AUTOMATION ASSESSMENT:

1) I have done MAVEN build project used SELENIUM and TESTNG. I have used data driven selenium framework for automating the feature of LOGIN.
MAVEN- makes the project build more flexible because we can add dependencies in pom.xml where I have used selenium -java , testing , apache poi so that when we are designing the code we can formulate and import the package as required.

   TestNG eliminates most of the limitations and gives the developer the ability to write more flexible and powerful tests with help of easy annotations, grouping, sequencing & parametrizing. Automat-ing the website with the help of CHROMEDRIVER.
   (The code can be run on IE, FIREFOX also). It's a cross browser testing code.
   I have used java as coding language.

2) I have located the elements using locator XPATH by inspecting each element. XPATH helps to located the element based on its XML.

3) Test cases maintenance becomes difficult expectation may differ. UI developers have to clearly thinking of the code designing. Mobile UI testing is a very important part for any applications.

4) We can maintain thousands of test scripts for a specific project and with each build we have to verify the fundamental functionality of project is working well or not. The main reason of automation is regression.

   When used with Selenium, TestNG makes it easy to control Selenium sessions, create and shutdown browsers and run tests in parallel with any configuration. In addition, if we need to log any Selenium event while running our tests TestNG handles.

   The TESTING.XML file of TESTNG helps us know if we need to maintain any parametrization of test, grouping of tests, dependency, include exclude or ignore any test cases. Like this we can maintain test cases and can run the script with ease.

   LOG can help us see any kind of error.

For Automation we have to maintain some priority.
Test case executed with different set of data
Test case executed with different browser
Test case executed with different environment
Test case executed with complex business logic
Test case executed with different set of users
Test case Involves large amount of data
Test case has any dependency
Test case requires Special data
For any project we have to understand the business logic and design the test.

Like this we can maintain the consistency of test cases and we can debug it easily.