**Different Frameworks we are going to use in hybrid model:**

We are going to use the following frameworks in our hybrid model.

* Modular Framework
* Data Driven Framework
* Keyword Driven Framework

Modular Framework: We will identify the commonly used functionality and make the keywords for those functionalities as separate group of keywords and give it a name. For example, posting a vehicle is a commonly used functionality. So, we identify all the keywords required for this and give it a name like AdminPostVehicle. Whenever we need to post a vehicle we will call this name AdminPostVehicle and it looks for all the keywords under this name and does the necessary actions.

Data Driven Framework: We will identify all the functionality that should be data driven. For example, posting a vehicle can be data driven as we may need to post 1 vehicle, 2 vehicles, 3 vehicles or more. So, we will create data for these functionalities and drive these functionalities with this data.

Keyword Driven Framework: We will be using different keywords for different actions.

**Different features that we would like to have in our automation framework:**

* .properties file (Global Data)
* Synchronization (Implicit and Explicit Waits)
* Action Classes
* Apache POI
* Page Object Model
* TestNG

- Data Provider Annotations to run tests parallel

* Taking Screenshots using Listeners in TestNG
* Selenium Grid – Run tests parallelly
* Maven
* Jenkins

- Test NG Results Plugin

- TestNG Results Analyzer Plugin

- Emailing the report

**Deciding whether we want to use TestNG test framework or not:**

We will be using TestNG framework in our automation. TestNG has an internal exception mechanism, so if a test fails it won’t stop but will fail that particular test case and proceed with other test cases. Even in the report it will show the exception of why that particular test failed. Another reason also, we want to run the tests parallelly using Selenium Grid and also, we want to run the tests automatically using Maven and Jenkins.

If you don’t want to use TestNG, you have to have exception mechanism in your scripts and use logs to report the exceptions. If you don’t use exception mechanism, if one test fails because of some issue, the whole testing stops. You also have to use logging mechanism (log4j2 framework) to capture the exception occurred as you have to check the logs what exactly happened. Also, you have to make a provision externally to fail the test cases.

Since we are using TestNG, we are not going to use Exception Handling and Logging Framework.