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Microservices With
Spring Boot-H2
database

Capgemini

Objective	
How to implement Spring Boot with H2 database	

Spring Boot-H2 database

- H2 is one of the popular in-memory databases written in Java. It can be embedded in Java applications or run in the client-server mode.
- · Spring Boot provides excellent integration support for H2 using simple properties configuration.
- To make it even more useful, H2 also provides a console view to maintain and interact with the database tables and data.
- Spring provides very easy configuration options to connect to any database using simple properties. Below are the configuration properties

Maven Dependency

- To use H2 in Spring boot application, all we need to do is adding H2 runtime jar into dependencies.
- We don't need to install any Db because its in-memory java Database

<dependency>
<groupId>com.h2database</grou
pId>
<artifactId>h2</artifactId>
<scope>runtime</scope>
</dependency>

<dependency>
<groupId>org.springframework.boot</groupId>
<artifactId>spring-boot-starter-data-jpa</artifactId>
</dependency>

H2 Configuration Options

 Spring provides very easy configuration options to connect to any database using simple properties.

```
# H2
spring.h2.console.enabled=true
spring.h2.console.path=/h2
# <u>Datasource</u>
spring.datasource.url=jdbc:h2:file:~/test
spring.datasource.username=<u>sa</u>
spring.datasource.password=
spring.datasource.driver-class-name=org.h2.Driver
```

Create schema and insert data on initialization

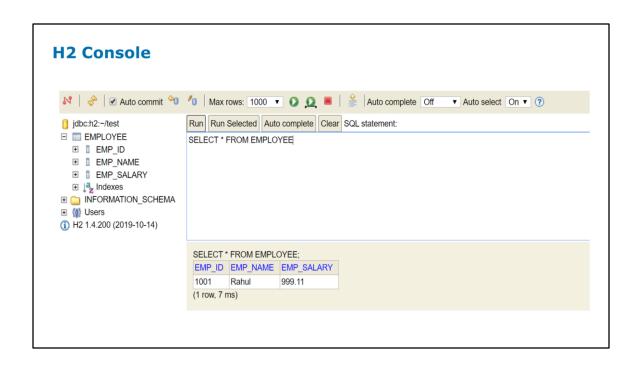
- We may want to initialize database with some fixed schema (DDL) and insert default data (DML) into tables before the application is ready is run business use cases.
- We can achieve this by putting sql files into resources folder (/src/main/resources/).
- schema.sql To initialize the schema ie.create tables and dependencies or use @Entity using spring-jpa

```
@Entity
public class Employee {
@Id
private Integer empId;
private String empName;
private Double empSalary;}
```

· data.sql - To insert default data rows.

INSERT into Employee values(1001, 'Rahul', 999.11);





Demo	
DemoH2Database	

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