I. My Eureka Server is holding all my services

II. Employee Service
a) Posting employee details

b) Updating employee details

c) Deleting employee with ID:13
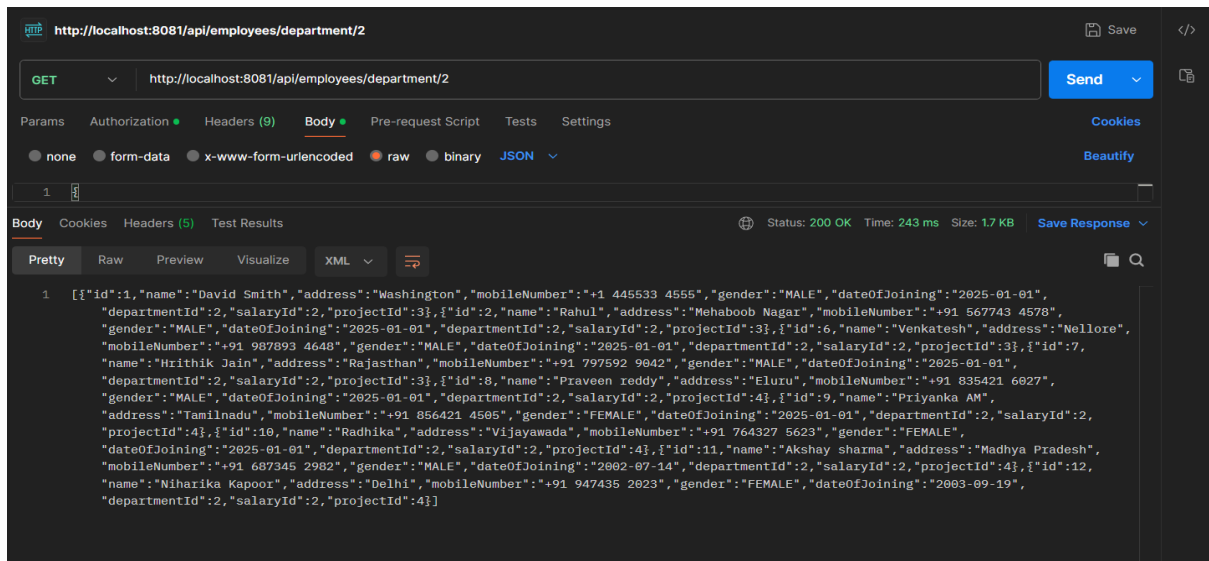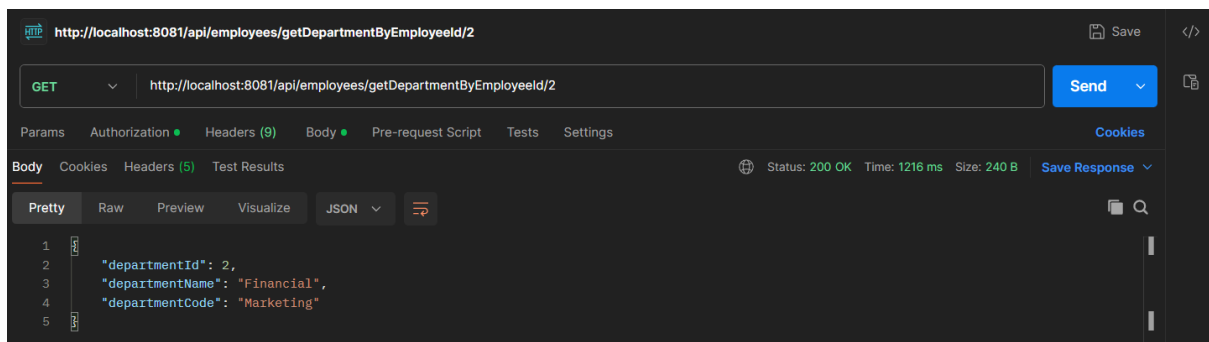
d) Accessing all employees with their respective department Id's

e) Accessing department details using employee service by their dept ID
   i. If department server is UP and running
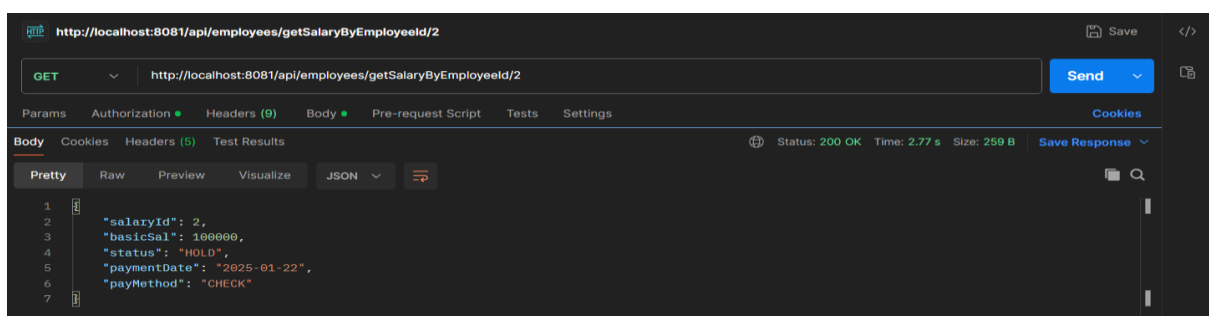
   ii. If department server is DOWN and handling using circuit breaker

f) Accessing salary details of employee with their ID
   i. If salary server is UP and running

ii.   If salary server is DOWN and handling using circuit breaker
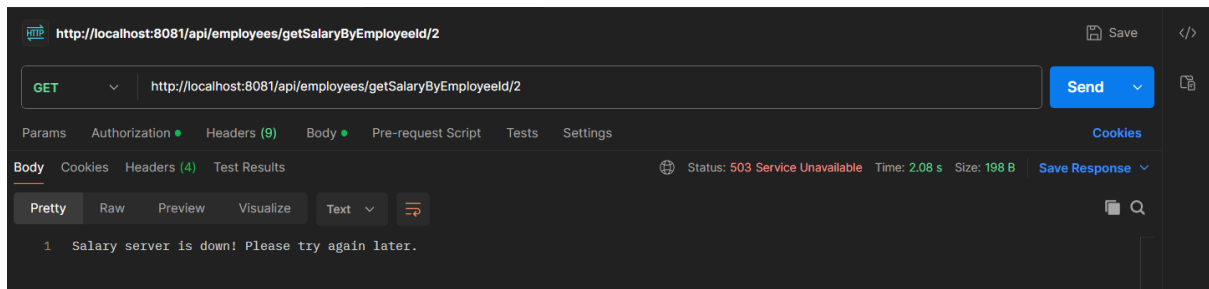
g) Accessing all employee information in database
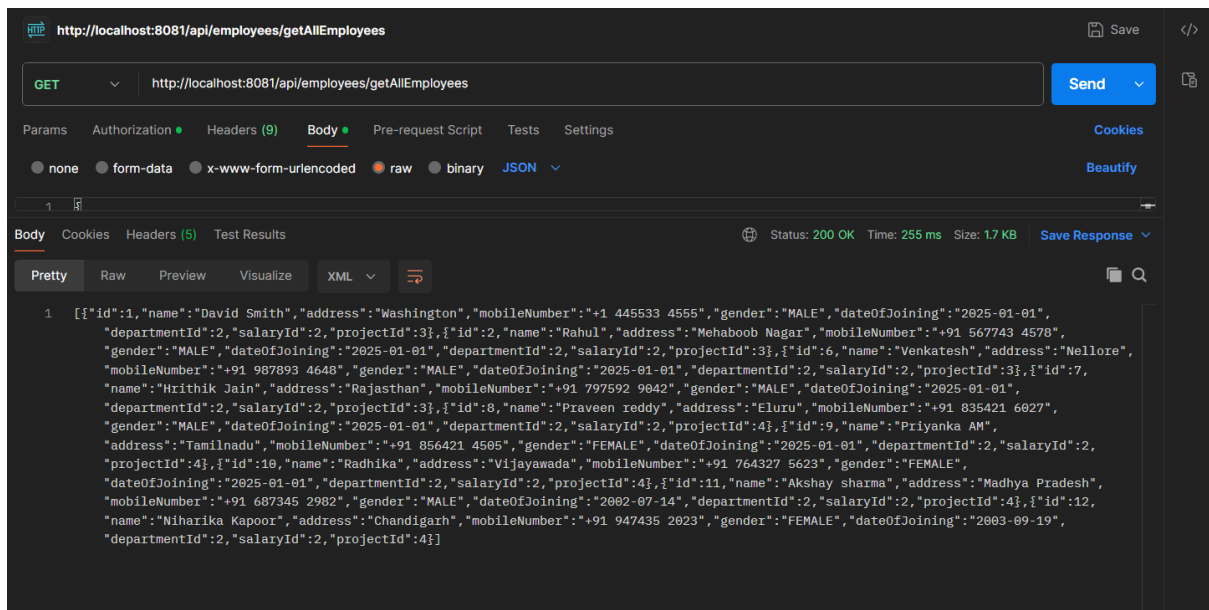
h) Accessing employee details with their respective IDs
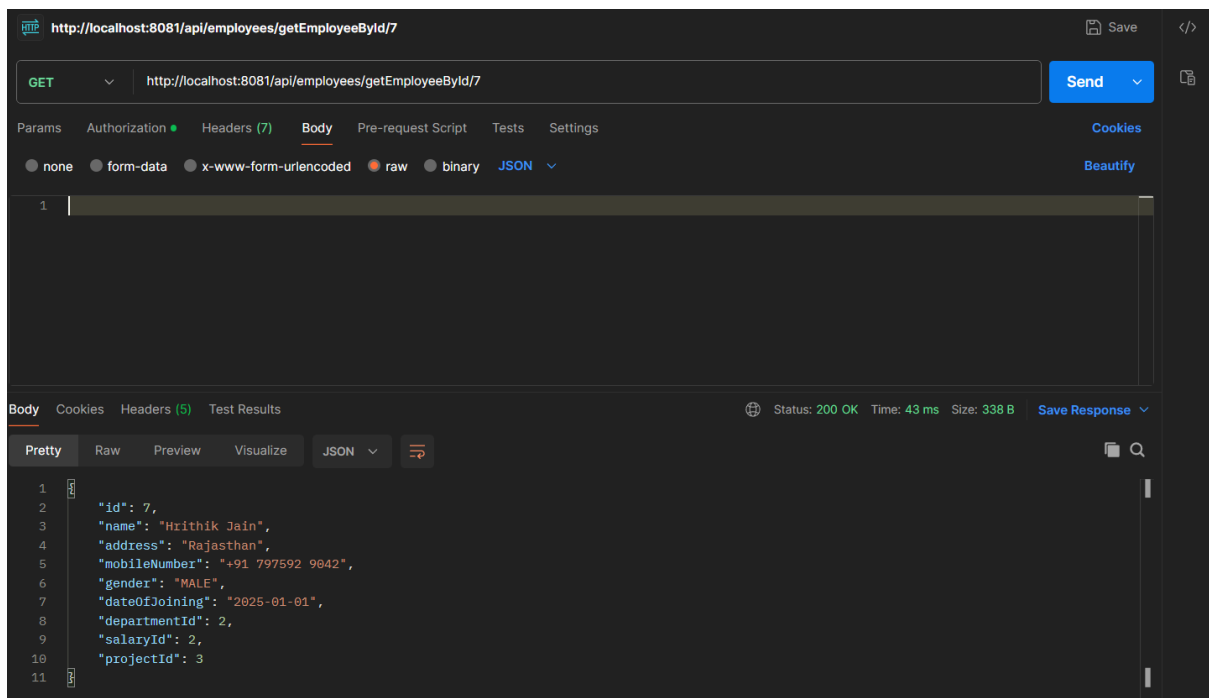
III. Department Service

