

```

Command Prompt - mysql
Microsoft Windows [Version 10.0.19045.5371]
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C:\Users\admin>mysql
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 1
Server version: 5.1.28-rc-community MySQL Community Server (GPL)

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| test |
+-----+
3 rows in set (0.08 sec)

mysql> create database FSD
-> ;
Query OK, 1 row affected (0.00 sec)

mysql> use FSD;
Database changed
mysql>

```

```

mysql> use FSD;
Database changed
mysql> CREATE TABLE departments (
-> id INT AUTO_INCREMENT PRIMARY KEY,
-> dept_name VARCHAR(50) NOT NULL
-> );
Query OK, 0 rows affected (0.25 sec)

mysql> CREATE TABLE employees (
-> id INT AUTO_INCREMENT PRIMARY KEY,
-> name VARCHAR(100),
-> email VARCHAR(100),
-> salary DECIMAL(10,2),
-> department_id INT,
-> FOREIGN KEY (department_id) REFERENCES departments(id)
-> );
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax
) ' at line 7
mysql> show tables
-> ;
+-----+
| Tables_in_fsd |
+-----+
| departments |
+-----+
1 row in set (0.00 sec)

mysql> CREATE TABLE employees (
-> id INT AUTO_INCREMENT PRIMARY KEY,
-> name VARCHAR(100),
-> email VARCHAR(100),
