

H2 DATABASE DEMO IN SPRINGBOOT

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About me

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WHAT WILL DO

- H2 Database Demo In General
- How to implement H2 Database in existing project

H2 Database Demo In General

What Dependency do you need ?

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

What properties should we use ?

```
spring.datasource.url=jdbc:h2:mem:tsetdb;MODE=MSSQLSERVER;DATABASE_TO_UPPER=FALSE  
spring.datasource.driverClassName=org.h2.Driver  
spring.datasource.username=sa  
spring.datasource.password=  
spring.jpa.database-platform=org.hibernate.dialect.H2Dialect  
spring.jpa.properties.hibernate.dialect=org.org.hibernate.dialect.H2Dialect  
spring.jpa.hibernate.ddl-auto=update
```

What if i use yaml/yml instead properties ?

```
spring:
  datasource:
    username: sa
    url: jdbc:h2:mem:tsetdb;MODE=MSSQLSERVER;DATABASE_TO_UPPER=FALSE
    driverClassName: org.h2.Driver
    password: ""
  jpa:
    properties:
      hibernate:
        dialect: org.org.hibernate.dialect.H2Dialect
    database-plateform: org.hibernate.dialect.H2Dialect
  hibernate:
    ddl-auto: update
```

Easy right ? 🤔

Let's Coding

How to implement H2 Database in existing project

A 'lil bit different for the dependency

```
<dependency>
  <groupId>com.h2database</groupId>
  <artifactId>h2</artifactId>
  <!-- <scope>runtime</scope> -->
  <scope>test</scope>
  <!-- notice that the scope is changes -->
</dependency>
```

Why change the scope ?

Scope	Definition
Runtime	The dependencies with this scope are required at runtime.
Test	The dependency isn't required at standard runtime of the application but is used only for test purposes.

Source : <https://www.baeldung.com/maven-dependency-scopes>

Adding profiles in pom.xml

```
<profiles>
  <profile>
    <id>h2</id>
    <dependencies>
      <dependency>
        <groupId>com.h2database</groupId>
        <artifactId>h2</artifactId>
      </dependency>
    <dependencies>
    <activation>
      <activeByDefault>true</activeByDefault>
    </activation>
  </profile>
</profiles>
```

Easy right ? 🤔

Let's Coding

Conclusion

- H2 Database is one of the good in-memory database for doing unit-test
- For the purpose testing, H2 Database must be provide in pom.xml with **scope test**

Thank you 😊