Java Full Stack Development

Skilling-9

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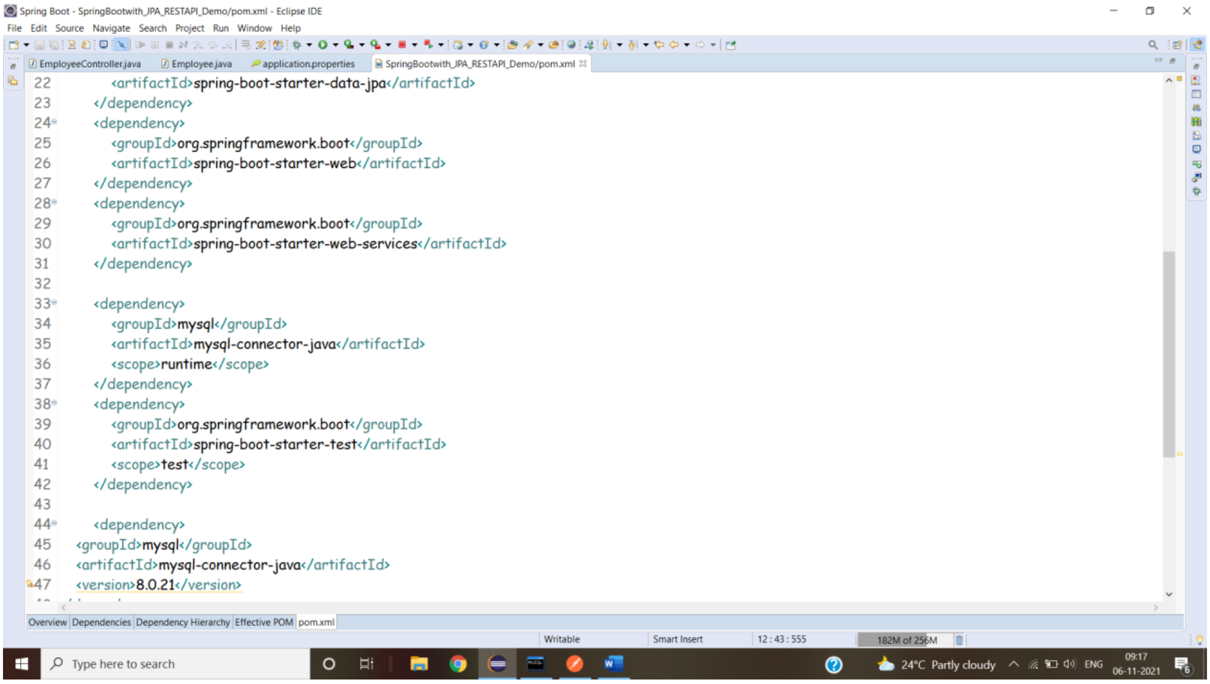
Spring Boot with JPA Rest API

Pom.xml


Spring Boot - SpringBootwith_JPA_RESTAPI_Demo/pom.xml - Eclipse IDE
File Edit Source Navigate Search Project Run Window Help
EmployeeController.java
Employee.java
application.properties
SpringBootwith_JPA_RESTAPI_Demo/pom.xml
Overview Dependencies Dependency Hierarchy Effective POM pom.xml
Writable
Smart Insert
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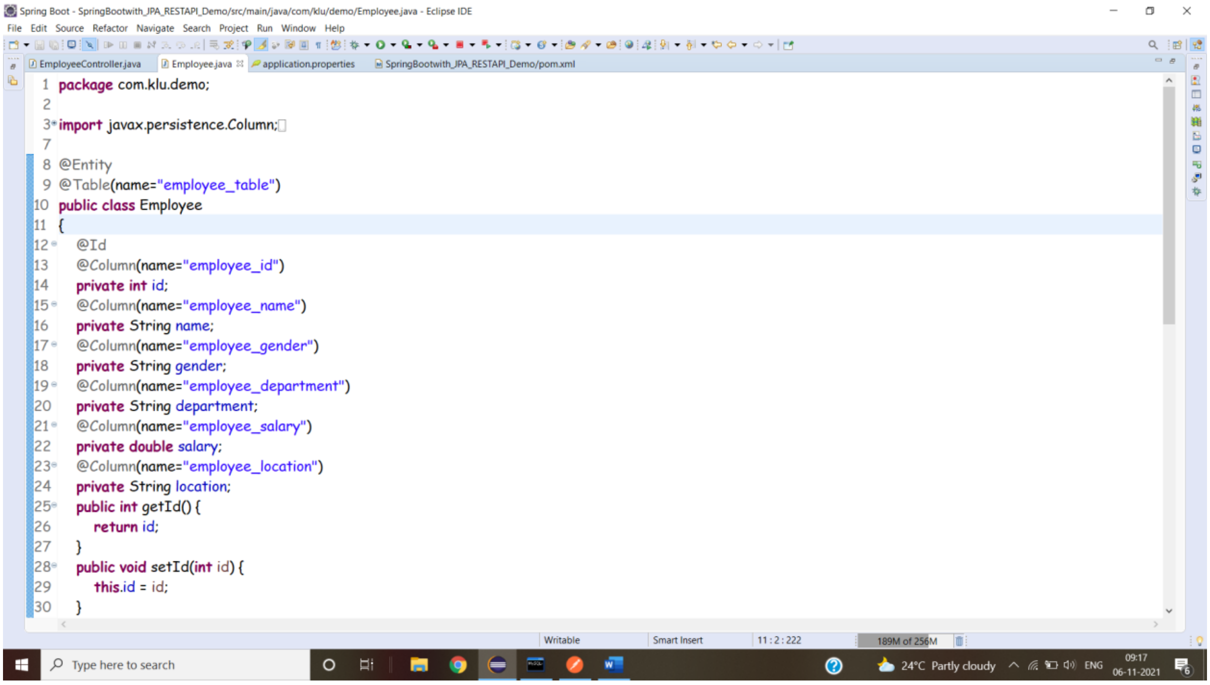
```xml
            <artifactId>spring-boot-starter-data-jpa</artifactId>
        </dependency>
        <dependency>
            <groupId>org.springframework.boot</groupId>
            <artifactId>spring-boot-starter-web</artifactId>
        </dependency>
        <dependency>
            <groupId>org.springframework.boot</groupId>
            <artifactId>spring-boot-starter-web-services</artifactId>
        </dependency>

        <dependency>
            <groupId>mysql</groupId>
            <artifactId>mysql-connector-java</artifactId>
            <scope>runtime</scope>
        </dependency>
        <dependency>
            <groupId>org.springframework.boot</groupId>
            <artifactId>spring-boot-starter-test</artifactId>
            <scope>test</scope>
        </dependency>

        <dependency>
    <groupId>mysql</groupId>
    <artifactId>mysql-connector-java</artifactId>
    <version>8.0.21</version>
```

