MY ROLE, MY TEAM, MY CITI

GROUP 1:

HRITIK S
HARSHAVARDHINI G
KOUSHALYA S
NITHYASHREE N
NIRUPAMA A R

GFT (GLOBAL FUNCTIONS TECHNOLOGY)

•Global Functions Technology (GFT) delivers innovative technology solutions and key global platforms for Citi's Global Functions division.

•These solutions enable Citi to comply with regulatory mandates and empower businesses to achieve their goals, both current and long-term.

•These products and initiatives adhere to Citi's strategic architecture and support the end-to-end integration of multiple global functions within the bank including Finance, Risk assessing and handling and Controls.

APPLICATION DEVELOPER TEAM - Harshavardhini G

- Responsibility - Part of Technology Development Team and Contribute to Applications Enhancements.
- Function - Work for application called Model Output Automation a.k.a Program 269 (Part of Citi Risk)
- Client - Modelling Users (or) Modelling Team
- Tools and Technologies -
    - Frontend - Ext JS
    - Backend - , Java, Spring, Hibernate, Sql
    - Along with Java Spark and Big data.

DATA TEAM - NITHYASHREE N

- Our team is currently working on the CITI Insight application.
- The basic function and responsibility of our team is to build reports based on the data collected from various sources and deliver these reports to employees or leaders within the organisation.
- Internal Clients
- Tools and Technologies used: PL/SQL, Java Spark, Java, Shell Scripting, Python

GRITT - HRITIK SHARMA

- Our team is currently working on GRITT 2.0 tool.
- GRITT stands for global reporting inventory tracking tool.
- My Role : Developer
- Tools and Technologies:-

EBX Dev, Java , Oracle PL/SQL, Microstrategy

NIRUPAMA A.R

- My team is working on the **CITI INSIGHT** platform.
- It is a consolidated platform linking common reporting, analytics and systems across different management levels like Finance, Risk, Compliance and HR and also score cards for each employee. It ensures to keep up with the Citi standards and policies.
- Technology Stack:
  - **Frontend** - AngularJS, JQuery, Vanilla JS
  - **Backend** - Core JAVA, Spring-MVC, Spring-Batch, Spring AOP, Apache Lucene Library
  - **Integration Tools** - Microstrategy, Tableau
- My role is **Developer.**

S.KOUSHALYA

My Citi – GFT- ICRM – GRCT Compliance Risk – S.Koushalya

Our Objective	Milestone
Ensuring appropriate controls in place to avoid Compliance breach at all levels.	Six High street banks **Except Citi** committed Breach of CMA rules By failing to accurately Inform customers about bank services . 22 July 2022

Major Initiatives and Projects

- **Regulation Inventory Management**
- **Developed Centralized Platform for Compliance Risk monitoring and assessment**

Responsibilities

- **Second Line of Defense – Striving to Mitigate Operational Risk**
- **Regulatory change management and Impact Assessment**
- **Mapping of Regulations to Business Units**
- **Compliance Testing- Instantaneous assessment of compliance control environment.**

INVESTMENT PORTFOLIO

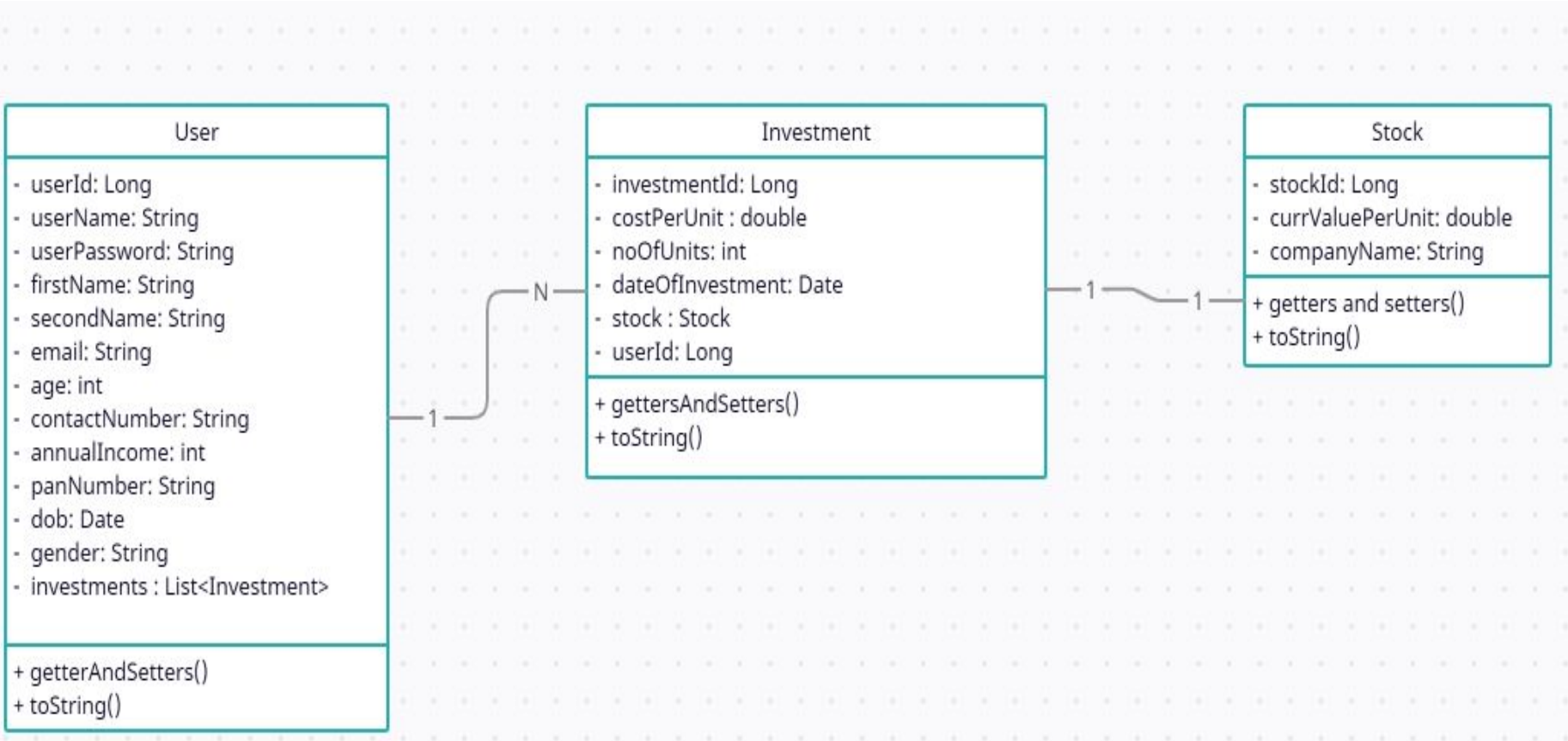
GROUP 1:

HRITIK S
HARSHAVARDHINI G
KOUSHALYA S
NITHYASHREE N
NIRUPAMA A R

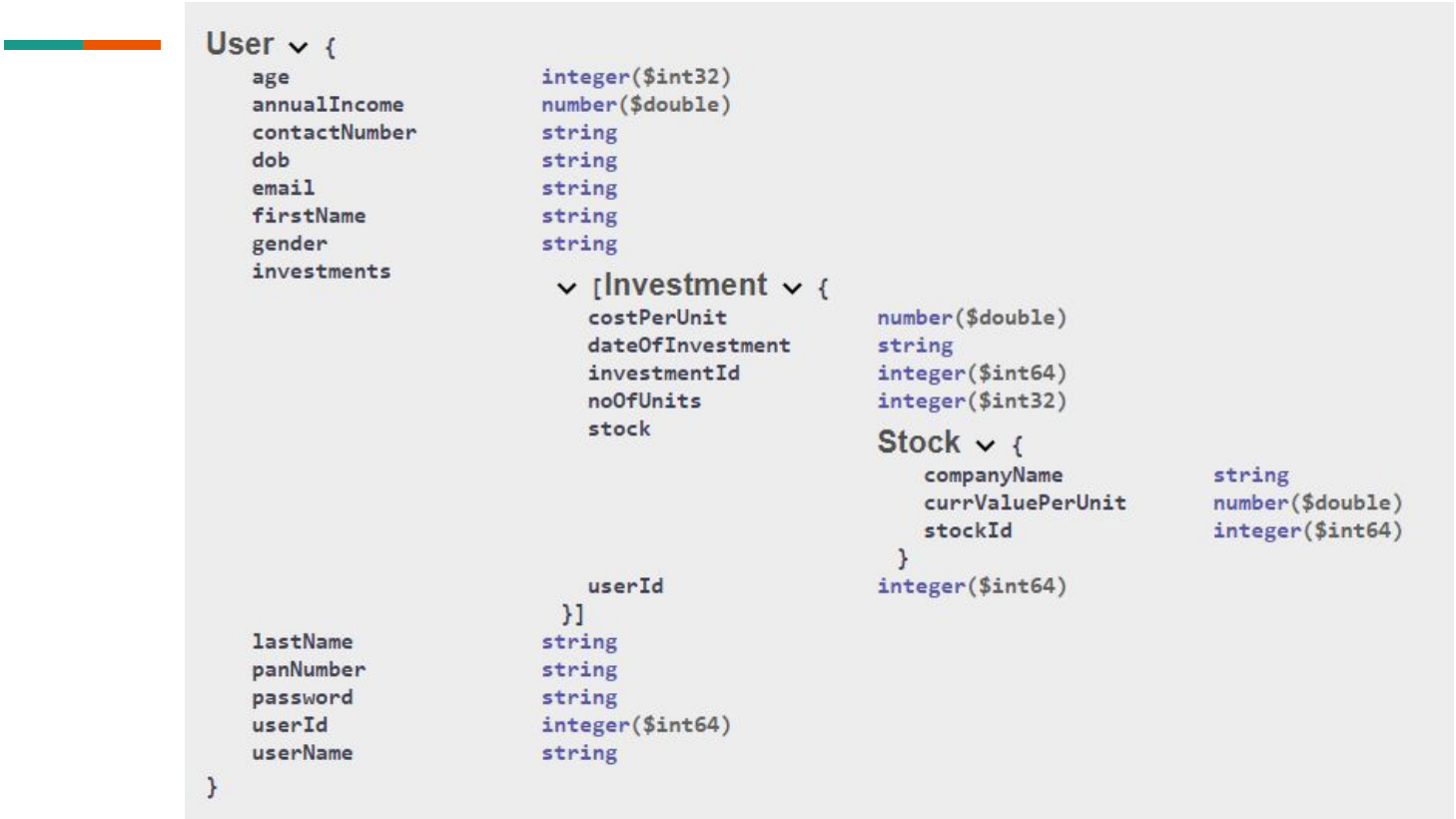
OBJECTIVE

- The main objective is to build a REST API Spring boot application for investment portfolio.
- This application displays the user information and the various financial investments owned by the user.

