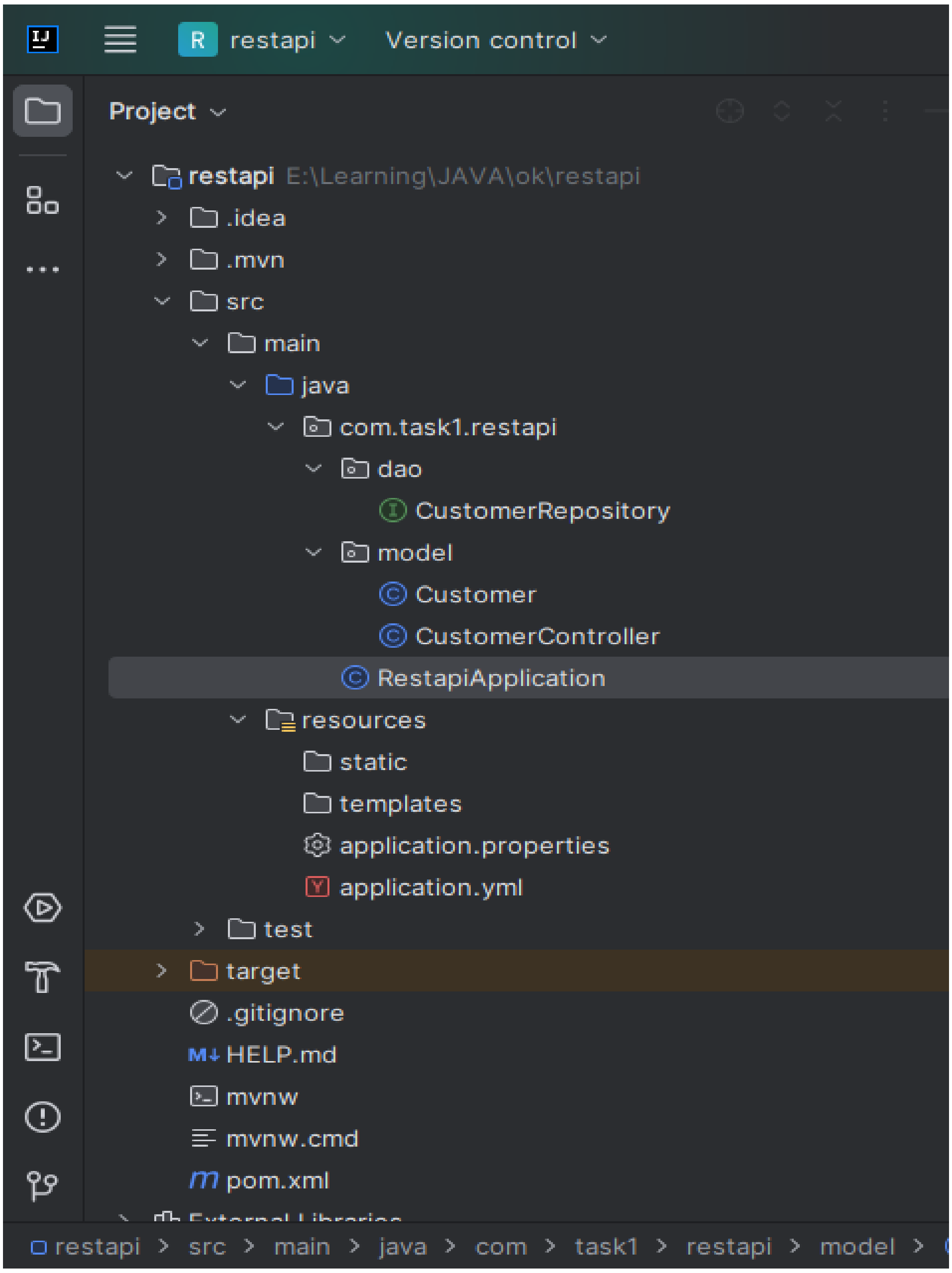
IMPLEMENTATION SCREENSHOTS AND RESULTS:

Project Files:


restapi
Version control
Project

```
restapi E:\Learning\JAVA\ok\restapi
  .idea
  .mvn
  src
    main
      java
        com.task1.restapi
          dao
            CustomerRepository
          model
            Customer
            CustomerController
          RestapiApplication
      resources
        static
        templates
        application.properties
        application.yml
    test
  target
  .gitignore
  HELP.md
  mvnw
  mvnw.cmd
  pom.xml
External Libraries
```

restapi > src > main > java > com > task1 > restapi > model >

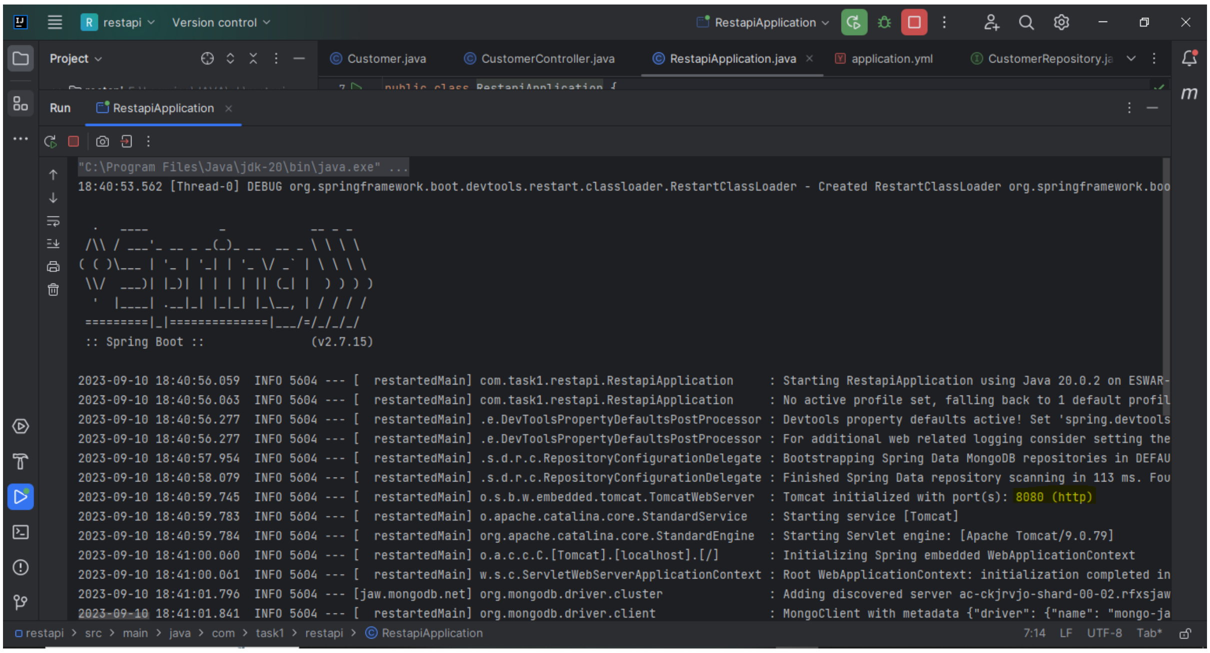
Created 2 packages → dao, model

Created java files: model → Customer, CustomerController

Created interface: dao → CustomerRepository

Result:

