

AUTOMATIVE E-COMMERCE WEB APPLICATION

- Create a new Maven project in Eclipse IDE to manage dependencies and build configurations.
- Add the required dependencies for Selenium WebDriver and TestNG in the pom.xml file.
- Set up a Java class for test automation and annotate it with TestNG annotations.
- In the @BeforeTest method, initialize the WebDriver (e.g., ChromeDriver) and navigate to the Flipkart homepage (<https://www.flipkart.com/>).
- Implement performance testing techniques to measure the page load time of the Flipkart homepage.
- In the @Test method, search for a product (e.g., "iPhone 13") under the "Mobile" category using the search bar.
- Use WebDriver commands to check if the images are loaded and visible within the screen height only.
- Verify that the page has a scroll feature and simulate scrolling down to load more products.
- Check the frequency at which the content is refreshed while scrolling and ensure smooth lazy loading behavior.

- Utilize explicit waits (WebDriverWait) to verify that images are downloaded just before the user scrolls to their position and gets displayed on time.
- Verify that the page navigates to the bottom upon scrolling and that all expected products are loaded.
- Use WebDriver's capabilities to set different browser configurations and screen resolutions.
- Execute the test cases through the TestNG XML file or directly from the test class.
- View the generated TestNG test reports in the "test-output" folder to monitor test results.
- Implement logging and reporting mechanisms to capture test status, errors, and other relevant information for better test maintenance and debugging.