a) Posting department details
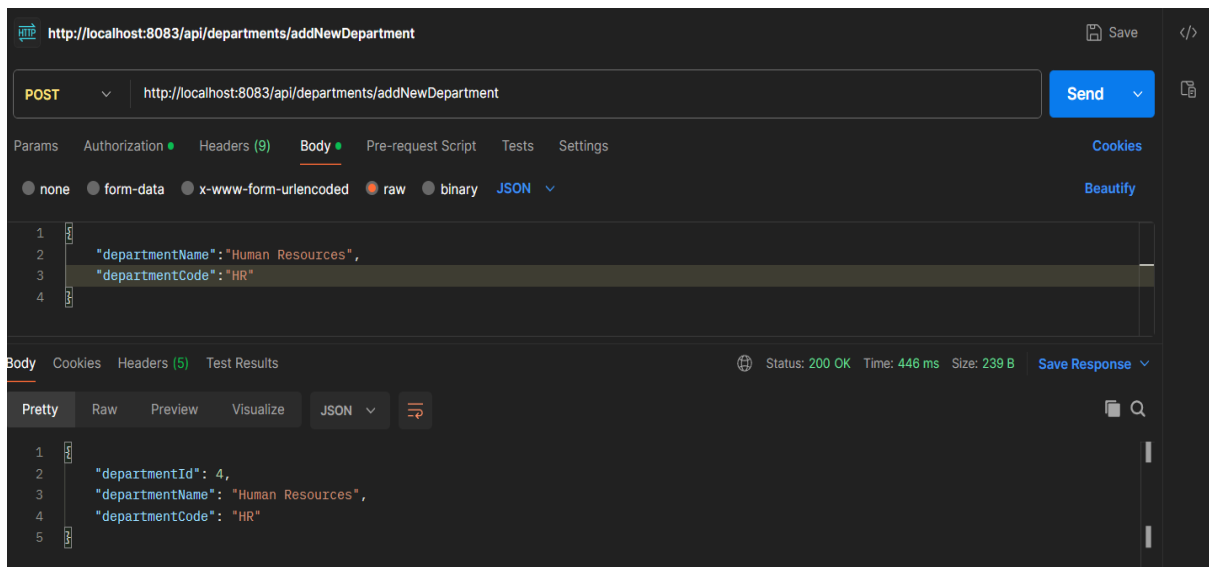
b) Accessing all department details
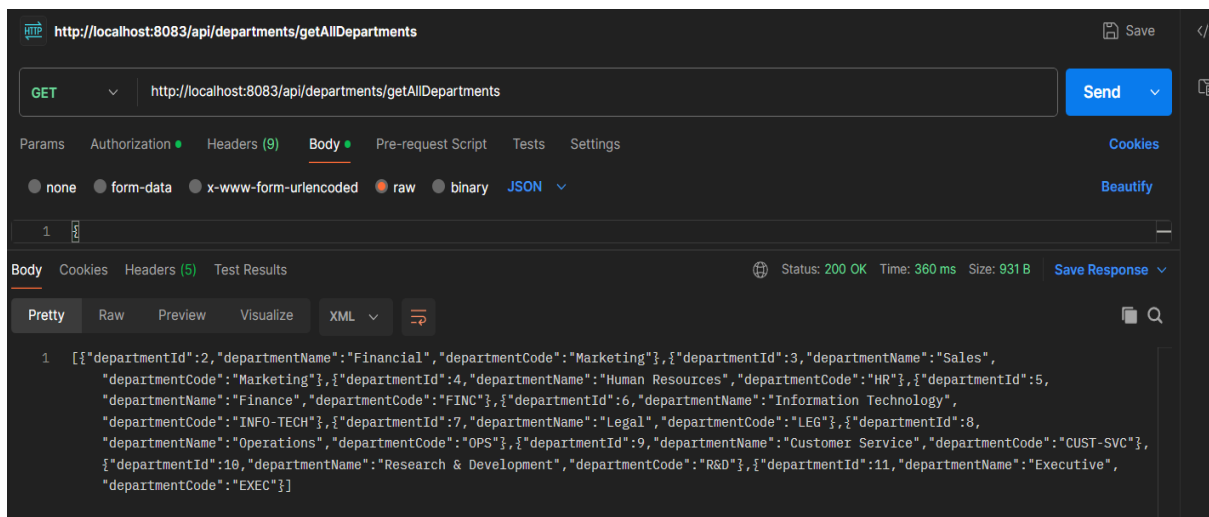
c) Accessing department details by their IDs
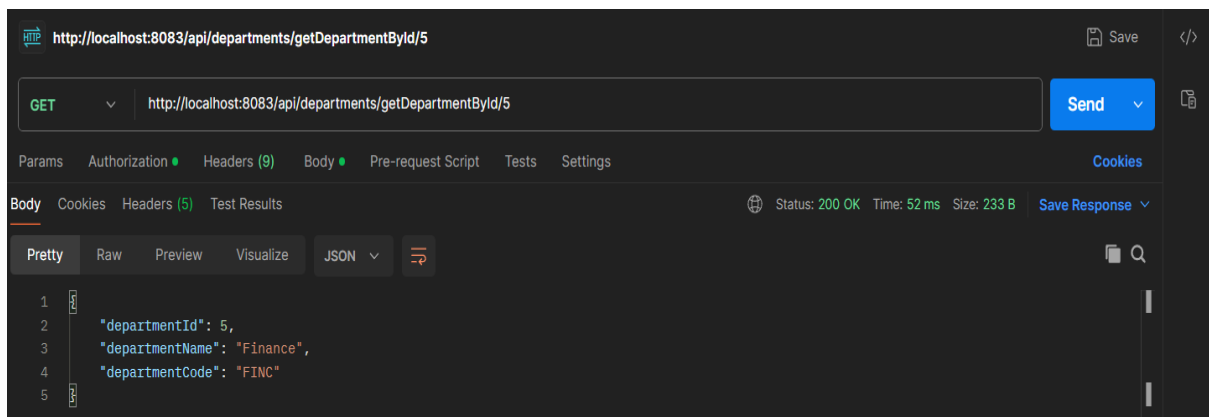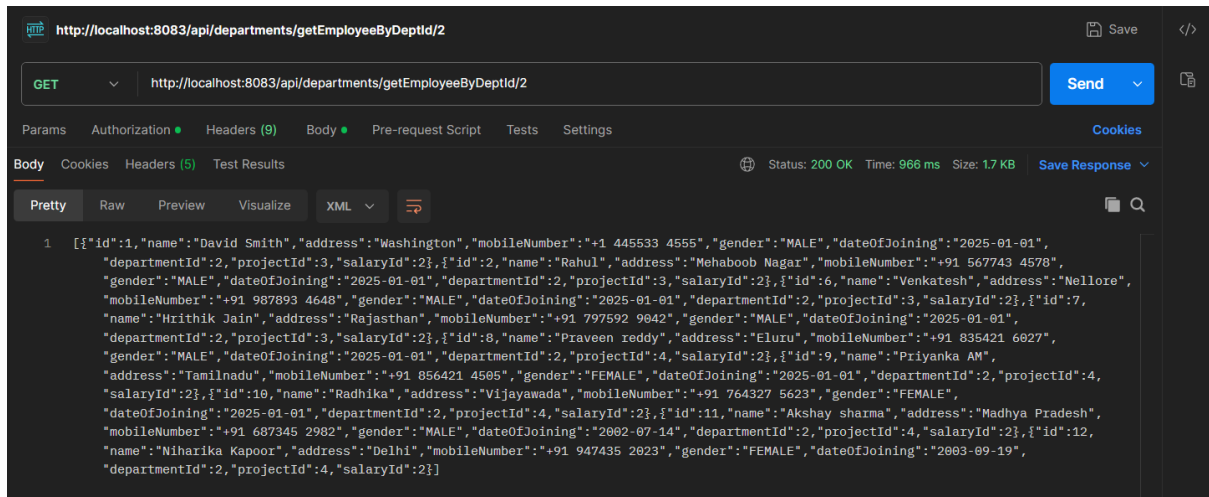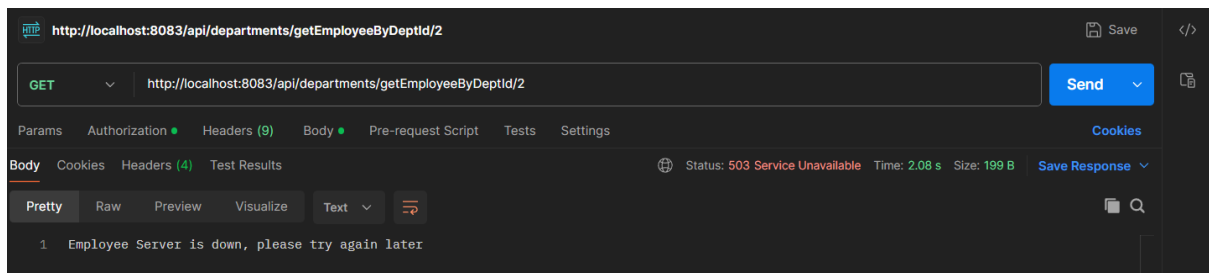
d) Retrieving all records of employees by their dept IDs
   i. If employee service is UP and running