Port: 8080 (http)

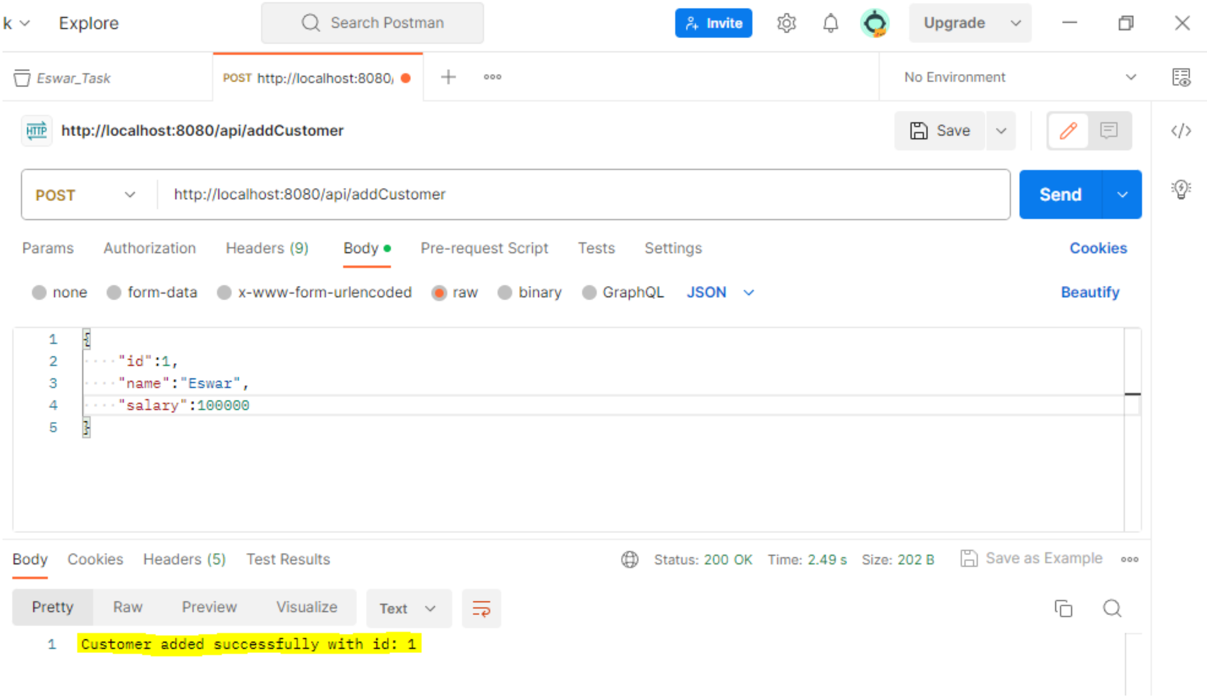


```
"C:\Program Files\Java\jdk-20\bin\java.exe" ...
18:40:53.562 [Thread-0] DEBUG org.springframework.boot.devtools.restart.classloader.RestartClassLoader - Created RestartClassLoader org.springframework.boo

  .   ____          _            __ _ _
 /\\ / ___'_ __ _ _(_)_ __  __ _ \ \ \ \
( ( )\___ | '_ | '_| | '_ \/ _` | \ \ \ \
 \\/  ___)| |_)| | | | | || (_| |  ) ) ) )
  '  |____| .__|_| |_|_| |_\__, | / / / /
 =========|_|==============|___/=/_/_/_/
 :: Spring Boot ::               (v2.7.15)

2023-09-10 18:40:56.059  INFO 5604 --- [  restartedMain] com.task1.restapi.RestapiApplication     : Starting RestapiApplication using Java 20.0.2 on ESWAR-
2023-09-10 18:40:56.063  INFO 5604 --- [  restartedMain] com.task1.restapi.RestapiApplication     : No active profile set, falling back to 1 default profil
2023-09-10 18:40:56.277  INFO 5604 --- [  restartedMain] .e.DevToolsPropertyDefaultsPostProcessor : Devtools property defaults active! Set 'spring.devtools
2023-09-10 18:40:56.277  INFO 5604 --- [  restartedMain] .e.DevToolsPropertyDefaultsPostProcessor : For additional web related logging consider setting the
2023-09-10 18:40:57.954  INFO 5604 --- [  restartedMain] .s.d.r.c.RepositoryConfigurationDelegate : Bootstrapping Spring Data MongoDB repositories in DEFAU
2023-09-10 18:40:58.079  INFO 5604 --- [  restartedMain] .s.d.r.c.RepositoryConfigurationDelegate : Finished Spring Data repository scanning in 113 ms. Fou
2023-09-10 18:40:59.745  INFO 5604 --- [  restartedMain] o.s.b.w.embedded.tomcat.TomcatWebServer  : Tomcat initialized with port(s): 8080 (http)
2023-09-10 18:40:59.783  INFO 5604 --- [  restartedMain] o.apache.catalina.core.StandardService   : Starting service [Tomcat]
2023-09-10 18:40:59.784  INFO 5604 --- [  restartedMain] org.apache.catalina.core.StandardEngine  : Starting Servlet engine: [Apache Tomcat/9.0.79]
2023-09-10 18:41:00.060  INFO 5604 --- [  restartedMain] o.a.c.c.C.[Tomcat].[localhost].[/]       : Initializing Spring embedded WebApplicationContext
2023-09-10 18:41:00.061  INFO 5604 --- [  restartedMain] w.s.c.ServletWebServerApplicationContext : Root WebApplicationContext: initialization completed in
2023-09-10 18:41:01.796  INFO 5604 --- [jaw.mongodb.net] org.mongodb.driver.cluster               : Adding discovered server ac-ckjrvjo-shard-00-02.rfxsjaw
2023-09-10 18:41:01.841  INFO 5604 --- [  restartedMain] org.mongodb.driver.client                : MongoClient with metadata {"driver": {"name": "mongo-ja
```

