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**Bài 3:**

**POM pattern**

**Bước 1: Tạo mới 1 thư mục tên pages: src/main/java/pages**

**Thêm mới 1 file GoogleSearchPage**

package pages;  
  
import org.openqa.selenium.By;  
import org.openqa.selenium.WebDriver;  
import org.openqa.selenium.WebElement;  
  
public class GoogleSearchPage {  
 private WebDriver driver;  
  
 // Locators  
 private By searchBox = By.*name*("q");  
 private By searchButton = By.*name*("btnK");  
  
 // Constructor  
 public GoogleSearchPage(WebDriver driver) {  
 this.driver = driver;  
 }  
  
 // Page actions  
 public void enterSearchTerm(String searchTerm) {  
 WebElement searchBoxElement = driver.findElement(searchBox);  
 searchBoxElement.sendKeys(searchTerm);  
 }  
  
 public void clickSearchButton() {  
 WebElement searchBoxElement = driver.findElement(searchBox);  
 searchBoxElement.submit(); // Submit the form since the search button might not be clickable initially  
 }  
}

**Bước 2: Tạo mới thư mục tests: test/java/tests**

Thêm mới file

package tests;  
  
import pages.GoogleSearchPage;  
import org.junit.jupiter.api.AfterEach;  
import org.junit.jupiter.api.BeforeEach;  
import org.junit.jupiter.api.Test;  
import org.openqa.selenium.WebDriver;  
import org.openqa.selenium.chrome.ChromeDriver;  
import org.openqa.selenium.support.ui.ExpectedConditions;  
import org.openqa.selenium.support.ui.WebDriverWait;  
import io.github.bonigarcia.wdm.WebDriverManager;  
  
import java.time.Duration;  
  
import static org.junit.jupiter.api.Assertions.*assertEquals*;  
import static org.junit.jupiter.api.Assertions.*assertTrue*;  
  
public class GoogleSearchTest {  
 private WebDriver driver;  
 private GoogleSearchPage googleSearchPage;  
  
 @BeforeEach  
 public void setUp() {  
 WebDriverManager.*chromedriver*().setup();  
 driver = new ChromeDriver();  
 driver.get("https://www.google.com");  
 googleSearchPage = new GoogleSearchPage(driver);  
 }  
  
 @Test  
 public void testSearch() {  
 googleSearchPage.enterSearchTerm("fpt da nang");  
 googleSearchPage.clickSearchButton();  
  
 // Wait for the search results page to load  
 WebDriverWait wait = new WebDriverWait(driver, Duration.*ofSeconds*(10));  
 wait.until(ExpectedConditions.*titleContains*("fpt da nang"));  
  
 // Assert that the title contains the search term  
 // String title = driver.getTitle();  
 //assertTrue(title.contains("fpt da nang"));  
 // Assert that the title is exactly what we expect  
 String expectedTitle = "fpt da nang - Tìm trên Google";  
 String actualTitle = driver.getTitle();  
 *assertEquals*(expectedTitle, actualTitle, "The page title should be 'fpt da nang - Google Search'");  
 }  
  
 @AfterEach  
 public void tearDown() {  
 if (driver != null) {  
 driver.quit();  
 }  
 }  
}

Một số lưu ý: Kiểm tra chrome và chromedriver versions tương thích nhau hay không

<https://stackoverflow.com/questions/41133391/which-chromedriver-version-is-compatible-with-which-chrome-browser-version>

* **WebDriverWait:** nên được sử dụng để chờ element xuất hiện, tránh dung Thread.sleep