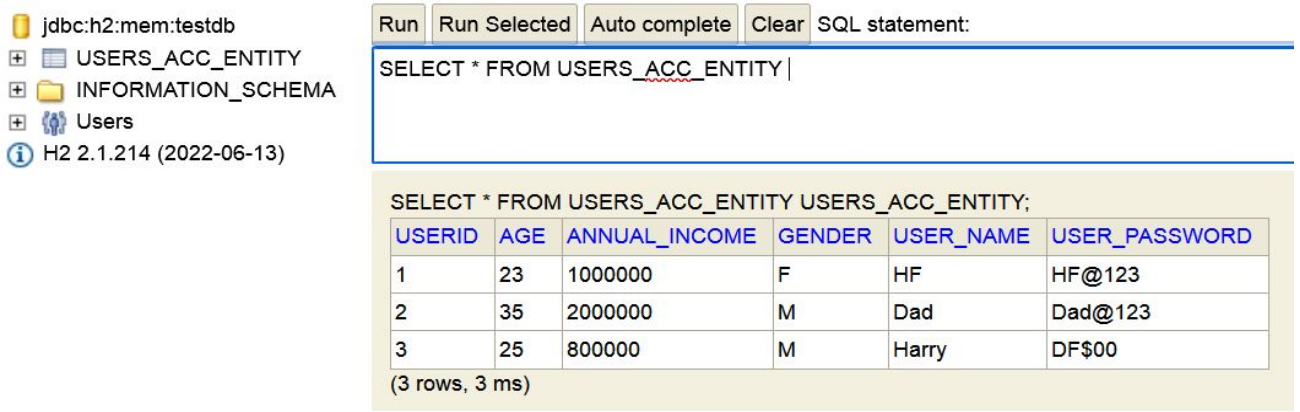
CLASS DIAGRAM



SCHEMA DIAGRAM



H2 Database (Sample output):



localhost:8080\\Users


```
[{"userID":1,"userName":"HF","userPassword":"HF@123","age":23,"annualIncome":1000000,"gender":"F"},
{"userID":2,"userName":"Dad","userPassword":"Dad@123","age":35,"annualIncome":2000000,"gender":"M"},
{"userID":3,"userName":"Harry","userPassword":"DF$00","age":25,"annualIncome":800000,"gender":"M"}]
```


- **Why H2 db is not recommended?**
- **Why MySql?**

SWAGGER API

user-controller User Controller

- DELETE `/deleteuser` deleteUser
- POST `/new_user` addUser
- PUT `/update_user` updateUser
- GET `/user` getUser
- GET `/users` getUsers

investment-controller Investment Controller

- DELETE `/deleteinvestment` deleteInvestment
- GET `/investment` getInvestment
- GET `/investments` getInvestments
- POST `/new_investment` addInvestment
- PUT `/update_investment` updateUser

stock-controller Stock Controller

DELETE	/delete_stock	deleteStock
POST	/new_stock	addStock
GET	/stock	getStock
GET	/stocks	getStocks
PUT	/update_stock	updateStock

