Web Driver Implicit Wait.- just like thread.

**Implicit waits** are used to provide a default waiting time between each consecutive test step/command across the entire test script.

**driver.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);**

### **WebDriver Explicit Wait.**

Explicit waits are used to halt the execution till the time a particular condition is met or the maximum time has elapsed. Unlike Implicit waits, Explicit waits are applied for a particular instance only.

WebDriver introduces classes like WebDriverWait and ExpectedConditions to enforce Explicit waits into the test scripts.

WebElement myDynamicElement = (new WebDriverWait(driver, 10))

.until(ExpectedConditions.presenceOfElementLocated(By.id("myDynamicElement")));

**Types of Expected Conditions**

**#1) elementToBeClickable()** – The expected condition waits for an element to be clickable i.e. it should be present/displayed/visible on the screen as well as enabled.

**Sample Code**  
wait.until(ExpectedConditions.elementToBeClickable(By.xpath(“//div[contains(text(),’COMPOSE’)]”)));

**#2) textToBePresentInElement() –** The expected condition waits for an element having a certain string pattern.

**Sample Code**  
wait.until(ExpectedConditions.textToBePresentInElement(By.xpath(“//div[@id= ‘forgotPass'”), “text to be found”));

**#3) alertIsPresent()-** The expected condition waits for an alert box to appear.

**Sample Code**  
wait.until(ExpectedConditions.alertIsPresent()) !=null);

**#4) titleIs()** – The expected condition waits for a page with a specific title.

**Sample Code**  
wait.until(ExpectedConditions.titleIs(“gmail”));

**#5) frameToBeAvailableAndSwitchToIt()** – The expected condition waits for a frame to be available and then as soon as the frame is available, the control switches to it automatically.

**Sample Code**  
wait.until(ExpectedConditions.frameToBeAvailableAndSwitchToIt(By.id(“newframe”)));

**Navigation Using WebDriver**

**1) driver.navigate().back()**

**2) driver.navigate().forward()**

**3) driver. navigate().refresh()**

**4) driver.navigate().to()**