Tool Postman (to perform CRUD Operations)**:**

1. **POST**

http://localhost:8080/api/addCustomer



http://localhost:8080/api/addCustomer

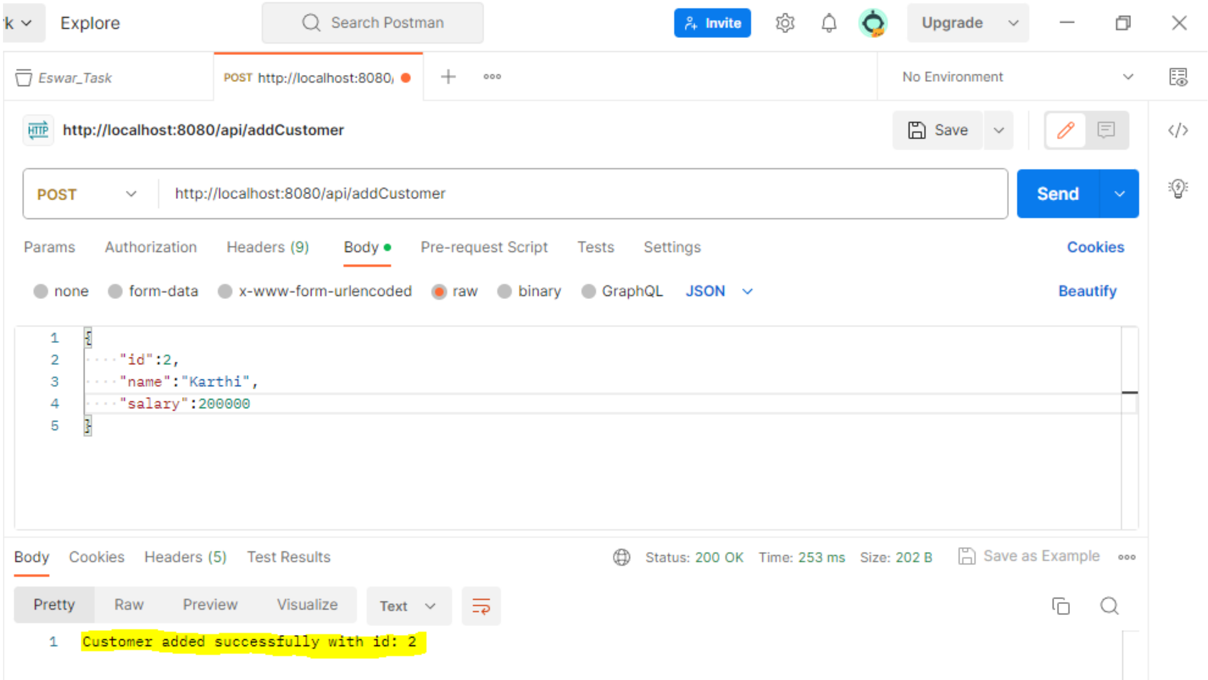
POST http://localhost:8080/api/addCustomer

Body: ○ none ○ form-data ○ x-www-form-urlencoded ● raw ○ binary ○ GraphQL JSON

```
{
    "id":1,
    "name":"Eswar",
    "salary":100000
}
```

Status: 200 OK Time: 2.49 s Size: 202 B

```
Customer added successfully with id: 1
```



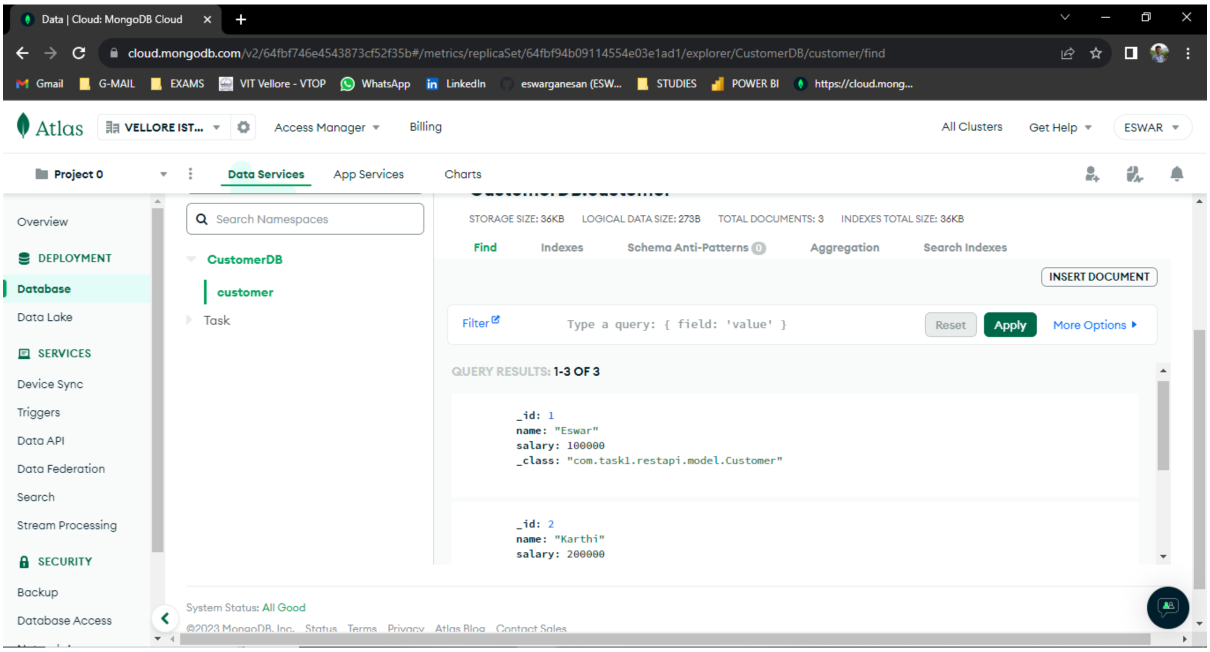
POST http://localhost:8080/api/addCustomer

```
{
····"id":2,
····"name":"Karthi",
····"salary":200000
}
```

Status: 200 OK Time: 253 ms Size: 202 B

```
Customer added successfully with id: 2
```

Database Result:



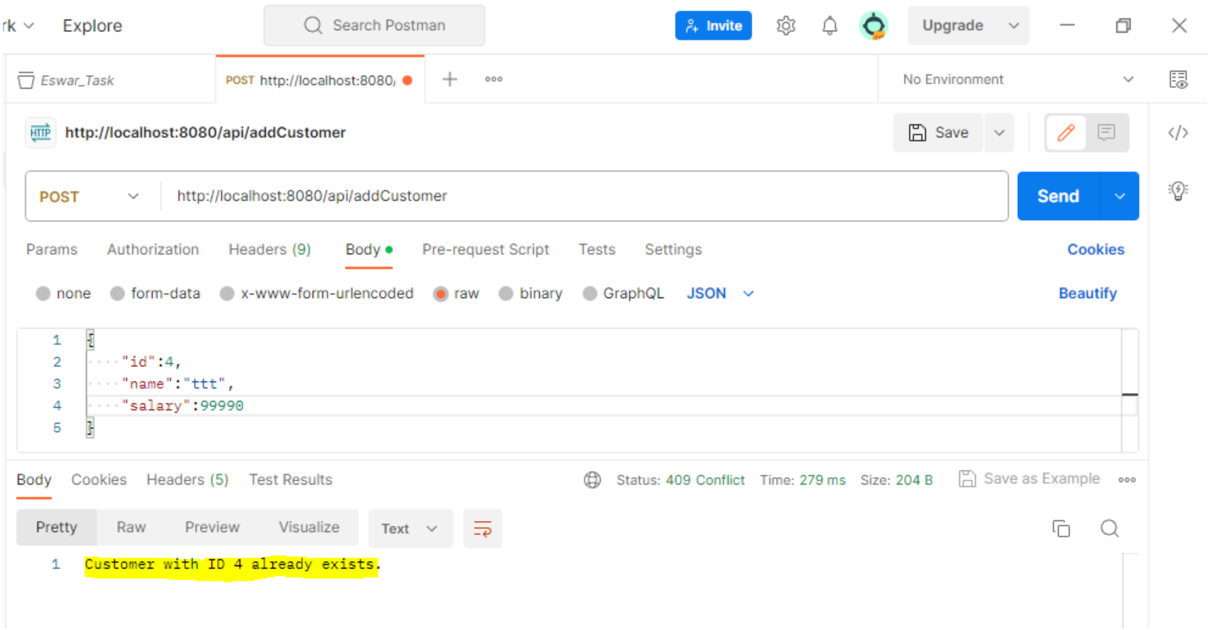
STORAGE SIZE: 36KB LOGICAL DATA SIZE: 273B TOTAL DOCUMENTS: 3 INDEXES TOTAL SIZE: 36KB