ii. If employee service is DOWN ,handling using circuit breaker

e) Retrieving all project records with their respective dept IDs
   i. If project service UP and running

ii. If project service is DOWN, handled using circuit breaker

f) Updating department details

g) Deleting department details
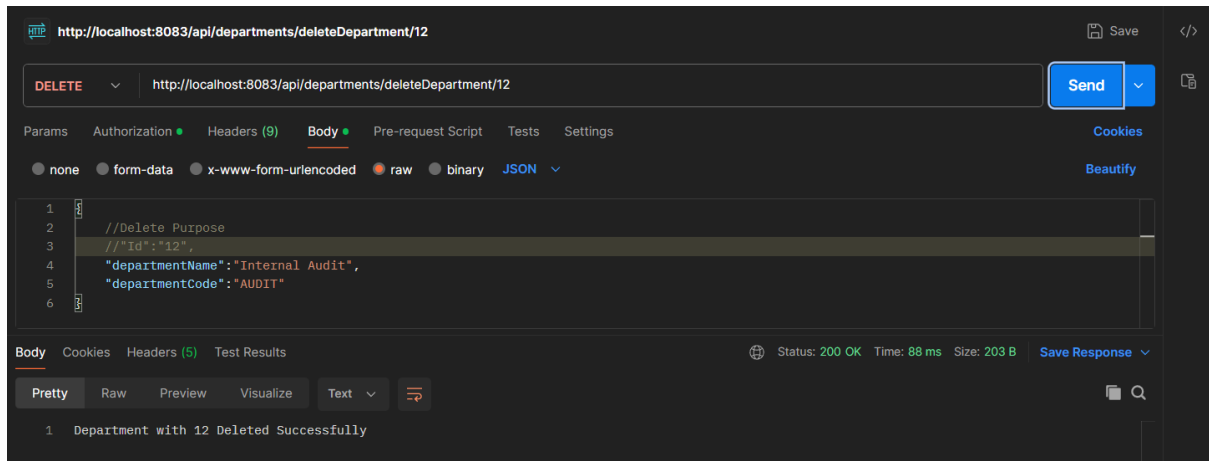
IV. Project Service
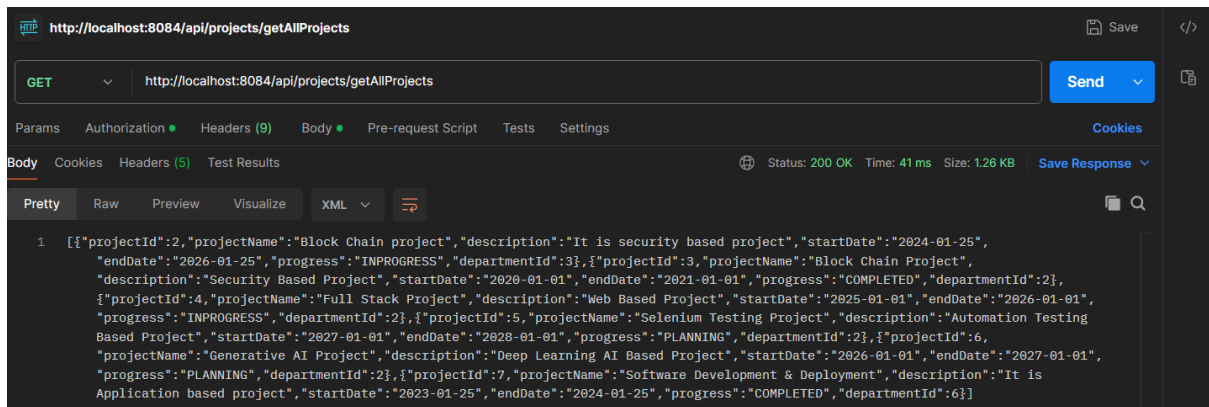
a) Posting project details
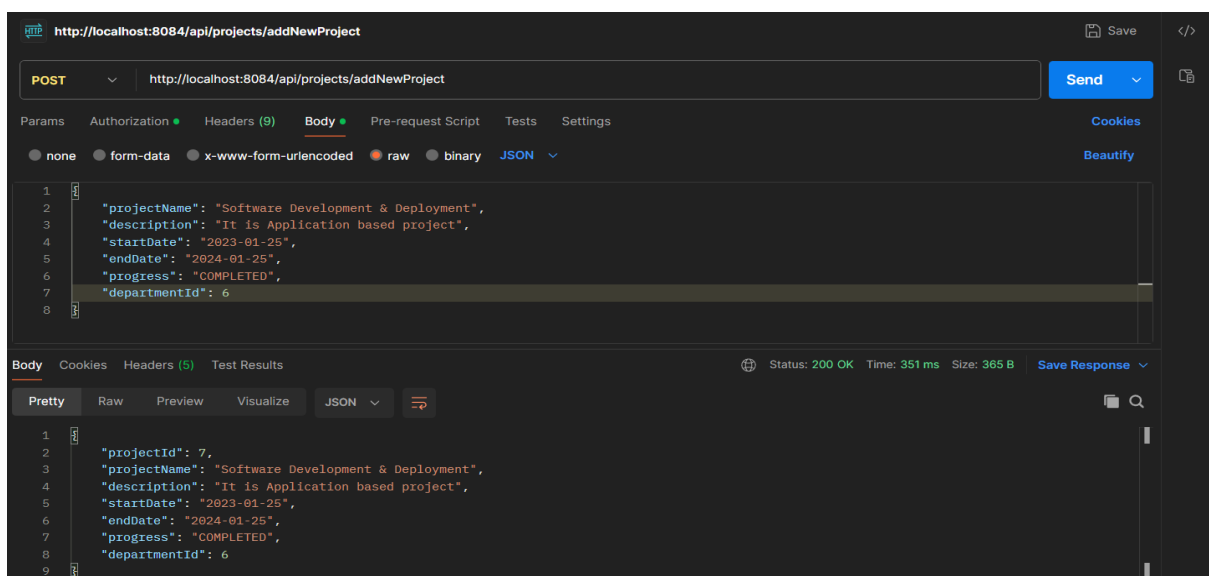
b) Accessing all project information's in database

c) Requesting project information with their project IDs
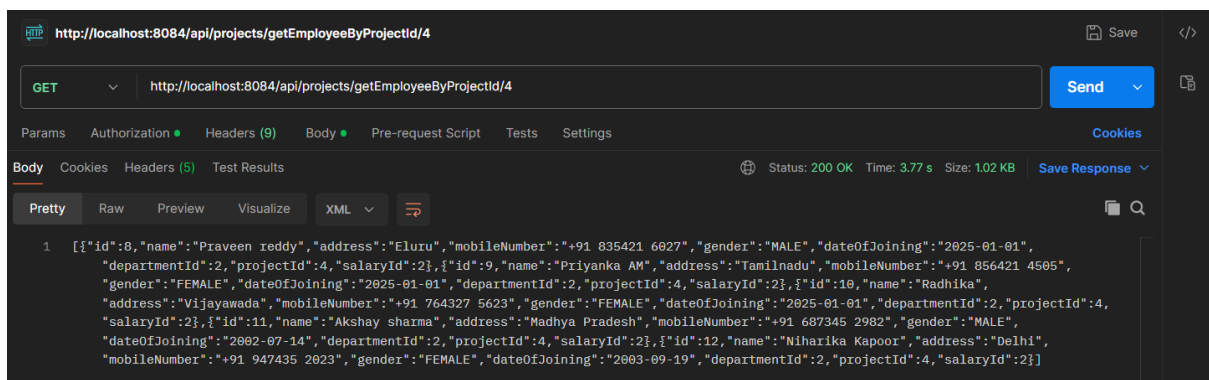
d) Getting employee information using project IDs
    i. If employee service is UP and running

