1. Automtion testing is done when an application is used by multiple users simultaneously. This testing reduces the cost and testing time to a great extent. Also, it gives an effective coverage for finding different kinds of bugs. The effectiveness of the usage of application increases. It also leads to increases software quality. As compared to manual testing automation testing is less laborious and more effective and consistent. Amazon Web Services (AWS) is a great platform for running Java workloads, and offers several options for deploying and managing both off-the-shelf and custom applications.

The three types of test that are included in automation are: unit testing, API testing and GUI (Graphical User interface) automation.

* UNIT TESTING:

Unit testing is testing the individual components/functionality of an application. Many of the bugs can be detected at a very early stage in unit testing. Accurate unit tests leads to reduction of bugs in later stages of software development process. Moreover unit tests are quick to write with only a few lines of code.

* API AUTOMATION:

API automation involves testing the components together i.e., the overall functionality or the flow of control from one component to another(between methods/classes). Certain compatibility issues may not be detected during unit testing, which maybe resolved in this automation. API automation involves compatibility check, security issues and overall functionality. Although these tests are more complex than unit tests, API tests are typically fast to execute.

* GRAPHICAL USER INTERFCE (GUI) TESTING/UI TESTING:

GUI testing is the user interface screens and actions performed by user such as clicking, moving, dragging, moving around etc. Furthermore, automation at this level will exercise all of the levels below it. This means that actions performed at the UI layer will interact with the API layer and the unit layer. Therefore, you can test the entire system through the UI layer.

1. TESTING OF WEB FRONT END

Web testing is a software testing practice to test the websites or web applications for potential bugs. It’s a complete testing of web-based applications before making live. A web-based system needs to be checked completely from end-to-end before it goes live for end users. By performing website testing, an organization can make sure that the web-based system is functioning properly and can be accepted by real-time users. Web based testing includes functionality testing, usability testing, interface testing, compatibility testing, performance testing and security testing. Functionality testing included tests performed to check the links, validation of HTML/CSS, database testing and cookie testing. In usability testing tests for navigation, content checking are performed. In web testing, the server side interface should be tested. Compatibility testing includes browser compatibility, OS compatibility, mobile compatibility and printing compatibility. Performance testing includes web load testing and web stress testing.