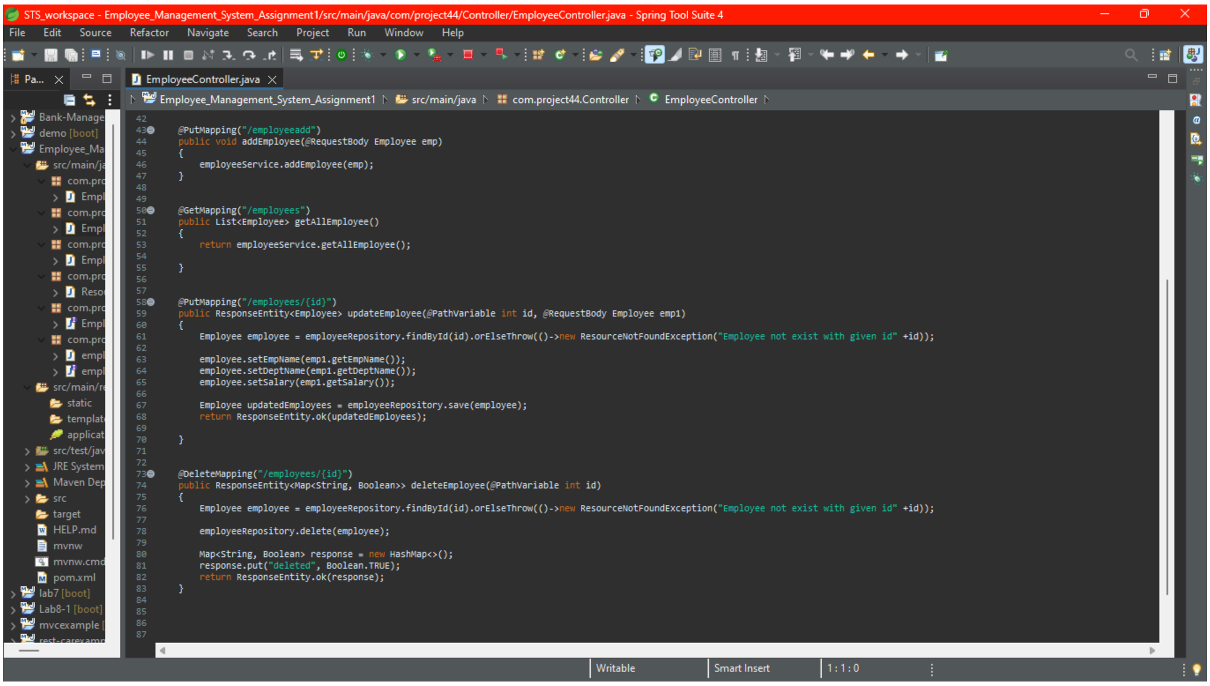
Spring Boot Assignment

EmployeeController.java:

```java
package com.project44.Controller;

import java.util.HashMap;
import java.util.List;
import java.util.Map;

import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.http.ResponseEntity;
import org.springframework.web.bind.annotation.DeleteMapping;
import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.PathVariable;
import org.springframework.web.bind.annotation.PutMapping;
import org.springframework.web.bind.annotation.RequestBody;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RestController;


import com.project44.entity.Employee;
import com.project44.exception.ResourceNotFoundException;
import com.project44.repository.EmployeeRepository;
import com.project44.service.employee_service;

@RestController
@RequestMapping("/api/v1/")
public class EmployeeController {

  @Autowired
  employee_service employeeService;

  @Autowired
  private EmployeeRepository employeeRepository;

  public employee_service getEmployeeService() {
    return employeeService;
  }

  public void setEmployeeService(employee_service employeeService) {
    this.employeeService = employeeService;
  }

  @PutMapping("/employeeadd")
  public void addEmployee(@RequestBody Employee emp)
  {
    employeeService.addEmployee(emp);
  }


  @GetMapping("/employees")
  public List<Employee> getAllEmployee()
  {
    return employeeService.getAllEmployee();

  }
  @PutMapping("/employees/{id}")
  public ResponseEntity<Employee> updateEmployee(@PathVariable int id,
@RequestBody Employee emp1)
  {
    Employee employee = employeeRepository.findById(id).orElseThrow(()->new
ResourceNotFoundException("Employee not exist with given id" +id));

    employee.setEmpName(emp1.getEmpName());
    employee.setDeptName(emp1.getDeptName());
    employee.setSalary(emp1.getSalary());

    Employee updatedEmployees = employeeRepository.save(employee);
    return ResponseEntity.ok(updatedEmployees);

  }
  @DeleteMapping("/employees/{id}")
  public ResponseEntity<Map<String, Boolean>> deleteEmployee(@PathVariable int
id)
  {
    Employee employee = employeeRepository.findById(id).orElseThrow(()->new
ResourceNotFoundException("Employee not exist with given id" +id));

    employeeRepository.delete(employee);

    Map<String, Boolean> response = new HashMap<>();
    response.put("deleted", Boolean.TRUE);
    return ResponseEntity.ok(response);
  }
}
```

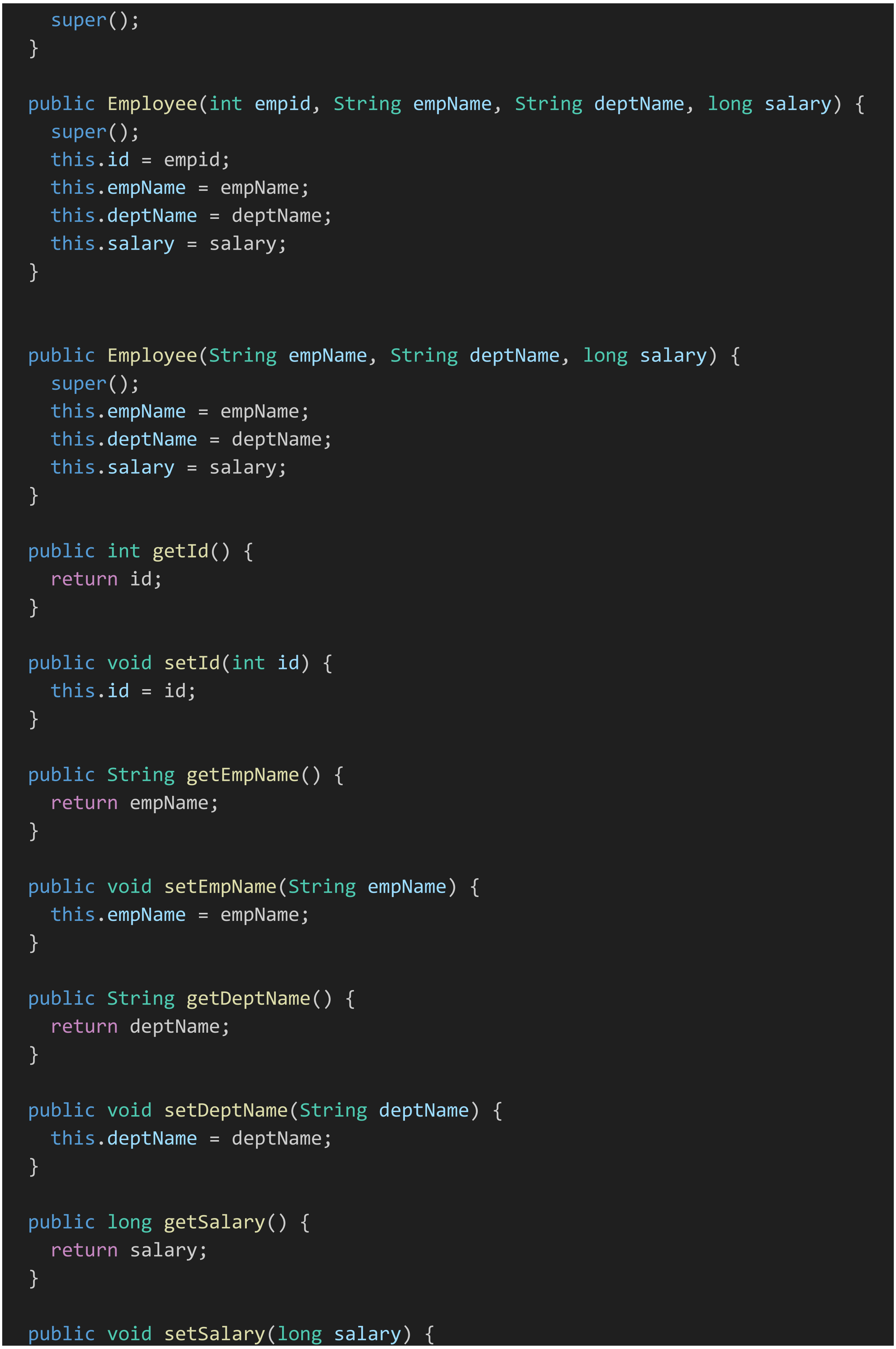


STS_workspace - Employee_Management_System_Assignment1/src/main/java/com/project44/Controller/EmployeeController.java - Spring Tool Suite 4
File Edit Source Refactor Navigate Search Project Run Window Help
EmployeeController.java
Employee_Management_System_Assignment1 > src/main/java > com.project44.Controller > EmployeeController
Writable
Smart Insert
1 : 1 : 0