Type a query: { field: 'value' }

QUERY RESULTS: 1-3 OF 3

```
_id: 1
name: "Eswar"
salary: 100000
_class: "com.task1.restapi.model.Customer"

_id: 2
name: "Karthi"
salary: 200000
```

If already exits:



http://localhost:8080/api/addCustomer

POST http://localhost:8080/api/addCustomer

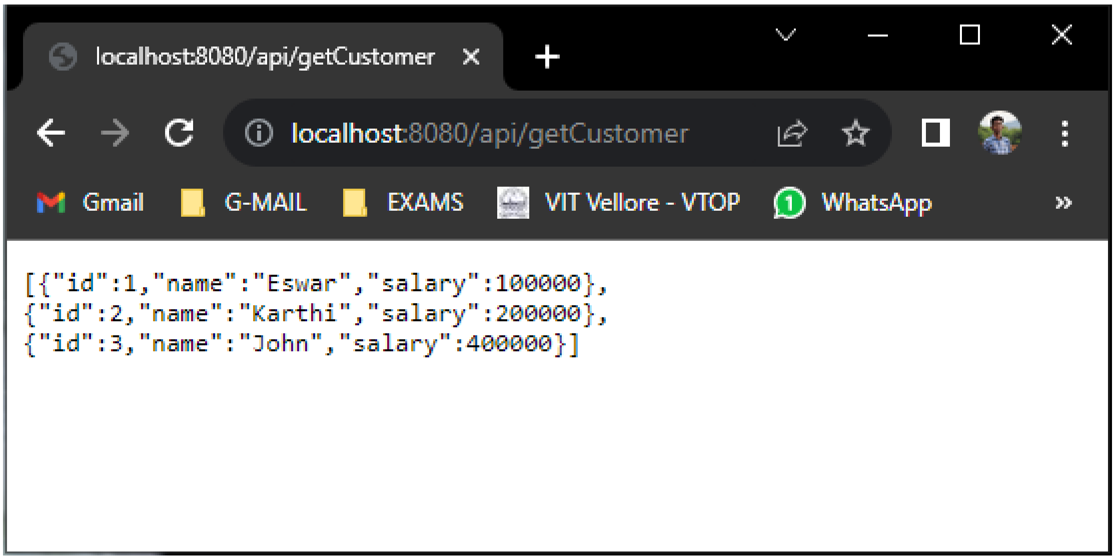
```
{
    "id":4,
    "name":"ttt",
    "salary":99990
}
```

Status: 409 Conflict Time: 279 ms Size: 204 B

```
Customer with ID 4 already exists.
```

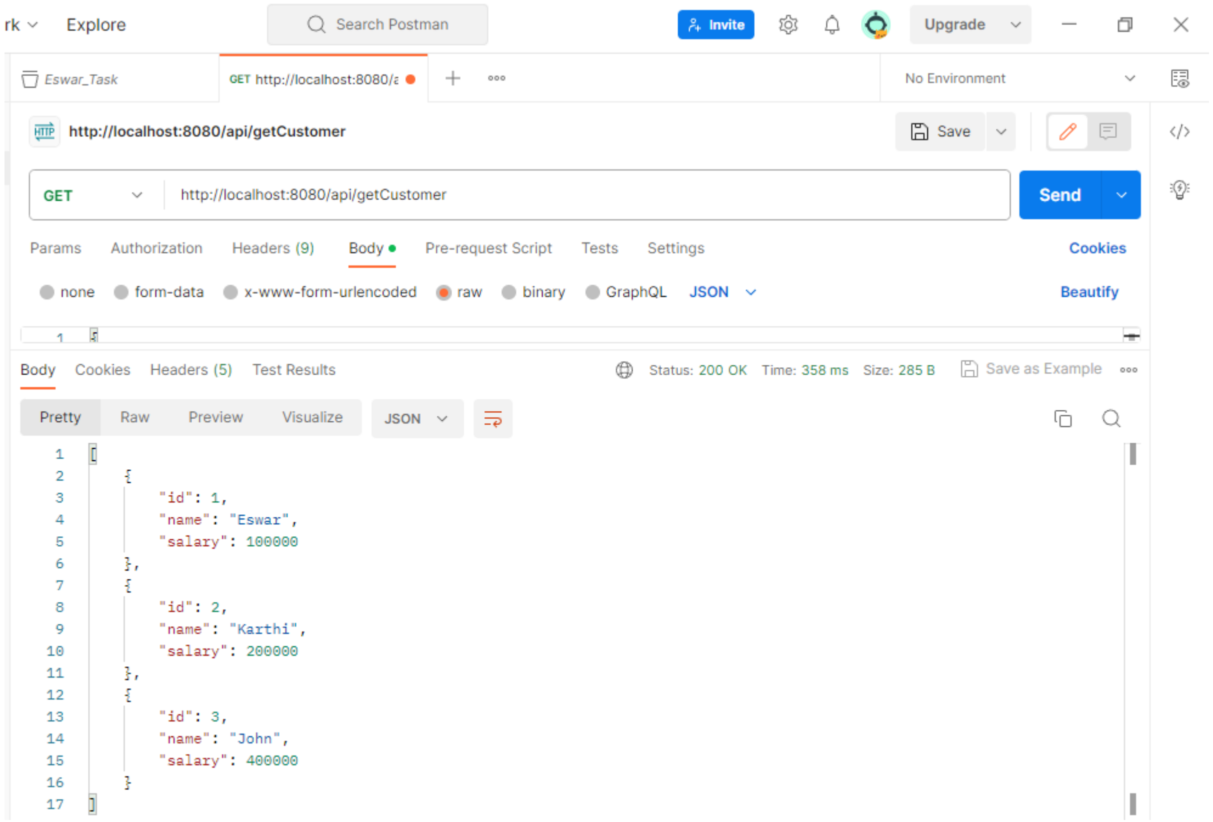
2. GET

http://localhost:8080/api/getCustomer



localhost:8080/api/getCustomer
localhost:8080/api/getCustomer
Gmail
G-MAIL
EXAMS
VIT Vellore - VTOP
WhatsApp

```
[{"id":1,"name":"Eswar","salary":100000},
{"id":2,"name":"Karthi","salary":200000},
{"id":3,"name":"John","salary":400000}]
```

