07 - Spring JDBC Postgres

PostgreSQL is an open-source, powerful, and highly extensible relational database management system (RDBMS).

- It supports SQL (Structured Query Language) for querying and interacting with the database and is known for its reliability, robustness, and performance.
- In addition to using H2 for in-memory database operations, we can use PostgreSQL to store and access persistent data in the Spring Boot application.
- **Link to download Postresql:** https://www.postgresql.org/download/

👉 **Steps to Use PostgreSQL:**

1. **Add PostgreSQL Dependency:**

   To use PostgreSQL we need to replace the H2 dependency with PostgreSQL in the pom.xml file.

   ```xml
   <dependency>

       <groupId>org.postgresql</groupId>

       <artifactId>postgresql</artifactId>

       <scope>runtime</scope>

   </dependency>
   ```

2. **Configure PostgreSQL in application.properties:**
- We have to configure the connection settings in the application.properties file that is located in the src/main/resources directory.
- The default port for PostgreSQL is 5432.

Application.properties:

```
# PostgreSQL database connection URL

spring.datasource.url=jdbc:postgresql://localhost:5432/telusko

# Database username

spring.datasource.username=postgres

# Database password

spring.datasource.password=root

# PostgreSQL JDBC Driver

spring.datasource.driver-class-name=org.postgresql.Driver
```

- *spring.datasource.url:* Specifies the JDBC URL for connecting to the PostgreSQL database. Replace localhost with the database server's IP if hosted remotely. The telusko is the name of your database.
- *spring.datasource.username:* The username for accessing the PostgreSQL database. The default username is Postgres.
- *spring.datasource.password:* The password associated with the username.
- *spring.datasource.driver-class-name:* Specifies the PostgreSQL JDBC driver class.

Code Link:

https://github.com/navinreddy20/spring6-course/tree/c6690e4f2c70d8f530d70623f13d14ff0ffd7e7d/4%20Spring%20JDBC/4.7%20Spring%20Jdbc%20Postgres