-> salary DECIMAL(10,2),
-> department_id INT,
-> FOREIGN KEY (department_id) REFERENCES departments(id)
-> );
ERROR 1072 (42000): Key column 'department_id' doesn't exist in table
mysql> show tables;
+-----+
| Tables_in_fsd |
+-----+
| departments |
+-----+
1 row in set (0.00 sec)

mysql> CREATE TABLE employees (
-> id INT AUTO_INCREMENT PRIMARY KEY,
-> name VARCHAR(100),
-> email VARCHAR(100),
-> salary DECIMAL(10,2),
-> department_id INT,
-> FOREIGN KEY (department_id) REFERENCES departments(id)
-> );
Query OK, 0 rows affected (0.17 sec)

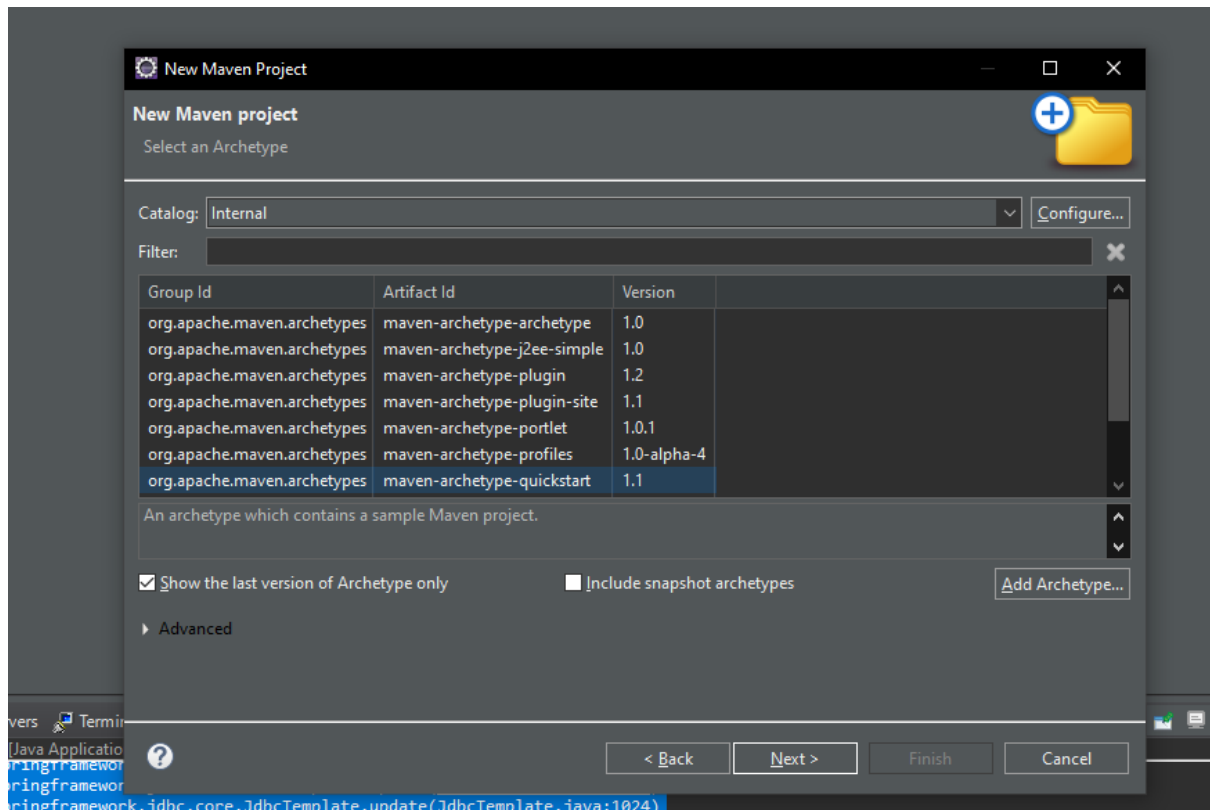
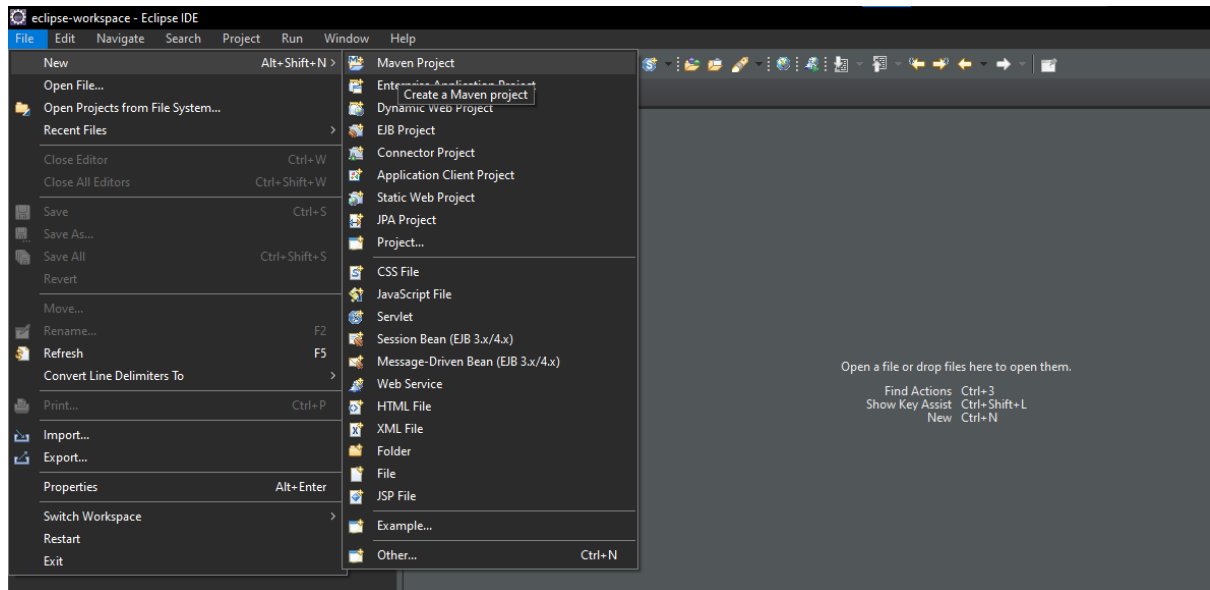
```

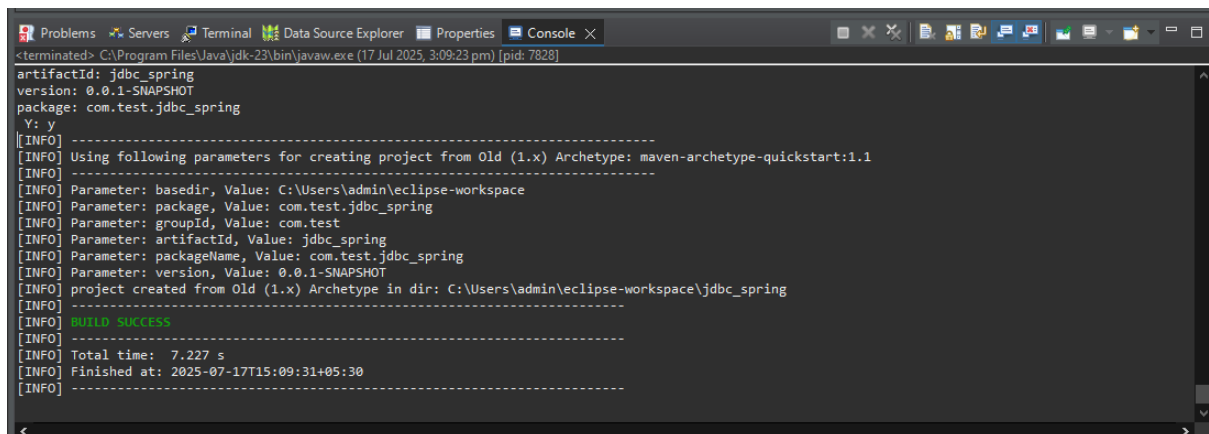
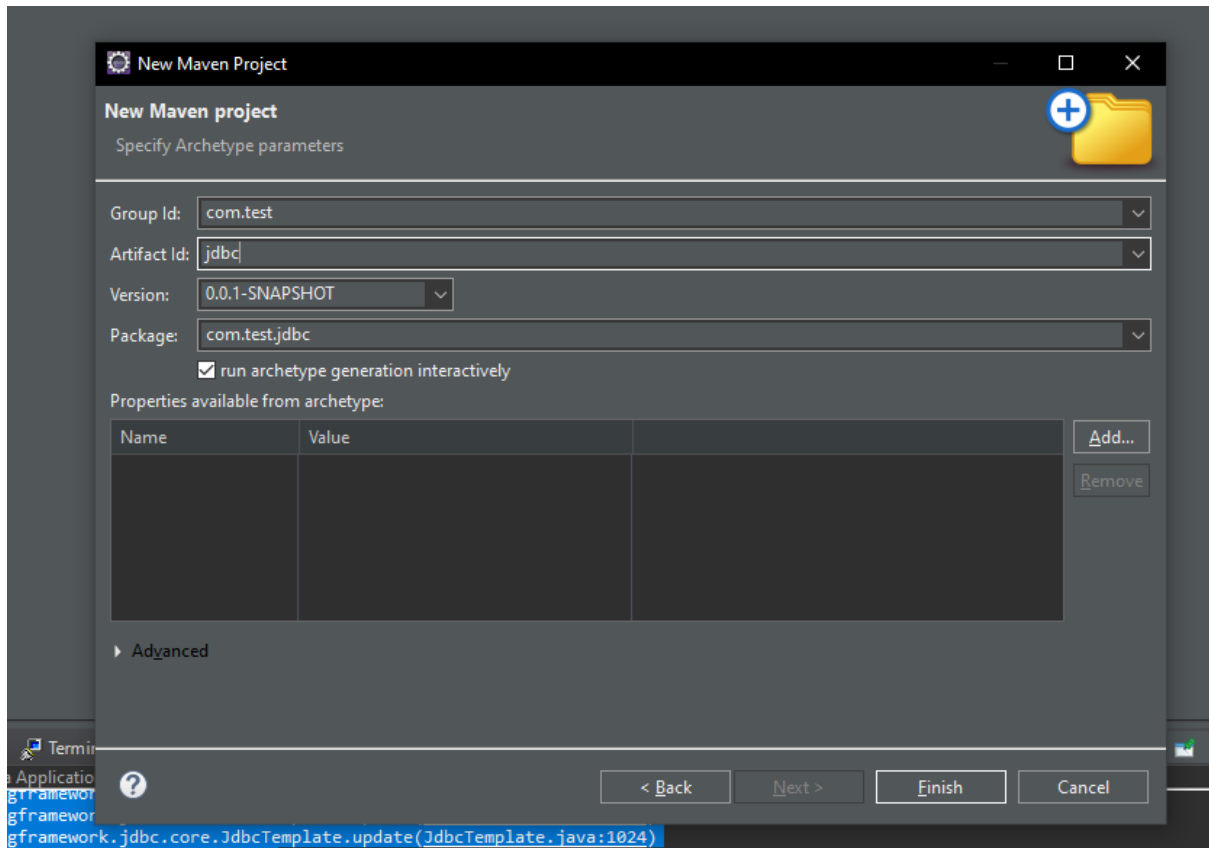
```
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| fsd |
| mysql |
| test |
+-----+
4 rows in set (0.00 sec)

mysql> use fsd;
Database changed
mysql> show tables;
+-----+
| Tables_in_fsd |
+-----+
| departments |
| employees |
+-----+
2 rows in set (0.00 sec)

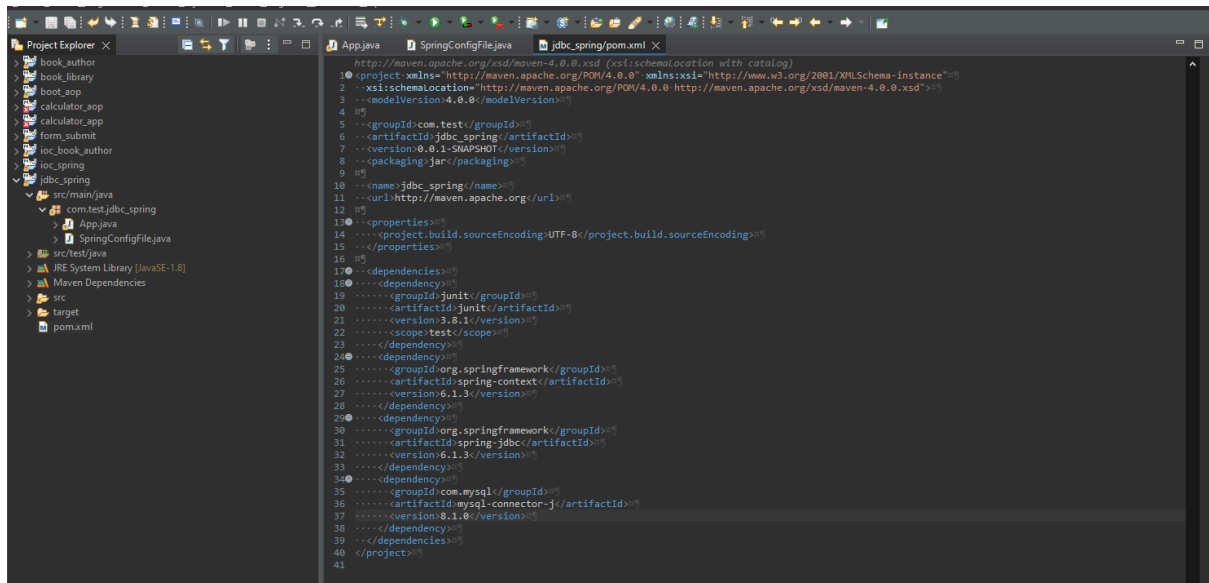
mysql> select * from departments
-> ;
+-----+
| id | dept_name |
+-----+
| 1 | HR |
| 2 | IT |
| 3 | Finance |
+-----+
3 rows in set (0.00 sec)

mysql> select * from employees;
