**Demonstrate synchronization in selenium**

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| import org.openqa.selenium.By;  import org.openqa.selenium.WebDriver;  import org.openqa.selenium.WebElement;  import org.openqa.selenium.chrome.ChromeDriver;  import org.openqa.selenium.support.ui.ExpectedConditions;  import org.openqa.selenium.support.ui.FluentWait;  import org.openqa.selenium.support.ui.WebDriverWait;  import java.time.Duration;  import java.util.NoSuchElementException;  import java.util.Scanner;  public class SeleniumWaitDemo {  static WebDriver driver;  public static void main(String[] args) {  driver = new ChromeDriver();  Scanner scanner = new Scanner(System.in);  while (true) {  System.out.println("\nChoose a Wait Method to Demonstrate:");  System.out.println("1. Implicit Wait");  System.out.println("2. Explicit Wait");  System.out.println("3. Fluent Wait");  System.out.println("4. Exit");  System.out.print("Enter your choice: ");  int choice = scanner.nextInt();  switch (choice) {  case 1:  implicitWait();  break;  case 2:  explicitWait();  break;  case 3:  fluentWait();  break;  case 4:  driver.quit();  System.out.println("Browser closed. Exiting...");  return;  default:  System.out.println("Invalid choice. Please try again.");  }  }  }  public static void implicitWait() {  System.out.println("Demonstrating Implicit Wait...");    driver.manage().timeouts().implicitlyWait(Duration.ofSeconds(10));    driver.get("https://www.example.com");  try {  WebElement exampleElement = driver.findElement(By.id("example-element-id"));  System.out.println("Element found: " + exampleElement.getText());  } catch (NoSuchElementException e) {  System.out.println("Element not found within 10 seconds.");  }  }  public static void explicitWait() {  System.out.println("Demonstrating Explicit Wait...");  driver.get("https://www.example.com");  WebDriverWait wait = new WebDriverWait(driver, Duration.ofSeconds(15));  try {  WebElement dynamicElement = wait.until(ExpectedConditions.visibilityOfElementLocated(By.id("dynamic-element-id")));  System.out.println("Element found and visible: " + dynamicElement.getText());  } catch (Exception e) {  System.out.println("Element not visible within 15 seconds.");  }  }  public static void fluentWait() {  System.out.println("Demonstrating Fluent Wait...");  driver.get("https://www.example.com");  FluentWait<WebDriver> fluentWait = new FluentWait<>(driver)  .withTimeout(Duration.ofSeconds(20)) // Total wait time  .pollingEvery(Duration.ofSeconds(2)) // Polling interval  .ignoring(NoSuchElementException.class); // Ignore this exception  try {  WebElement clickableElement = fluentWait.until(ExpectedConditions.elementToBeClickable(By.id("clickable-element-id")));  System.out.println("Element is clickable: " + clickableElement.getText());  } catch (Exception e) {  System.out.println("Element not clickable within 20 seconds.");  }  }  } |

**Output:**