Employee.java


Spring Boot - SpringBootwith_JPA_RESTAPI_Demo/src/main/java/com/klu/demo/Employee.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
EmployeeController.java
Employee.java
application.properties
SpringBootwith_JPA_RESTAPI_Demo/pom.xml
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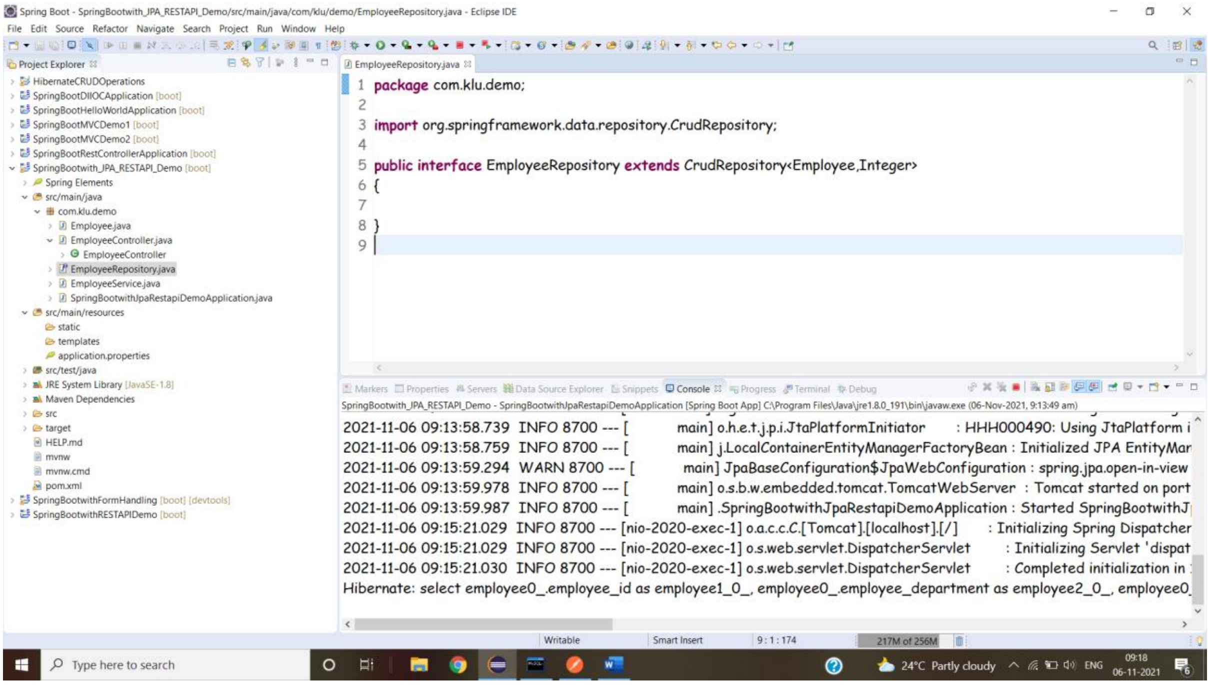
```java
package com.klu.demo;

import javax.persistence.Column;

@Entity
@Table(name="employee_table")
public class Employee
{
    @Id
    @Column(name="employee_id")
    private int id;
    @Column(name="employee_name")
    private String name;
    @Column(name="employee_gender")
    private String gender;
    @Column(name="employee_department")
    private String department;
    @Column(name="employee_salary")
    private double salary;
    @Column(name="employee_location")
    private String location;
    public int getId() {
        return id;
    }
    public void setId(int id) {
        this.id = id;
    }
```