+-----+-----+-----+-----+-----+
| id | name | email | salary | department_id | last_updated |
+-----+-----+-----+-----+-----+
| 1 | Alice Johnson | alice@example.com | 60000.00 | 2 | 0000-00-00 00:00:00 |
| 2 | Bob Smith | bob@example.com | 50000.00 | 1 | 0000-00-00 00:00:00 |
| 3 | Carol White | carol@example.com | 55000.00 | 3 | 0000-00-00 00:00:00 |
+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

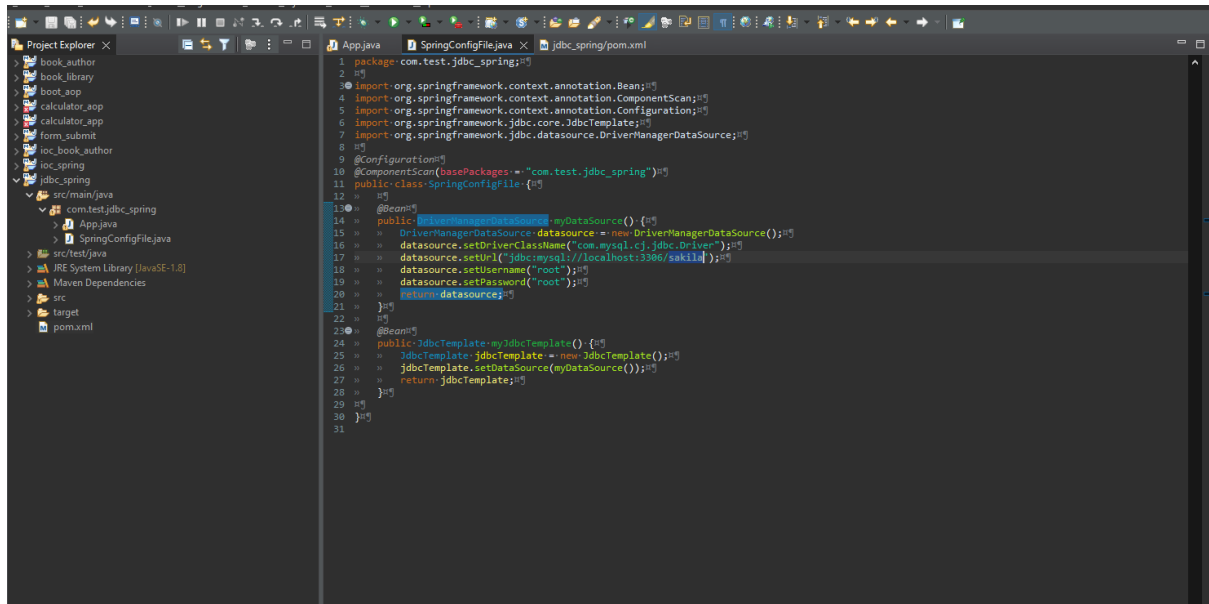




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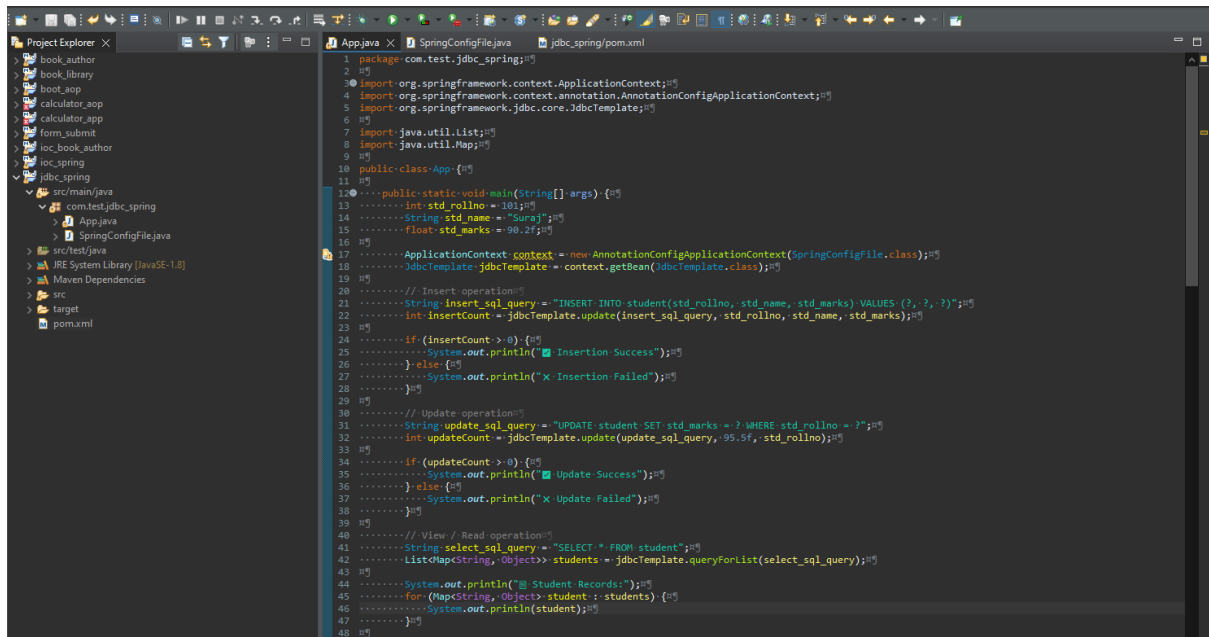


```
1<?xml-stylesheet type="xsl" href="http://maven.apache.org/xsd/maven-4.0.0.xsd" />
2<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
3  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd">
4  <modelVersion>4.0.0</modelVersion>
5  <groupId>com.test</groupId>
6  <artifactId>jdbc_spring</artifactId>
7  <version>0.0.1-SNAPSHOT</version>
8  <packaging>jar</packaging>
9
10 <name>jdbc_spring</name>
11 <url>http://maven.apache.org</url>
12
13 <properties>
14 <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
15 </properties>
16
17 <dependencies>
18 <dependency>
19 <groupId>junit</groupId>
20 <artifactId>junit</artifactId>
