

# SOFTWARE TESTING Ma⊻en⁼





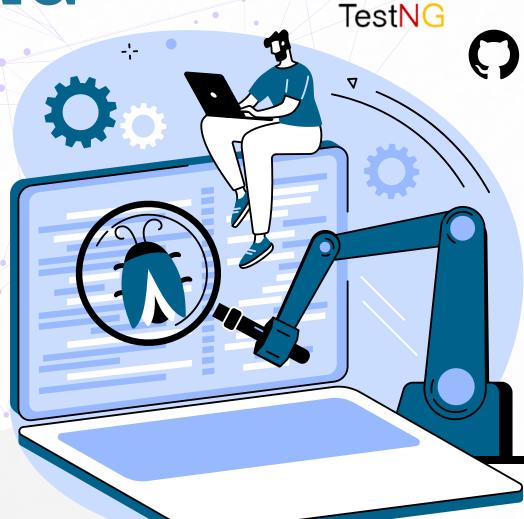














+91 8888022204 / 7484839012

Complete Java Classes,



1st Floor, Above Rupam Sweets/Priyanka Collections Building, Vikas Mitra Mandal Chowk Road, Karve Nagar, Pune, Maharashtra 411052





Mr. Kunal Sonu, the Director of Complete Java Classes has Masters degree in Computer Application. He has 13+ years of experience as a certified trainer in Java/J2EE technologies. We provide this industry level knowledge to our valuable candidates which is helpful for candidates to getting placed in the IT industry. Complete java classes by kunal sir is IT carrier building plateform for students and job seekers. We have a team of highly skilled and professional trainers so we can provide a better assistance of our students.

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## **Software Testing**

## **Core Java**





## **Manual Testing**

**Selenium Testing** 





**API Testing** 



## **Core Java**



#### 1. JDK1.8 NEW FEATURES

Java 8 Interface default method.

Java 8 Interface static Method.

Java 8 Functional Interface.

Java 8 Lambda Expression.

Java 8 for Each () Method.

Java 8 Stream API.

Java 8 Collection.

Important Features of Java.

#### 2. INTRODUCTION TO JAVA

History of Java.

Important Features of Java.

Architecture JDK, JRE and JVM.

Java Keywords.

Simple Hello World Program.

Java Flow Control.

java Source File.

Class and Objects.

Data Types.

Primitive Data Types.

Non - Primitive Data Types.

**Constructor (Types of Constructors).** 

Packages.

Instance & Static Variable.

Static Block.

Has-A Relation(Secondary Reference).

Setter and Getter.

Method return type (primitive type and class type).

#### 3. EXCEPTION HANDLING

What And Why? (try, Catch, Finally,

Throw, Throws, Try With Resources).

Try And Catch Block.

Multiple Catch Blocks.

**Nested Try.** 

Finally Block.

Finally Block With Return Statement.

Throw Keyword.

**Exception Propagation.** 

Throws Keyword.

Throws Keyword With Method Overriding.

Throws Keyword With Constructor.

Throw Keyword With Custom Exception.

Jdk 1.7 Feature Auto Closeable Interface.

Jdk 1.7 Feature Try With Resources.

#### 4. OBJECT ORIENTED PROGRAMMING (OOPS)

Inheritance (IS-A).

**Inheritance With Constructor.** 

**Inheritance with parent & Child reference.** 

Covariant Return Types.

Inheritance and type casting.

This & Super Keyword.

Polymorphism.

Method Overloading.

**Constructor Overloading.** 

Compile time Polymorphism.

Overloading and Narrowing Concept.

Overriding and toString () method. Abstraction.

Abstract class.

Interface.

Marker Interface.

Interface and Multiple Inheritance. Interface

Uses and Benefit with example. Difference

between Interface and

Abstract class.

**Encapsulation.** 

Access Modifier.

Data Hiding.

**Access Modifier Implementation.** 

## OOPs Project

#### **5.STRING HANDLING**

**Introduction of String.** 

**Methods Of String Class.** 

Way of Creating String Object.

**Create Custom Immutable Class.** 

#### **6.COLLECTION FRAMEWORK**

java Collection

List

-ArrayList, Vector and LinkedList,

NestedList.

**List Sorting & Duplicate.** 

Set

-HashSet,TreeSet and LinkedHashSet

**Nested Set.** 

Man

-HashMap and LinkedHashMap ,

ConcurrentHashMap, WeakHashMap.



**Cursors Types** 

Iterator.

List Iterator.

**Enumeration.** 

Java Collections (Utility Class).

Comparable & Comparator.