EmployeeRespository.java


Spring Boot - SpringBootwith_JPA_RESTAPI_Demo/src/main/java/com/klu/demo/EmployeeRepository.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Project Explorer
HibernateCRUDOperations
SpringBootDIIOCApplication [boot]
SpringBootHelloWorldApplication [boot]
SpringBootMVCDemo1 [boot]
SpringBootMVCDemo2 [boot]
SpringBootRestControllerApplication [boot]
SpringBootwith_JPA_RESTAPI_Demo [boot]
Spring Elements
src/main/java
com.klu.demo
Employee.java
EmployeeController.java
EmployeeController
EmployeeRepository.java
EmployeeService.java
SpringBootwithJpaRestapiDemoApplication.java
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application.properties
src/test/java
JRE System Library [JavaSE-1.8]
Maven Dependencies
src
target
HELP.md
mvnw
mvnw.cmd
pom.xml
SpringBootwithFormHandling [boot] [devtools]
SpringBootwithRESTAPIDemo [boot]
EmployeeRepository.java
Markers Properties Servers Data Source Explorer Snippets Console Progress Terminal Debug
Writable
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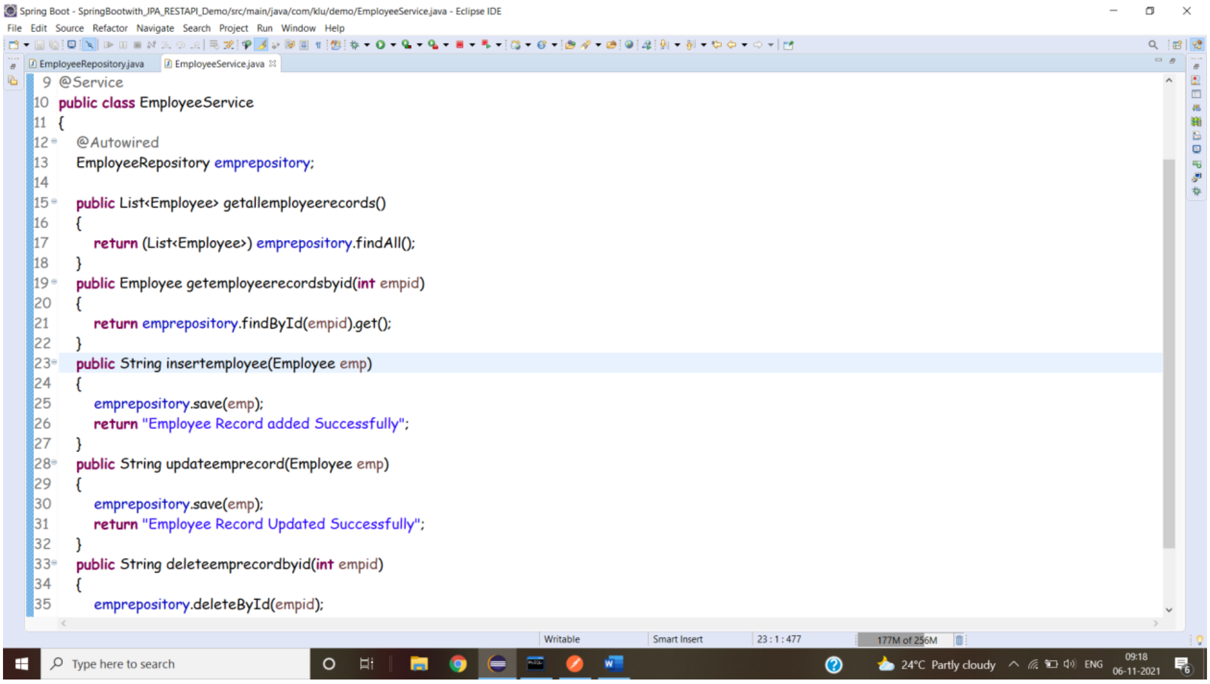
```java
package com.klu.demo;

import org.springframework.data.repository.CrudRepository;

public interface EmployeeRepository extends CrudRepository<Employee,Integer>
{

}
```

SpringBootwith_JPA_RESTAPI_Demo - SpringBootwithJpaRestapiDemoApplication [Spring Boot App] C:\Program Files\Java\jre1.8.0_191\bin\javaw.exe (06-Nov-2021, 9:13:49 am)

```
2021-11-06 09:13:58.739  INFO 8700 --- [           main] o.h.e.t.j.p.i.JtaPlatformInitiator       : HHH000490: Using JtaPlatform i
2021-11-06 09:13:58.759  INFO 8700 --- [           main] j.LocalContainerEntityManagerFactoryBean : Initialized JPA EntityMan
2021-11-06 09:13:59.294  WARN 8700 --- [           main] JpaBaseConfiguration$JpaWebConfiguration : spring.jpa.open-in-view
2021-11-06 09:13:59.978  INFO 8700 --- [           main] o.s.b.w.embedded.tomcat.TomcatWebServer  : Tomcat started on port
2021-11-06 09:13:59.987  INFO 8700 --- [           main] .SpringBootwithJpaRestapiDemoApplication : Started SpringBootwithJ
2021-11-06 09:15:21.029  INFO 8700 --- [nio-2020-exec-1] o.a.c.c.C.[Tomcat].[localhost].[/]       : Initializing Spring Dispatcher
2021-11-06 09:15:21.029  INFO 8700 --- [nio-2020-exec-1] o.s.web.servlet.DispatcherServlet        : Initializing Servlet 'dispat
2021-11-06 09:15:21.030  INFO 8700 --- [nio-2020-exec-1] o.s.web.servlet.DispatcherServlet        : Completed initialization in
Hibernate: select employee0_.employee_id as employee1_0_, employee0_.employee_department as employee2_0_, employee0_
```

EmployeeService.java


Spring Boot - SpringBootwith_JPA_RESTAPI_Demo/src/main/java/com/klu/demo/EmployeeService.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
EmployeeRepository.java
EmployeeService.java
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177M of 256M
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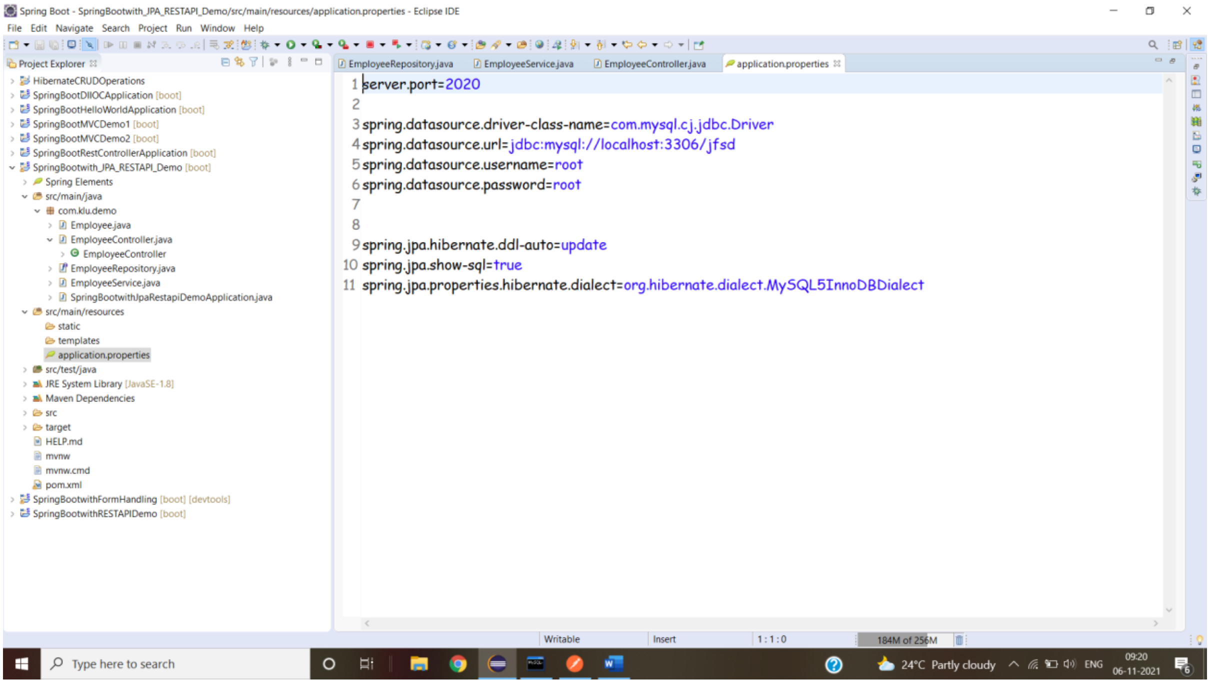
```java
@Service
public class EmployeeService
{
   @Autowired
   EmployeeRepository emprepository;

   public List<Employee> getallemployeerecords()
   {
      return (List<Employee>) emprepository.findAll();
   }
   public Employee getemployeerecordsbyid(int empid)
   {
      return emprepository.findById(empid).get();
   }
   public String insertemployee(Employee emp)
   {
      emprepository.save(emp);
      return "Employee Record added Successfully";
   }
   public String updateemprecord(Employee emp)
   {
      emprepository.save(emp);
      return "Employee Record Updated Successfully";
   }
   public String deleteemprecordbyid(int empid)
   {
      emprepository.deleteById(empid);
```