21 <version>3.8.1</version>
22 <scope>test</scope>
23 </dependency>
24 <dependency>
25 <groupId>org.springframework</groupId>
26 <artifactId>spring-context</artifactId>
27 <version>6.1.3</version>
28 </dependency>
29 <dependency>
30 <groupId>org.springframework</groupId>
31 <artifactId>spring-jdbc</artifactId>
32 <version>6.1.3</version>
33 </dependency>
34 <dependency>
35 <groupId>com.mysql</groupId>
36 <artifactId>mysql-connector-j</artifactId>
37 <version>8.1.0</version>
38 </dependency>
39 </dependencies>
40 </project>
```

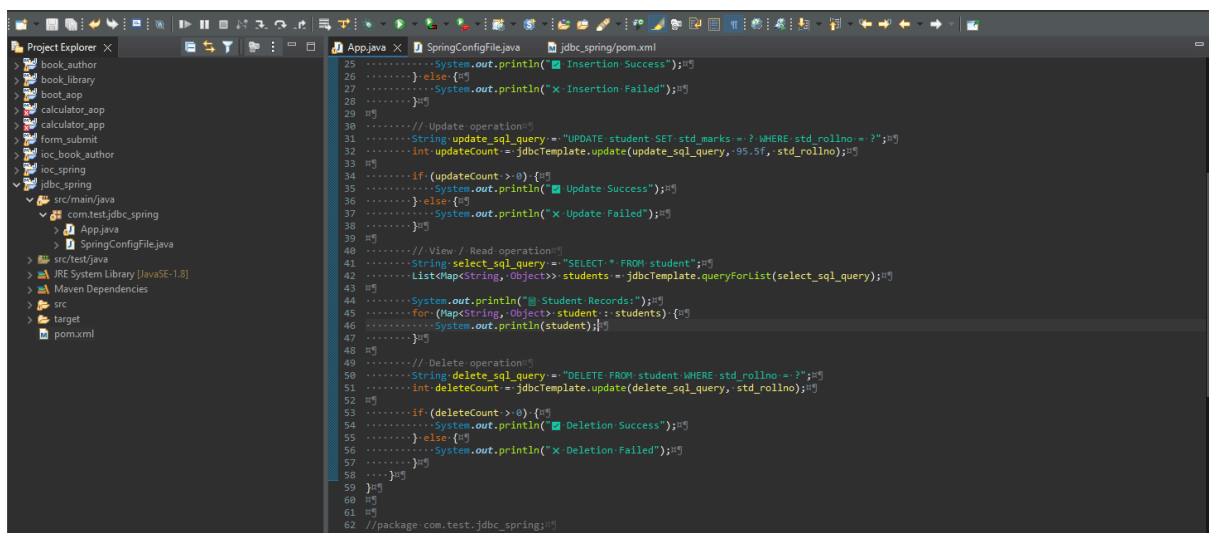


```
1 package com.test.jdbc_spring;
2
3 import org.springframework.context.annotation.Bean;
4 import org.springframework.context.annotation.ComponentScan;
5 import org.springframework.context.annotation.Configuration;
6 import org.springframework.jdbc.core.JdbcTemplate;
7 import org.springframework.jdbc.datasource.DriverManagerDataSource;
8
9 @Configuration
10 @ComponentScan(basePackages = "com.test.jdbc_spring")
11 public class SpringConfigFile {
12
13     @Bean
14     public DriverManagerDataSource myDataSource() {
15         DriverManagerDataSource datasource = new DriverManagerDataSource();