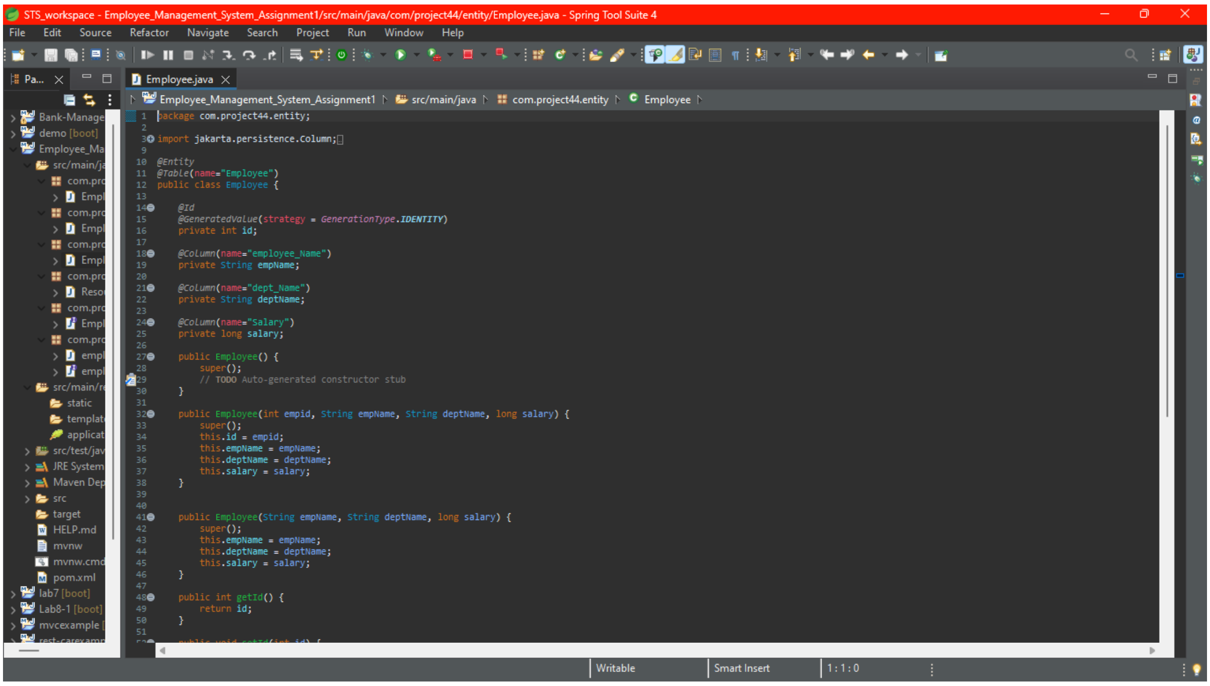
```java
    @PutMapping("/employeeadd")
    public void addEmployee(@RequestBody Employee emp)
    {
        employeeService.addEmployee(emp);
    }


    @GetMapping("/employees")
    public List<Employee> getAllEmployee()
    {
        return employeeService.getAllEmployee();

    }


    @PutMapping("/employees/{id}")
    public ResponseEntity<Employee> updateEmployee(@PathVariable int id, @RequestBody Employee emp1)
    {
        Employee employee = employeeRepository.findById(id).orElseThrow(()->new ResourceNotFoundException("Employee not exist with given id" +id));

        employee.setEmpName(emp1.getEmpName());
        employee.setDeptName(emp1.getDeptName());
        employee.setSalary(emp1.getSalary());

        Employee updatedEmployees = employeeRepository.save(employee);
        return ResponseEntity.ok(updatedEmployees);

    }


    @DeleteMapping("/employees/{id}")
    public ResponseEntity<Map<String, Boolean>> deleteEmployee(@PathVariable int id)
    {
        Employee employee = employeeRepository.findById(id).orElseThrow(()->new ResourceNotFoundException("Employee not exist with given id" +id));

        employeeRepository.delete(employee);

        Map<String, Boolean> response = new HashMap<>();
        response.put("deleted", Boolean.TRUE);
        return ResponseEntity.ok(response);
    }
```

Employee.java(Entity):

```java
package com.project44.entity;

import jakarta.persistence.Column;
import jakarta.persistence.Entity;
import jakarta.persistence.GeneratedValue;
import jakarta.persistence.GenerationType;
import jakarta.persistence.Id;
import jakarta.persistence.Table;

@Entity
@Table(name="Employee")
public class Employee {

  @Id
  @GeneratedValue(strategy = GenerationType.IDENTITY)
  private int id;

  @Column(name="employee_Name")
  private String empName;

  @Column(name="dept_Name")
  private String deptName;

  @Column(name="Salary")
  private long salary;

  public Employee() {
```



```
  super();
}

public Employee(int empid, String empName, String deptName, long salary) {
  super();
  this.id = empid;
  this.empName = empName;
  this.deptName = deptName;
  this.salary = salary;
}


public Employee(String empName, String deptName, long salary) {
  super();
  this.empName = empName;
  this.deptName = deptName;
  this.salary = salary;
}

public int getId() {
  return id;
}

public void setId(int id) {
  this.id = id;
}

public String getEmpName() {
  return empName;
}

public void setEmpName(String empName) {
  this.empName = empName;
}

public String getDeptName() {
  return deptName;
}

public void setDeptName(String deptName) {
  this.deptName = deptName;
}

public long getSalary() {
  return salary;
}

public void setSalary(long salary) {
    this.salary = salary;
  }
}
```