CRUD OPERATIONS FOR USER ENTITY - ADD USER

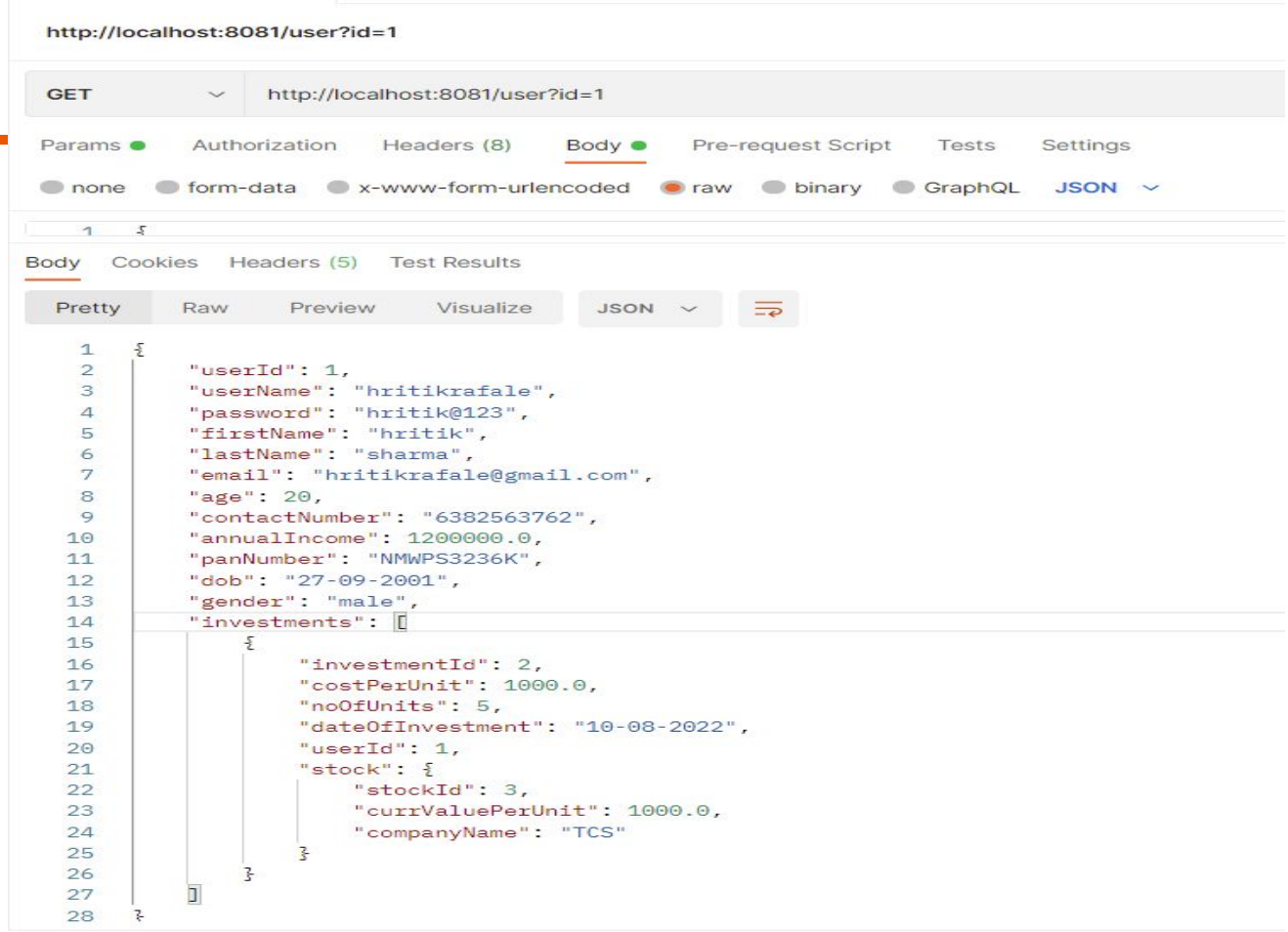
POST http://localhost:8081/new_user

Params Authorization Headers (8) Body Pre-request Script Tests Settings

none form-data x-www-form-urlencoded raw binary GraphQL JSON

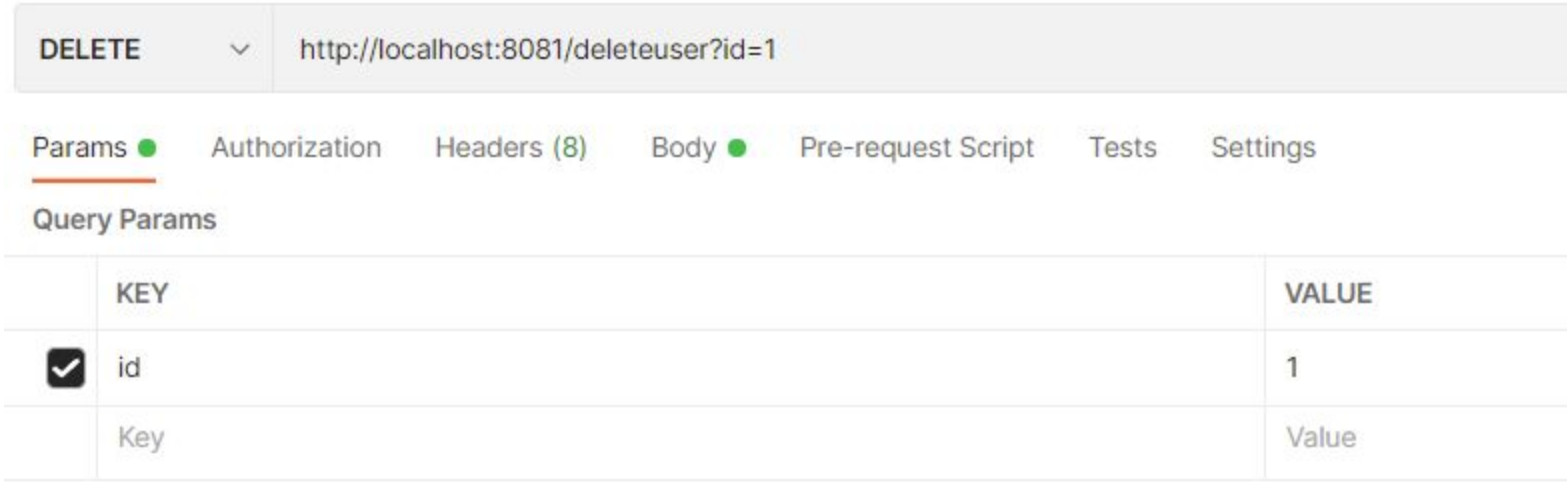
```
{
    "userId": 1,
    "userName": "hritikrafale",
    "password": "hritik@123",
    "firstName": "hritik",
    "lastName": "sharma",
    "email": "hritikrafale@gmail.com",
    "age": 20,
    "contactNumber": "6382563762",
    "annualIncome": 1200000.0,
    "panNumber": "NMWPS3236K",
    "dob": "27-09-2001",
    "gender": "male"
}
```

CRUD OPERATIONS FOR USER ENTITY - GET USER



CRUD OPERATIONS FOR USER ENTITY - DELETE USER

http://localhost:8081/deleteuser?id=1



CRUD OPERATIONS FOR INVESTMENT ENTITY - ADD INVESTMENT

POST localhost:8080/investments/addInvestment Send

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

none form-data x-www-form-urlencoded raw binary GraphQL JSON Beautify

```
{
    "amount":27000,
    "noOfUnits":7,
    "company":"JP",
    "type":"stock",
    "date":"27-05-2020",
    "currValue":35000,
    "userId":1
}
```

Body Cookies Headers (5) Test Results Status: 200 OK Time: 28 ms Size: 294 B Save Response

Pretty Raw Preview Visualize JSON

```
{
    "investmentId": 3,
    "amount": 27000.0,
    "noOfUnits": 7,
    "company": "JP",
    "type": "stock",
    "date": "27-05-2020",
    "currValue": 35000.0,
    "userId": 1
}
```