**Custom Sorting.** 

**Collection And Generics.** 

## Collection Project

#### 7. MULTI THREADING

Introduction of Multithreading.

**Extends Thread Class.** 

Implementing Runnable Interface.

Implementing Callable Interface.

Thread Communication (producer-consumer). Thread

Methods (sleep, Join, Yield etc.).

#### 8. SYNCHRONIZATION

Introduction of Synchronization.

Synchronized Method.

Synchronized Block.

Static Synchronization.

#### 9. LOGICAL

**Operators** 

Java Ternary Operator.

if, if Else and nested If Else and ladder.

Switch Statement.

**Conditional Related Problems. Looping** 

Control.

Java For Loop.

Java While Loop.

Java Do While Loop.

Java Break Statement.

**Looping Related Problems.** 

Array

Array Related Problems.

**Numeric Logical Problems.** 

String Logical Problems.

(String Palindrome, Duplicate

Removal).

**Sorting Problems.** 

**Searching Problems.** 

File Related Logical Problems.

#### 10. INPUT AND OUTPUT

Introduction of File class.

File Writer & File Reader.

Input From Keyboard By Console.

Input From Keyboard By Scanner Class. Print

Writer Class.

Reading And Writing Data Simultaneously.

#### 11. JDBC API

Introduction Of JDBC.

JDBC Drivers.

Steps To Connect Database In Java.

Connectivity With Oracle.

Connectivity With MySQL.

Driver Manager.

**Connection Interface.** 

Statement Interface.

**Prepared Statement.** 

Callable Statement.

**JDBC CRUD Operations.** 

## JDBC Project

### 12. SQL

**Database Introduction.** 

**SOL** Introduction.

**SQL** Features.

**MYSQL Introduction.** 

**MYSQL Installation.** 

Data Types.

DDL,DML,DCL.

Create Table.

Select Statement.

Insert Statement.

Delete Statement.

Update Statement.

**DISTINCT and WHERE Clauses.** 

ORDER BY and GROUP BY Clauses.

SQL JOINS.

**SQL Outer Join.** 

**SQL** Inner Join.

SQL Left Join.

SQL Right Join.

SQL Full Join.

Stored Procedure.

## **Manual Testing**



#### **Introduction to Testing**

What is testing?

Why testing is essential?

#### Quality

What is quality of software?

**Quality attributes** 

Software Development Life Cycle (SDLC)

**Software Testing Life Cycle (STLC)** 

**QA** and **QC** activities

Verification and Validation

#### **Verification Technique**

**Informal review** 

Walkthrough

**Technical review** 

Inspection





#### Manual Testing

#### SDLC Life Cycle Models

Waterfall Model

Verification and Validation Model(V Model)

**Incremental Model** 

**Iterative Model** 

**Agile Model** 

**Spiral Model** 

Rapid Application Development Model (RAD)

#### **Agile Methodology**

**Understanding Agile** 

**Scrum Methodology** 

Scrum Roles, Events, Scrum Terms and Artifacts

**Estimating in Agile** 

#### **Test Process**

**Generic Test Process** 

## **Test Management**

**Project Delivery** 

**Test policy** 

**Test Strategy** 

**Test Plan** 

**Test Completion Report** 

#### Risk

What is risk?

**Risk Identification** 

**Risk Probability** 

**Risk Impact** 

Risk examples

**Risk mitigation Risk** 

contingency

#### **Defect**

What is defect?

**Defect synonymous** 

Defect life cycle

**Defect severity** 

**Defect priority** 

**Defect age** 

**Defect tracking and correction** 

**Defect techniques** 

**Defect tracking** 

**Defect reporting** 

Sample format of defect report

#### **Black box testing techniques**

**Equivalence partitioning or Equivalence** 

classing

**Boundary value analysis** 

Use case based testing

State transition testing

Cause effect graphing

**Error guessing** 

#### White box tesing techniques

**Basis** path

**Control structure testing** 

#### **Type of Testing**

**Functional Testing** 

**Non-Functional Testing** 

**Regression testing** 

Retesting

### **Levels of Testing**

**Unit level testing Integration** 

testing

System testing

**System integration testing** 

## **Defect Tracking Tools**

Jira



## **Automation Testing**



#### **Introduction to Automation Testing**

What is an Automation Testing?

Which Test Cases to Automate?

**Different Automation tools.** 

**Automation Challenges & Mitigations.** 

#### **Introduction to Selenium**

What is selenium?

History and various versions of selenium.

Advantages of using Selenium over other tools.

Selenium components.

#### **Selenium Web Driver**

What is a driver?

What is a Selenium Web Driver?

Automation Setup for Selenium Web Driver.