Application.properties:



Spring Boot - SpringBootwith_JPA_RESTAPI_Demo/src/main/resources/application.properties - Eclipse IDE
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SpringBootwithFormHandling [boot] [devtools]
SpringBootwithRESTAPIDemo [boot]
EmployeeRepository.java
EmployeeService.java
EmployeeController.java
application.properties
Writable
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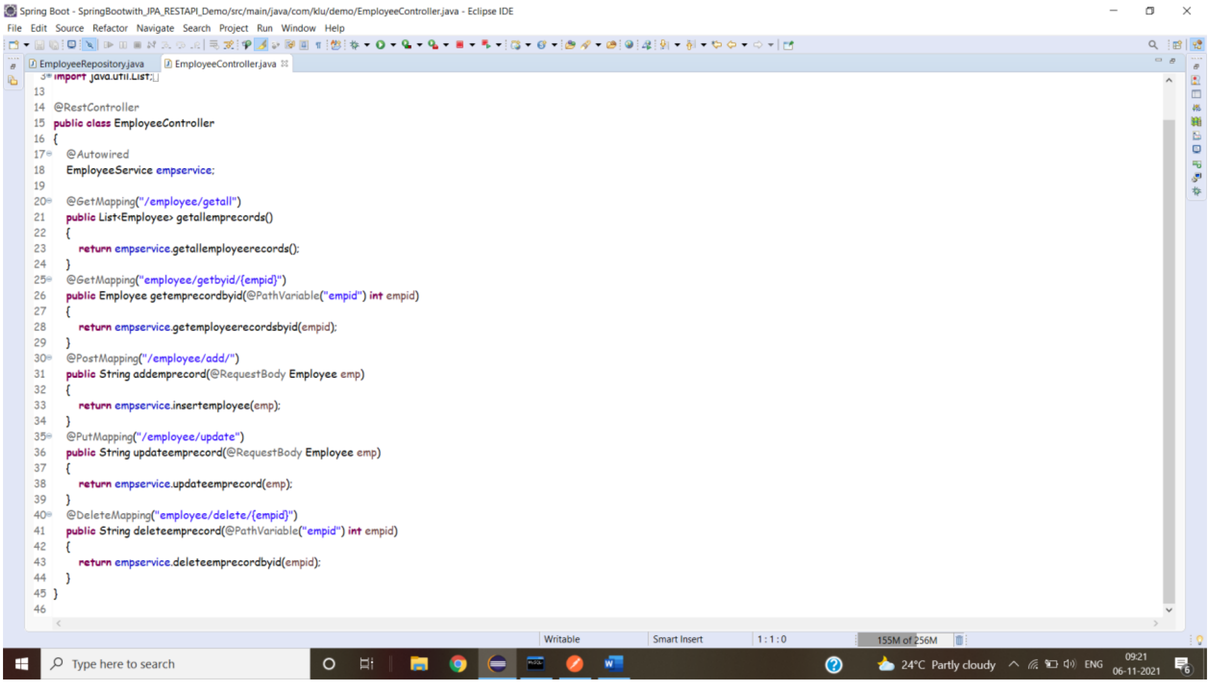
```
server.port=2020

spring.datasource.driver-class-name=com.mysql.cj.jdbc.Driver
spring.datasource.url=jdbc:mysql://localhost:3306/jfsd
spring.datasource.username=root
spring.datasource.password=root


spring.jpa.hibernate.ddl-auto=update
spring.jpa.show-sql=true
spring.jpa.properties.hibernate.dialect=org.hibernate.dialect.MySQL5InnoDBDialect
```