STS_workspace - Employee_Management_System_Assignment1/src/main/java/com/project44/entity/Employee.java - Spring Tool Suite 4
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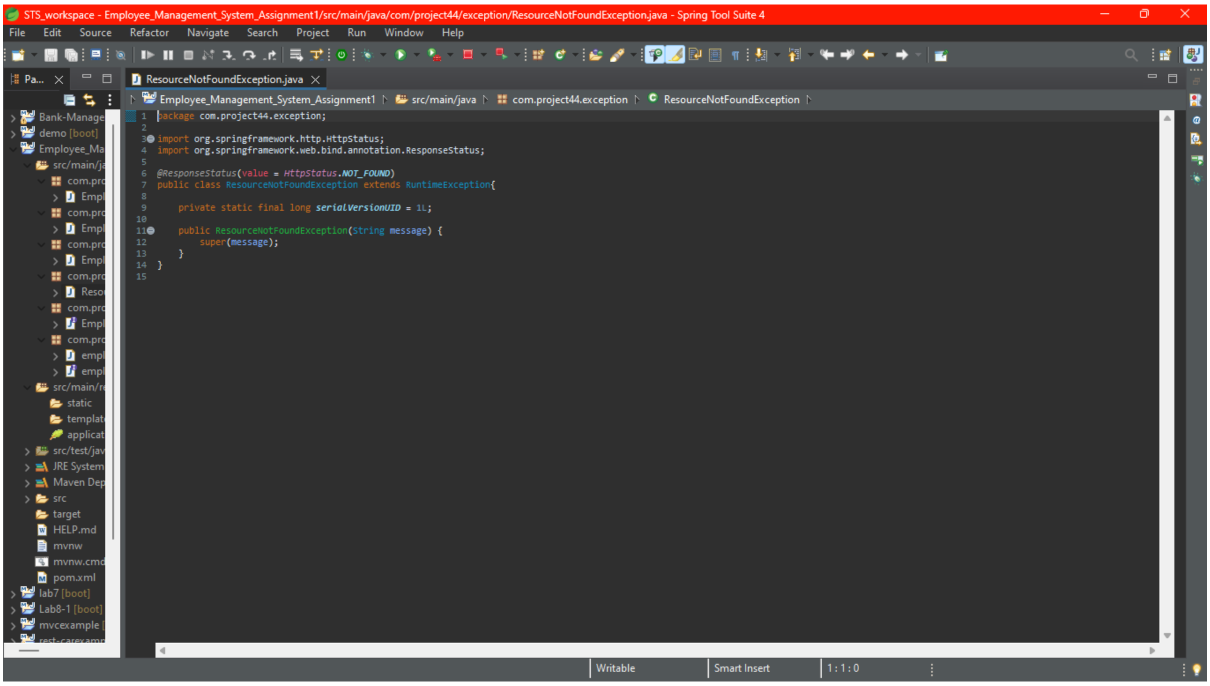
Employee_Management_System_Assignment1
src/main/java
com.project44.entity
Employee
Writable
Smart Insert
1 : 1 : 0

```
package com.project44.entity;

import jakarta.persistence.Column;

@Entity
@Table(name="Employee")
public class Employee {

    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    private int id;

    @Column(name="employee_Name")
    private String empName;

    @Column(name="dept_Name")
    private String deptName;

    @Column(name="Salary")
    private long salary;

    public Employee() {
        super();
        // TODO Auto-generated constructor stub
    }

    public Employee(int empid, String empName, String deptName, long salary) {
        super();
        this.id = empid;
        this.empName = empName;
        this.deptName = deptName;
        this.salary = salary;
    }


    public Employee(String empName, String deptName, long salary) {
        super();
        this.empName = empName;
        this.deptName = deptName;
        this.salary = salary;
    }

    public int getId() {
        return id;
    }
```

ResourceNotFoundException.java:

```
package com.project44.exception;

import org.springframework.http.HttpStatus;
import org.springframework.web.bind.annotation.ResponseStatus;

@ResponseStatus(value = HttpStatus.NOT_FOUND)
public class ResourceNotFoundException extends RuntimeException{

  private static final long serialVersionUID = 1L;

  public ResourceNotFoundException(String message) {
    super(message);
  }
}
```

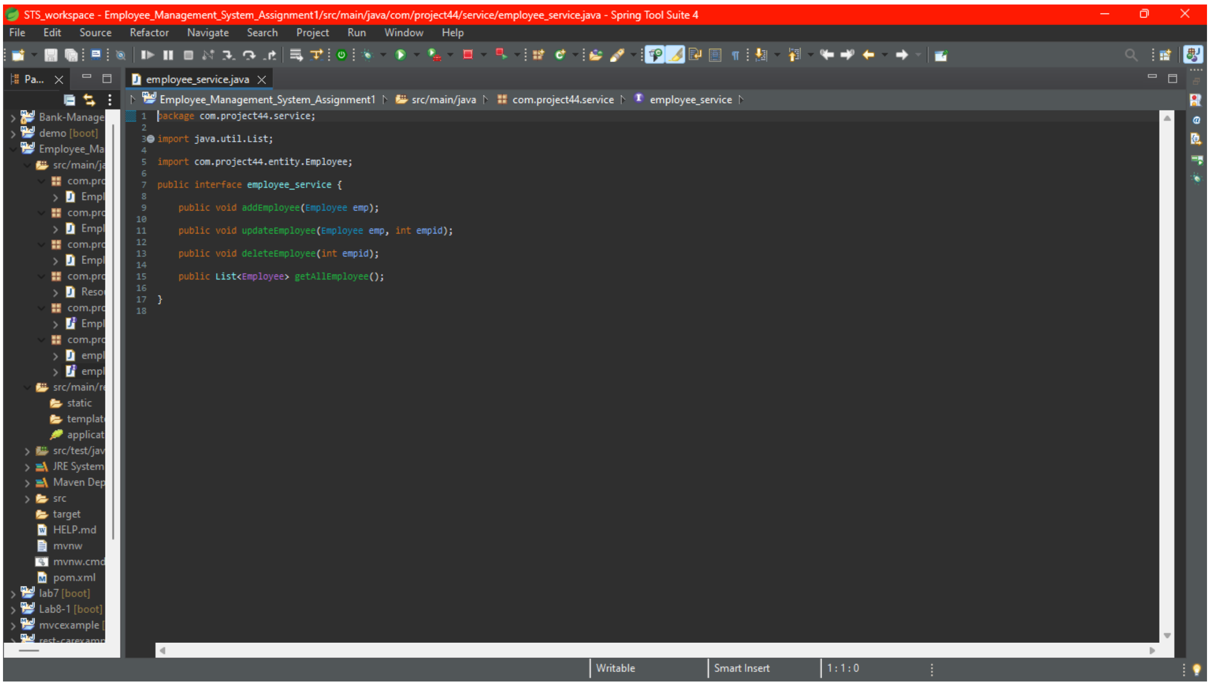


STS_workspace - Employee_Management_System_Assignment1/src/main/java/com/project44/exception/ResourceNotFoundException.java - Spring Tool Suite 4

```java
package com.project44.exception;

import org.springframework.http.HttpStatus;
import org.springframework.web.bind.annotation.ResponseStatus;

@ResponseStatus(value = HttpStatus.NOT_FOUND)
public class ResourceNotFoundException extends RuntimeException{

    private static final long serialVersionUID = 1L;

    public ResourceNotFoundException(String message) {
        super(message);
    }
}
```

Employeeservice.java(Interface):

```java
package com.project44.service;

import java.util.List;

import com.project44.entity.Employee;

public interface employee_service {

  public void addEmployee(Employee emp);

  public void updateEmployee(Employee emp, int empid);

  public void deleteEmployee(int empid);

  public List<Employee> getAllEmployee();

}
```

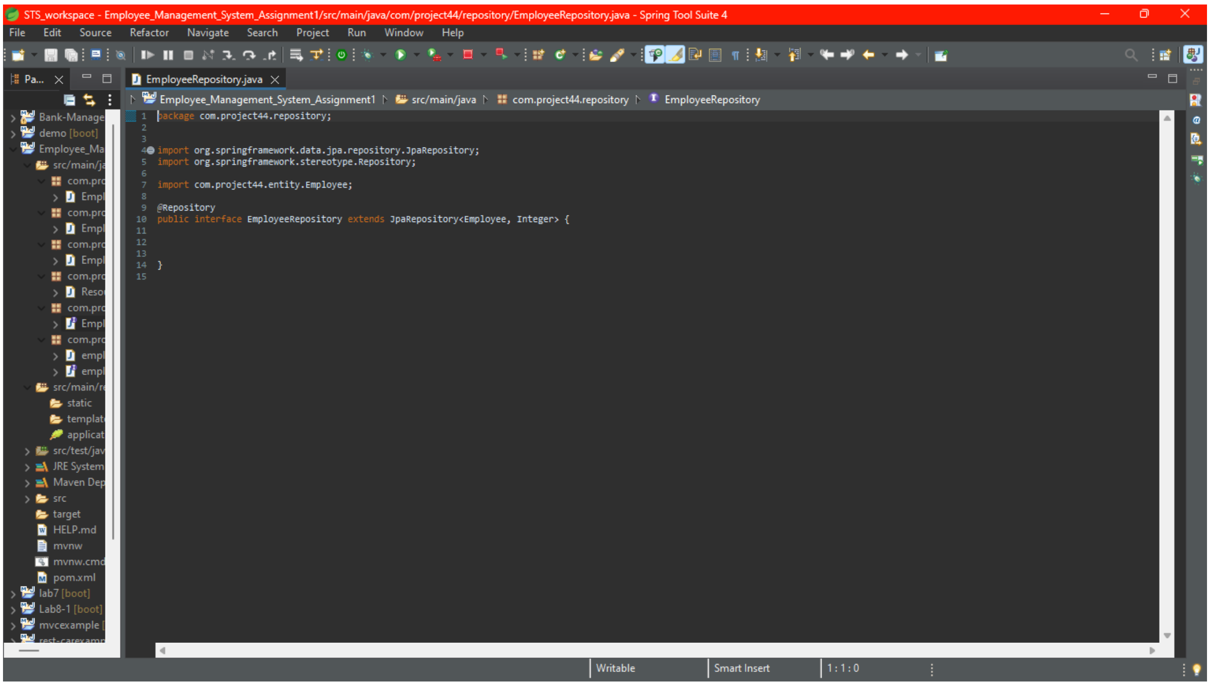


STS_workspace - Employee_Management_System_Assignment1/src/main/java/com/project44/service/employee_service.java - Spring Tool Suite 4

```java
package com.project44.service;

import java.util.List;

import com.project44.entity.Employee;

public interface employee_service {

    public void addEmployee(Employee emp);

    public void updateEmployee(Employee emp, int empid);

    public void deleteEmployee(int empid);

    public List<Employee> getAllEmployee();

}
```

