

SOFTWARE TESTING

SYALLBUS



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About Us



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 platform 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.

Why we are?

- 👉 **Expert and professional trainers.**
- 👉 **Test Assessments on weekly basis.**
- 👉 **Conduct weekly mock interview sessions.**
- 👉 **To enhance your skill at industry level.**
- 👉 **Providing the industry oriented training.**
- 👉 **We provide the ready made notes and recorded video sessions in our CJC official mobile application.**
- 👉 **We provide the guidance for building the resume.**
- 👉 **Providing the Batch shifting facility (In a year) .**
- 👉 **We enhance your presentation and communication skill.**
- 👉 **We provide the Certificate after the successful completion of our course.**
- 👉 **We provide digital class room facility.**
- 👉 **Availability of weekdays and weekend batches.**



QA Automation Test Engineer



API TESTING

- Introduction API Testing
- ARC
- Rest Assured
- Postman



AUTOMATION TESTING

- WebDriver
- Locator
- Wait Concept
- TestNG
- Cucumber
- Log4j
- Jenkins
- AutoIT
- Sikuli



MANUAL TESTING

- Software Development Life (SDLC)
- Software Testing Life Cycle (STLC)
- Test Process
- Agile
- Test Management
- Risk
- Test Techniques
- Type of Testing
- Level of Testing
- Jira



CORE JAVA

- Fundamental Concepts
- OOP's concept
- Collections Framework
- Exception Handling
- SQL & MySQL



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.
- Map
 - 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.

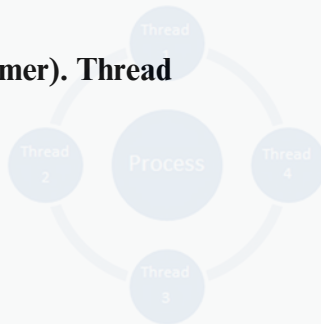
Extends Thread Class.

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.

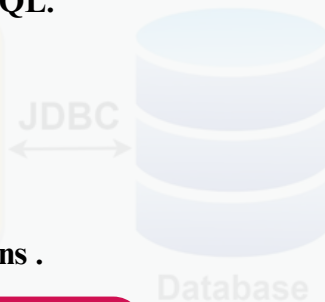
Connection Interface.

Statement Interface .

Prepared Statement .

Callable Statement .

JDBC CRUD Operations .



JDBC Project

12. SQL

Database Introduction.

SQL 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.

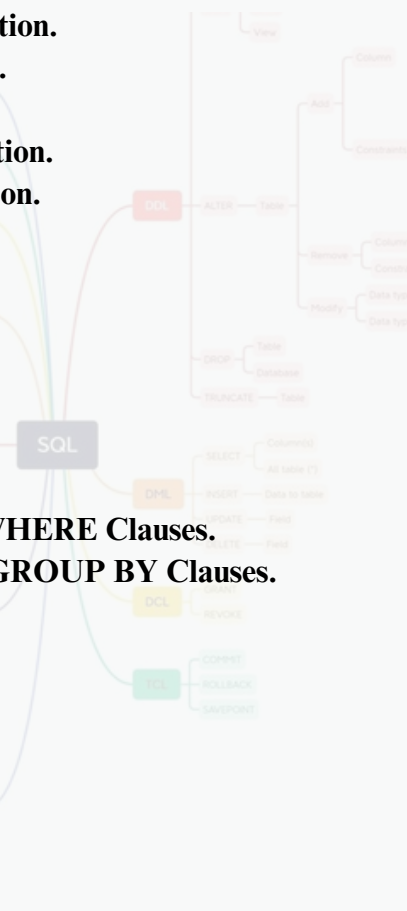
SQL Inner Join.

SQL Left Join.

SQL Right Join.

SQL Full Join.

Stored Procedure.



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



SDLC Life Cycle Models

Waterfall Model

Verification and Validation Model(V Model)

