```
1 {
2   "id": "60d68b14539ace9138f9506",
3   "date": "20130209",
4   "summary": {
5     "activity": "walking", "group": "walking", "duration": 3845, "distance": 3562, "steps": 2254, "calories": 783,
6     "activity": "transport", "group": "transport", "duration": 2623, "distance": 17662}
7   },
8   "segments": [
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10      "type": "place", "startTime": "20130209T063407-0800", "endTime": "20130209T132707-0800", "place": {"id": "6552482", "name": "Home", "type": "home", "location": {"lat": 47.67645, "lon": -122.323053}, "lastUpdate": "20140801T025232Z"},
11      "type": "move", "startTime": "20130209T132707-0800", "endTime": "20130209T133415-0800", "activities": [{"activity": "walking", "group": "walking", "manual": false, "startTime": "20130209T132707-0800", "endTime": "20130209T133415-0800", "duration": 428, "distance": 588, "steps": 593, "calories": 25, "trackPoints": []}], "lastUpdate": "20130209T111823Z"},
12      "type": "place", "startTime": "20130209T133415-0800", "endTime": "20130209T144452-0800", "place": {"id": "7187779", "name": "Forza Coffee Co.", "type": "fourSquare", "fourSquareId": "4f18b993e4d0a995c26d7021", "fourSquareCategoryId": [{"id": "4bf586d84898b169417351", "location": {"lat": 47.67877626216485, "lon": -122.3267572769863}], "lastUpdate": "20140609T164619Z"},
13      "type": "move", "startTime": "20130209T144452-0800", "endTime": "20130209T145054-0800", "activities": [{"activity": "walking", "group": "walking", "manual": false, "startTime": "20130209T144452-0800", "endTime": "20130209T145054-0800", "duration": 362, "distance": 378, "steps": 479, "calories": 19, "trackPoints": []}], "lastUpdate": "20130210T111823Z"},
14      "type": "place", "startTime": "20130209T145054-0800", "endTime": "20130209T171309-0800", "place": {"id": "6552482", "name": "Home", "type": "home", "location": {"lat": 47.67645, "lon": -122.323053}, "activities": [{"activity": "walking", "group": "walking", "manual": false, "startTime": "20130209T162222-0800", "endTime": "20130209T162232-0800", "duration": 10, "distance": 3, "steps": 6, "calories": 0, "trackPoints": []}], "lastUpdate": "20140801T025232Z"},
15      "type": "move", "startTime": "20130209T171309-0800", "endTime": "20130209T174745-0800", "activities": [{"activity": "transport", "group": "transport",
```

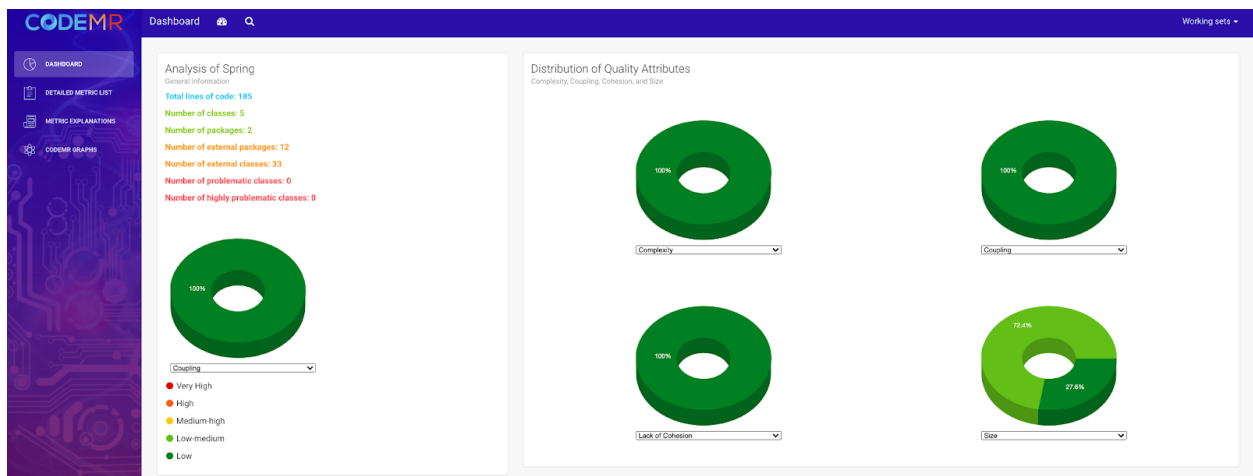
## 1. update request



## 2. delete request



## Code analysis:



CODEMR

DASHBOARD

DETAILED METRIC LIST

METRIC EXPLANATIONS

CODEMR GRAPHS

CLASS

COUPLING

COMPLEXITY

LACK OF COHESION

SIZE

LOC

CBO

WMC

RFC

NOM

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