Employeerepository.java:

```java
package com.project44.repository;


import org.springframework.data.jpa.repository.JpaRepository;
import org.springframework.stereotype.Repository;

import com.project44.entity.Employee;

@Repository
public interface EmployeeRepository extends JpaRepository<Employee, Integer> {
}
```


STS_workspace - Employee_Management_System_Assignment1/src/main/java/com/project44/repository/EmployeeRepository.java - Spring Tool Suite 4
File Edit Source Refactor Navigate Search Project Run Window Help
EmployeeRepository.java
Employee_Management_System_Assignment1 › src/main/java › com.project44.repository › EmployeeRepository
Writable
Smart Insert
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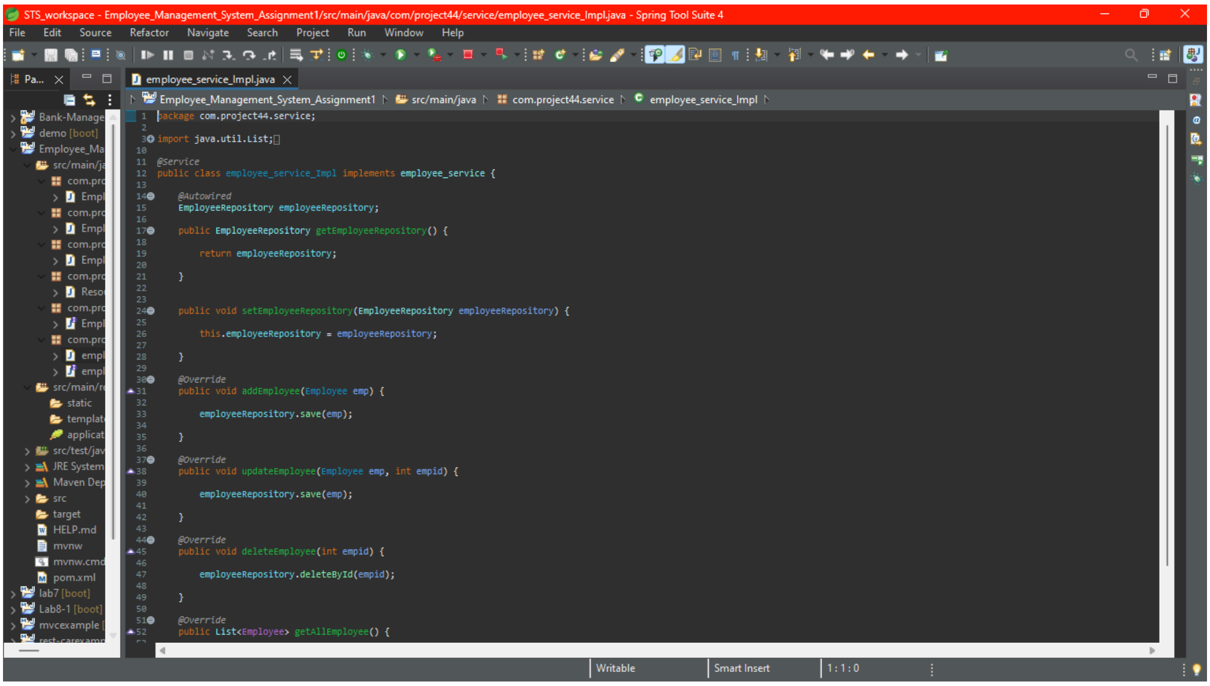
```java
package com.project44.repository;


import org.springframework.data.jpa.repository.JpaRepository;
import org.springframework.stereotype.Repository;

import com.project44.entity.Employee;

@Repository
public interface EmployeeRepository extends JpaRepository<Employee, Integer> {



}
```

EmployeeServiceImp.java:

```java
package com.project44.service;

import java.util.List;

import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;

import com.project44.entity.Employee;
import com.project44.repository.EmployeeRepository;

@Service
public class employee_service_Impl implements employee_service {

  @Autowired
  EmployeeRepository employeeRepository;

  public EmployeeRepository getEmployeeRepository() {

    return employeeRepository;

  }


  public void setEmployeeRepository(EmployeeRepository employeeRepository) {

    this.employeeRepository = employeeRepository;
  }

  @Override
  public void addEmployee(Employee emp) {

    employeeRepository.save(emp);

  }

  @Override
  public void updateEmployee(Employee emp, int empid) {

    employeeRepository.save(emp);

  }

  @Override
  public void deleteEmployee(int empid) {

    employeeRepository.deleteById(empid);

  }

  @Override
  public List<Employee> getAllEmployee() {

    return employeeRepository.findAll();
  }
}
```

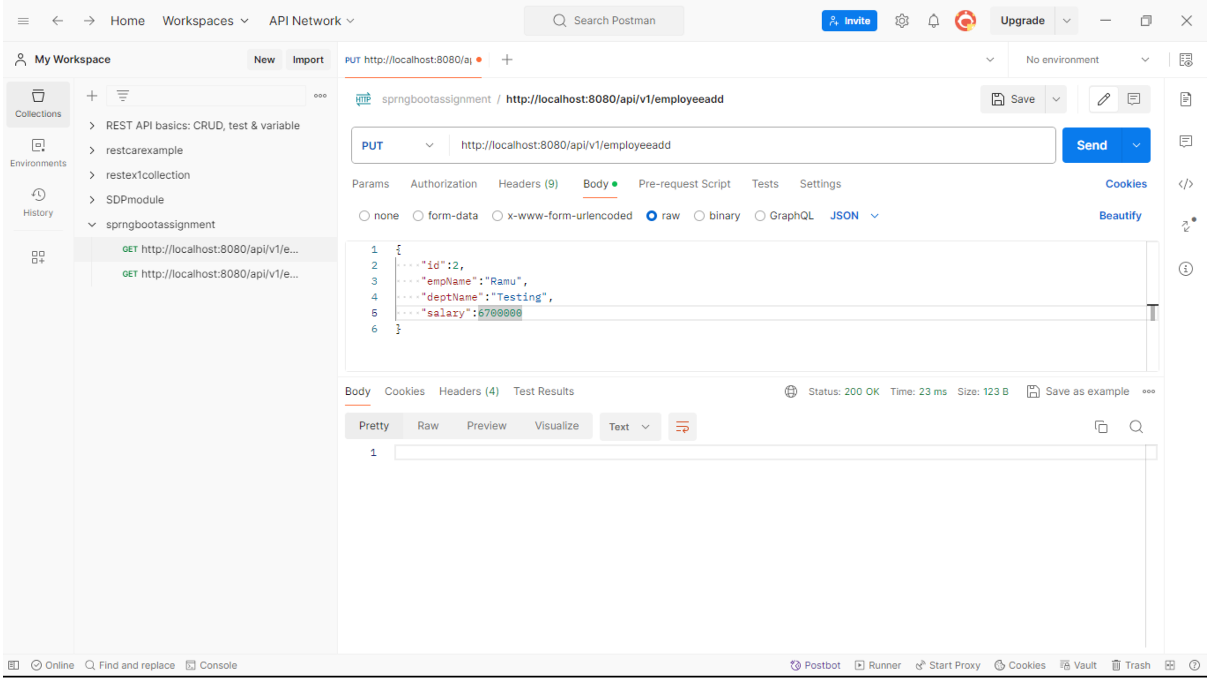


STS_workspace - Employee_Management_System_Assignment1/src/main/java/com/project44/service/employee_service_Impl.java - Spring Tool Suite 4

```java
package com.project44.service;

import java.util.List;

@Service
public class employee_service_Impl implements employee_service {

    @Autowired
    EmployeeRepository employeeRepository;

    public EmployeeRepository getEmployeeRepository() {

        return employeeRepository;

    }


    public void setEmployeeRepository(EmployeeRepository employeeRepository) {

        this.employeeRepository = employeeRepository;

    }

    @Override
    public void addEmployee(Employee emp) {

        employeeRepository.save(emp);

    }

    @Override
    public void updateEmployee(Employee emp, int empid) {

        employeeRepository.save(emp);

    }

    @Override
    public void deleteEmployee(int empid) {

        employeeRepository.deleteById(empid);

    }

    @Override
    public List<Employee> getAllEmployee() {
```