CRUD OPERATIONS FOR INVESTMENT ENTITY - GET INVESTMENT

GET localhost:8080/investments/investments Send

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

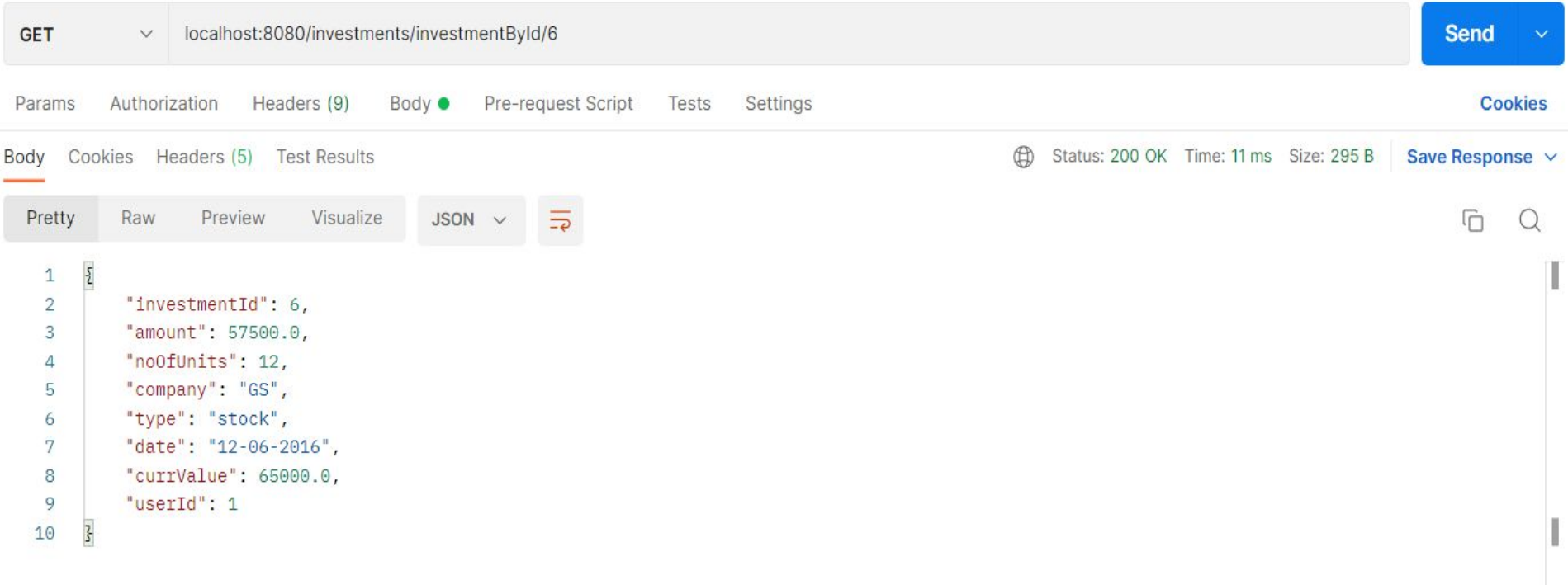
none form-data x-www-form-urlencoded raw binary GraphQL JSON Beautify

Body Cookies Headers (5) Test Results Status: 200 OK Time: 15 ms Size: 567 B Save Response

Pretty Raw Preview Visualize JSON


```
[
    {
        "investmentId": 1,
        "amount": 75000.0,
        "noOfUnits": 5,
        "company": "Fidelity",
        "type": "stock",
        "date": "15-09-2018",
        "currValue": 50000.0,
        "userId": 1
    },
    {
        "investmentId": 2,
        "amount": 90000.0,
        "noOfUnits": 2,
        "company": "Morgan",
        "type": "bond",
        "date": "11-02-2015",
        "currValue": 97000.0,
        "userId": 1
    },
    {
        "investmentId": 3,
```

FINDING INVESTMENT BY ID



FINDING INVESTMENT BY COMPANY

GET localhost:8080/investments/investmentByCompany/GS Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Body Cookies Headers (5) Test Results Status: 200 OK Time: 17 ms Size: 427 B Save Response

Pretty Raw Preview Visualize JSON


```
[
    {
        "investmentId": 4,
        "amount": 23000.0,
        "noOfUnits": 5,
        "company": "GS",
        "type": "bond",
        "date": "30-06-2017",
        "currValue": 25000.0,
        "userId": 1
    },
    {
        "investmentId": 6,
        "amount": 57500.0,
        "noOfUnits": 12,
        "company": "GS",
        "type": "stock",
        "date": "12-06-2016",
        "currValue": 65000.0,
        "userId": 1
    }
]
```

FINDING INVESTMENT BY TYPE

GET localhost:8080/investments/investmentByType/stock Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Body Cookies Headers (5) Test Results Status: 200 OK Time: 11 ms Size: 565 B Save Response

Pretty Raw Preview Visualize JSON


```
[
    {
        "investmentId": 1,
        "amount": 75000.0,
        "noOfUnits": 5,
        "company": "Fidelity",
        "type": "stock",
        "date": "15-09-2018",
        "currValue": 50000.0,
        "userId": 1
    },
    {
        "investmentId": 3,
        "amount": 27000.0,
        "noOfUnits": 7,
        "company": "JP",
        "type": "stock",
        "date": "27-05-2020",
        "currValue": 35000.0,
        "userId": 1
    },
    {
        "investmentId": 6,
        "amount": 57500.0,
        "noOfUnits": 12,
        "company": "GS",
        "type": "stock",
```


Cookies Capture requests Bootcamp Runner Trash

FINDING INVESTMENT BY TYPE

GET localhost:8080/investments/investmentByType/bond Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Body Cookies Headers (5) Test Results Status: 200 OK Time: 12 ms Size: 696 B Save Response

Pretty Raw Preview Visualize JSON


```
[
    {
        "investmentId": 4,
        "amount": 23000.0,
        "noOfUnits": 5,
        "company": "GS",
        "type": "bond",
        "date": "30-06-2017",
        "currValue": 25000.0,
        "userId": 1
    },
    {
        "investmentId": 5,
        "amount": 55500.0,
        "noOfUnits": 10,
        "company": "Morgan",
        "type": "bond",
        "date": "30-06-2016",
        "currValue": 60000.0,
        "userId": 1
    },
    {
        "investmentId": 7,
        "amount": 17200.0,
        "noOfUnits": 2,
        "company": "JP",
        "type": "bond",
```