EmployeeController.java



Spring Boot - SpringBootwith_JPA_RESTAPI_Demo/src/main/java/com/klu/demo/EmployeeController.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
EmployeeRepository.java
EmployeeController.java
Writable
Smart Insert
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155M of 256M
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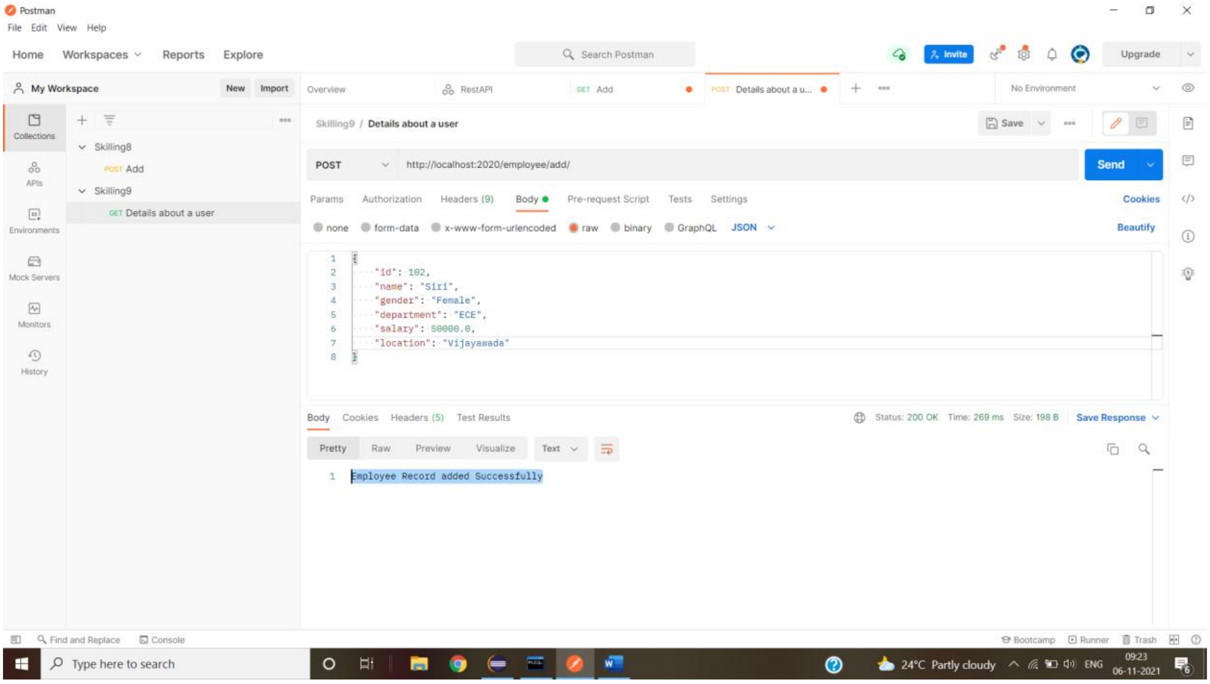
ENG
09:21
06-11-2021

```java
import java.util.List;

@RestController
public class EmployeeController
{
   @Autowired
   EmployeeService empservice;

   @GetMapping("/employee/getall")
   public List<Employee> getallemprecords()
   {
      return empservice.getallemployeerecords();
   }
   @GetMapping("employee/getbyid/{empid}")
   public Employee getemprecordbyid(@PathVariable("empid") int empid)
   {
      return empservice.getemployeerecordsbyid(empid);
   }
   @PostMapping("/employee/add/")
   public String addemprecord(@RequestBody Employee emp)
   {
      return empservice.insertemployee(emp);
   }
   @PutMapping("/employee/update")
   public String updateemprecord(@RequestBody Employee emp)
   {
      return empservice.updateemprecord(emp);
   }
   @DeleteMapping("employee/delete/{empid}")
   public String deleteemprecord(@PathVariable("empid") int empid)
   {
      return empservice.deleteemprecordbyid(empid);
   }
}

```

Add:



Skilling9 / Details about a user

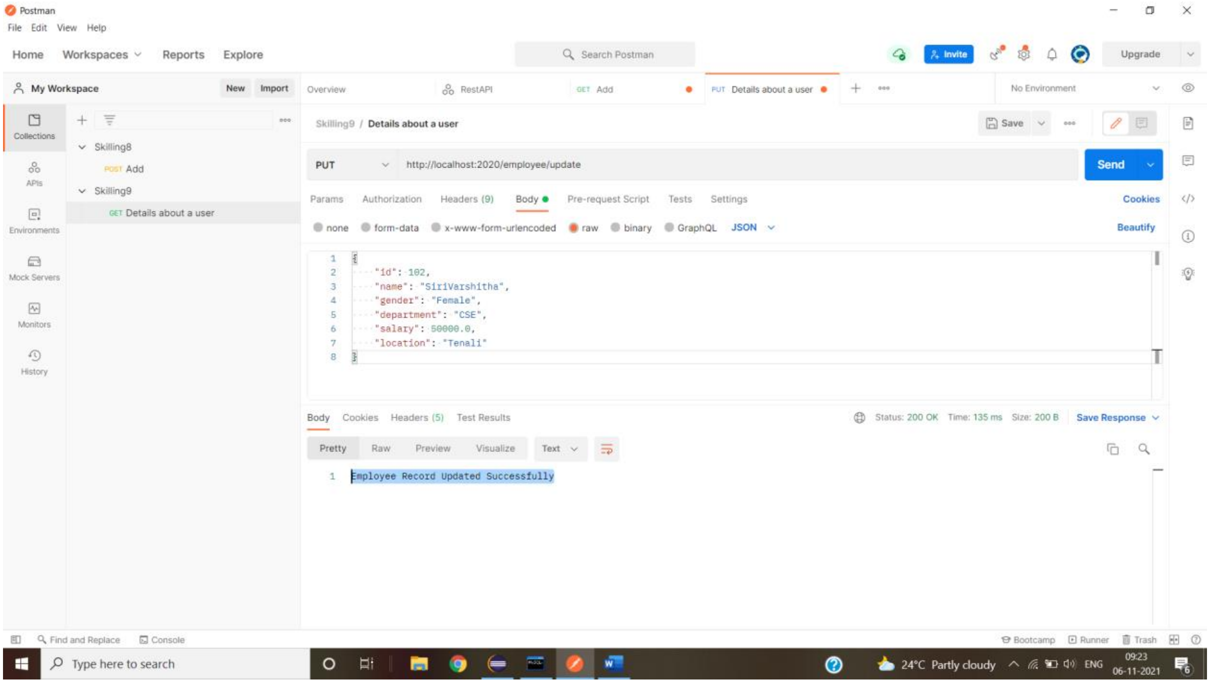
POST http://localhost:2020/employee/add/

```
{
    "id": 102,
    "name": "Siri",
    "gender": "Female",
    "department": "ECE",
    "salary": 50000.0,
    "location": "Vijayawada"
}
```

Status: 200 OK Time: 269 ms Size: 198 B

```
Employee Record added Successfully
```

Update:



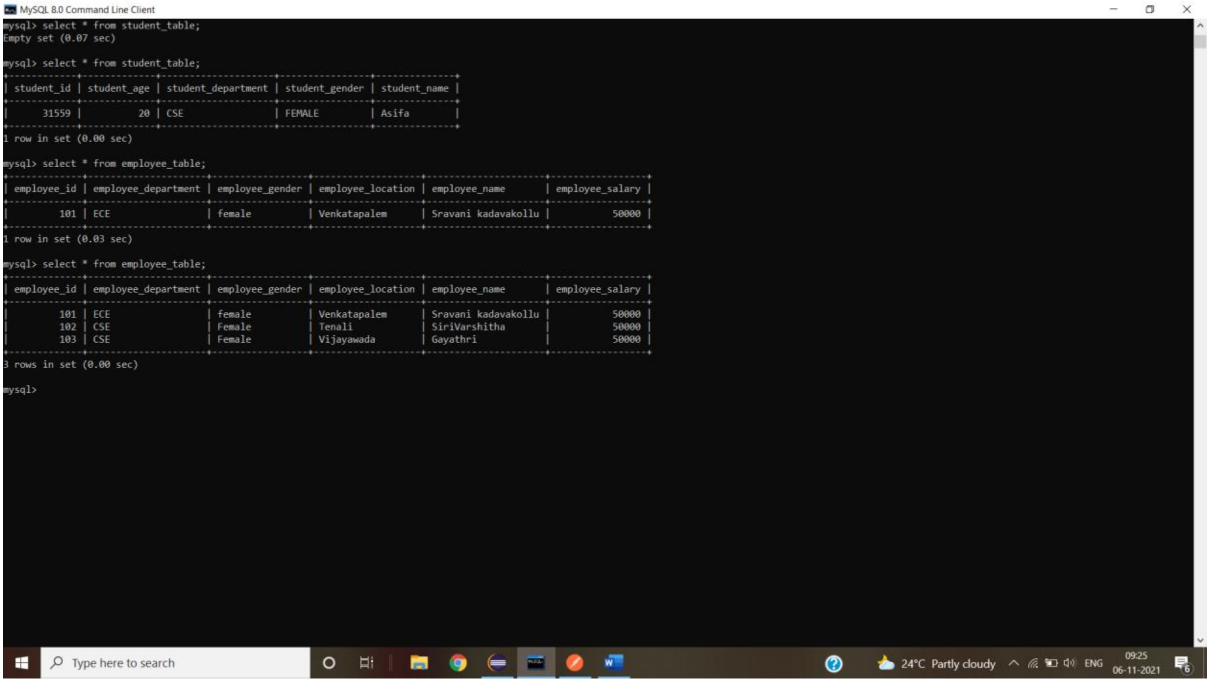
Skilling9 / Details about a user

PUT http://localhost:2020/employee/update

```
{
    "id": 102,
    "name": "SiriVarshitha",
    "gender": "Female",
    "department": "CSE",
    "salary": 50000.0,
    "location": "Tenali"
}
```

Status: 200 OK Time: 135 ms Size: 200 B

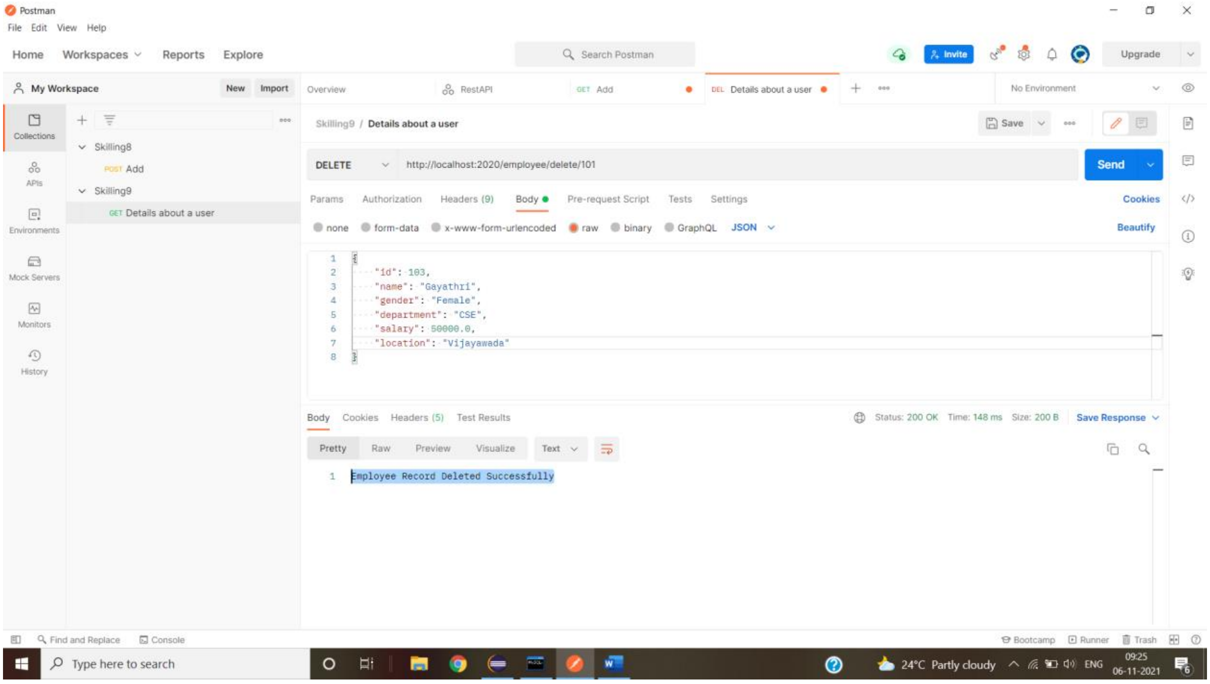
```
Employee Record Updated Successfully
```



MySQL 8.0 Command Line Client

```
mysql> select * from student_table;
Empty set (0.07 sec)

mysql> select * from student_table;
+------------+-------------+--------------------+----------------+--------------+
| student_id | student_age | student_department | student_gender | student_name |
+------------+-------------+--------------------+----------------+--------------+
|      31559 |          20 | CSE                | FEMALE         | Asifa        |
+------------+-------------+--------------------+----------------+--------------+
1 row in set (0.00 sec)

mysql> select * from employee_table;
+-------------+---------------------+-----------------+-------------------+---------------------+-----------------+
| employee_id | employee_department | employee_gender | employee_location | employee_name       | employee_salary |
+-------------+---------------------+-----------------+-------------------+---------------------+-----------------+
|         101 | ECE                 | female          | Venkatapalem      | Sravani kadavakollu |           50000 |
+-------------+---------------------+-----------------+-------------------+---------------------+-----------------+
1 row in set (0.03 sec)

mysql> select * from employee_table;
+-------------+---------------------+-----------------+-------------------+---------------------+-----------------+
| employee_id | employee_department | employee_gender | employee_location | employee_name       | employee_salary |
+-------------+---------------------+-----------------+-------------------+---------------------+-----------------+
|         101 | ECE                 | female          | Venkatapalem      | Sravani kadavakollu |           50000 |
|         102 | CSE                 | Female          | Tenali            | SiriVarshitha       |           50000 |
|         103 | CSE                 | Female          | Vijayawada        | Gayathri            |           50000 |
+-------------+---------------------+-----------------+-------------------+---------------------+-----------------+
3 rows in set (0.00 sec)

mysql>
```