Output:

Adding Employee:

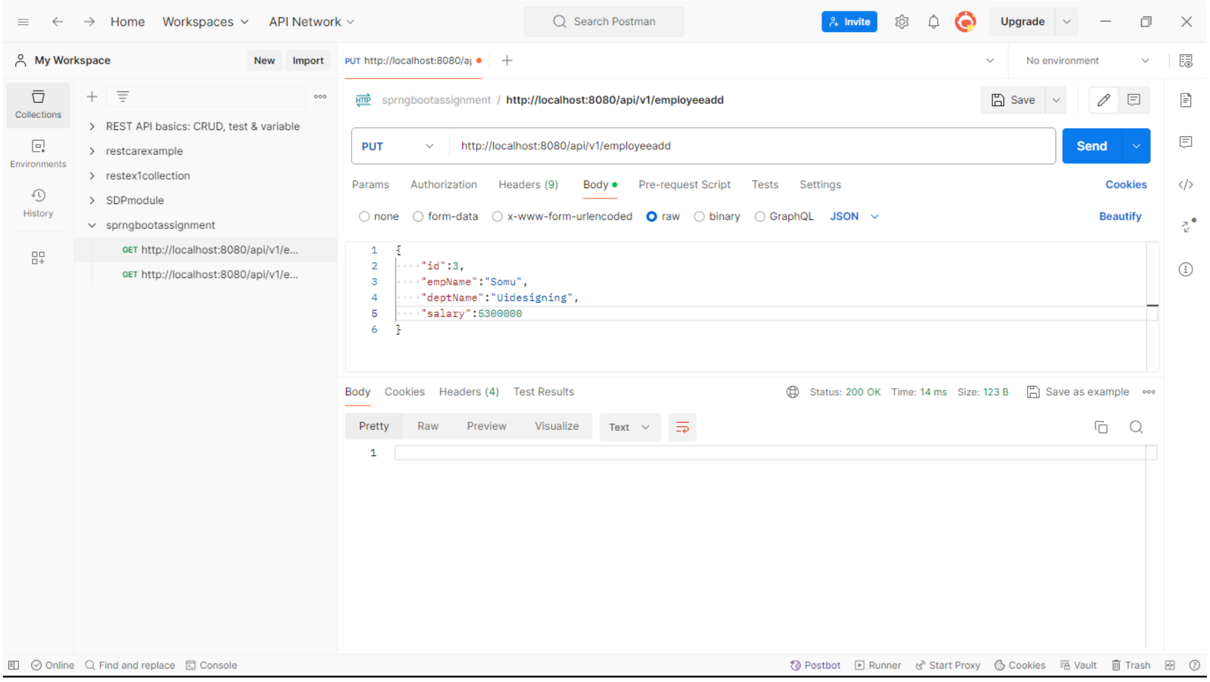


sprngbootassignment / http://localhost:8080/api/v1/employeeadd

PUT http://localhost:8080/api/v1/employeeadd

```json
{
    "id":2,
    "empName":"Ramu",
    "deptName":"Testing",
    "salary":6700000
}
```

Status: 200 OK Time: 23 ms Size: 123 B



sprngbootasignment / http://localhost:8080/api/v1/employeeadd

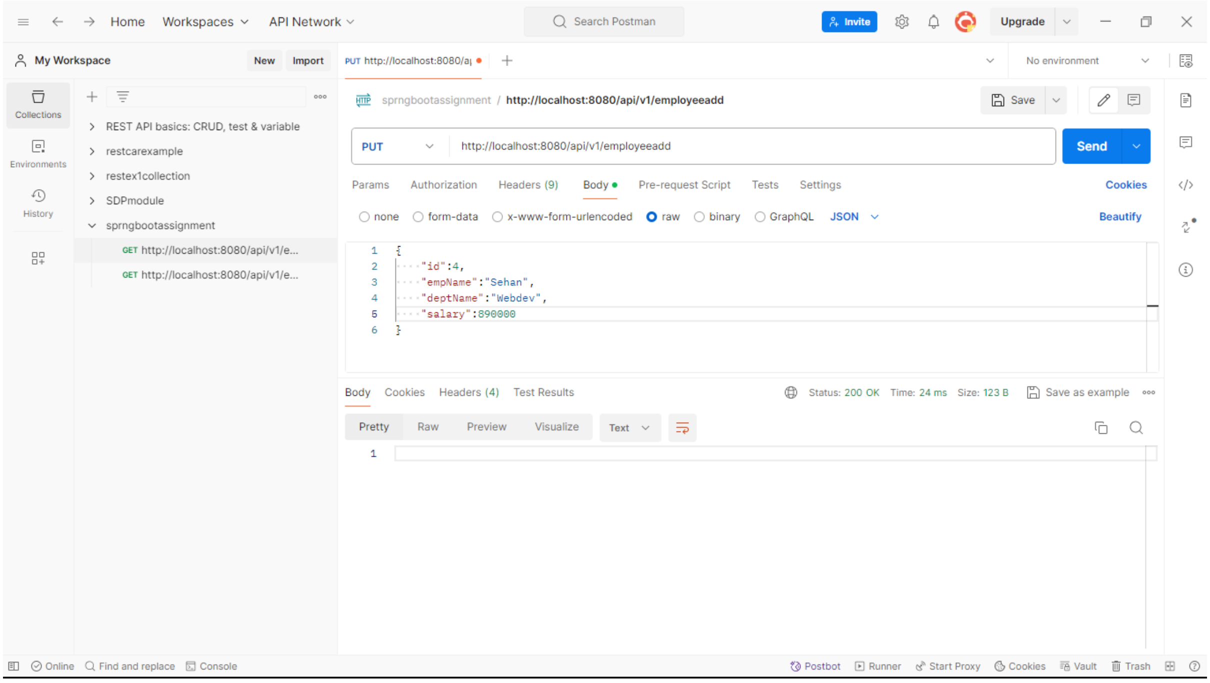
PUT http://localhost:8080/api/v1/employeeadd

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

```
{
    "id":3,
    "empName":"Somu",
    "deptName":"Uidesigning",
    "salary":5300000
}
```