    ii. If employee service is DOWN , handled using circuit breaker

e) Accessing project name with particular employee name
   i.   If employee service is UP and running

```
http://localhost:8084/api/projects/getProjectByEmployeeName?name=Priyanka AM          💾 Save   </>

GET  ⌄   http://localhost:8084/api/projects/getProjectByEmployeeName?name=Priyanka AM ...     Send ⌄   🗎

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

Body   Cookies   Headers (5)   Test Results        🌐 Status: 200 OK   Time: 996 ms   Size: 182 B   Save Response ⌄

Pretty   Raw   Preview   Visualize   Text ⌄   ⇥                                          🗎 🔍

  1   Full Stack Project
```

ii.   If employee service is DOWN , handled using circuit breaker

```
http://localhost:8084/api/projects/getProjectByEmployeeName?name=Praveen reddy         💾 Save   </>

GET  ⌄   http://localhost:8084/api/projects/getProjectByEmployeeName?name=Praveen reddy ...     Send ⌄   🗎

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

Body   Cookies   Headers (4)   Test Results    🌐 Status: 503 Service Unavailable   Time: 63 ms   Size: 199 B   Save Response ⌄

Pretty   Raw   Preview   Visualize   Text ⌄   ⇥                                          🗎 🔍

  1   Employee Server is down, please try again later
```

f) Updating project details

```
http://localhost:8084/api/projects/updateProject/6          💾 Save   </>

PATCH  ⌄   http://localhost:8084/api/projects/updateProject/6          Send ⌄   🗎

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

○ none   ○ form-data   ○ x-www-form-urlencoded   ● raw   ○ binary   JSON ⌄          Beautify

  1   {
  2       "projectName": "Generative AI Project",
  3       "description": "Deep Reinforcement AI Based Project",//Deep Learning replaced with Deep Reinforcement
  4       "startDate": "2026-01-01",
  5       "endDate": "2027-01-01",
  6       "progress": "PLANNING",
  7       "departmentId": 2
  8   }

Body   Cookies   Headers (5)   Test Results        🌐 Status: 200 OK   Time: 148 ms   Size: 356 B   Save Response ⌄

Pretty   Raw   Preview   Visualize   JSON ⌄   ⇥                                          🗎 🔍

  1   {
  2       "projectId": 6,
  3       "projectName": "Generative AI Project",
  4       "description": "Deep Reinforcement AI Based Project",
  5       "startDate": "2026-01-01",
  6       "endDate": "2027-01-01",
  7       "progress": "PLANNING",
  8       "departmentId": 2
  9   }
```

g) Deleting project details

```
http://localhost:8084/api/projects/deleteProject/2          💾 Save   </>

DELETE  ⌄   http://localhost:8084/api/projects/deleteProject/2          Send ⌄   🗎

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

○ none   ○ form-data   ○ x-www-form-urlencoded   ● raw   ○ binary   JSON ⌄          Beautify

  1   {
  2       "projectName": "Generative AI Project",
  3       "description": "Deep Reinforcement AI Based Project",//Deep Learning replaced with Deep Reinforcement
  4       "startDate": "2026-01-01",
  5       "endDate": "2027-01-01",
  6       "progress": "PLANNING",
  7       "departmentId": 2
  8   }

Body   Cookies   Headers (5)   Test Results        🌐 Status: 200 OK   Time: 52 ms   Size: 199 B   Save Response ⌄

Pretty   Raw   Preview   Visualize   Text ⌄   ⇥                                          🗎 🔍

  1   Project with 2 Deleted Successfully
```

V. Salary Service
a) Posting salary details
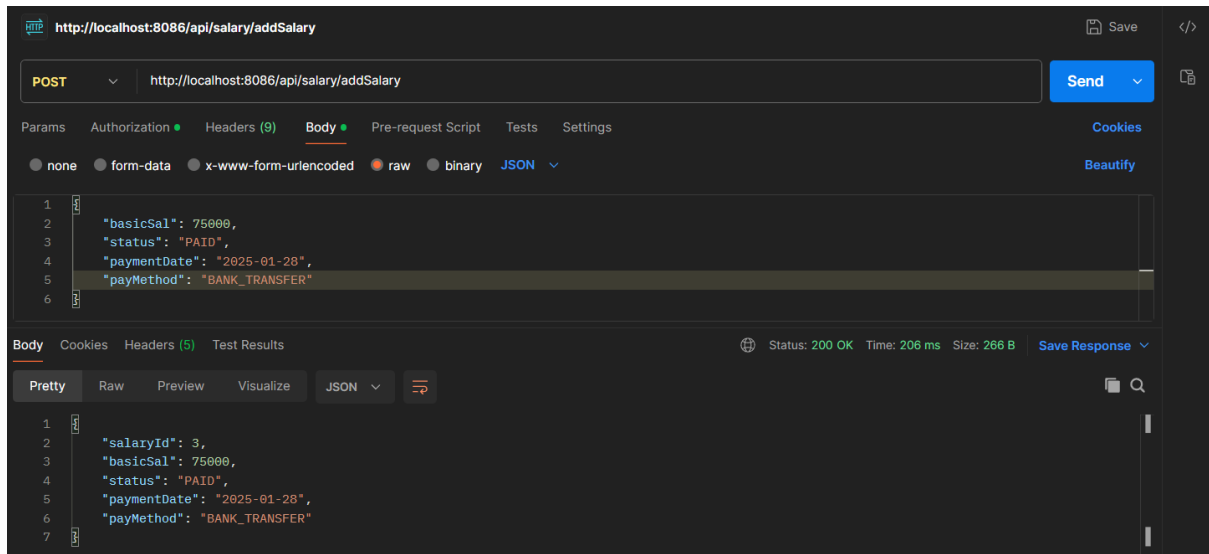
b) Retrieving all salary records
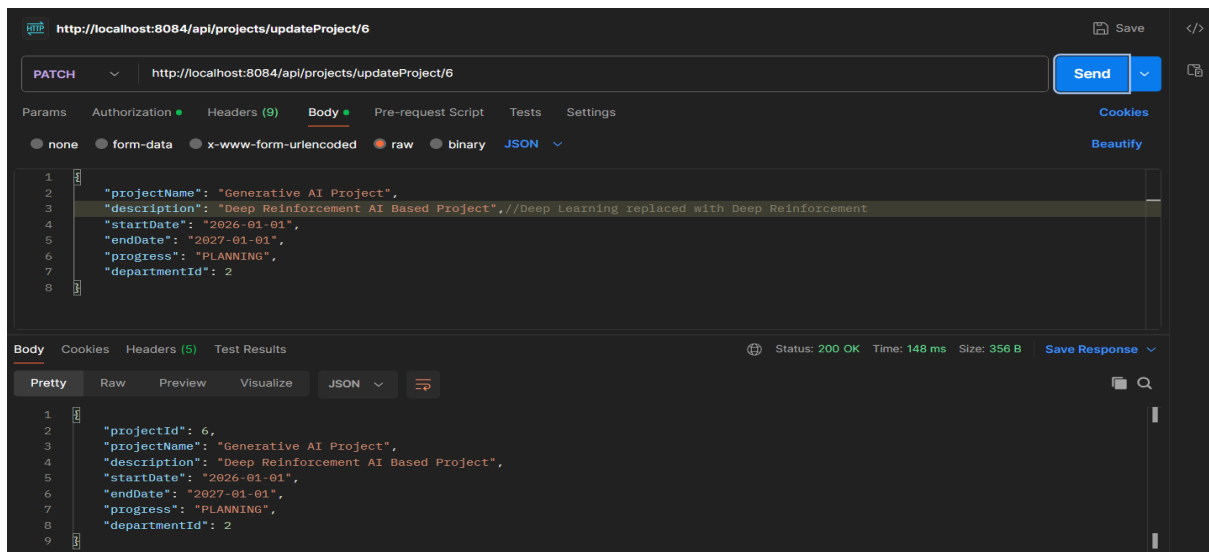

c) Accessing salary details with particular salary IDs

d) Accessing salary with particular employee name
   i. If employee service is UP and running

