**Agenda**

* Introduction to automation testing
* Core Java
* Selenium web driver
* Framework
* Maven project management

**Introduction to automation testing**

* Introduction to automation testing
* Selenium
* QTP V/S Selenium

Why Automation

* **Speed** : Automation Script run very fast when compared to human users
* **Reliable** : Test perform preciselly then same opeartion each time they run, there by elimination human error
* **Repeatedly** : We can tets how application react after Repeatedly execution of same opearation
* **Comprehensive** : We can build a suite of test that cover every feature in our application
* **Reusable** : We can reuse tests on different versions of an application, even if then user interface changes
* Automation your test procedure when you have lot of regression work
* Automate your load testing work for creating virtual user to check load

|  |  |
| --- | --- |
| **Manual test** | **Automation test** |
| Not accurate result every time due to human error | Accurate result due to script |
| Time counsuming | Faster than manual due to used software/tools |
| Invesmment on human | Investiment on software/tools |
| Perform single/twice in a day | Many time perform in a day |
| Observation more accuraate | Customer satisfaction not gureented |

Introduction to selenium

* Open Source
* More accurate over QTP

**Components**

Components

Selenium IDE

Grid

Web Driver

Selenium RC

Core Java

Introduction

* Developed by sun microsystem
* Released James Gosling in 1995 with core components of sun microsystem java platform(Java 1.0 [J2SE]]
* Later on accuried by Oracle
* Java guarented to write once and run anywhere
* Platform
  + J2SE for standard edition(Desktop application)
  + J2EE for enterprise application(Backend tech & Web application)
  + J2ME for mobile application(Symbian OS for micro screen system)

Feature

* Simple
* Obeject oriented
* Distributed
* Interpreted
* Robust/Powerful
* Secure
* Architecture-Neutural
* Portable
* Performance
* Multithered
* Dynamic

Use of JAVA

* Backend dev.
* Automation tester
* Website Development
* Game Development
* Mobile App Development(Android)
* Cloud computing
* Big Data
* AI
* IOT

Variable : It Container which store value

SYN:

Declaration

{Data\_Type} {Var\_Name}

Intilization

{Data\_Type} {Var\_Name}=Value;

Identifier : Rules to Give Name

* Name not start with number(123eg)
* It can start with \_ sign(\_123eg)
* Name not contain Space(123 eg)
* Not contain any keywords : Special Word whose meaning is already stored in complier

Var. Name: snake\_case

Method Name : camelCase

Class Name : PascalCase

Complier: C, C++, JAVA

Interpreter : JAVAScript, Python, PHP, JAVA

Data type

1. Premitive(Fixed size)
   1. Numerical
      1. Int : 4 byte(-2147483648 to 2147483647)
      2. Long : 8 byte
      3. Boolean : 1 bit(true1/false0)
      4. Char : 2 byte(Single char{‘A’ - Ascii Code : 56}
   2. Non numrical
      1. Float : 4 byte(32.56)
      2. Double : 8 byte(4545.768676)
2. Non premetive(Not fixed size)
   1. Array
   2. Class(String)