

Session-18 -Implicit, Explicit & Fluent Wait

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What Is Synchronization Issue

- ✓ Process of matching test automation tool speed with speed of application under test is synchronization.
- ✓ Whenever **webdriver** tries to **perform operation on element not loaded in application under test**, in such case webdriver will **throw exception** **"NoSuchElementException"** or **"ElementNotVisibleException"**. This happens **due to** **synchronization issue**.

Synchronization in selenium webdriver

✓ **Thread.sleep(ms)**

✓ **Implicit wait**

Syntax:

`driver.manage().TimeOuts().implicitlyWait(10,Timeunit.SECONDS);` //Before selenium 4

`driver.manage().timeouts().implicitlyWait(Duration.ofSeconds(10));` //After selenium 4

✓ **Explicit wait**

Syntax:

`/*Explicit wait for dropdown WebElement*/`

`WebDriverWait wait = new WebDriverWait(driver, 10);` //Before selenium 4

`WebDriverWait wait = new WebDriverWait(driver,Duration.ofSeconds(10));` //After selenium 4

`wait.until(ExpectedConditions.visibilityOfElementLocated(By.id("dropdown")));`

Implicit wait:-

-Global declare

-it will applicable for all the web elements

- We need to take wait for the particular time

Explicit wait:-

- Web Element Specific
- Expected condition

✓ **Fluent wait**

//Before selenium 4

`Wait<WebDriver> wait = new FluentWait<WebDriver>(driver)`

`.withTimeout(10,TimeUnit.SECONDS)`

`.pollingEvery(5, TimeUnit.SECONDS)`

`.ignoring(NoSuchElementException.class);`

//After Selenium 4

`Wait<WebDriver> fluentWait = new FluentWait<WebDriver>(driver)`

```
wait<WebDriver> fluentWait = new FluentWait<WebDriver>(driver)
    .withTimeout(Duration.ofSeconds(10))
    .pollingEvery(Duration.ofSeconds(5))
    .ignoring(NoSuchElementException.class);
```