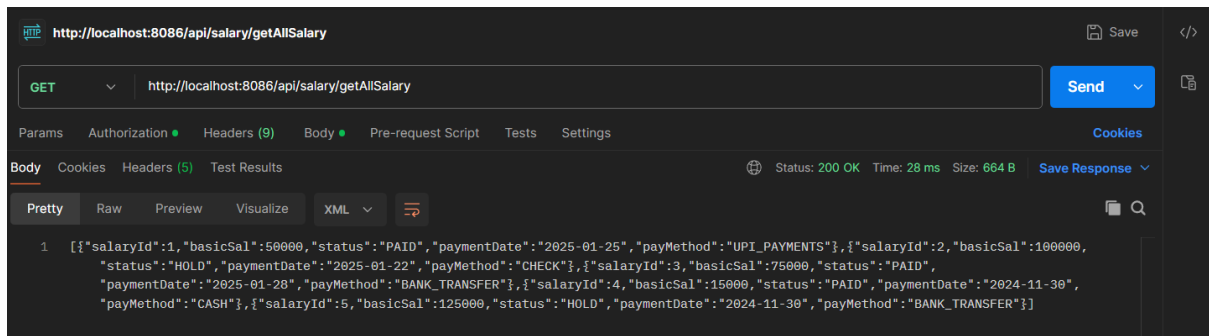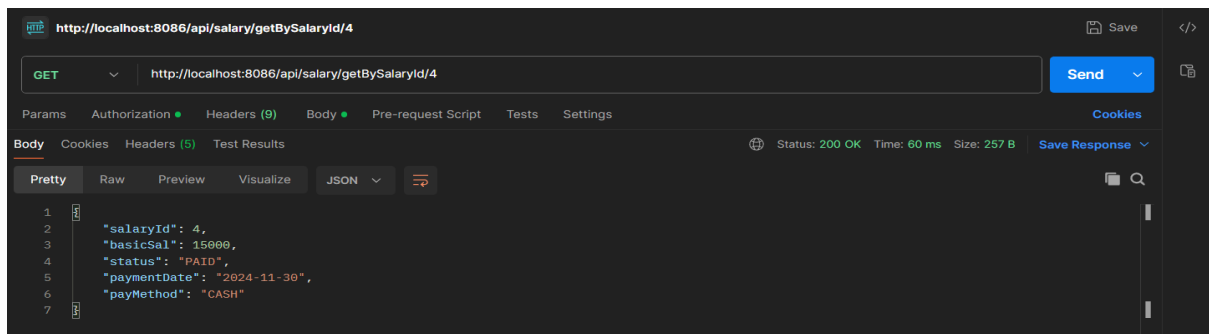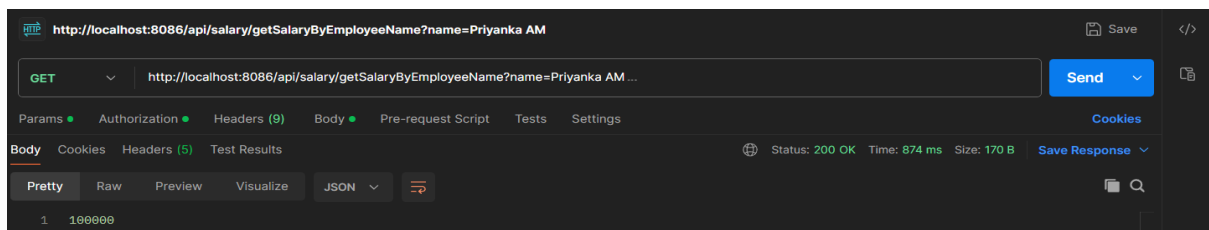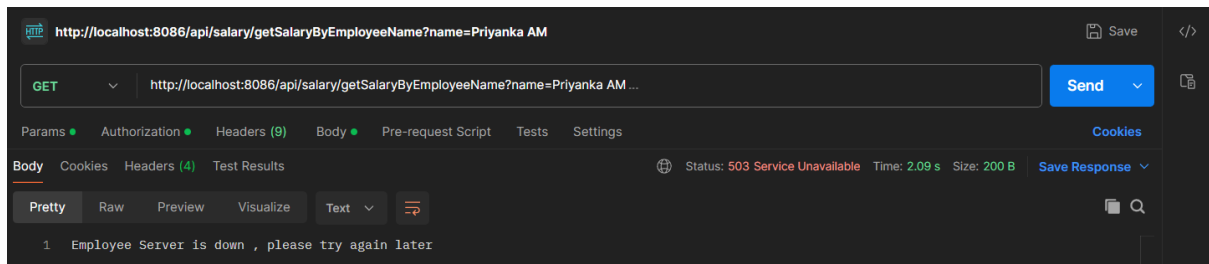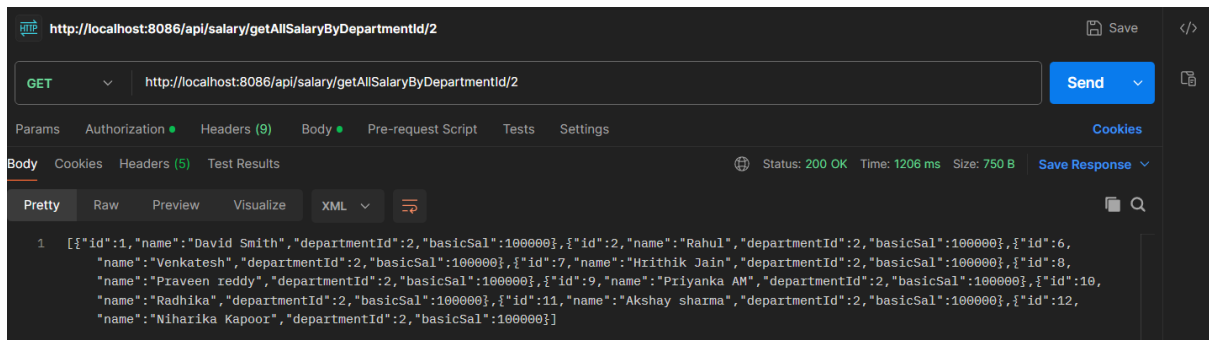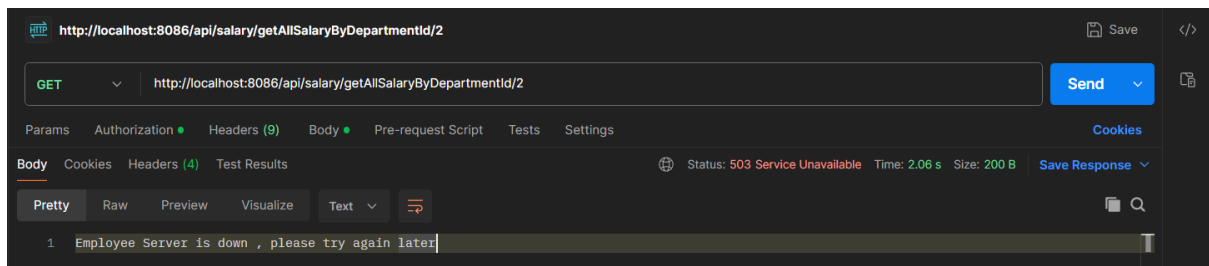ii.   If employee service is DOWN , handled using circuit breaker

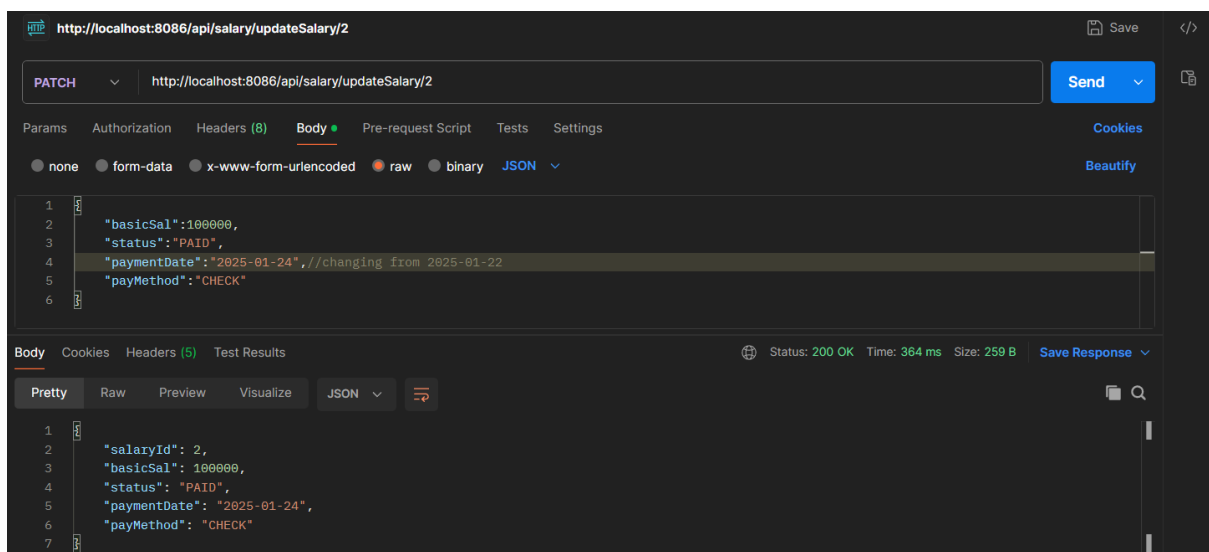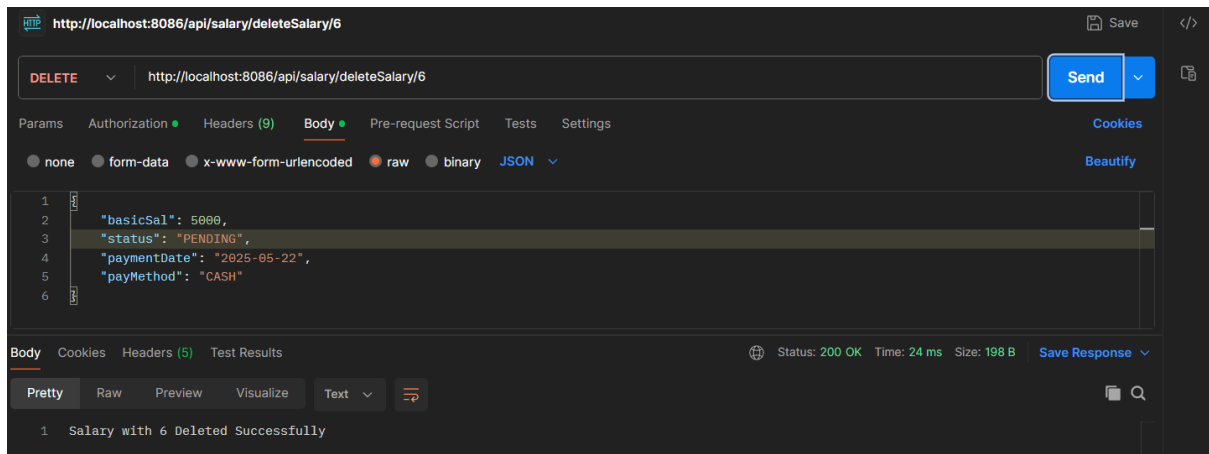e) Accessing all employee salaries within the particular department
    i.   If employee service is UP and running

