Selenium Webdriver using C# Language

C# - Basics (OOPs Concepts)

- Variables
- Class
- Method
- Object
- Inheritance
- Encapsulation
- Polymorphism

Selenium Webdriver

- Setting up Selenium Webdriver
- Different Types of Locator
- Handling the UI components
- Basics of Framework
- Data Driven Framework
- Keyword Driven Framework
- POM

BDD with Specflow

- Setting up Specflow (.NET implementation of Cucumber)
- Steps and Step-definition
- Integrating Sepcflow with Selenium
- MSTest

Repository & Build Server

- Git
- Team City

Conditional & Control Statement

- Conditional Statements allows the program to behave differently based on condition ex:- If-else, If-else If-else, Switch
- Control Statements allows to control the number of times a statement should get executed

ex:- For, While Loop

Class & Object

• Classes are the blue print of the objects, which represent what are the property and behaviour of Object. Classes are used to represent complex login in terms of code. In order to create a class we need to use "class" keyword.

Property:- Also called as instance variable

Behaviour :- Is represented by Methods

• Object are the entity which represent the class, using the object we can use its property and behaviour. "new" keyword is use to create objects.

Static Variable and Methods

- Static variables are special type of variable, in which only one time memory allocation will happen and all the object will share the same memory
- Static variable cannot be accessed with Object but it can be accessed with Class Name
- Static methods can access only static variable or methods.
- Static methods also can be accessed only with Class Name

Inheritance

 Inheritance is the mechanism by which one class can inherit the property and behaviour of other class

 The class which is inheriting the property is called "Derived or Child Class"

 The class from which the property & behaviour is getting inherited is call "Base or Super Class"

Inheritance – Access Modifier

- *public*:- Can be accessed any where in the Base class and child class. Also can be accessed using object.
- *private*:- Can be accessed in the class where they are define. Cannot be accessed using object.
- protected :- Can be accessed in the Base class and child class.
 Cannot be accessed using object.

Base - Keyword

• Base keyword: It is used to access the Base class Constructor, Data Member, Methods

You can access only *public* and *protected* methods and variables.

Method Overloading

- Overloading:- it's compile time Polymorphism.
- Polymorphism :- Having many forms.
- It means methods will have same name, but they are differ on the base of number of argument supplied and type of argument supplied.

Abstract Class

- It's a special type class which is only used for inheritance.
- You cannot create the object of abstract class.
- To define a abstract class, one must use "abstract keyword" with class.
- · Abstract class can have abstract methods.
- Abstract methods are the method whose implementation will be defined by Derived class.

Interface

• It is used to achieve 100% abstraction.

You cannot have methods definition in the interface.

• To create an interface, one must use "interface keyword".

You can implements more than one interface.

Exception Handling

- An exception is a problem which arise during the execution of the program. Ex:- NullReferenceException
- Exception can be handled using try-catch block.
- try-catch:- Place the code which likely to throw the exception
- finally:- Get executed irrespective of the exception is thrown or not
- throw:- Is used to throw the exception explicitly