**Automation Test Life Cycle**

1- Automation feasibility analysis

2- Test Plan/Test Design

3- Environment Setup/Test lab setup

4-Test Script development/ Automation testcase development

5-Test script execution

6- Generate test result / Analyses of  result

Lets start  each of the phase of Automation test life cycle

### 1- Automation feasibility analysis

  In this section you have to think from different perspective. The main objective of this phase will be to check feasibility of automation.

So your main focus will be on below points. 

1- Which test case can be automated and how we can automate them

2- Which module of your application can be tested and which can not be automated  
3- Which tools we can use for our application (like Selenium,QTP,Sahi,OATS, Telrik etc) and which tools will be best of our application

4-  Take following factors into consideration like Team size,Effort and cost involved for tools which we will use.

2- Test Plan/Test Design

This phase plays very important role in Automation test life cycle. In this phase you have to create a Test plan by considering below point into considerations.

1-  Fetch  all the manual test case from test management tool that which TC has to automate.

2- Which framework to use and what will be advantage and disadvantage  of the framework which we will use.

3-  Create a test suite for Automation test case in Test Management tool.

4-  In test plan you can mention background, limitation, risk and dependency between application and tools.

5- Approval from client/ Stack holders.

### 3- Environment Setup/Test lab setup

 By name itself you can understand that we need to setup machine or remote machine where our test case will execute.

1- In this section you can mention how many machine you want.

2- What should be the configuration in terms of hardware and software.

### 4-Test Script development/ Automation test case development

In this phase you have to start develop automation script and make sure all test script is running fine and should be stable enough.

1- Start creating test script based on your requirement

2- Create some common method or function that you can reuse throughout your script

3- Make your script easy, reusable,well structured and well documented so if third person check your script then he/she can understand your scripts easily.

4- Use better reporting so in case of failing you can trace your code

5- Finally review your script and your script should be ready before consumption.

### 5-Test script execution

Now its time for execution of test scripts, in this phas you have to execute all your test script.

Some points to remember while execution

1-  Your script should cover all the functional requirement as per testcase.

2-  Your script should be stable so it should run in multiple environment and multiple browsers (depends on your requirement)

3-   You can do batch execution also if possible so it will save time and effort.

4-   In case of failure your script should take screen shots.

5- If test case is failing due to functionality, you have to raise a bug/defect.

### 6- Generate test result / Analyses of  result

This is the last phase of Automation test life cycle in which we will gather test result and will share with team/client/stack holders.

1- Analyze the output and calculate how much time it take to complete the testcase.

2- You should have good report generation like XSLT report, TestNG report, ReporterNG etc.