ii.   If employee service is DOWN , handled using circuit breaker

f) Updating salary record

g) Deleting salary record

VI. API-GATEWAY

a) Its accessing project service details
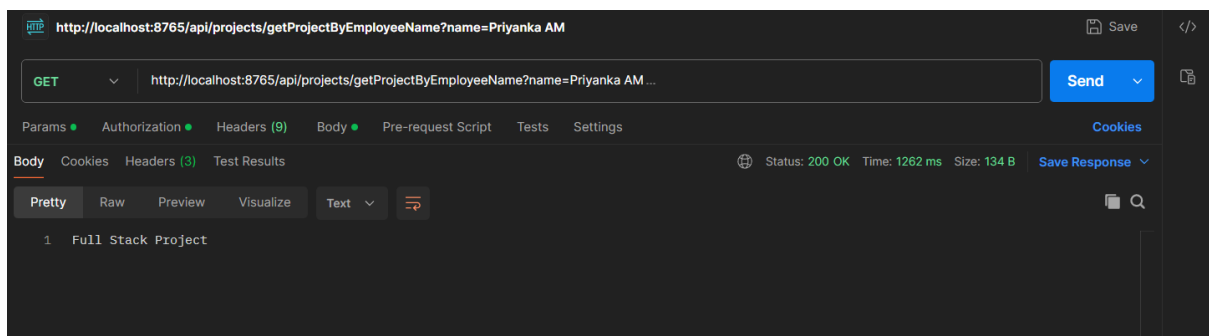
b) Its accessing employee service details
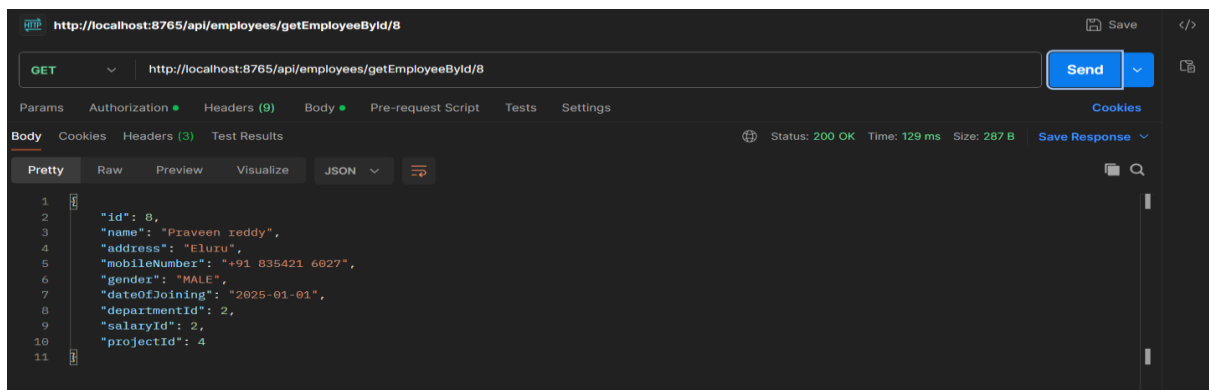
c) Its accessing department service details
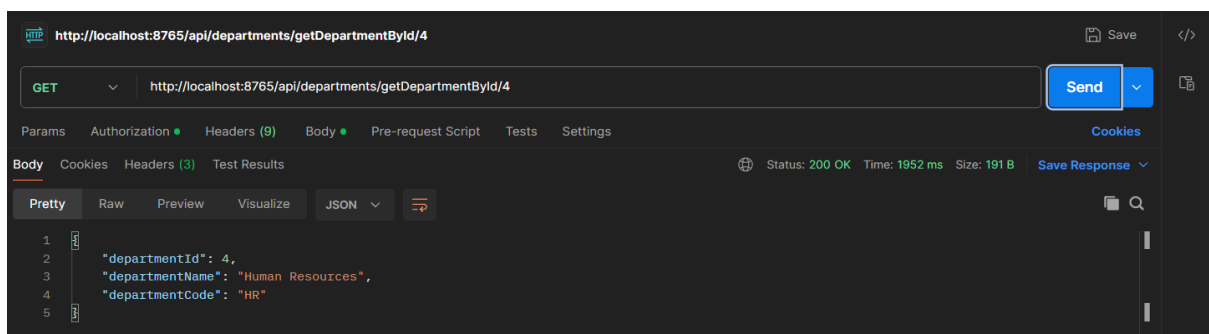
d) Its accessing salary service details
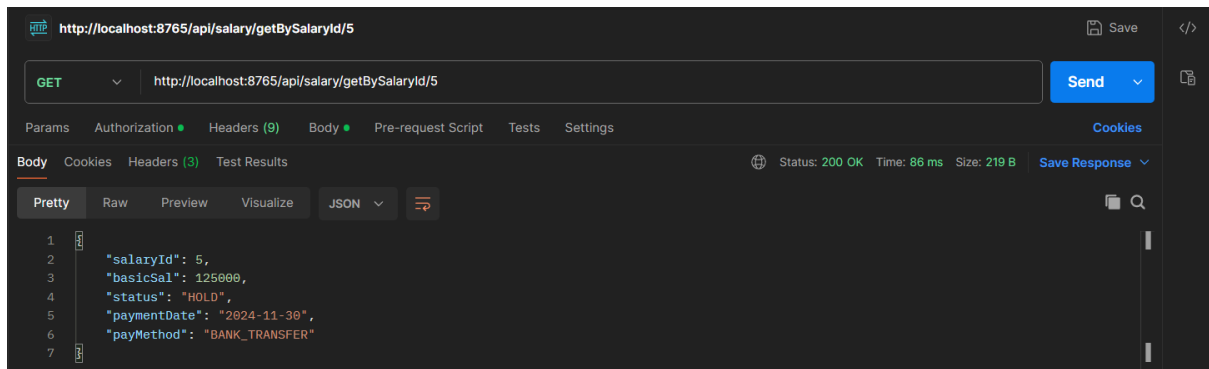
VII. All Services are UP and running with their respective port numbers

VIII. Zipkin Server

a) Tracing all the requests raised by the API-Gatway

b) Tracing representation , how its connecting with all services
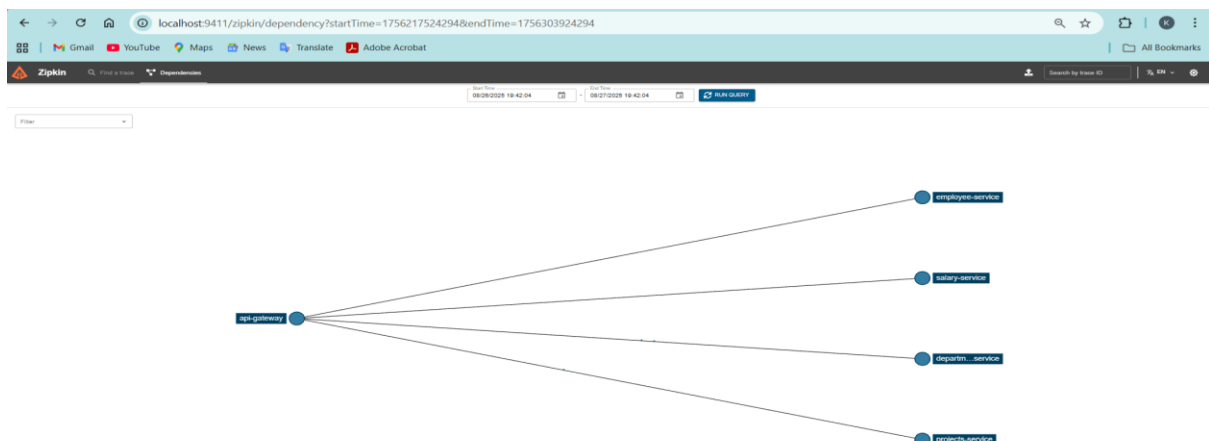
IX. Swagger and API docs

