

{ Spring }

Framework J2EE

{Composants}

<https://spring.io/>

{ IDE }

<https://spring.io/tools>

{Boiler plate}

<https://start.spring.io/>

{Spring boot}

Standalone jar tomcat embedded

{ Lombok }

```
    $settings_function = null, $settings_file = null ) {  
        $settings_function, $settings_file );  
  
    Getter,Setter,Data,NoArgsConstructor
```

```
1 <dependency>  
2     <groupId>org.projectlombok</groupId>  
3     <artifactId>lombok</artifactId>  
4     <version>1.18.22</version>  
5     <scope>provided</scope>  
6 </dependency>
```

{Spring Data JPA}

Persistence via JPA

{Spring Data Rest}

Exposition de webservice REST

<https://spring.io/guides/gs/accessing-data-jpa/>

{Spring Security}

Authentification et autorisation

{Spring Security}

Authentification et autorisation

<https://spring.io/guides/gs/securing-web/>

{Spring Web + Thymeleaf}

Utilisation de spring pour du MVC et thymeleaf en moteur de templating (Similaire à Symfony et twig)

<https://www.thymeleaf.org/>

<https://gayerie.dev/docs/spring/spring/thymeleaf.html>

{Spring boot test}

Package de test de spring:

```
1 <dependency>
2   <groupId>org.springframework.boot</groupId>
3   <artifactId>spring-boot-test</artifactId>
4   <version>2.2.2.RELEASE</version>
5 </dependency>
```

{Spring boot test}

Exemple de test d'un webservice

```
1 TestRestTemplate testRestTemplate = new TestRestTemplate();
2 ResponseEntity<String> response = testRestTemplate.getForEntity(url + "/1", String.class);
3
4 assertThat(response.getStatusCode(), equalTo(HttpStatus.OK));
```

```
1 Object utilisateur = restTemplate.getForObject(weburl + "/1", Utilisateur.class);
2 assertThat(utilisateur.getName(), notNullValue());
3 assertThat(utilisateur.getId(), is(1L));
```

{Spring boot test}

Exemple de test d'un webservice

```
1 @Autowired  
2 private TestRestTemplate restTemplate;
```

```
1 Object utilisateur = restTemplate.getForObject(weburl + "/1", Utilisateur.class);  
2 assertThat(utilisateur.getName(), notNullValue());  
3 assertThat(utilisateur.getId(), is(1L));
```

{Spring boot test}

Exemple de test d'un webservice

<https://www.baeldung.com/rest-template>

<https://tanzu.vmware.com/content/springone-platform-2017/test-driven-development-with-spring-boot-sannidhi-jalukar-madhura-bhave>

{Spring guide}

Liste de guides pour spring

<https://spring.io/guides>