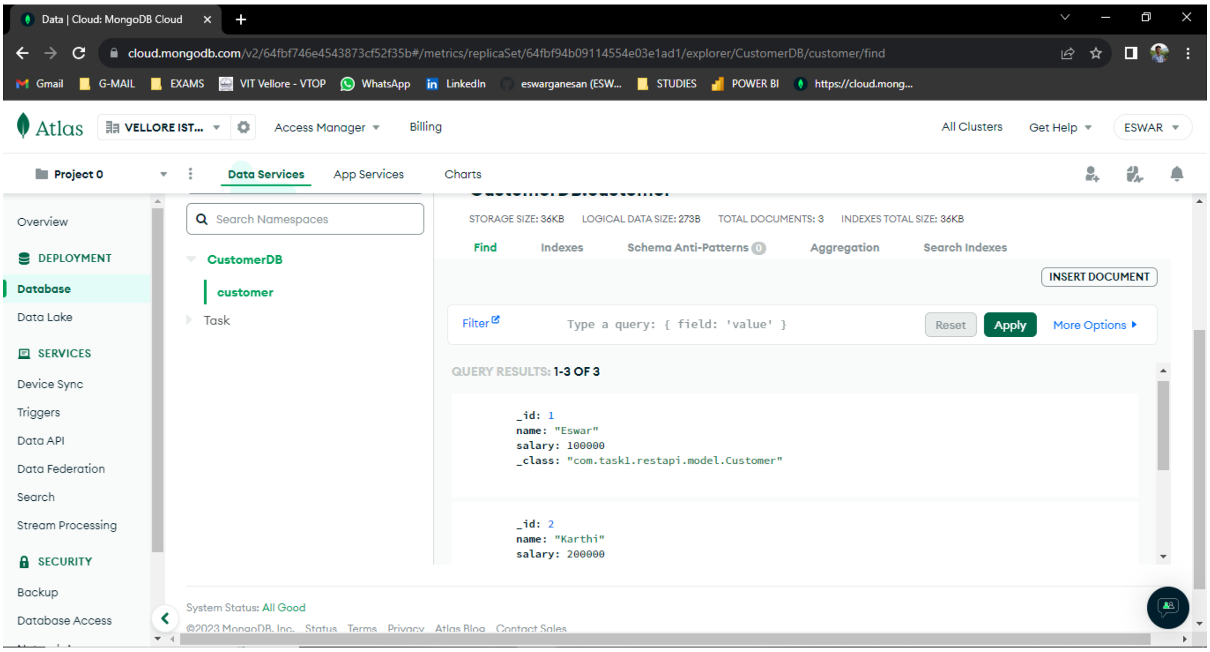


GET http://localhost:8080/api/getCustomer

Status: 200 OK Time: 358 ms Size: 285 B

```
[
    {
        "id": 1,
        "name": "Eswar",
        "salary": 100000
    },
    {
        "id": 2,
        "name": "Karthi",
        "salary": 200000
    },
    {
        "id": 3,
        "name": "John",
        "salary": 400000
    }
]
```

Database Result:



STORAGE SIZE: 36KB LOGICAL DATA SIZE: 273B TOTAL DOCUMENTS: 3 INDEXES TOTAL SIZE: 36KB

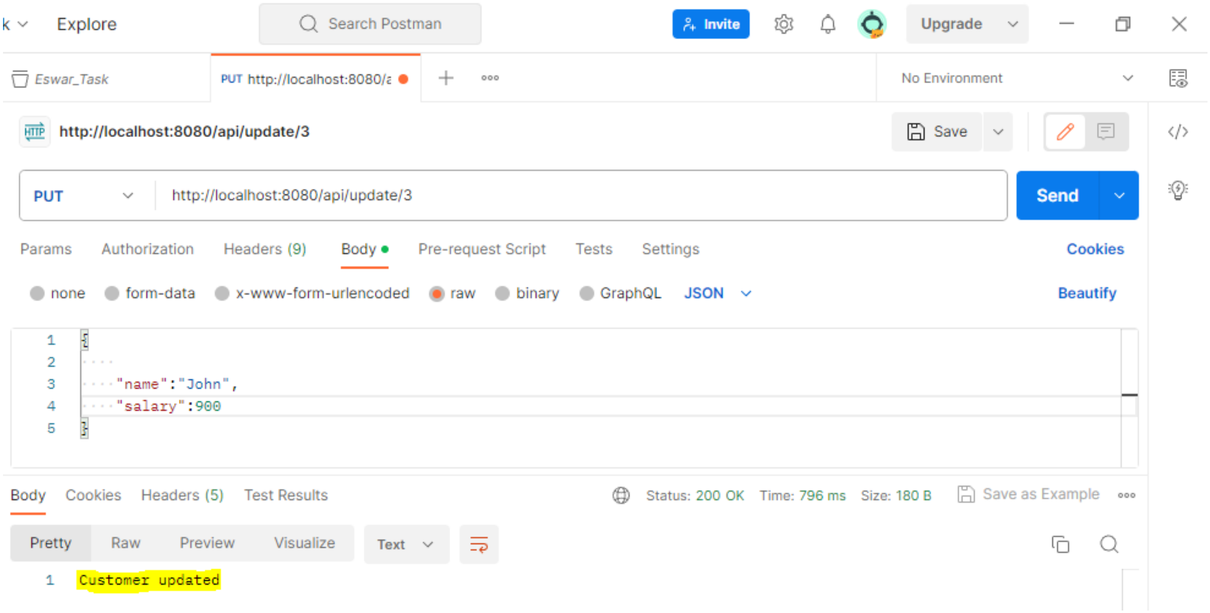
QUERY RESULTS: 1-3 OF 3

```
_id: 1
name: "Eswar"
salary: 100000
_class: "com.task1.restapi.model.Customer"

_id: 2
name: "Karthi"
salary: 200000
```

