

## @DynamicPropertySource

The `@DynamicPropertySource` annotation is used in JUnit 5 tests in Spring to dynamically add properties to the Spring `Environment` during test execution. This annotation can be particularly useful when you need to mock or stub external services or configurations for your tests.

Here's how you can use `@DynamicPropertySource`:

### 1. **\*\*Import Necessary Dependencies\*\***:

Make sure you have the necessary dependencies for JUnit 5 and Spring Test in your project.

### 2. **\*\*Write Test with @DynamicPropertySource\*\***:

In your test class, annotate a method with `@DynamicPropertySource` to dynamically add properties to the Spring `Environment`. This method should have a `DynamicPropertyRegistry` parameter to register the properties. Inside the method, you can use the `DynamicPropertyRegistry` to add properties.

```
```java
import org.junit.jupiter.api.Test;
import org.junit.jupiter.api.extension.ExtendWith;
import org.springframework.boot.test.context.SpringBootTest;
import org.springframework.test.context.DynamicPropertyRegistry;
import org.springframework.test.context.DynamicPropertySource;
import org.springframework.test.context.junit.jupiter.SpringExtension;
```

```
@ExtendWith(SpringExtension.class)
@SpringBootTest
public class MyTest {

    @DynamicPropertySource
    static void properties(DynamicPropertyRegistry registry) {
        registry.add("my.property", () -> "exampleValue");
    }

    @Test
    void testSomething() {
        // Your test logic here
    }
}
```

In this example, the `properties()` method dynamically adds the property `my.property` with the value `"exampleValue"` to the Spring `Environment`.

### 3. **\*\*Write Tests Using the Properties\*\***:

Write your tests, making use of the properties added dynamically to the Spring `Environment` in the `properties()` method.

The properties added using `@DynamicPropertySource` will be available in the Spring `Environment` for the duration of the test execution. This can be helpful for configuring your application or mocking external dependencies in your tests.

Remember that `@DynamicPropertySource` is a feature of Spring's testing framework and is intended for use in integration tests. It allows you to customize the environment specifically for your tests without affecting the production environment.