149. FAQs about Framework design

Design Selenium Framework from Scratch

* Why Framework? Its advantages
* Create **Maven** structured Framework with all necessary Automation dependencies.
* Select sample Ecommerce Application to Automate the end-to-end flow
* Implement **Page object model** mechanism to drive the locators from respective classes
* Drive object creation within page object classes **encapsulating** it from Tests
* Create Base Test which sets browser configuration details and **global properties**
* Decide the **Test Strategy**, how tests should be clubbed & distributed with appropriate annotations.
* Create **TestNG runner** file to trigger the tests with one single point of execution control.
* Introduce **Grouping in TestNG.xml** to categorize tests with different tags of execution
* Implement **Data driven testing & Parameterization** using TestNG Data provider HashMap & Json File readers
* Implement **TestNG Listeners** to capture screenshot on automatic test failures and logging
* Create extent report wrapper to generate **excellent HTML reports** for the application
* Make Framework necessary changes to support **parallel execution** with Thread safe mechanism
* Implement TestNG **retry mechanism** to rerun the failed flaky tests in the application
* Run the Framework tests with maven commands with **TestNG Maven Integration Plugin**
* Implement maven **Run time variables** to replace global parameters of test data at run time
* Integrate the Framework with **Jenkins** with parameterized Build Pipeline jobs & Schedule the jobs on specific time frames.
* Add **Cucumber wrapper** to existing framework with Cucumber TestNG Runner
* Create **Feature files & Step definitions** to support cucumber execution of selenium Tests
* Understand how **cucumber tags, Data driven & Parameterization** works in running the tests.