Body Cookies Headers (4) Test Results — Status: 200 OK Time: 14 ms Size: 123 B

Pretty Raw Preview Visualize Text



sprngbootasignment / http://localhost:8080/api/v1/employeeadd

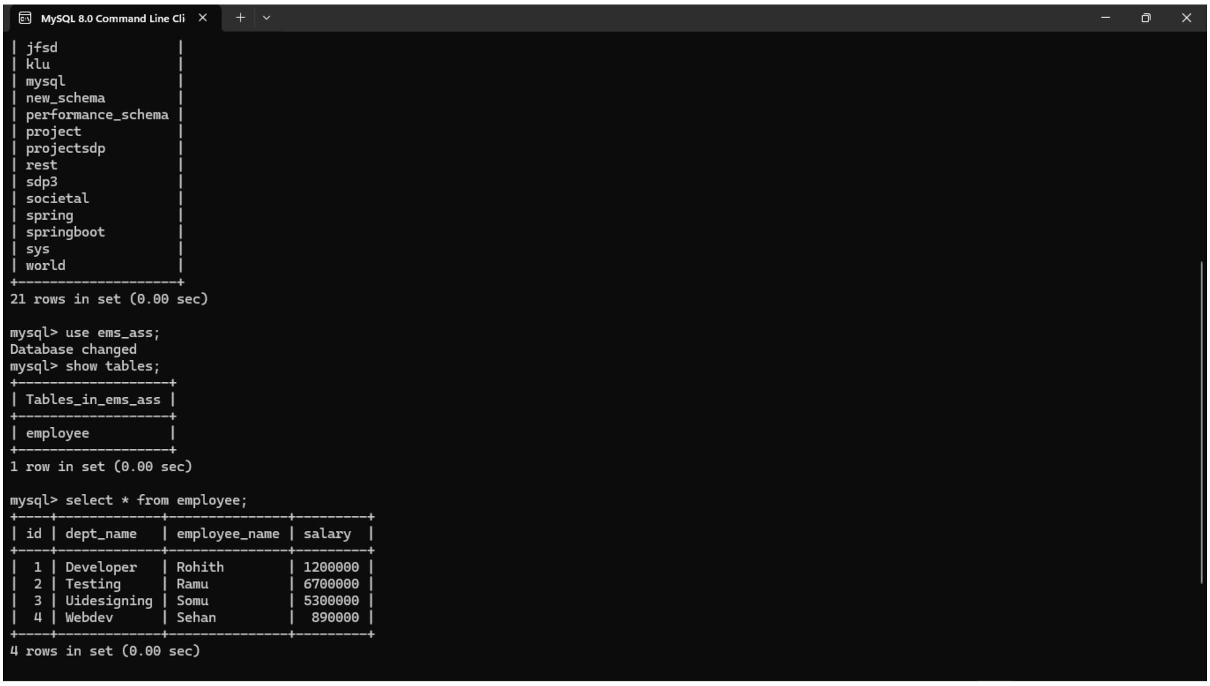
PUT http://localhost:8080/api/v1/employeeadd

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

```
{
    "id":4,
    "empName":"Sehan",
    "deptName":"Webdev",
    "salary":890000
}
```

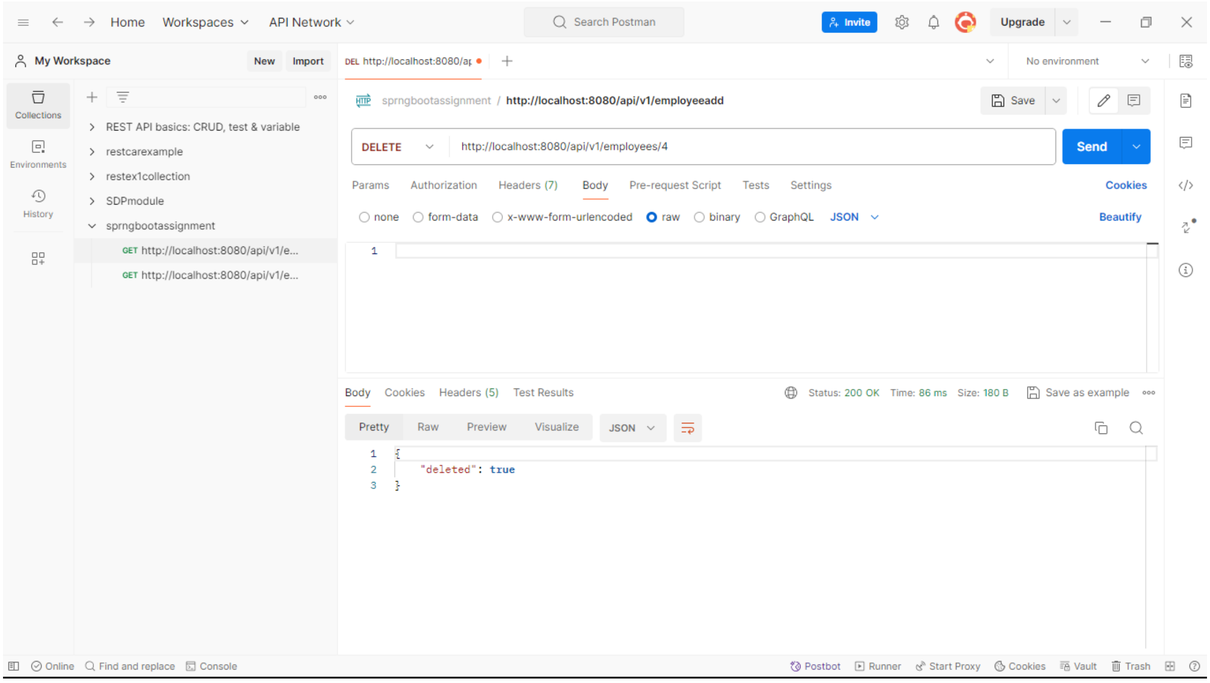
Body Cookies Headers (4) Test Results — Status: 200 OK Time: 24 ms Size: 123 B

Pretty Raw Preview Visualize Text



```
| jfsd               |
| klu                |
| mysql              |
| new_schema         |
| performance_schema |
| project            |
| projectsdp         |
| rest               |
| sdp3               |
| societal           |
| spring             |
| springboot         |
| sys                |
| world              |
+--------------------+
21 rows in set (0.00 sec)

mysql> use ems_ass;
Database changed
mysql> show tables;
+-------------------+
| Tables_in_ems_ass |
+-------------------+
| employee          |
+-------------------+
1 row in set (0.00 sec)

mysql> select * from employee;
+----+-------------+---------------+---------+
| id | dept_name   | employee_name | salary  |
+----+-------------+---------------+---------+
|  1 | Developer   | Rohith        | 1200000 |
|  2 | Testing     | Ramu          | 6700000 |
|  3 | Uidesigning | Somu          | 5300000 |
|  4 | Webdev      | Sehan         |  890000 |
+----+-------------+---------------+---------+
4 rows in set (0.00 sec)
```

Delete employee:



sprngbootassignment / http://localhost:8080/api/v1/employeeadd

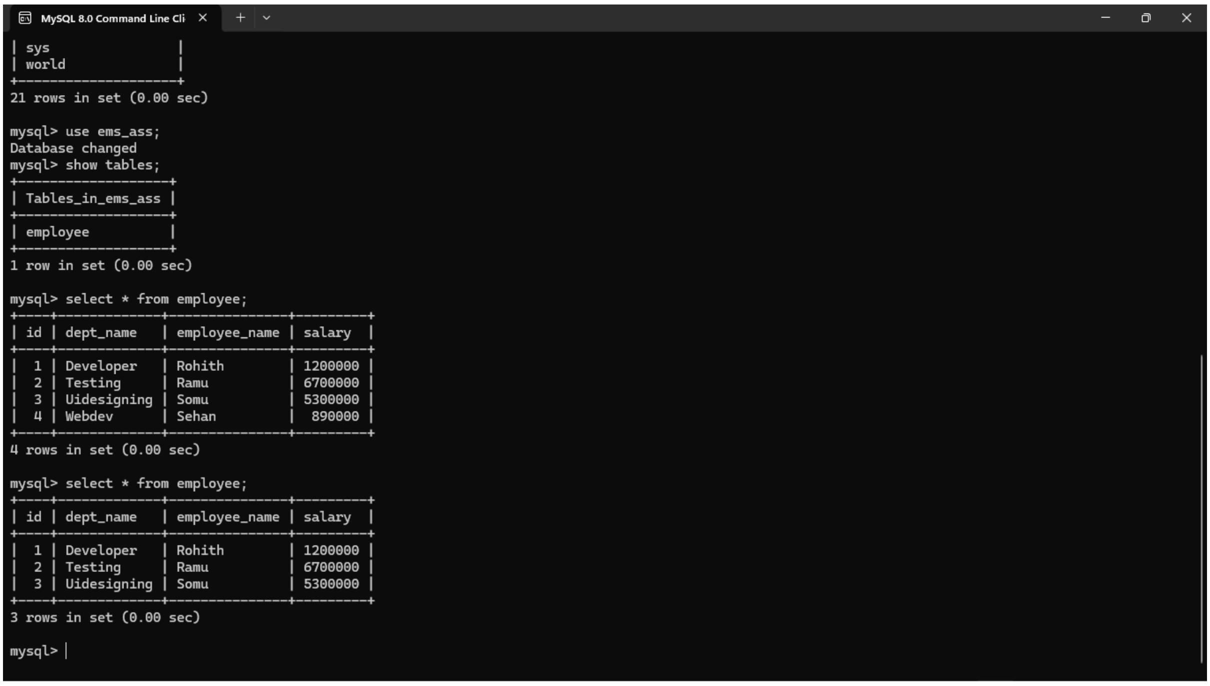
DELETE http://localhost:8080/api/v1/employees/4