CRUD OPERATIONS FOR INVESTMENT ENTITY - UPDATE INVESTMENT

PUT localhost:8080/investments/updateInvestment Send

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

none form-data x-www-form-urlencoded raw binary GraphQL JSON Beautify

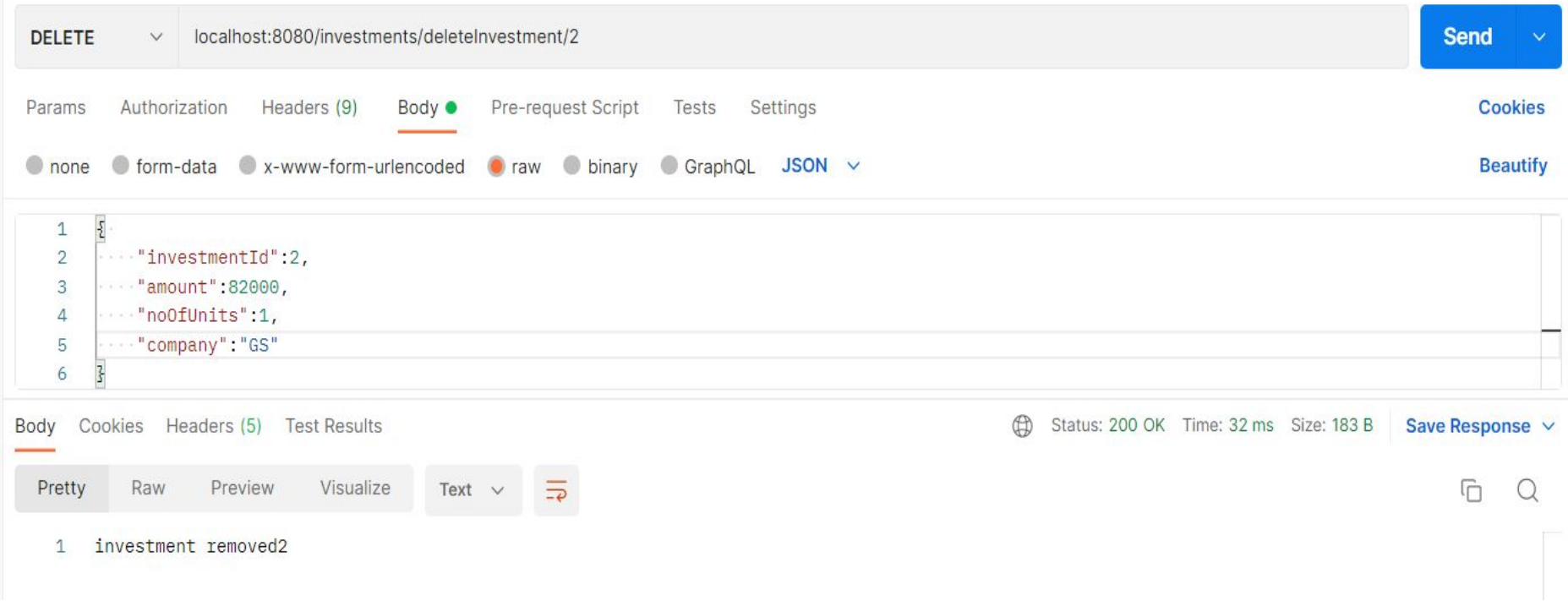
```
{
    "investmentId":2,
    "amount":82000,
    "noOfUnits":1,
    "company":"GS"
}
```

Body Cookies Headers (5) Test Results Status: 200 OK Time: 28 ms Size: 293 B Save Response

Pretty Raw Preview Visualize JSON

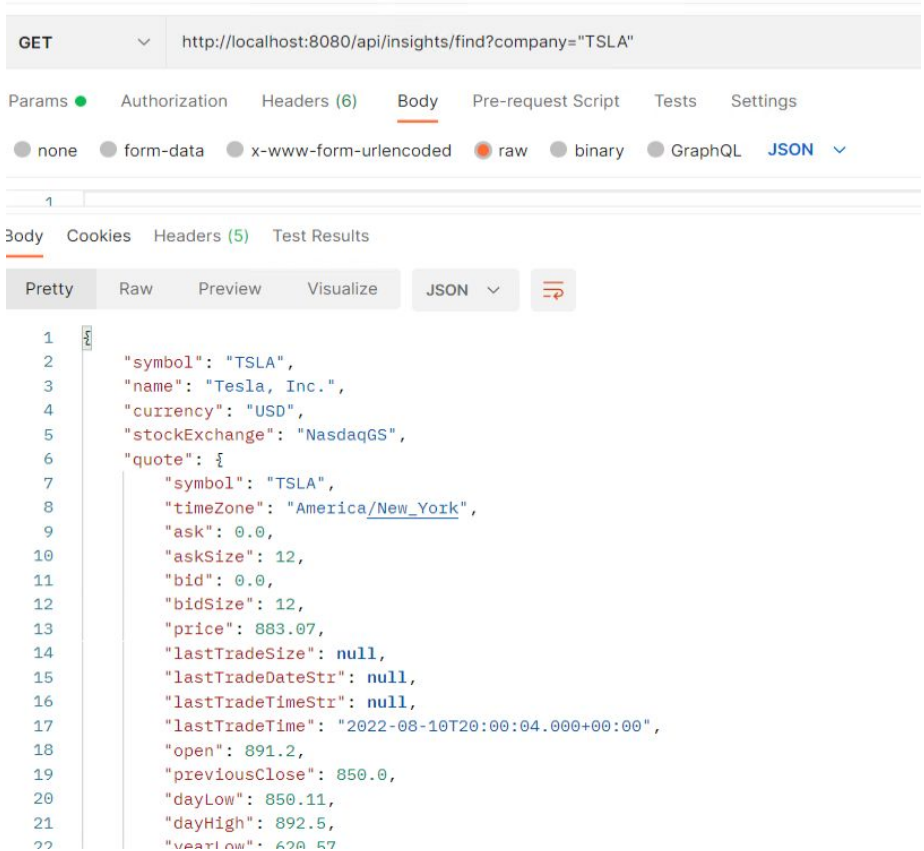
```
{
    "investmentId": 2,
    "amount": 82000.0,
    "noOfUnits": 1,
    "company": "GS",
    "type": "bond",
    "date": "11-02-2015",
    "currValue": 97000.0,
    "userId": 1
}
```