16         datasource.setDriverClassName("com.mysql.cj.jdbc.Driver");
17         datasource.setUrl("jdbc:mysql://localhost:3306/sakila");
18         datasource.setUsername("root");
19         datasource.setPassword("root");
20         return datasource;
21     }
22
23     @Bean
24     public JdbcTemplate myJdbcTemplate() {
25         JdbcTemplate jdbcTemplate = new JdbcTemplate();
26         jdbcTemplate.setDataSource(myDataSource());
27         return jdbcTemplate;
28     }
29 }
30
31
```

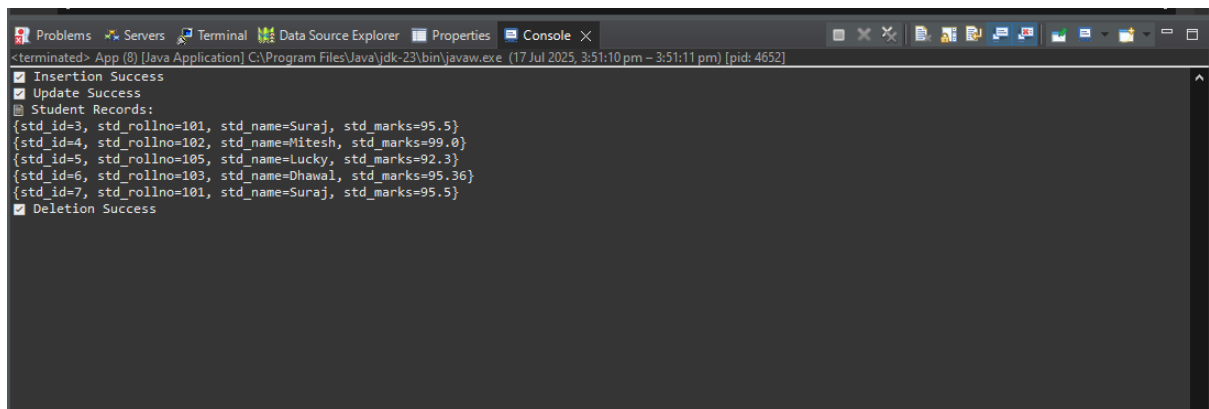
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```
1 package com.test.jdbc_spring;
2
3 import org.springframework.context.ApplicationContext;
4 import org.springframework.context.annotation.AnnotationConfigApplicationContext;
5 import org.springframework.jdbc.core.JdbcTemplate;
6
7 import java.util.List;
8 import java.util.Map;
9
10 public class App {
11
12     public static void main(String[] args) {
13         int std_rollno = 101;
14         String std_name = "Suraj";
15         float std_marks = 90.2f;
16
17         ApplicationContext context = new AnnotationConfigApplicationContext(SpringConfigFile.class);
18         JdbcTemplate jdbcTemplate = context.getBean(JdbcTemplate.class);
