**# Introduction to Automation:**

\* Automation tools in the market

\* Why automation required

\* Automation Scenario drafting

\* Introduction to eclipse IDE

**# Core Java Learnings:**

\* Language fundamentals

\* Operators & Assignments

\* Flow Control

\* Declarations & access modifiers

\* OOPS

\* Exception Handling

\* Collections

**# Selenium Learnings:**

\* Webdriver Configuration with eclipse

\* Selenium IDE

\* Selenium Webdriver

\* Selenium Grid

\* Firebug

\* Object identification techniques

\* Page Object Model

\* Actions API

\* Wait types in selenium

**# TestNG Framework Learnings:**

\* TestNG Configuration with eclipse

\* TestNG Annotations

\* TestNG XML file

\* TestNG Reports

\* TestNG DataProvider

**# Apache POI Learnings:**

\* Database connection

\* Reading data from excel

\* Upload data into database

**# Maven Dependency management learnings:**

\* Maven configuration with eclipse

\* Maven dependency management

\* Maven integration with Jenkins

**# Ant Build management tool Learnings:**

\* Ant configuration with eclipse

\* Writing build.xml file

\* Integration with jenkins

**# Jenkins CI tool learnings:**

\* Installation and setup of jenkins

\* Integration with scm tool

\* Creating a job

\* Build scheduling

\* execution analysis

**# Mercurial hg scm tool:**

\* Installation and setup of mercurial hg

\* Creating users and access levels

\* Creating repositories

\* Code merge and clone techniques

**# Execution Report creation:**

\* Html report creation and analysis techniques

\* Excel report creation

**# Hybrid Framework creation:**

\* Excel files design for test data

\* Automation scenario drafting

\* Creation of libraries files

\* Creation of utilities files

\* Test classes with TestNG annotations

\* Assertion strategy

\* snapshot and report generation path

\* Exception handling strategy