CRUD OPERATIONS FOR INVESTMENT ENTITY - DELETE INVESTMENT



BONUS FEATURE - GET REAL TIME INFORMATION ABOUT STOCKS

http://localhost:8080/api/insights/find?company="TSLA"




```
{
    "symbol": "TSLA",
    "name": "Tesla, Inc.",
    "currency": "USD",
    "stockExchange": "NasdaqGS",
    "quote": {
        "symbol": "TSLA",
        "timeZone": "America/New_York",
        "ask": 0.0,
        "askSize": 12,
        "bid": 0.0,
        "bidSize": 12,
        "price": 883.07,
        "lastTradeSize": null,
        "lastTradeDateStr": null,
        "lastTradeTimeStr": null,
        "lastTradeTime": "2022-08-10T20:00:04.000+00:00",
        "open": 891.2,
        "previousClose": 850.0,
        "dayLow": 850.11,
        "dayHigh": 892.5,
        "yearLow": 620.57
```

BONUS FEATURE - GET MARKET SCENARIO OF STOCKS OWNED

GET http://localhost:8080/api/users/viewAll

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

Body Cookies Headers (5) Test Results

Pretty Raw Preview Visualize JSON


```
{
    "userId": 3,
    "userName": "koushi",
    "userPassword": "k",
    "firstName": "b",
    "secondName": "i",
    "email": "ju",
    "age": 0,
    "contactNumber": "8",
    "annualIncome": 0,
    "panNumber": "33",
    "dob": null,
    "gender": null,
    "investment": [
        {
            "investmentId": 1,
            "amount": 600.0,
            "noOfUnits": 3,
            "company": "BABA",
            "type": "Stock",
            "date": "12-09-2022",
            "currValue": 450.0,
            "userid": 3
        },
```


http://localhost:8080/api/insights/describe/3

GET http://localhost:8080/api/insights/describe/3

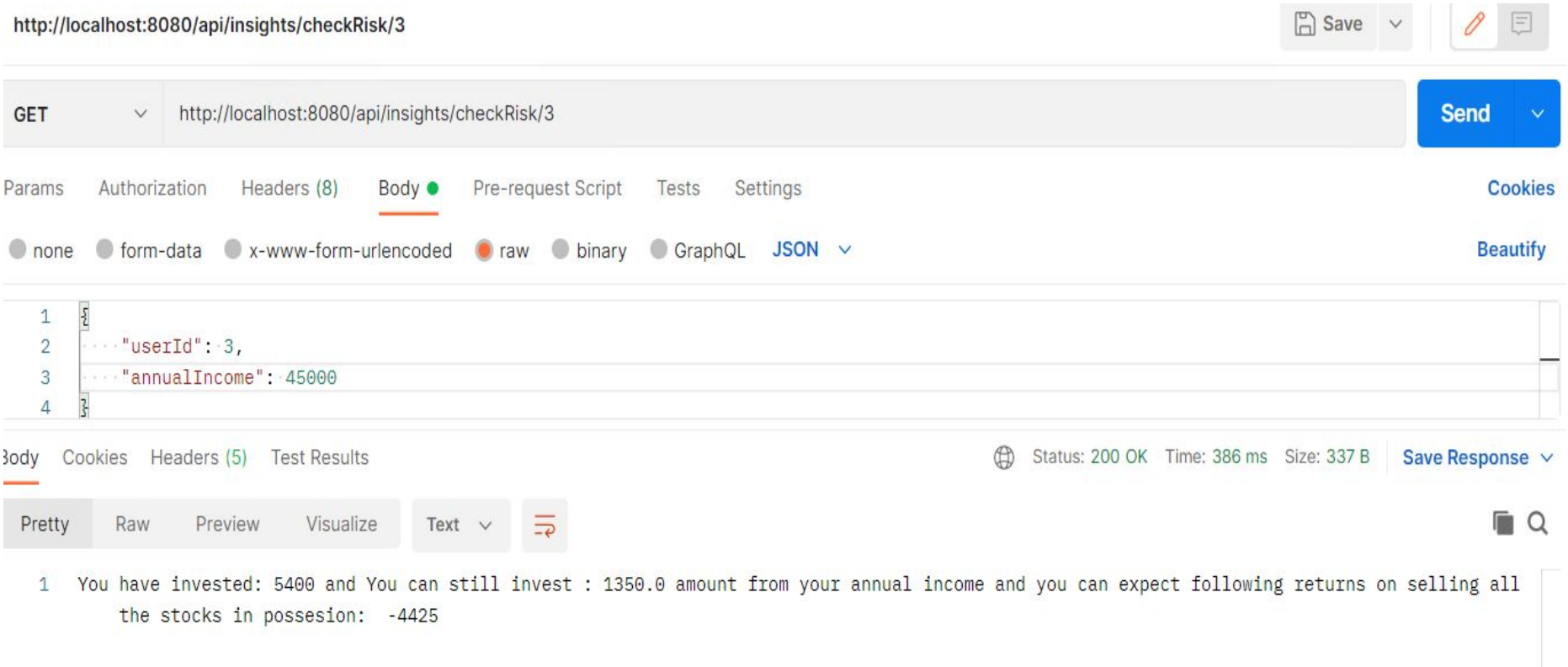
Params Authorization Headers (6) Body Pre-request Script Tests Settings

