# Q=can we write spring boot application without parent?

# Q= Microservices and withSpring Cloud Config Server?

# Ans=

Q= if we write @Bean in @Service class then what happen? In the case of singleton scope, which type of exception will come.

### Q= Q : Can we use jetty instead of tomcat in spring-boot-starter-web?

Remove the existing dependency on spring-boot-starter-web and add these in.

<dependency>

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

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

<exclusions>

<exclusion>

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

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

</exclusion>

</exclusions>

</dependency>

<dependency>

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

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

</dependency>

### Q : How to deploy to a different server with with Spring Boot?

To build a war file that is both executable and deployable into an external container, you need to mark the embedded container dependencies as “provided”, as shown in the following example:

<?xml version="1.0" encoding="UTF-8"?>

<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd">

*<!-- ... -->*

<packaging>war</packaging>

*<!-- ... -->*

<dependencies>

<dependency>

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

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

</dependency>

<dependency>

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

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

<scope>provided</scope>

</dependency>

*<!-- ... -->*

</dependencies>

</project>

### Q : How do I change the package name of a project in Spring Initializer?

Good news is you can customise it. Click the link “Switch to the full version.“. You would be able to configure the package name you would want!

### Q : Where can I find the complete list of properties that can be configured in application.properties?

Here’s the complete guide

* <https://docs.spring.io/spring-boot/docs/current/reference/html/common-application-properties.html>

### Q : What is the difference between JPA and Hibernate?

Short Story

* JPA is a specification/Interface
* Hibernate is one of JPA implementations

When we use JPA, we use the annotation and interfaces from javax.persistence package, without using the hibernate import packages.

We recommend using JPA annotations as we are not tied to Hibernate as implementation. Later (I know - <1% Chance), we can use another JPA implementation.

### Q : What are the dependencies needed to start up a JPA Application connecting to in memory database H2 with Spring Boot?

In a Spring Boot project, you should be able to launch up H2 Console as long as you ensure the following dependencies are on the class path.

* web starter
* h2
* data jpa starter

The exact dependencies are shown below:

<dependency>

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

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

</dependency>

<dependency>

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

<artifactId>spring-boot-starter-data-jpa</artifactId>

</dependency>

<dependency>

<groupId>com.h2database</groupId>

<artifactId>h2</artifactId>

<scope>runtime</scope>

</dependency>

A few tips:

* An in-memory database is live only during the time of execution of the application. It is an efficient way to learn a framework.
* This is not how you want your real world applications to behave.
* We explain how to connect to a database of your choice in the answer to the question “How do we connect to a external database?”.

### Q : How is Hibernate chosen as the default implementation for JPA without any configuration?

Because of Spring Boot Auto Configuration.

This is the dependency we added in

<dependency>

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

<artifactId>spring-boot-starter-data-jpa</artifactId>

</dependency>

The Starter spring-boot-starter-data-jpa has a transitive dependency on Hibernate and JPA.

When Spring Boot sees Hibernate in the class path, it auto configures it as the default JPA Implementation.

### Q : How do we connect to a external database like MSSQL or oracle?

Let’s consider one of those as an example - MySQL

###### Step 1 - Add dependency for mqsql connector to pom.xml

<dependency>

<groupId>mysql</groupId>

<artifactId>mysql-connector-java</artifactId>

</dependency>

###### Step 2 - Remove H2 Dependency from pom.xml

Or atleast make its scope as test

<!--

<dependency>

<groupId>com.h2database</groupId>

<artifactId>h2</artifactId>

<scope>test</scope>

</dependency>

-->

###### Step 3 - Setup your My SQL Database

* For more check out - <https://github.com/in28minutes/jpa-with-hibernate#installing-and-setting-up-mysql>

###### Step 4 - Configure your connection to My SQL Database

Configure application.properties

spring.jpa.hibernate.ddl-auto=none

spring.datasource.url=jdbc:mysql://localhost:3306/todo\_example

spring.datasource.username=todouser

spring.datasource.password=YOUR\_PASSWORD

###### Step 5 - Restart and You are ready!

That’s it

### Q : What is the default h2 database name configured by Spring Boot? Why is the default database name testdb?

This is where all the default values in application.properties are listed

* <https://docs.spring.io/spring-boot/docs/current/reference/html/common-application-properties.html>

Look for the property below

spring.datasource.name=testdb # Name of the datasource.

If you are using an H2 in-memory database, thats exactly the name that Spring Boot uses to setup your H2 database.

### Q : What happens if H2 is not in the classpath?

You get this error

Cannot determine embedded database driver class for database type NONE

Add H2 to the pom.xml and Restart your server

<dependency>

<groupId>com.h2database</groupId>

<artifactId>h2</artifactId>

<scope>runtime</scope>

</dependency>