02 – Creating A Spring JDBC Project

Create a Spring Boot project using Spring Initializr or with any preferred IDE with the following steps:

1. Go to Spring Initializr.
2. Give the all project details.
3. Select the following dependencies:
    - **JDBC API**: It provides the necessary tools to interact with the database using Spring JDBC.
    - **H2 Database**: An in-memory database that stores data during runtime but clears the data once the application is stopped.
4. Generate the project and import it in the IDE.

Dependencies:

```xml
<dependency>

    <groupId>org.springframework.boot</groupId>

    <artifactId>spring-boot-starter-jdbc</artifactId>

</dependency>


<dependency>

    <groupId>com.h2database</groupId>

    <artifactId>h2</artifactId>

    <scope>runtime</scope>

</dependency>
```

In a Spring JDBC project, a class represents a table in the database, and each object of the class represents a row in that table.

Example:

Application.java

```java
package com.example.SpringJDBC;

@SpringBootApplication
public class Application {

   public static void main(String[] args) {

      ApplicationContext context = SpringApplication.run(Application.class, args);

      Student s = context.getBean(Student.class);

      s.setRollNo(101);

      s.setName("Navin");

      s.setMarks(78);


      addStudent(s);

   }

   public static void addStudent(Student student){

   }

}
```

Student.java

```java
package com.example.SpringJDBC.model;

@Component
@Scope("prototype")
public class Student {

    private int rollNo;

    private String name;

    private int marks;

    public int getRollNo() {

        return rollNo;

    }

    public void setRollNo(int rollNo) {

        this.rollNo = rollNo;

    }

    public String getName() {

        return name;

    }

    public void setName(String name) {

        this.name = name;

    }

    public int getMarks() {

        return marks;

    }

    public void setMarks(int marks) {
        this.marks = marks;
    }
}
```

Code Link:

https://github.com/navinreddy20/spring6-course/tree/c6690e4f2c70d8f530d70623f13d14ff0ffd7e7d/4%20Spring%20JDBC/4.2%20Creating%20A%20Spring%20Jdbc%20Project