19
20         // Insert operation
21         String insert_sql_query = "INSERT INTO student(std_rollno, std_name, std_marks) VALUES (?, ?, ?)";
22         int insertCount = jdbcTemplate.update(insert_sql_query, std_rollno, std_name, std_marks);
23
24         if (insertCount > 0) {
25             System.out.println("Insertion Success");
26         } else {
27             System.out.println("Insertion Failed");
28         }
29
30         // Update operation
31         String update_sql_query = "UPDATE student SET std_marks = ? WHERE std_rollno = ?";
32         int updateCount = jdbcTemplate.update(update_sql_query, 95.5f, std_rollno);
33
34         if (updateCount > 0) {
35             System.out.println("Update Success");
36         } else {
37             System.out.println("Update Failed");
38         }
39
40         // View / Read operation
41         String select_sql_query = "SELECT * FROM student";
42         List<Map<String, Object>> students = jdbcTemplate.queryForList(select_sql_query);
43
44         System.out.println("Student Records:");
45         for (Map<String, Object> student : students) {
46             System.out.println(student);
47         }
48     }
49 }
```



```
25 System.out.println("Insertion Success");
26 } else {
27     System.out.println("Insertion Failed");
28 }
29
30 // Update operation
31 String update_sql_query = "UPDATE student SET std_marks = ? WHERE std_rollno = ?";
32 int updateCount = jdbcTemplate.update(update_sql_query, 95.5f, std_rollno);
33
34 if (updateCount > 0) {
35     System.out.println("Update Success");
36 } else {
37     System.out.println("Update Failed");
38 }
39
40 // View / Read operation
41 String select_sql_query = "SELECT * FROM student";
42 List<Map<String, Object>> students = jdbcTemplate.queryForList(select_sql_query);
43
44 System.out.println("Student Records:");
45 for (Map<String, Object> student : students) {
46     System.out.println(student);
47 }
48
49 // Delete operation
50 String delete_sql_query = "DELETE FROM student WHERE std_rollno = ?";
51 int deleteCount = jdbcTemplate.update(delete_sql_query, std_rollno);
52
53 if (deleteCount > 0) {
54     System.out.println("Deletion Success");
55 } else {
56     System.out.println("Deletion Failed");
57 }
58
59 }
60
61 //package com.test.jdbc_spring;
62 //
```



```