   a) Swagger UI for employee service
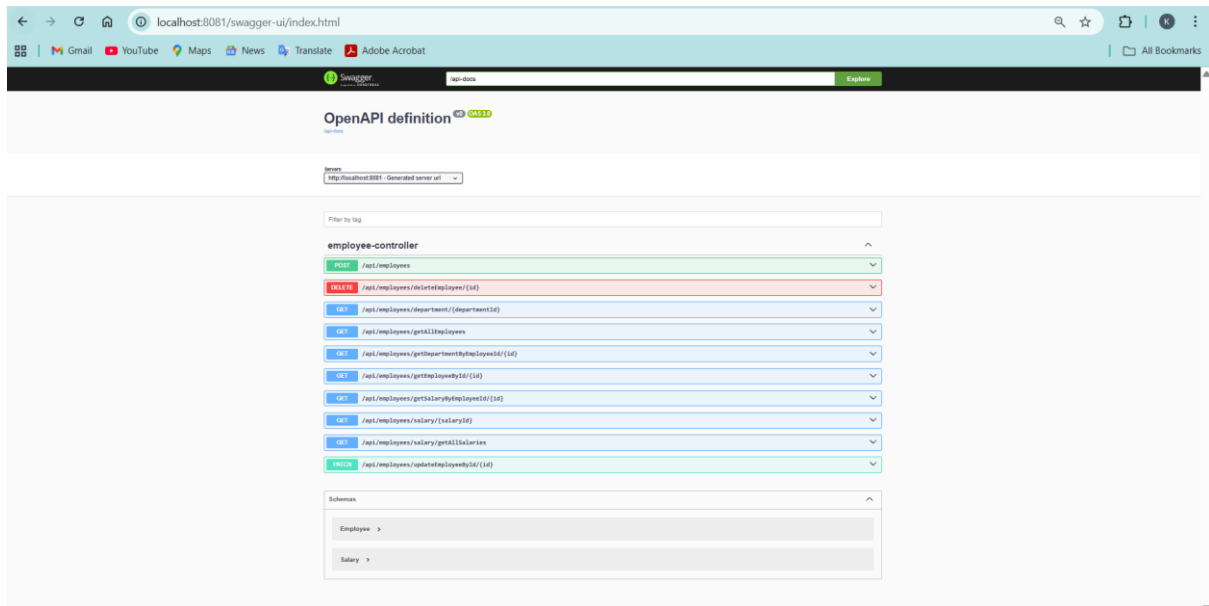
   b) API docs for employee service
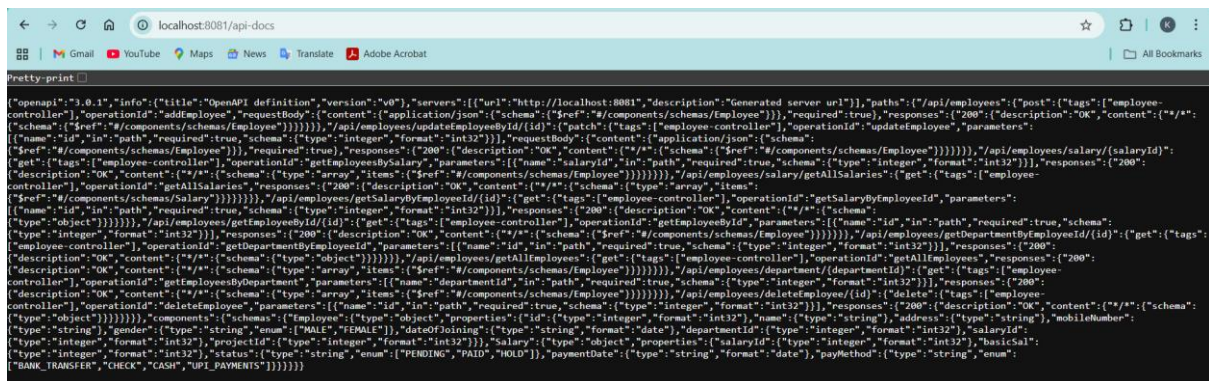
   c) Swagger UI for department service
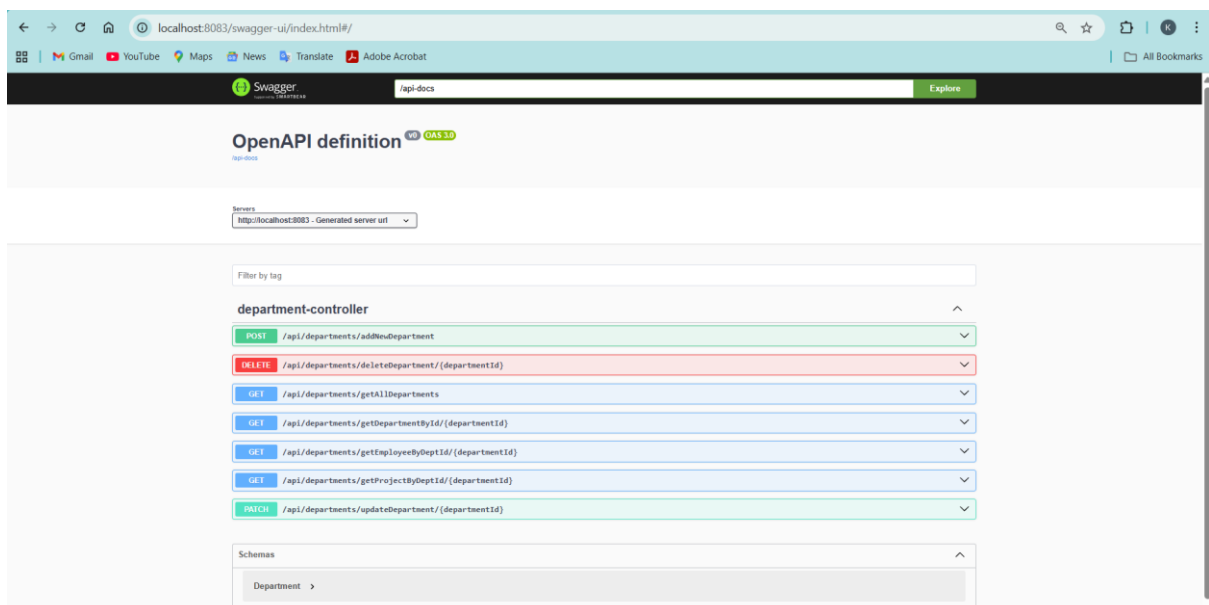
d) API docs for department service

e) Swagger UI for project service
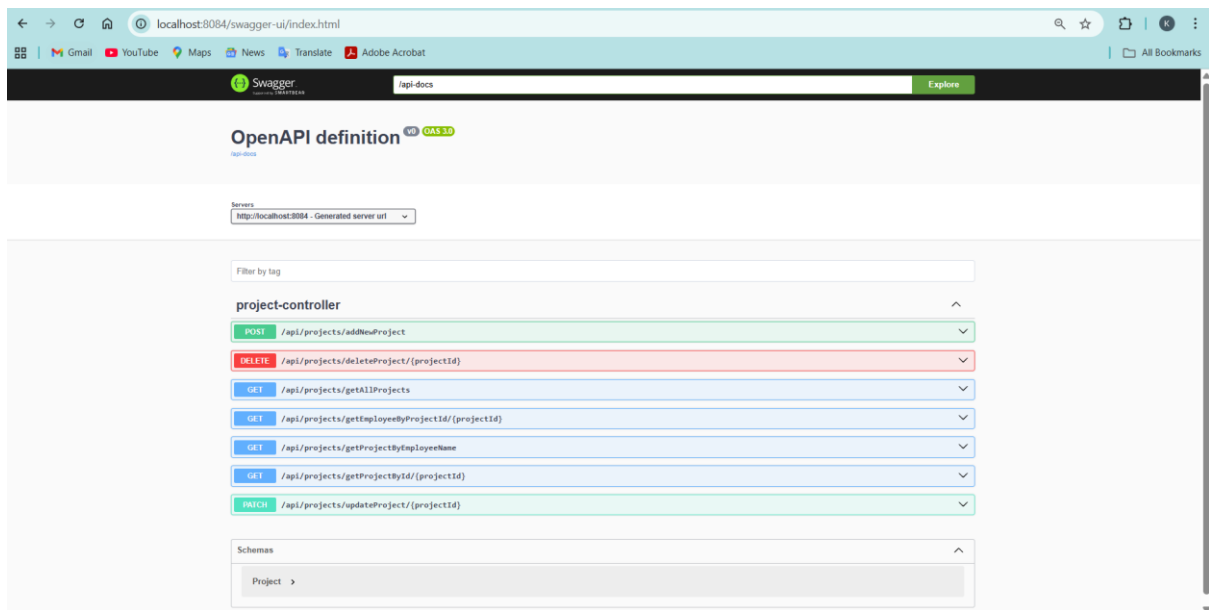
f) API docs for project service