3. PUT

http://localhost:8080/api/update/{id}

- **If data exits in DB**



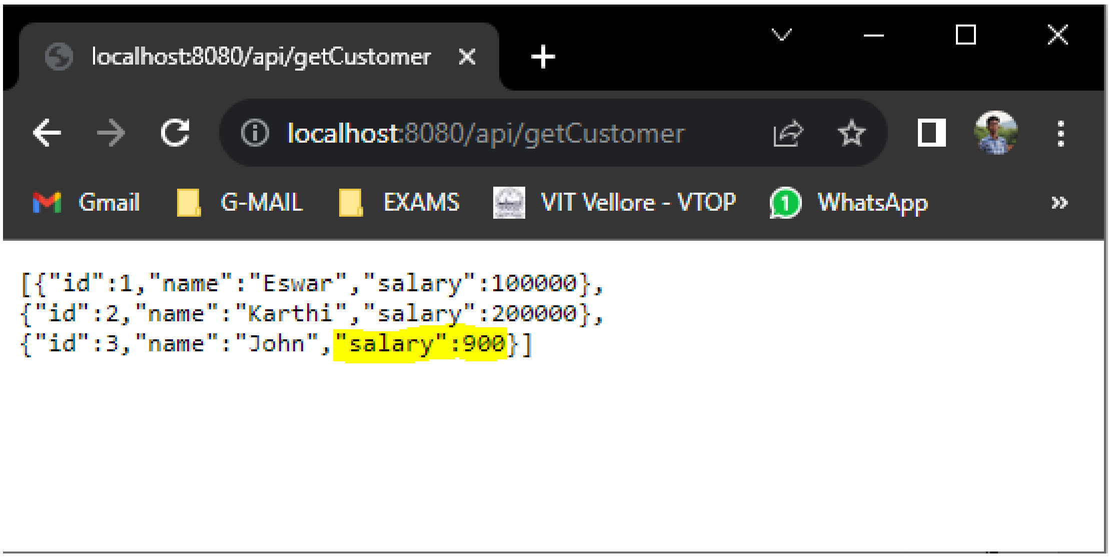
http://localhost:8080/api/update/3

PUT http://localhost:8080/api/update/3

```
{
    
    "name":"John",
    "salary":900
}
```

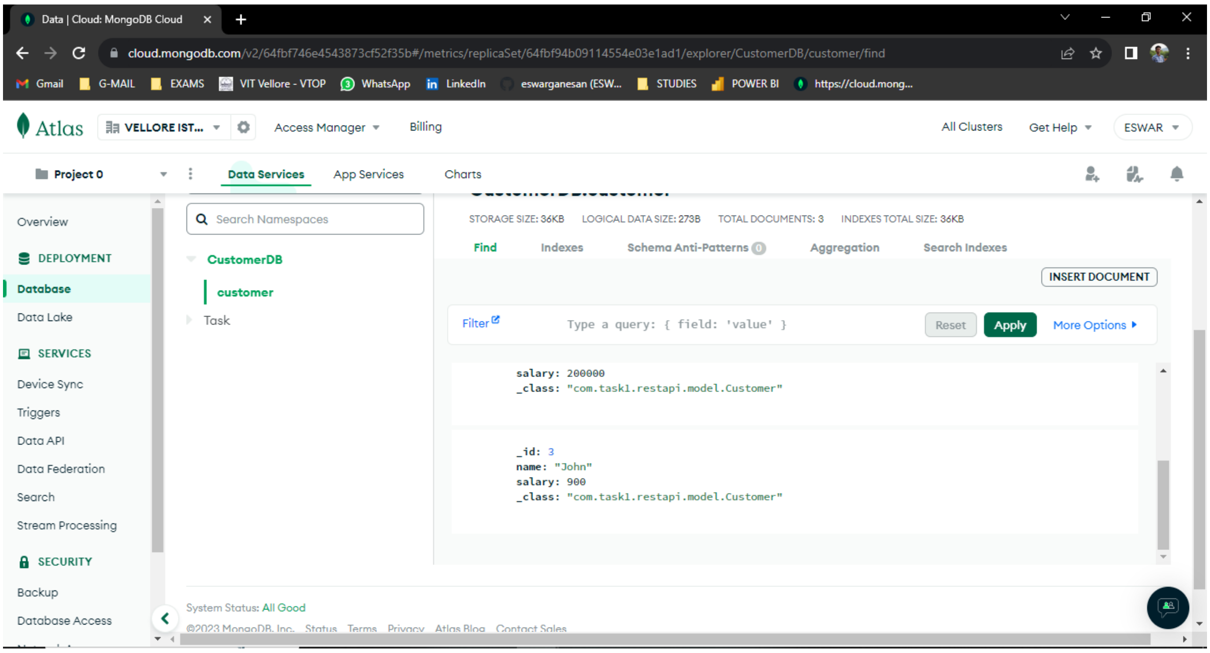
Status: 200 OK Time: 796 ms Size: 180 B

```
Customer updated
```


localhost:8080/api/getCustomer
localhost:8080/api/getCustomer
Gmail
G-MAIL
EXAMS
VIT Vellore - VTOP
WhatsApp

```
[{"id":1,"name":"Eswar","salary":100000},
{"id":2,"name":"Karthi","salary":200000},
{"id":3,"name":"John","salary":900}]
```

Database result:

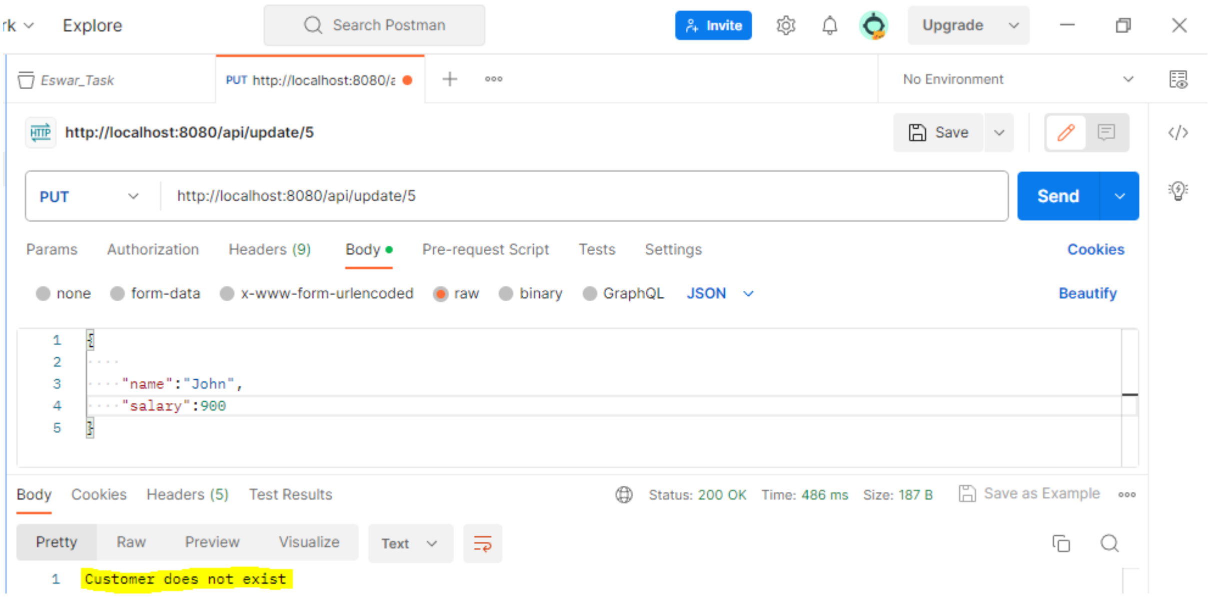


STORAGE SIZE: 36KB   LOGICAL DATA SIZE: 273B   TOTAL DOCUMENTS: 3   INDEXES TOTAL SIZE: 36KB

```
salary: 200000
_class: "com.task1.restapi.model.Customer"
```

```
_id: 3
name: "John"
salary: 900
_class: "com.task1.restapi.model.Customer"
```

