Employee and Department Microservices (POC)

1. All Applications Running

☐ 1 EmpdepServerApplication [Java Application] C:\Program Files\Java\jdk1.8.0_281\bin\javaw.exe (Feb 22, 2022, 9:22:14 AM)	
☐ 2 DepartmentServiceApplication8000 [Java Application] C:\Program Files\Java\jdk1.8.0_281\bin\javaw.exe (Feb 22, 2022, 9:23:07 AM)	
☐ 3 DepartmentServiceApplication8001 [Java Application] C:\Program Files\Java\jdk1.8.0_281\bin\javaw.exe (Feb 22, 2022, 9:23:15 AM)	
☐ 4 EmpdepApiGatewayApplication [Java Application]	
☐ 5 EmployeeServiceApplication [Java Application]	

Figure 1.0 Applications Running on Console

In the above image as we can see there are 5 applications running on console , from which the 1st one is the naming server for registering our microservices , the next 2 are the department service running on 2 ports 8000 and 8001 , the other one is the API Gateway application to host our microservices to port 8765 and the last one is our Employee Microservices running on port 8100.

2. Performing Employee Microservices Operation on Port 8100 ,8765

localhost:8100/employee-service/2

```
{
    "id": 2,
    "empName": "Kartik",
    "workExperience": "2",
    "salary": 40000,
    "joiningDate": "10/03/2021",
    "departmentId": 1,
    "enviorment": "8100"
}
```

Figure 2.0 Getting Employee By Id 2 Port 8100

localhost:8100/employee-service/4

```
{
    "id": 4,
    "empName": "Shubham Phepale",
    "workExperience": "2.5",
    "salary": 42500,
    "joiningDate": "25/05/2021",
    "departmentId": 2,
    "enviorment": "8100"
}
```

Figure 2.1 Getting Employee By Id 4 Port 8100

Figure 2.2 Getting Employee By Id 3 Port 8765

3. Performing Department Microservices Operation On Port 8000,8001,8765

Figure 3.0 Getting Department By Id 1

Figure 3.1 Getting Department By Id 2, Port 8001

```
{
    "id": 1,
    "deptName": "Java Web",
    "deptManager": "Mr Vinayak Shinde",
    "noOfEmployees": "200",
    "technology": "Java,Spring",
    "enviornment": "8000"
}
```

Figure 3.2 Getting Department By Id 1 Port 8765

4. Getting Full Employee Information along with Department

For our above function call , the employee service will be communicating with department service and getting the department details based on the employee's department id. For this operation we have implemented two ways , one is communicating using a rest template and other is using feign client.


```
{
    "id": 1,
    "empName": "Yash Chowdhary",
    "workExperience": "1",
    "salary": 30000,
    "joiningDate": "15/02/2021",
    "departmentId": 1,
    "departmentDetails": {
        "deptName": "Java Web",
        "noOfEmployees": "200",
        "deptManager": "Mr Vinayak Shinde",
        "technology": "Java,Spring"
    },
    "enviorment": "8000 feign client"
}
```

Figure 3.0 Getting Full Employee Details With Port 8000 of Feign Client(Port 8765)

```
localhost:8765/employee-service-feign/full/info/6

{
    "id": 6,
    "empName": "Gurpreet Singh",
    "workExperience": "4",
    "salary": 44500,
    "joiningDate": "30/01/2022",
    "departmentId": 3,
    "departmentDetails": {
        "deptName": "Front End",
        "noOfEmployees": "160",
        "deptManager": "Mr Pravin Jhangid",
        "technology": "Angular,JS"
    },
    "enviorment": "8001 feign client"
}
```

Figure 3.1 Getting Full Employee Details With Port 8001 of Feign Client (Port 8765)

```
localhost:8765/employee-service/full/info/6

{
    "id": 6,
    "empName": "Gurpreet Singh",
    "workExperience": "4",
    "salary": 44500,
    "joiningDate": "30/01/2022",
    "departmentId": 3,
    "departmentDetails": {
        "deptName": "Front End",
        "noOfEmployees": "160",
        "deptManager": "Mr Pravin Jhangid",
        "technology": "Angular,JS"
    },
    "enviorment": "8100"
}
```

Figure 3.2 Getting Full Employee Details With Port 8100 Without Feign Client (Port 8765)

```
localhost:8765/employee-service/full/info/2

{
    "id": 2,
    "empName": "Kartik",
    "workExperience": "2",
    "salary": 40000,
    "joiningDate": "10/03/2021",
    "departmentId": 1,
    "departmentDetails": {
        "deptName": "Java Web",
        "noOfEmployees": "200",
        "deptManager": "Mr Vinayak Shinde",
        "technology": "Java,Spring"
    },
    "enviorment": "8100"
}
```

Figure 3.3 Getting Full Employee Details With Port 8100 Without Feign Client (Port 8765)

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