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

Response Body Cookies Headers (5) Test Results — Status: 200 OK Time: 86 ms Size: 180 B

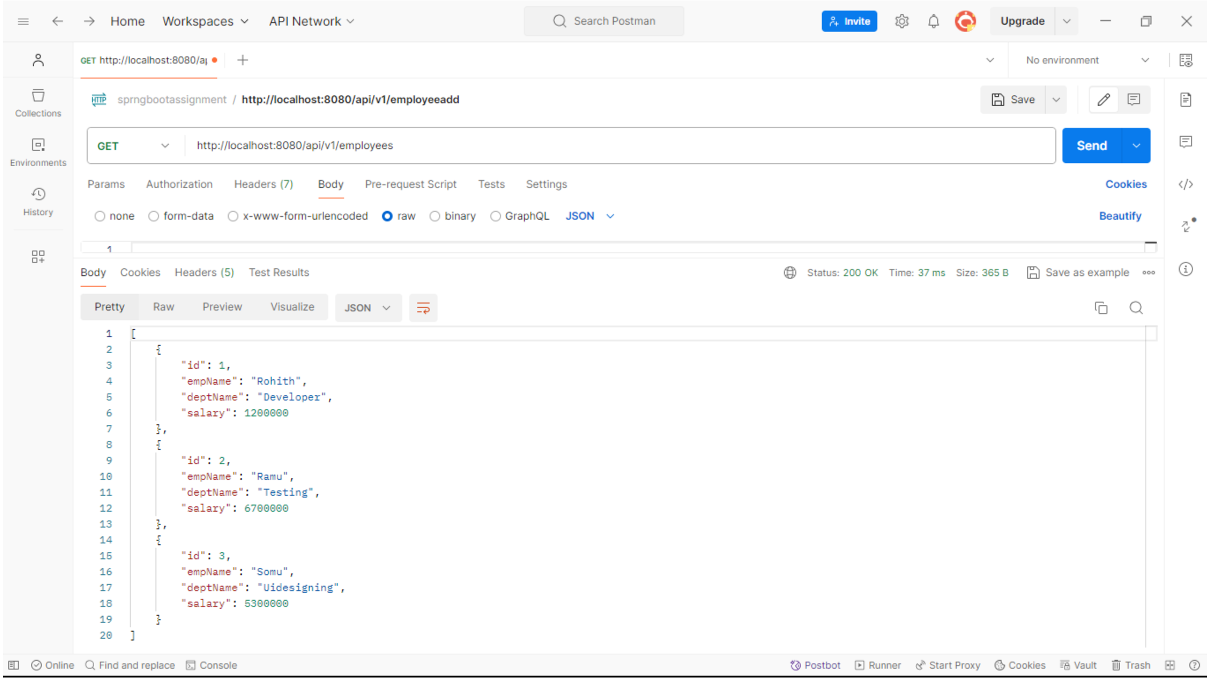
JSON

```
{
    "deleted": true
}
```



```
| sys                |
| world              |
+--------------------+
21 rows in set (0.00 sec)

mysql> use ems_ass;
Database changed
mysql> show tables;
+-------------------+
| Tables_in_ems_ass |
+-------------------+
| employee          |
+-------------------+
1 row in set (0.00 sec)

mysql> select * from employee;
+----+-------------+---------------+---------+
| id | dept_name   | employee_name | salary  |
+----+-------------+---------------+---------+
|  1 | Developer   | Rohith        | 1200000 |
|  2 | Testing     | Ramu          | 6700000 |
|  3 | Uidesigning | Somu          | 5300000 |
|  4 | Webdev      | Sehan         |  890000 |
+----+-------------+---------------+---------+
4 rows in set (0.00 sec)

mysql> select * from employee;
+----+-------------+---------------+---------+
| id | dept_name   | employee_name | salary  |
+----+-------------+---------------+---------+
|  1 | Developer   | Rohith        | 1200000 |
|  2 | Testing     | Ramu          | 6700000 |
|  3 | Uidesigning | Somu          | 5300000 |
+----+-------------+---------------+---------+
3 rows in set (0.00 sec)

mysql> |
```

Displaying all the employee(get):



sprngbootassignment / http://localhost:8080/api/v1/employeeadd

GET http://localhost:8080/api/v1/employees

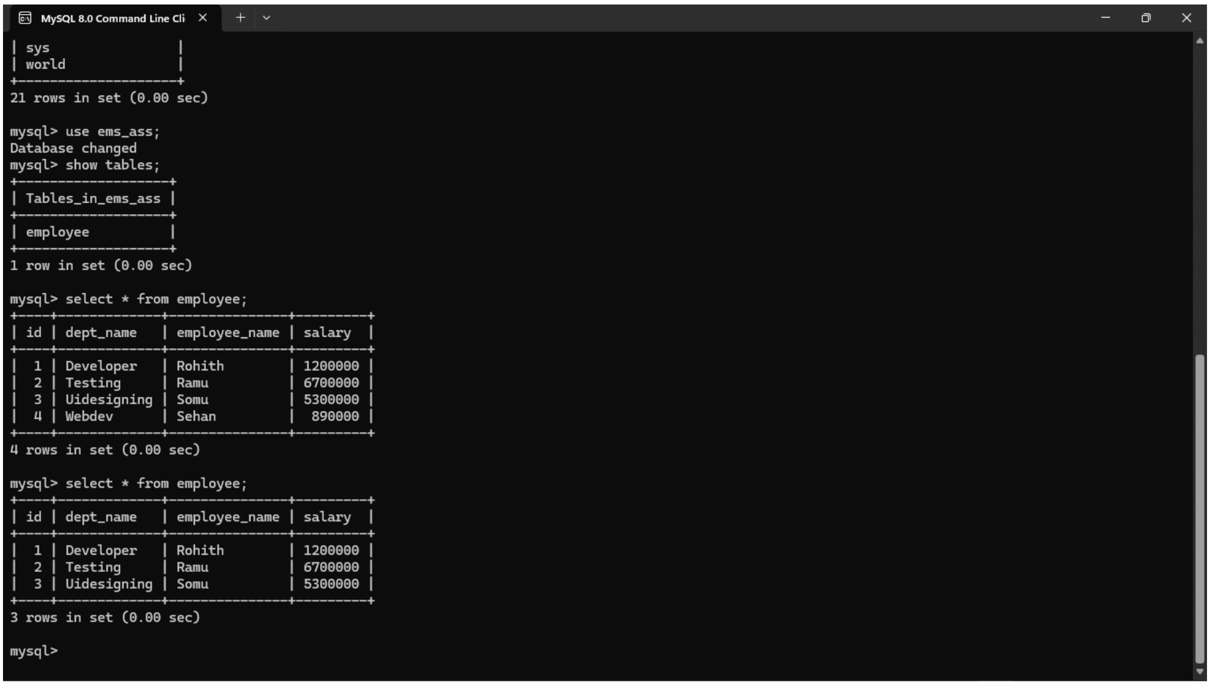
○ none ○ form-data ○ x-www-form-urlencoded ● raw ○ binary ○ GraphQL JSON

