

ADVANCE SELENIUM COURSE CONTENT

SESSION 1 :

SELENIUM INTRODUCTION

- INTRODUCTION TO SELENIUM
- SELENIUM FEATURES COMPARING TO QTP.
- COMPONENTS OF SELENIUM.
- SELENIUM RC ARCHITECTURE
- SELENIUM WEBDRIVER ARCHITECTURE

JAVA INTRODUCTION

- INSTALLING JAVA
- INSTALLING ECLIPSE
- FEATURES OF JAVA
- WHY JAVA FOR SELENIUM
- FIRST ECLIPSE PROJECT
- FIRST JAVA PROGRAM
- CONCEPT OF CLASS FILE
- PLATFORM INDEPENDENCE
- DATA TYPES IN JAVA
- STRING CLASS
- CREATING OBJECTS IN JAVA
- MEANING OF STATIC
- WHY IS MAIN METHOD STATIC?

SESSION 2 :

JAVA INTRODUCTION

- CONDITIONAL AND CONCATENATION OPERATORS

- IF STATEMENTS
- SWITCH STATEMENTS
- LOCAL VARIABLES
- GLOBAL/INSTANCE VARIABLES
- RELEVANCE OF PACKAGES
- CREATING PACKAGES
- ACCESSING CLASSES ACROSS PACKAGES
- GOOD FEATURES OF ECLIPSE
- ACCESSING MODIFIERS - PUBLIC, PRIVATE, DEFAULT, PROTECTED

SESSION 3 :

LOOPS, ARRAYS AND FUNCTIONS

- WHILE/DO WHILE/FOR/ENHANCED FOR LOOP
- PRACTICAL EXAMPLES WITH LOOPS
- SINGLE DIMENSIONAL ARRAYS
- TWO DIMENSIONAL ARRAYS
- WHAT ARE FUNCTIONS?
- FUNCTION INPUT PARAMETERS
- FUNCTION RETURN TYPES

SESSION 4 & 5:

OBJECT ORIENTED PROGRAMMING

- STATIC AND NON-STATIC VARIABLES
- STATIC AND NON-STATIC FUNCTIONS
- CONSTRUCTORS
- INTERFACE
- OVERLOADINGS AND OVERRIDING FUNCTIONS
- INHERITANCE

- POLYMORPHISM
- ABSTRACTION
- ENCAPSULATION

EXCEPTION HANDLING

- EXCEPTION HANDLING WITH TRY CATCH BLOCK
- IMPORTANCE OF EXCEPTION HANDLING
- EXCEPTION AND ERROR
- THROWABLE CLASS
- FINAL AND FINALLY
- THROW AND THROWS
- DIFFERENT TYPES OF EXCEPTIONS
- NEED OF EXCEPTION HANDLING IN SELENIUM FRAMEWORK

SESSION 6:

LOCATORS

SELENIUM IDE

- INSTALLING AND OPENING IDE
- IDE FEATURES
- BUILDING TEST CASES
- RUNNING TEST CASES IN FIREFOX
- RUNNING TEST CASES WITH WEBDRIVER PLAYBACK SUPPORT
- DEBUGGING
- MULTI LANGUAGE FORMATS
- USING TEST SUITES
- EXERCISE ON SELENIUM IDE

SESSION 7 & 8:

COLLECTION API

- INTRODUCTION TO COLLECTIONS API
- ARRAYLIST CLASS
- HASHTABLE CLASS
- USING ARRAYLIST AND HASHTABLE OF COLLECTION API IN SELENIUM FRAMEWORK
- STRING, FILE HANDLING, LOG4J, /HANDLING XLS FILES
- STRING CLASS AND FUNCTIONS
- READING/WRITING TEXT FILES
- READING PROPERTIES FILE IN JAVA
- CONCEPT OF JAR FILE
- POI API IN JAVA
- READING/WRITING MICROSOFT XLS FILES
- LOG4J API FOR LOGGING
- USAGE OF LOG4J IN SELENIUM

SESSION 9:

SELENIUM RC

- INTRODUCTION TO SELENIUM RC
- WHAT IS SELENIUM RC?
- DIFFERENCE BETWEEN SELENIUM IDE AND SELENIUM RC
- DIFFERENCE BETWEEN WEBDRIVER(2.X) AND SELENIUM RC(1.X)
- DOWNLOADING RC JARS AND CONFIGURING IN ECLIPSE
- ARCHITECTURE OF SELENIUM REMOTE CONTROL
- DRIVERS FOR FIREFOX, IE, CHROME ETC
- FIRST SELENIUM RC CODE
- WORKING WITH CHROME AND IE
- EXTRACTING ALL LINKS OF A PAGE/BULK EXTRACTION OF OBJECTS
- TAKING SCREENSHOTS OF THE WEB PAGES
- EXERCISES

SESSION 10 & 11:

SELENIUM WEBDRIVER

- WHY WEBDRIVER?
- DOWNLOADING WEBDRIVER JARS AND CONFIGURING IN ECLIPSE
- ARCHITECTURE OF SELENIUM WEBDRIVER
- DRIVERS FOR FIREFOX, IE, CHROME ETC
- FIRST SELENIUM CODE
- WORKING WITH CHROME AND IE
- SELENIUM RC AND WEBDRIVER
- CONCEPT OF FIREFOX PROFILE
- WHAT IS FIREFOX PROFILE
- WHY WE NEED FIREFOX PROFILE
- CLOSE AND QUIT -DIFFERENCE
- HTMLUNIT DRIVER AND DESIRED CAPABILITIES
- MANAGING/IDENTIFYING LINKS WITH XPATHS SELECTORS
- EXTRACTING ALL LINKS OF A PAGE/BULK EXTRACTION OF OBJECTS
- EXTRACTING OBJECTS FROM A SPECIFIC AREA OF A WEB PAGE
- VARIOUS STRATEGIES TO TEST LINKS ON A PAGE BY CLICKING ON THEM ONE BY ONE
- FINDING RESPONSE HEADERS/ RESPONSE CODE
- FINDING WHETHER OBJECT IS PRESENT ON PAGE OR NOT
- HANDLING DROP DOWN LIST
- SELECT CLASS IN SELENIUM API
- MANAGING RADIO BUTTONS AND CHECKBOXES
- HIDDEN COMPONENTS
- ISDISPLAYED FUNCTION
- ALERT HANDLING
- WINDOW HANDLING
- EXPLICIT AND IMPLICIT WAIT
- MOUSE HOVER
- TAKING SCREENSHOTS OF THE WEB PAGES
- EXERCISES – WEBTABLE HANDLING

SESSION 12:

TESTNG FRAMEWORK

- WHAT IS TESTNG
- INSTALLING TESTNG IN ECLIPSE
- TESTNG ANNOTATIONS
- UNDERSTANDING USAGE OF ANNOTATIONS
- RUNNING A TEST IN TESTNG
- BATCH RUNNING OF TESTS IN TESTNG
- SKIPPING TESTS
- PARAMETERIZING TESTS - DATAPROVIDER
- ASSERTIONS/REPORTING ERRORS
- TESTNG REPORTS
- ADVANTAGES OVER JUNIT
- USING TESTNG IN SELENIUM
- BUILDING A BAT FILE TO RUN TESTS USING ANT

SESSION 13:

SELENIUM 2.0 FEATURES – PRACTICAL EXERCISE

- EXTRACTING DATA FROM WEBTABLE
- ATTACHING FILES WITH SELENIUM
- HANDLING AJAX AUTOSUGGESTS
- HANDLING GOOGLE AJAX AUTOSUGGESTS
- HANDLING FRAMES IN WEB PAGE
- BUILDING CUSTOM FUNCTIONS
- MANAGING JAVASCRIPT ALERTS
- SIMULATING FRONT AND BACK BUTON CLICK ON BROWSER USING SELENIUM

- DOWNLOADING FILES USING SELENIUM
- LISTENERS- USING WEBDRIVEREVENTLISTENER
- PRACTICAL USAGE OF LISTENERS IN SELENIUM
- MOVING A MOUSE ON A OBJECT AND RIGHT CLICKING ON IT
- ACTIONS CLASS IN WEBDRIVER
- HANDLING CSS MENU WITH ACTION CLASS
- HANDLING CSS MENU WITH JAVASCRIPTEXECUTOR
- JAVASCRIPTEXECUTOR EXAMPLE

SESSION 14:

SELENIUM GRID

- INTRODUCTION OF SELENIUM GRID
- INSTALLATION AND SETUP OF HUB AND NODE
- SIMPLE SCRIPT EXECUTION USING GRID
- PARALLEL EXECUTION USING GRID

FRAMEWORK

- WHAT IS FRAMEWORK?
- TYPES OF FRAMEWORK
- DIFFERENCE BETWEEN DATADRIVEN, KEYWORDDRIVEN AND HYBRID DRIVEN FRAMEWORK
- WHAT IS THE USE OF FRAMEWORK?

BUILD TOOL - ANT

- WHAT IS ANT
- DOWNLOADING AND CONFIGURING ANT
- BUILD.XML CONFIGURATION
- BUILDING A BAT FILE TO RUN TESTS USING ANT

SESSION 15 & 16:

TESTNG AND DATA DRIVEN FRAMEWORK

- OVERVIEW OF DATA DRIVEN FRAMEWORK
- BUILDING THE TEST BASE CLASS
- USING ANNOTATIONS OF TESTNG
- READING XPATHS, CONFIGURATION FROM PROPERTIES FILE
- INITIALIZE THE WEBDRIVER
- IMPLEMENTING WEBDRIVER IMPLICIT WAIT
- IMPLEMENTING TESTS AND BATCH RUNNING THEM
- REPEATING A TEST WITH DIFFERENT DATA
- IMPLEMENT LOGGING WITH LOG4J API
- BUILDING UTILITY FUNCTIONS
- PARAMETERIZING TESTS USING XL FILES
- CONTROLLING EXECUTION ORDER FROM XL FILES
- ASSERTIONS AND REPORTING ERRORS
- STORING SCREENSHOTS OF ERRORS
- CREATING A BAT FILE FOR PROJECT EXECUTION
- EMAILING TEST REPORTS

WORKING WITH CHROME DRIVER

- HELP- MY CHROME IS NOT OPENING
- HELP- MY CHROME IS OPENING BUT ITS NOT NAVIGATING
- CONFIGURING CHROMDRIVER.EXE
- UPLOADING FILES IN CHROME
- TABBED BROWSING AND POPUP HANDLING IN CHROME
- MOVING MOUSE IN CHROME

IE DRIVER(FOR INTERNET EXPLORER)

- ABOUT THE IE EXE
- CONFIGURING IE.EXE
- BROWSING WEBSITES USING THE IE DRIVER.EXE
- UPLOADING FILES WITH INTERNET EXPLORER

- TABBED BROWSING WITH INTERNET EXPLORER
- CSS HANDLING

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