- **If data does not exist in DB**



http://localhost:8080/api/update/5

PUT http://localhost:8080/api/update/5

```
{
    
    "name":"John",
    "salary":900
}
```

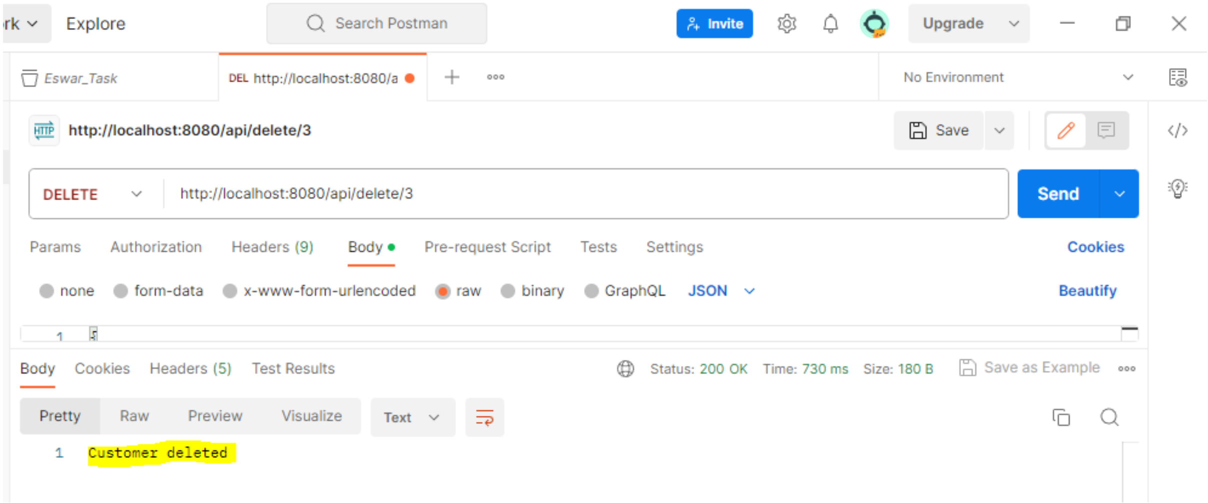
Status: 200 OK   Time: 486 ms   Size: 187 B

```
Customer does not exist
```

4. DELETE

http://localhost:8080/api/delete/{id}

- **If data exist in DB:**


Explore
Search Postman
Invite
Upgrade
Eswar_Task
DEL http://localhost:8080/a
No Environment
Save
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
Save as Example
Pretty Raw Preview Visualize Text

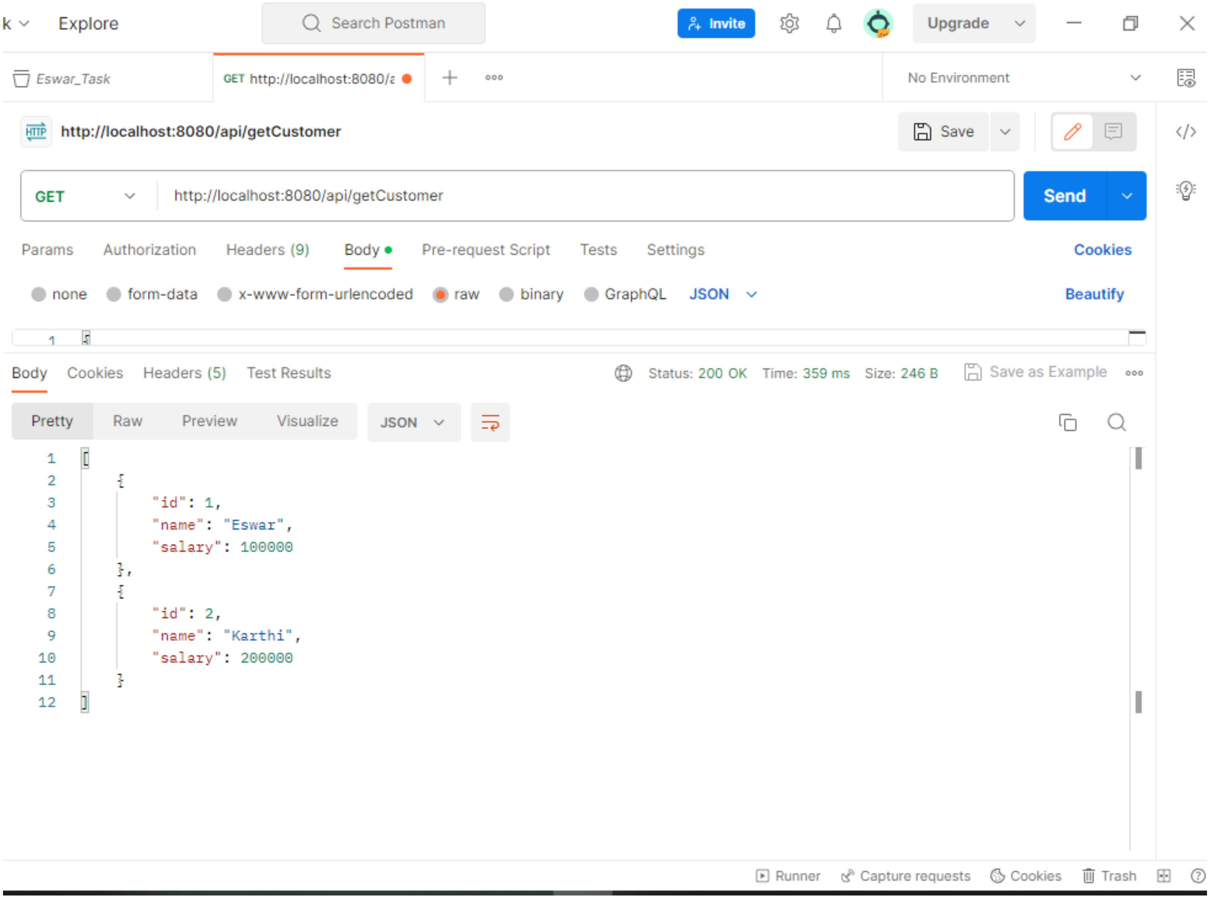
http://localhost:8080/api/delete/3

DELETE http://localhost:8080/api/delete/3

Status: 200 OK Time: 730 ms Size: 180 B

```
Customer deleted
```

After Deleting:

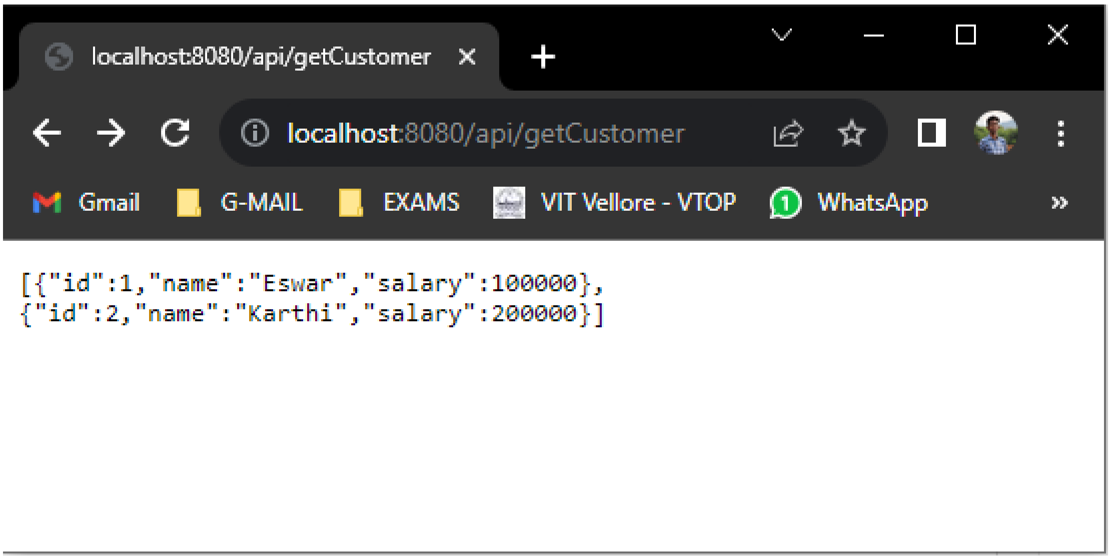


http://localhost:8080/api/getCustomer

GET http://localhost:8080/api/getCustomer

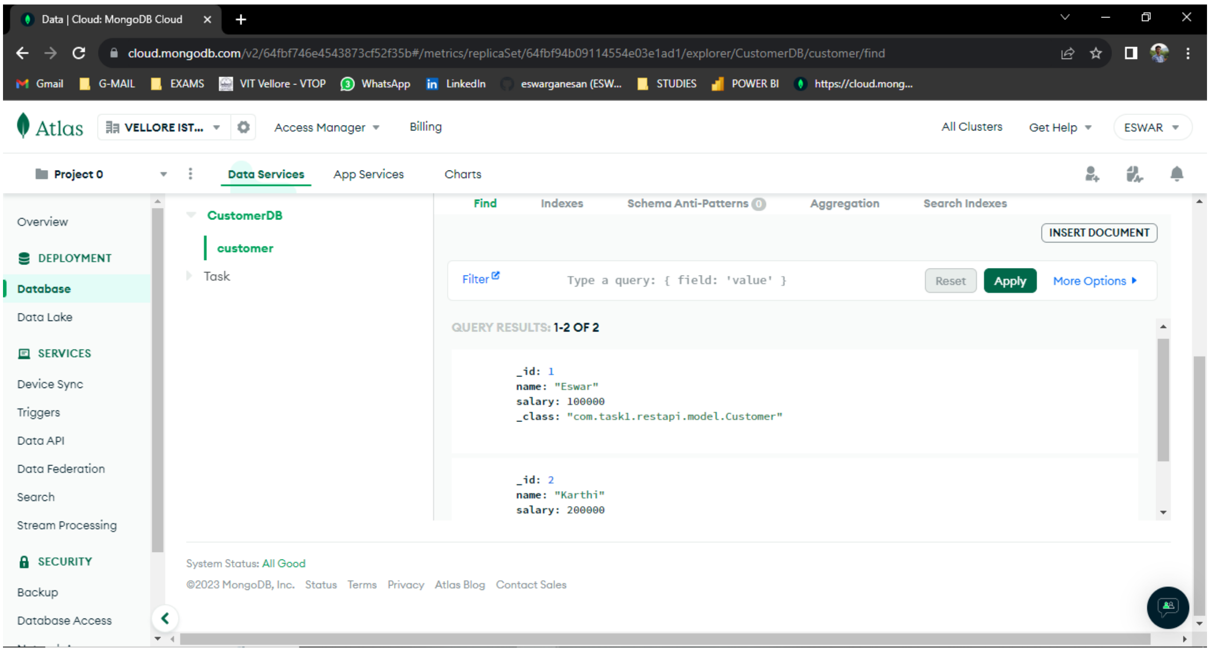
Status: 200 OK Time: 359 ms Size: 246 B

```
[
    {
        "id": 1,
        "name": "Eswar",
        "salary": 100000
    },
    {
        "id": 2,
        "name": "Karthi",
        "salary": 200000
    }
]
```


localhost:8080/api/getCustomer
localhost:8080/api/getCustomer
Gmail
G-MAIL
EXAMS
VIT Vellore - VTOP
WhatsApp

```
[{"id":1,"name":"Eswar","salary":100000},
{"id":2,"name":"Karthi","salary":200000}]
```

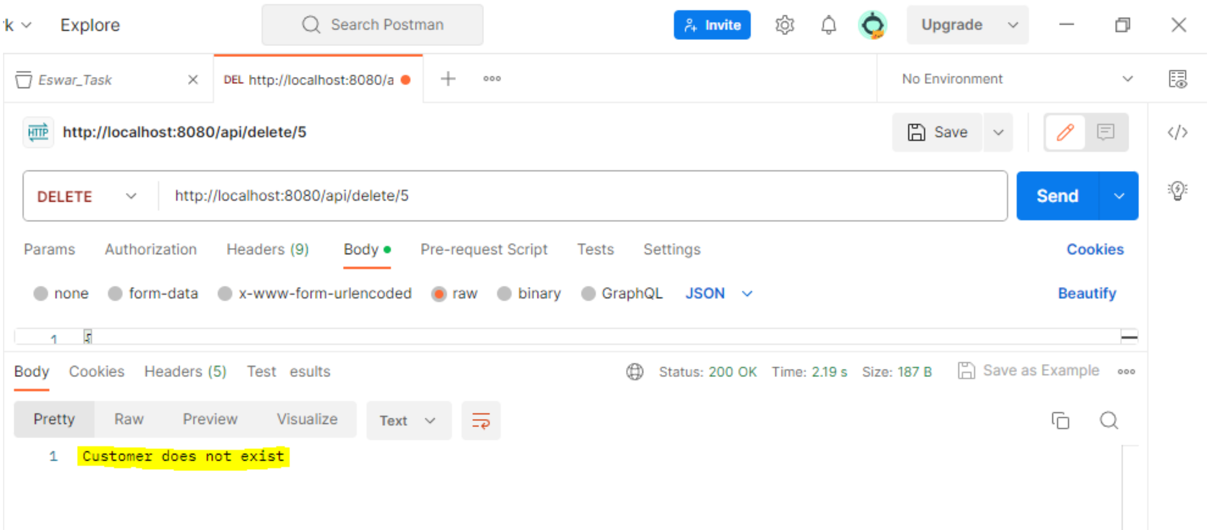
Database result:



QUERY RESULTS: 1-2 OF 2

```
_id: 1
name: "Eswar"
salary: 100000
_class: "com.task1.restapi.model.Customer"

_id: 2
name: "Karthi"
salary: 200000
```

- **If data does not exist in DB:**



http://localhost:8080/api/delete/5

DELETE http://localhost:8080/api/delete/5

Status: 200 OK Time: 2.19 s Size: 187 B

```
Customer does not exist
```