g) Swagger UI for salary service
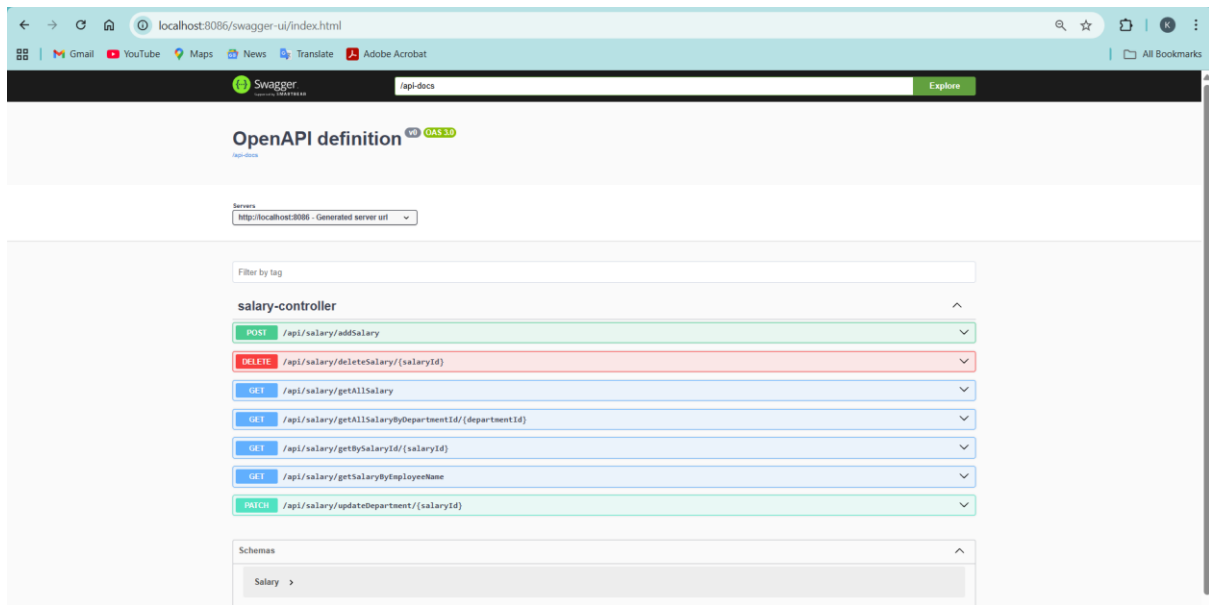
h) API docs for salary service
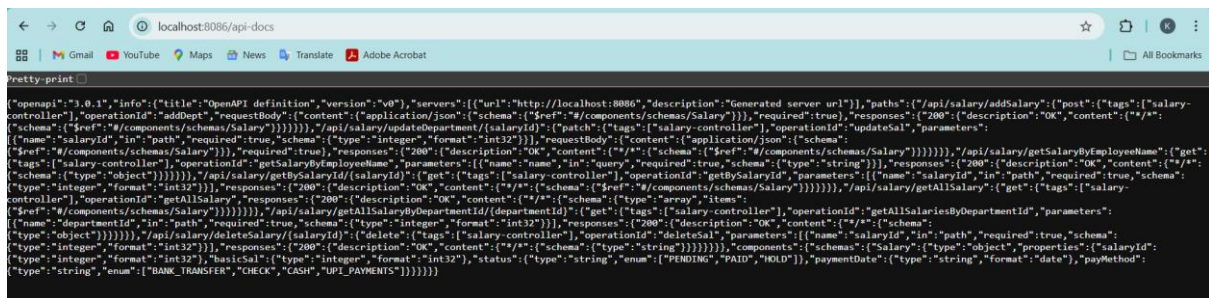
X. Prometheus & Grafana

a) For Employee Service
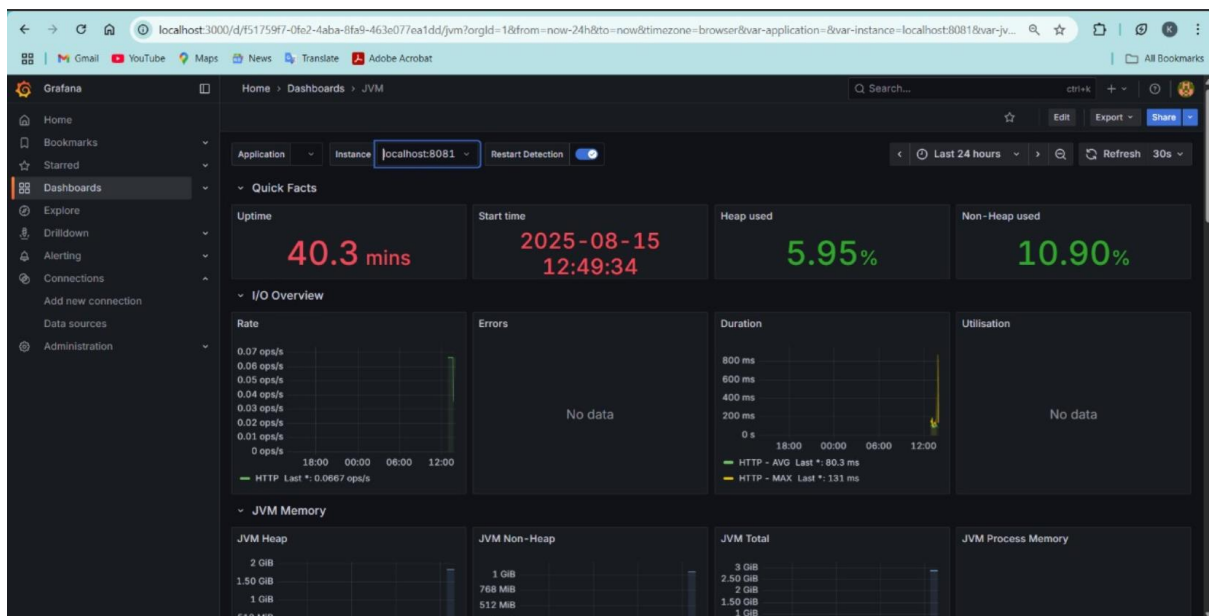
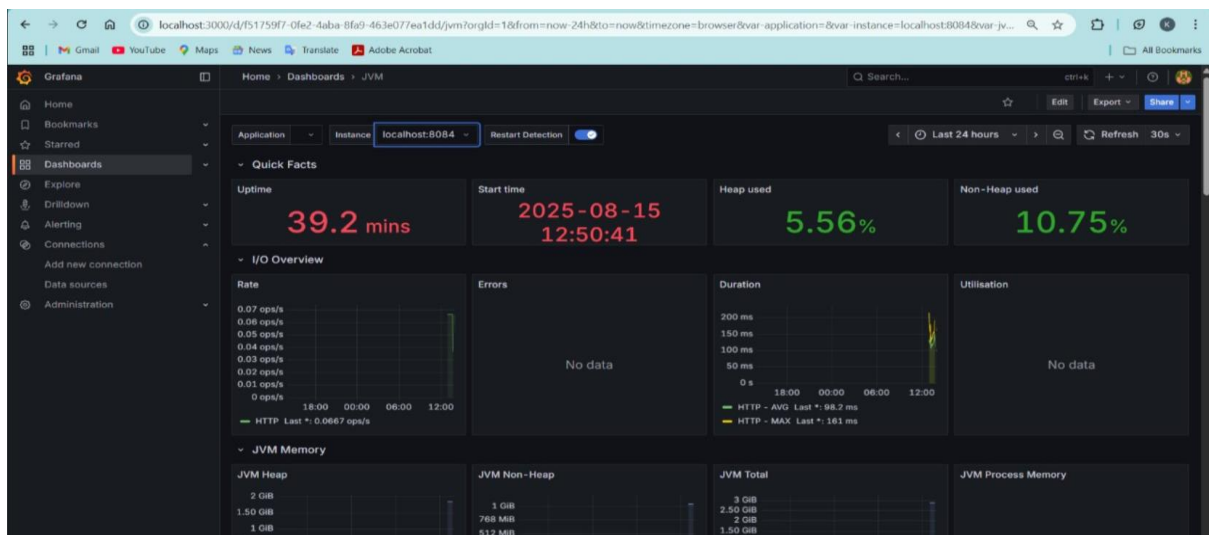b) For Department Service
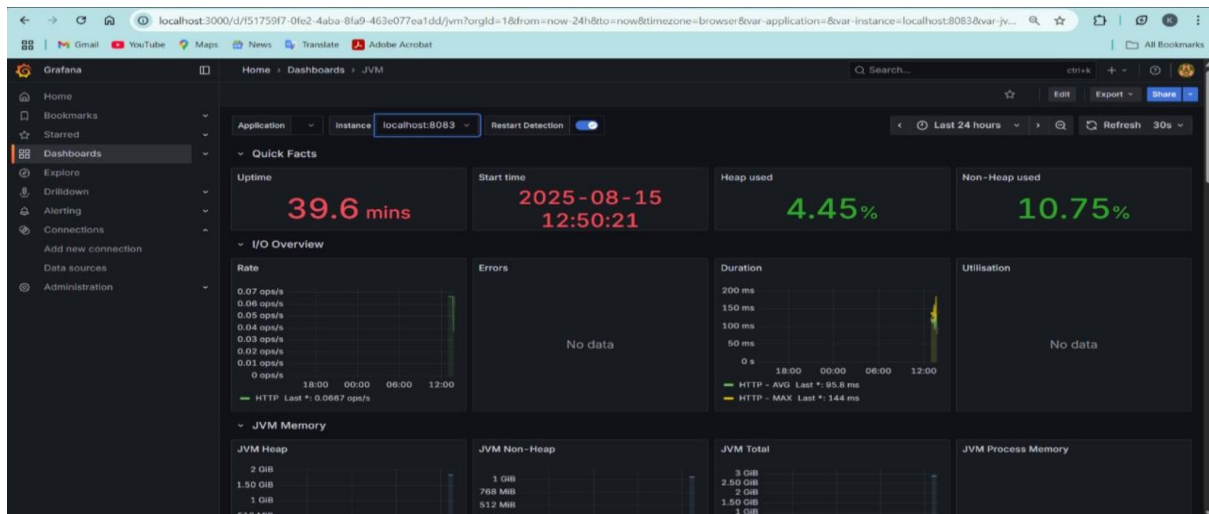
c) For Project Service

d) For Salary Service

e) For API-GATEWAY