Deletebyid:



Postman

Skilling9 / Details about a user

DELETE http://localhost:2020/employee/delete/101 Send

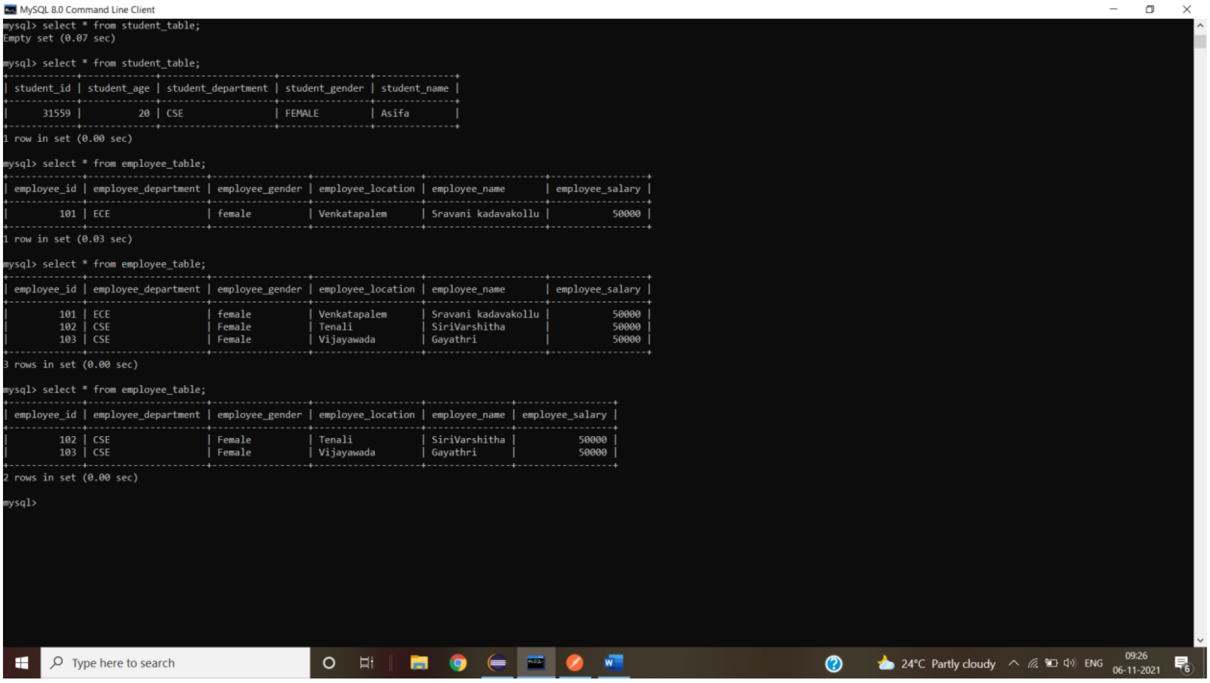
Body ○ none ○ form-data ○ x-www-form-urlencoded ● raw ○ binary ○ GraphQL JSON

```
{
    "id": 103,
    "name": "Gayathri",
    "gender": "Female",
    "department": "CSE",
    "salary": 50000.0,
    "location": "Vijayawada"
}
```