Configuration of Selenium Jar using Eclipse.

Web Driver Interface Methods.

#### HTML

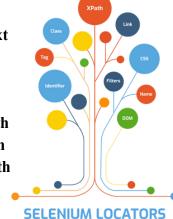
**HTML Basics** 

#### Locators

Use of locators.

Different locators available in Selenium.

- ID
- Name
- Link Text
- Partial Link Text
- Class Name
- Tag Name
- Xpath
  - -Absolute Xpath
  - -Relative Xpath
  - -Dynamic Xpath
- CSS



#### Webelement

Search Web Elements on web pages.

Web Element Methods.

### **Synchronizing Test Script with Wait**

Implicit Wait.

Explicit Wait.

Fluent Wait.

#### **Action Interface and Actions class**

Introduction.

Use of Actions class.

Actions class methods with description.

Building a series of multiple actions.

#### Miscellaneous Selenium Scenarios

Capturing Screen shots.

Alert and Pop up handling.

Calendar handling.

Frames handling.

Cookies.

Why we handle Cookie in Selenium?

Cookies methods.

Multiple Window Handling.

Java Script injection.

#### **Handling Web Table**

What is Web Tables?

**Extracting values from Web Tables.** 

Static and Dynamic Web Tables.

#### **Excel sheet Operations**

Introduction.

Read and Write excel sheet with .xls& .xlsx

Format By Using Apache.

#### **TestNG**

TestNG &TestNG features.

How to integrate TestNG with Eclipse.

TestNG Annotations.

Use of Data Provider Annotation.

Parameterization by using testing.xml file.

POM file Parameterization by using Data Provider.

TestNG Assertions.

TestNG Listeners.

**TestNG Reporting.** 

#### **Build Tools-Maven**

#### **Framework Designing**

What is a Framework?

Different Types of Framework.

How to Design a framework?

### **Properties File**

#### **Page Object Model**

Introduction.

Advantages of POM.

How to implement POM using Page Object-

-and Page Factory by using Selenium Web Driver.

### Log 4j

#### **Jenkins**

What is Jenkins and how to use it?

Integration of Maven/TestNG/Jenkins/Selenium.



#### **Auto IT**

Introduction.

Download file using Auto IT in Selenium. Web Driver with example.

#### **Behavior Driven Development (BDD)**

#### Framework Using Cucumber

What is BDD?

Use of Cucumber tool to implement BDD framework.

Given, When, Then, And, But annotations and-

-usage in features class Writing a Step Definition.

Writing Runner Class.

Passing parameters in Step Functions.

**Cucumber Annotations.** 

Data table in Cucumber and its implementation Pretty, Tags and Glue

Generating Junit,

### **Image Verification Tool**

Sikuli.

#### **Source Code Management Tool**

Github.



## **API Testing Syllabus**

#### **Introduction of API and Web Services:-**

What is API.

What is API Testing.

What is Web Services.

Types of Web Services.

HTTP METHODS-GET/POST/PUT/PATCH/DELETE.

**HTTP Status Response Code.** 

#### **ARC** (Advance Rest Client)

Introduction.

How to call Rest API in ARC.

CRUD Operation with All HTTP method.

#### **Rest Assured**

Introduction.

Rest Assured methods:-GET/POST/PUT/DELETE.

Integration with TestNG.

**ASSEST** in Rest Assured.

Rest Assured Authentication Handle-Basic Auth.

#### **Postman**

Introduction.

How to call Rest API in Postman.

How to pass path parameter in Request.

How to set Headers in Postman.

How to pass JSON/XML Payload.

How to check response status code.

What is response header.

API History in Postman.

Generate HTML Test Report.

Create a collection from API Specification-

-or API Schema.

Test Script in postman.

Pre Request Script in postman.



## OUR PLACEMENTS





































## Student Reviews



## Best classes in pune.



Prashant Warungase

CJC is the best classes in Pune for Java full stack. The teaching staff is so supportive and friendly. They give there best to developed students languages and I suggest to get your admission in CJC by Kunal sir to get best education of language.

#### Nice environment.



Chandramani Katkamble

Class environment is very nice....all staff is cooperative and Kunal sir helped to build confidence in java programing although i am from non tech background also the practical guidance is very good specially Mr.Nandkishor sir guides personally every student.

## Best Institute



Navista Kusur

CJC institute is the best class in Pune. The teaching staff is very supportive and friendly. They give best training. I suggest give admission in cjc by Kunal sir to get the knowledge about languages

Encouraging sessions



<u>Amit Bodake</u>

CJC is one of best platform for learning full stack developer and environment of teaching and practical session is encouraging for students













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