Body Cookies Headers (5) Test Results

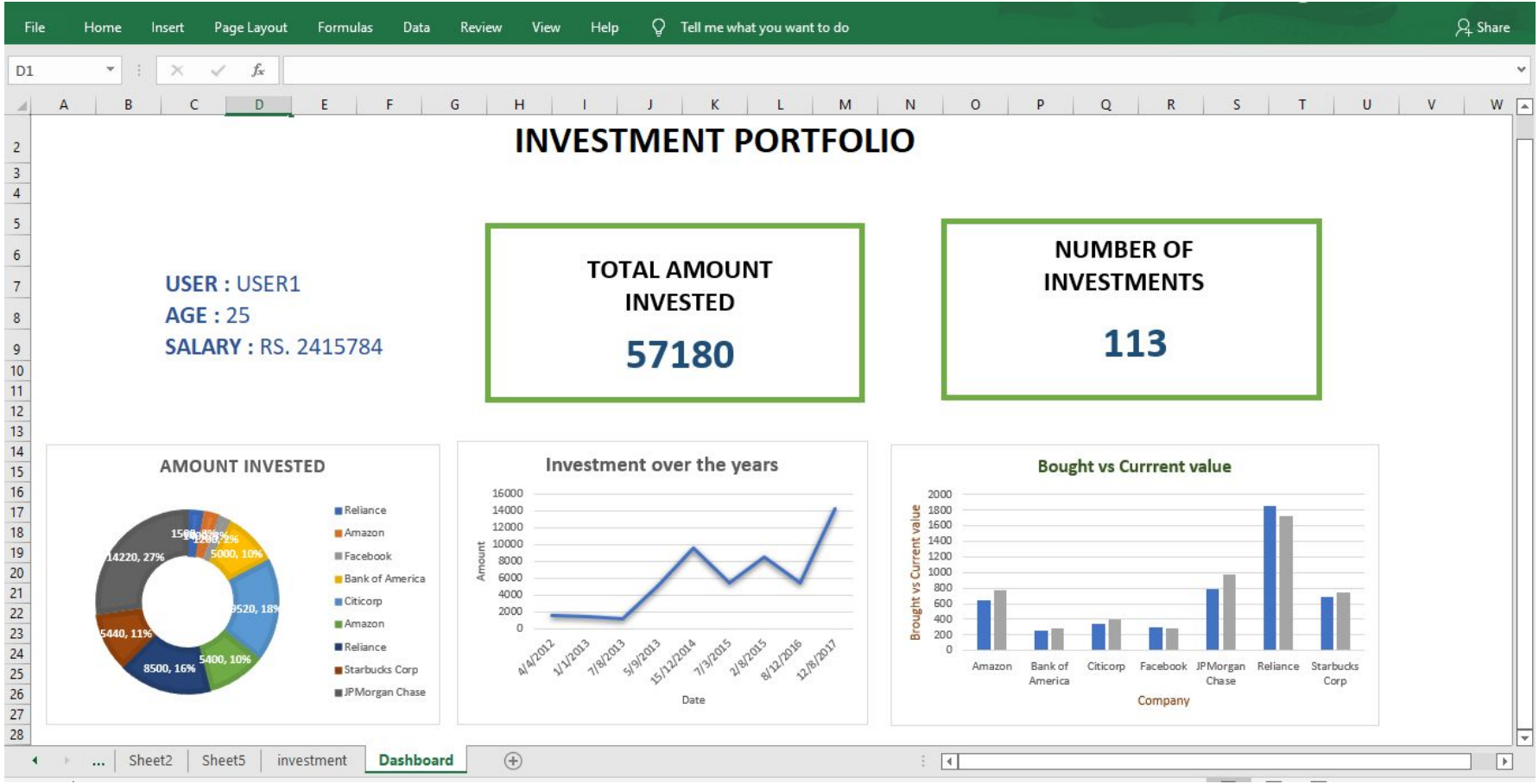
Pretty Raw Preview Visualize JSON


```
{
    "BABA": {
        "symbol": "BABA",
        "name": "Alibaba Group Holding Limited",
        "currency": "USD",
        "stockExchange": "NYSE",
        "quote": {
            "symbol": "BABA",
            "timeZone": "America/New_York",
            "ask": 0.0,
            "askSize": 11,
            "bid": 0.0,
            "bidSize": 11,
            "price": 92.43,
            "lastTradeSize": null,
            "lastTradeDateStr": null,
            "lastTradeTimeStr": null,
            "lastTradeTime": "2022-08-10T20:00:57.000+00:00",
            "open": 91.17,
            "previousClose": 91.19,
            "dayLow": 88.56,
            "dayHigh": 92.95,
            "yearLow": 73.28,
            "yearHigh": 192.98,
            "priceAvg50": 104.6662,
```

BONUS FEATURE - GET CURRENT FINANCIAL STATUS OF USER



BONUS FEATURE - USER INVESTMENT PORTFOLIO DASHBOARD



DOCKERIZE


[grads@ip-172-31-0-176 root]$ docker build -t investmentportfolio:0.0.1 .
Sending build context to Docker daemon 213.2MB
Step 1/4 : FROM openjdk:11-jre
 ---> 362cda5d270e
Step 2/4 : COPY target/investmentportfolio-0.0.1-SNAPSHOT.jar app.jar
 ---> Using cache
 ---> b148636a92b3
Step 3/4 : EXPOSE 8080
 ---> Using cache
 ---> df1a37d0e895
Step 4/4 : ENTRYPOINT ["java", "-jar", "/app.jar"]
 ---> Using cache
 ---> 391354253bdc
Successfully built 391354253bdc
Successfully tagged investmentportfolio:0.0.1