Software Testing Masters Program Syllabus

Manual Testing

Manual Testing (15hrs)

- Introduction
  - Manual Testing
  - software Testing
  - Perform Testing
- Why software testing is required?
- Types of Testing
  - Black Box Testing VS White Box Testing
  - Validation Testing VS Verification Testing
- SDLC
- The system, Sanity and Smoke testing
- Regression testing implementation
- Defect Life Cycle/ Bug Life Cycle
- Exit/Entry in Testing
- Test Case and Test Scenario
- How to write Test Description?
- What is Testing Template?
- How to apply the test suite?

Selenium with Java

Selenium with Java (25hrs)

Java

- Java Introduction
- What is Java
- Architecture of Java
  - JVM
  - What is the use of JVM
  - What is Byte code
- Feature of Java

- C++ vs Java
- Hello Java Program
- How to set Path
- JDK
- JRE vs JVM
- Data Types
- Unicode System
- Keyword
- Control Statement
  - Java If Else
  - Switch
  - For Loop
  - While Loop
  - Do While loop
  - Break
  - Continue
- Object Classes
  - Oops Concept
  - Naming Control
  - Constructor
  - Static Key
  - This Key
  - Java Inheritance
- Java Polymorphism
  - Overload
  - Override
  - Return Type
  - Super Key
- Java Abstraction
  - Abstraction
  - Interface
  - Abstraction vs Interface
- Java Encapsulation

- Packages
- Access Modifier

- Array
- Java Sting
- Java Regular
- Exception Handling
  - Try
  - Catch
  - Multiple try-catch Blocks
  - User Defining Exception handling
- Java I/o Operation
  - Input
  - Output

Selenium

- Introduction
  - Basic Terminologies
  - Features
  - Limitations
  - QTP vs Selenium
- Selenium IDE
  - Introduction
  - Features
  - First Test Case
  - Login Test
  - Command
  - Create Test Case
- Selenium Web Driver
- Introduction Web Driver
  - Architecture
    - Features
    - Web Driver vs RC

- Web Driver Installation
- Test Case
- Selenium Grid
- Test NG
- Runtime Test on Web Tools
  - Chrome
  - Firefox
  - Internet Explorer
  - Safari
- Handling Drop-Down
  - Drag & Drop
  - Alert
  - Web Page
  - Navigation
  - Command
  - Element
  - Radio Button
  - CheckBox
  - Assertion
- Data-Driven Framework
- Hybrid Framework
- Page Object Model Framework
- Project: Online Tickets Booking Application Testing (Real-Time)

Selenium with Python

Selenium with Python (25hrs)

Python

- Introduction
- Download and Installation
- Variables
- Operators
- Python Lists
- Python Tuples

- Python Set
- Python Dictionary
- Python Class, Objects, Inheritance, def functions
- Module and package creation

Selenium

- What is selenium?
- Installation of selenium in python
- Pip Packages
- Pycharm Download and installation
- How to configure Pycharm
- Locators in selenium (Different methods by locating the objects)
- Page Object Model Selenium
- How to handle windows, Pop up and navigation
- How to handle dropdown list
- How to handle keyboard and Mouse operations