Body — Status: 200 OK Time: 148 ms Size: 200 B

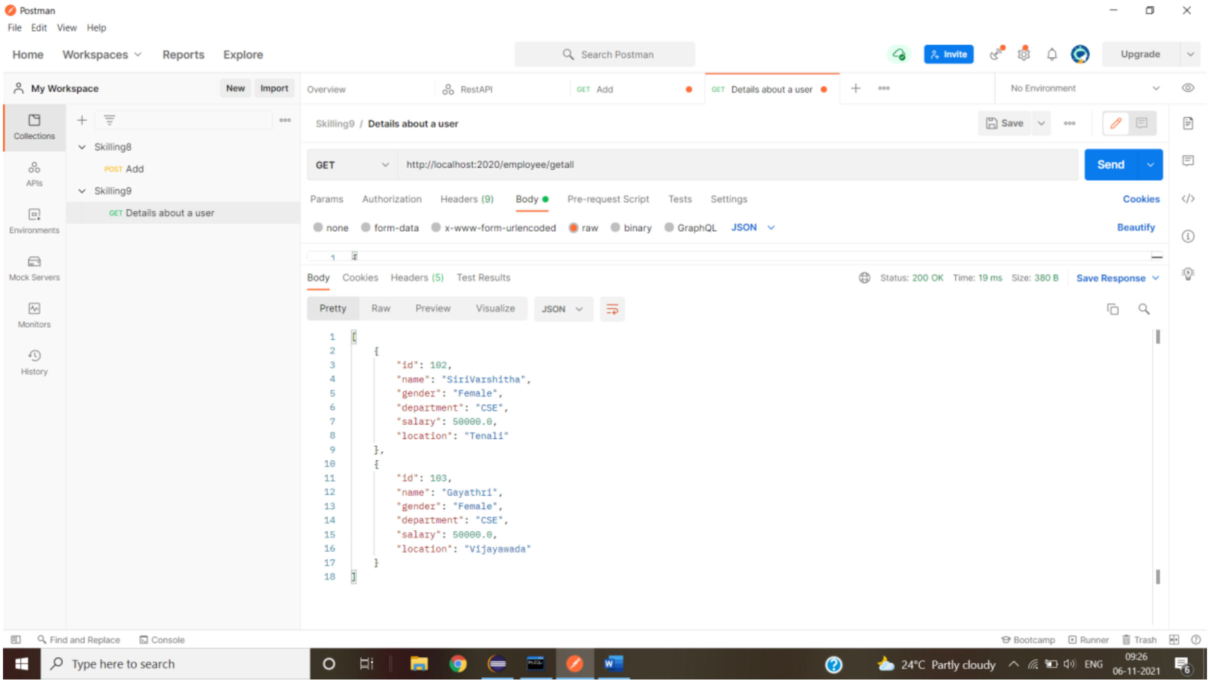
Text

```
Employee Record Deleted Successfully
```



```
mysql> select * from student_table;
Empty set (0.07 sec)

mysql> select * from student_table;
+------------+-------------+--------------------+----------------+--------------+
| student_id | student_age | student_department | student_gender | student_name |
+------------+-------------+--------------------+----------------+--------------+
|      31559 |          20 | CSE                | FEMALE         | Asifa        |
+------------+-------------+--------------------+----------------+--------------+
1 row in set (0.00 sec)

mysql> select * from employee_table;
+-------------+---------------------+-----------------+-------------------+---------------------+-----------------+
| employee_id | employee_department | employee_gender | employee_location | employee_name       | employee_salary |
+-------------+---------------------+-----------------+-------------------+---------------------+-----------------+
|         101 | ECE                 | female          | Venkatapalem      | Sravani kadavakollu |           50000 |
+-------------+---------------------+-----------------+-------------------+---------------------+-----------------+
1 row in set (0.03 sec)

mysql> select * from employee_table;
+-------------+---------------------+-----------------+-------------------+---------------------+-----------------+
| employee_id | employee_department | employee_gender | employee_location | employee_name       | employee_salary |
+-------------+---------------------+-----------------+-------------------+---------------------+-----------------+
|         101 | ECE                 | female          | Venkatapalem      | Sravani kadavakollu |           50000 |
|         102 | CSE                 | Female          | Tenali            | SiriVarshitha       |           50000 |
|         103 | CSE                 | Female          | Vijayawada        | Gayathri            |           50000 |
+-------------+---------------------+-----------------+-------------------+---------------------+-----------------+
3 rows in set (0.00 sec)

mysql> select * from employee_table;
+-------------+---------------------+-----------------+-------------------+---------------+-----------------+
| employee_id | employee_department | employee_gender | employee_location | employee_name | employee_salary |
+-------------+---------------------+-----------------+-------------------+---------------+-----------------+
|         102 | CSE                 | Female          | Tenali            | SiriVarshitha |           50000 |
|         103 | CSE                 | Female          | Vijayawada        | Gayathri      |           50000 |
+-------------+---------------------+-----------------+-------------------+---------------+-----------------+
2 rows in set (0.00 sec)

mysql>
```

Getall:

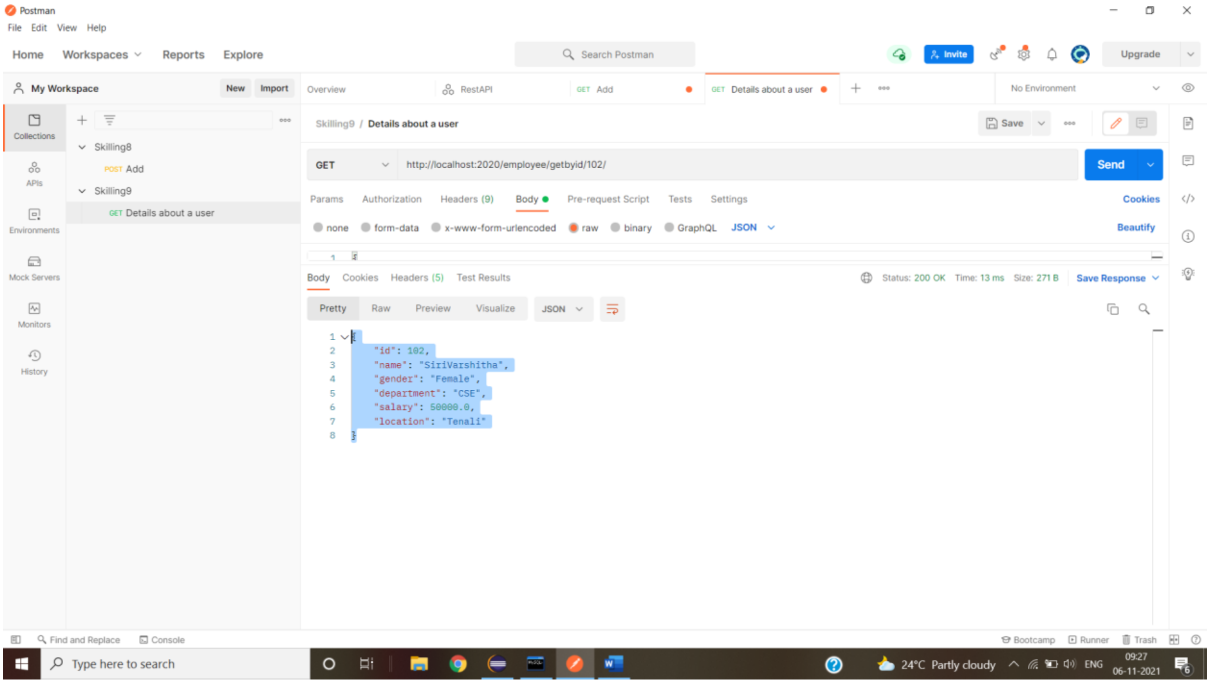


GET http://localhost:2020/employee/getall

Status: 200 OK Time: 19 ms Size: 380 B

```
[
    {
        "id": 102,
        "name": "SiriVarshitha",
        "gender": "Female",
        "department": "CSE",
        "salary": 50000.0,
        "location": "Tenali"
    },
    {
        "id": 103,
        "name": "Gayathri",
        "gender": "Female",
        "department": "CSE",
        "salary": 50000.0,
        "location": "Vijayawada"
    }
]
```

Getbyid:



Skilling9 / Details about a user

GET http://localhost:2020/employee/getbyid/102/

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

Status: 200 OK Time: 13 ms Size: 271 B

```
{
    "id": 102,
    "name": "SiriVarshitha",
    "gender": "Female",
    "department": "CSE",
    "salary": 50000.0,
    "location": "Tenali"
}
```