Status: 200 OK Time: 37 ms Size: 365 B

JSON

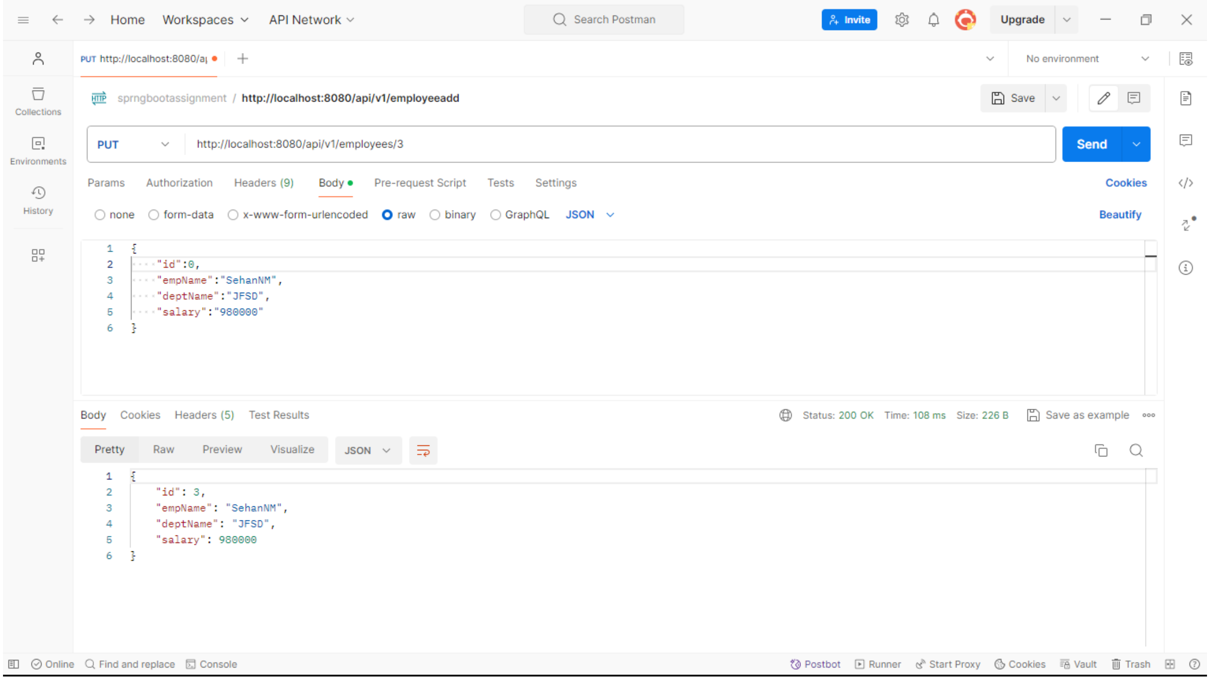
```
[
    {
        "id": 1,
        "empName": "Rohith",
        "deptName": "Developer",
        "salary": 1200000
    },
    {
        "id": 2,
        "empName": "Ramu",
        "deptName": "Testing",
        "salary": 6700000
    },
    {
        "id": 3,
        "empName": "Somu",
        "deptName": "Uidesigning",
        "salary": 5300000
    }
]
```

Employee data stored in database:



```
| sys                |
| world              |
+--------------------+
21 rows in set (0.00 sec)

mysql> use ems_ass;
Database changed
mysql> show tables;
+-------------------+
| Tables_in_ems_ass |
+-------------------+
| employee          |
+-------------------+
1 row in set (0.00 sec)

mysql> select * from employee;
+----+-------------+---------------+---------+
| id | dept_name   | employee_name | salary  |
+----+-------------+---------------+---------+
|  1 | Developer   | Rohith        | 1200000 |
|  2 | Testing     | Ramu          | 6700000 |
|  3 | Uidesigning | Somu          | 5300000 |
|  4 | Webdev      | Sehan         |  890000 |
+----+-------------+---------------+---------+
4 rows in set (0.00 sec)

mysql> select * from employee;
+----+-------------+---------------+---------+
| id | dept_name   | employee_name | salary  |
+----+-------------+---------------+---------+
|  1 | Developer   | Rohith        | 1200000 |
|  2 | Testing     | Ramu          | 6700000 |
|  3 | Uidesigning | Somu          | 5300000 |
+----+-------------+---------------+---------+
3 rows in set (0.00 sec)

mysql>
```

Updating Employee:



PUT http://localhost:8080/a|

sprngbootassignment / http://localhost:8080/api/v1/employeeadd

PUT http://localhost:8080/api/v1/employees/3

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

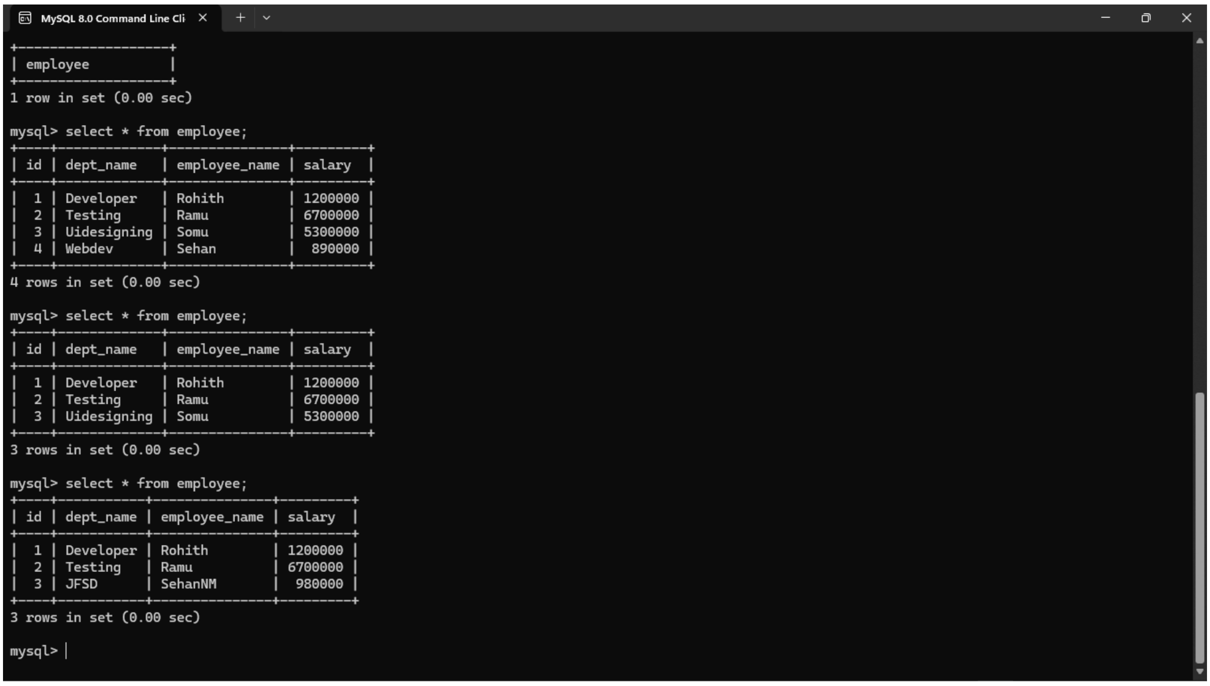
```
{
    "id":0,
    "empName":"SehanNM",
    "deptName":"JFSD",
    "salary":"980000"
}
```

Body Cookies Headers (5) Test Results

Status: 200 OK Time: 108 ms Size: 226 B

JSON

```
{
    "id": 3,
    "empName": "SehanNM",
    "deptName": "JFSD",
    "salary": 980000
}
```



```
+------------------+
| employee         |
+------------------+
1 row in set (0.00 sec)

mysql> select * from employee;
+----+-------------+---------------+---------+
| id | dept_name   | employee_name | salary  |
+----+-------------+---------------+---------+
|  1 | Developer   | Rohith        | 1200000 |
|  2 | Testing     | Ramu          | 6700000 |
|  3 | Uidesigning | Somu          | 5300000 |
|  4 | Webdev      | Sehan         |  890000 |
+----+-------------+---------------+---------+
4 rows in set (0.00 sec)

mysql> select * from employee;
+----+-------------+---------------+---------+
| id | dept_name   | employee_name | salary  |
+----+-------------+---------------+---------+
|  1 | Developer   | Rohith        | 1200000 |
|  2 | Testing     | Ramu          | 6700000 |
|  3 | Uidesigning | Somu          | 5300000 |
+----+-------------+---------------+---------+
3 rows in set (0.00 sec)

mysql> select * from employee;
+----+-----------+---------------+---------+
| id | dept_name | employee_name | salary  |
+----+-----------+---------------+---------+
|  1 | Developer | Rohith        | 1200000 |
|  2 | Testing   | Ramu          | 6700000 |
|  3 | JFSD      | SehanNM       |  980000 |
+----+-----------+---------------+---------+
3 rows in set (0.00 sec)

mysql> 
```