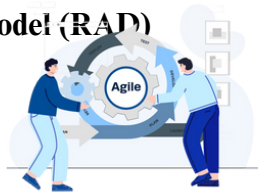
Incremental Model

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 testing techniques

Basis path

Control structure testing

Type of Testing

Functional Testing

Non-Functional Testing

Regression testing

Retesting

Levels of Testing

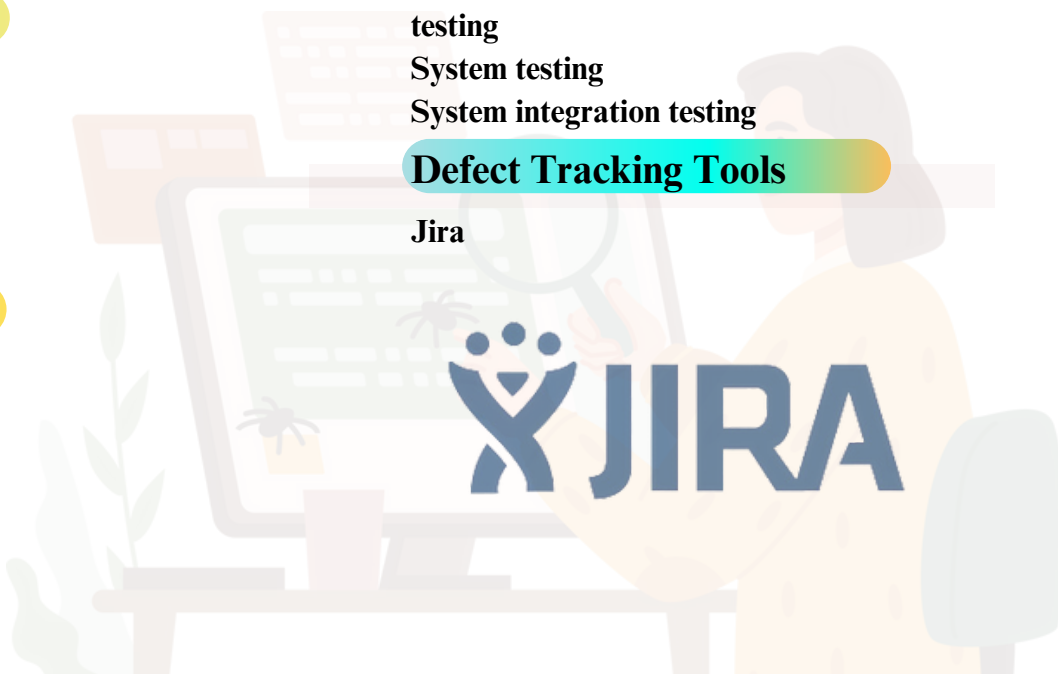
Unit level testing Integration testing

System testing

System integration testing

Defect Tracking Tools

Jira



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

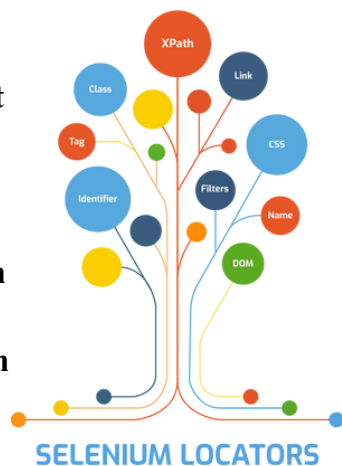
HTML Basics

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.

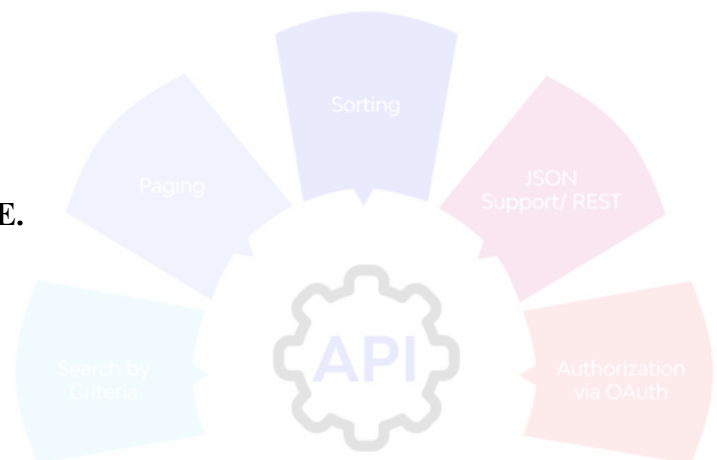
Rest Assured methods:-GET/POST/PUT/DELETE.

Integration with TestNG.

ASSEST in Rest Assured.

Rest Assured Authentication Handle-Basic Auth.

Features of API



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.

Real Time Activities

- 1. Realtime Test Scenarios.**
- 2. Domain Details Exposure.**
- 3. Realtime Project.**
- 4. Frame Work Design.**
- 5. Live Application in API Testing.**

Interview Preparation



Mock Interviews



Resume Preparation

**GET READY FOR
DREAM JOB**



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 proگرامing 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

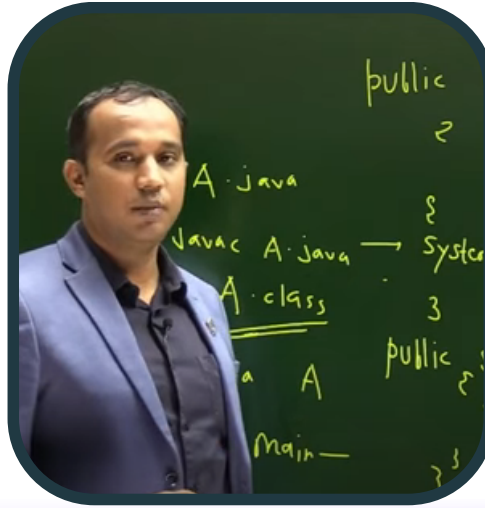
CJC institute is the best class in Pune.The teaching staff is very supportive and friendly.They give best training.I suggest give admission in cjc by Kunal sir to get the knowledge about languages

Encouraging sessions



Amit Bodake

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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C & CPP

PYTHON

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DEVOPS

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