<terminated> App [8] [Java Application] C:\Program Files\Java\jdk-23\bin\javaw.exe (17 Jul 2025, 3:51:10 pm - 3:51:11 pm) [pid: 4652]
[✓] Insertion Success
[✓] Update Success
[✓] Student Records:
{std_id=3, std_rollno=101, std_name=Suraj, std_marks=95.5}
{std_id=4, std_rollno=102, std_name=Mitesh, std_marks=99.0}
{std_id=5, std_rollno=105, std_name=Lucky, std_marks=92.3}
{std_id=6, std_rollno=103, std_name=Dhawal, std_marks=95.36}
{std_id=7, std_rollno=101, std_name=Suraj, std_marks=95.5}
[✓] Deletion Success
```

```
mysql> select * from student;
Empty set (0.00 sec)

mysql> select * from student;
+-----+-----+-----+-----+
| std_id | std_rollno | std_name | std_marks |
+-----+-----+-----+-----+
|      3 |      101 | Suraj   |      90.2 |
|      4 |      102 | Mitesh  |      99   |
|      5 |      105 | Lucky   |      92.3 |
|      6 |      103 | Dhawal  |      95.36 |
+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> select * from student;
+-----+-----+-----+-----+
| std_id | std_rollno | std_name | std_marks |
+-----+-----+-----+-----+
|      4 |      102 | Mitesh  |      99   |
|      5 |      105 | Lucky   |      92.3 |
|      6 |      103 | Dhawal  |      95.36 |
+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```