05 - Schema and Data Files

In Spring Boot, we can define the schema and seed data for the database using SQL files that Spring Boot automatically detects and executes during application startup. These files ensure that the database schema is created and populated with initial data when the application starts.

👉 **schema.sql**:

- This file is used to define the structure (schema) of database tables.
- It is executed first to create the table structure and contains SQL statements such as CREATE TABLE to define how the database will look.
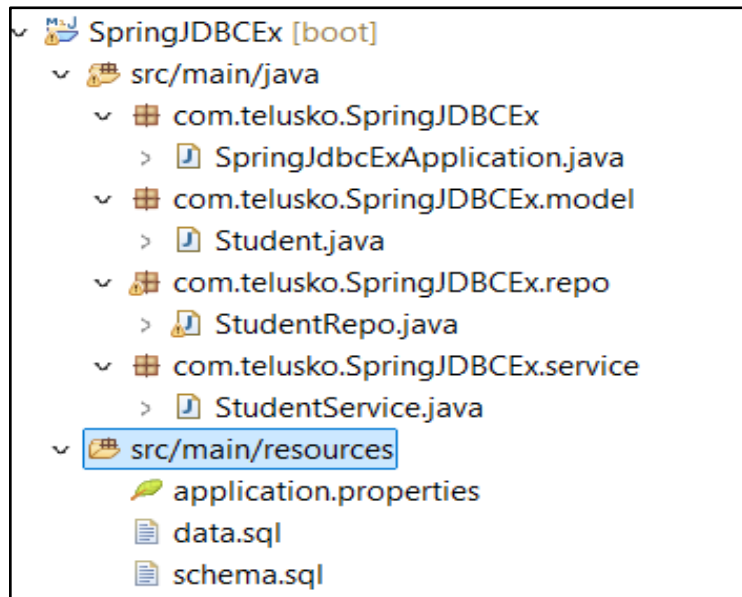
```
CREATE TABLE student (

    rollno INT PRIMARY KEY,

    name VARCHAR(50),

    marks INT

);
```

👉 **data.sql**:

- This file is used to insert initial data into the database once the schema is created as defined in the schema.sql.
- It contains INSERT SQL statements to populate the tables with default data.

```
INSERT INTO student (rollno, name, marks) VALUES (101, 'Kiran', 79);

INSERT INTO student (rollno, name, marks) VALUES (102, 'Harsh', 68);

INSERT INTO student (rollno, name, marks) VALUES (103, 'Sushil', 82);
```

★   Both files (schema.sql and data.sql) should be placed in the **src/main/resources** directory of the Spring Boot project.

We can also use custom names like my_custom_schema.sql and my_custom_data.sql for the SQL files, but then we need to modify the Spring Boot configuration in the **application.properties** file to point to those files.

application.properties:

```
spring.sql.init.schema-locations=classpath:my_custom_schema.sql

spring.sql.init.data-locations=classpath:my_custom_data.sql
```

Code Link:

https://github.com/navinreddy20/spring6-course/tree/c6690e4f2c70d8f530d70623f13d14ff0ffd7e7d/4%20Spring%20JDBC/4.5%20Schema%20And%20Data%20Files