TheKiranAcademy

≡ javabyKiran ≡

Teaching Languages हिंदी English

Automation
Software Testing
Course

THE KIRAN ACADEMY

About Our Founder

Mr. Kiran Digrase
Founder and CEO of "The Kiran Academy"

14 years of experience in the **financial IT domain.**

Worked with **clients**

Why our Course?

155% Highest Hike

₹16 Lakhs Highest Salary

40% Hike In Demand

738+ Hiring Partner

315+ Best Industry Experts

100% Placement Assurance

Our Success Journey

2014 — Established **"Java By Kiran"** institute at **Karve Nagar, Pune.**

We Become **"The Kiran Academy"** From **"Java By Kiran"** — **2018**

2020 — Opened our 2nd Branch at **Pimpri Chinchwad**

Opened our 3rd Branch at **Warje, Pune.** — **2021**

2022 — Opened our 4th Branch at **Deccan, Pune.**

Opened our 5th Branch at **Chatrapati Squar, Nagpur.** — **2023**

About us

Vision
We bridge the gap by providing skilled professional training to students & help them get placed in the company.

Our Mission
We empower individuals to up-skill for IT software company. We provide comprehensive **Industry focused** live training.

1. Contact us through our website or visit to the institute
2. Fill out the registration form & career counseling
3. Take admission & collect admission kit
4. Join WhatsApp broadcast message group
5. Join our learning portal
6. Attend online/classroom sessions
7. Take as many mock tests as you need
8. Prepare for the interview alongside a grooming session
9. Participate in job interviews & engage in interview rounds
10. Get placed & secure a job offer

Our Certifications

TheKiranAcademy
→javabyKiran→
Certificate of Completion
This certificate is presented to

For successfully completing a course

Issued on
Date

Provided by
THE KIRAN ACADEMY

Co-founder & MD

TheKiranAcademy
→javabyKiran→
CERTIFICATE
OF APPRECIATION

THIS CERTIFICATE IS AWARDED TO:

Student Name

In Recognition Of Their Active Participation In The CSR Placement Drive On 3rd May 2023.
Your Participation, Enthusiasm, And Dedication Have Been An Integral Part Of The Success Of The
CSR Placement Drive At XXXX College And We Are Pleased To
Recognize Your Involvement.

This Certificate Is Given On
23/08/2023
DATE

Co-founder & MD

100% JOB ASSURANCE

25,000+ Students Placed

Best Placement Ratio

Alaska
AVON
3.5 LPA
3.5 LPA
4.3 LPA
7.5 LPA
4 LPA
ORACLE
5.2 LPA
22.20 LPA
ZenSar
Placed
4.6 LPA
3.6 LPA
ComSoft
Paytm
15.3 LPA
18.3 LPA
SAP
8.5 LPA
Flipkart
BenQ
10.5 LPA
Placement
Johnson&Johnson
5.2 LPA
5.2 LPA
syngenta
tcs
FedEx
7.6 LPA

Common Features

Test, Assessments & Mocks

- Topic-wise Weekly Test
- Topic-wise Assessments
- Mock Interview Preparation
- One-On-One Discussion
- Interview Feedback On Emails

Best Practices & Coding Standards

- Naming Conventions
- Code Formatting & Style
- Writing Maintainable & Readable Code
- Code Reusability
- Code Auto-generation
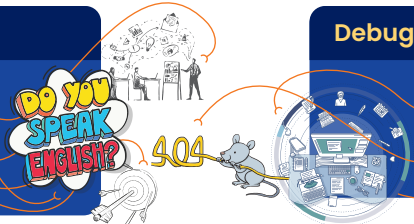- Real Time Scenarios
- Problem Statements & Solutions

Soft Skills

- 360° Development
- Resume Building
- Enhancing Confidence
- Logic Building Session
- English Communication

Debugging & Troubleshooting

- Use of Debugging Tools
- Identifying & Fixing Common Errors
- Handling Industrial Scenarios

What Makes Us Distinct?

- Exclusive Recorded Sessions
- Flexible Batch Switching Option
- Unlimited Mock Interviews
- 24/7 Live Support
- Personalized One-On-One Discussions
- 100% Transparency
- Comprehensive Technology Packages
- Industry Expert Trainers

Become a Software Tester

Se

Automation Testing
[Selenium]

5

Manual Testing

4

Database

3

Front End

2

Core Java

1

Core Java

1. Introduction to Java
- Brief history and importance of Java
- How Java fits into the world of programming languages
- Benefits and features of Java

2. Setting Up Development Environment
- Installing JDK (Java Development Kit)
- Configuring the PATH environment variable
- IDE's like Eclipse
- Eclipse keyboard shortcuts

3. Foundations of Java
- Data types
- Variables
- Creating classes
- Methods
- Creating objects
- Object class
- User-defined variables
- Operators
- Control statements
- Loop structures
- **Practical use cases & real-world examples**

4. Core Concept
- Package and Import
- JDK and JRE
- JVM
- JIT
- Class communication
- Instance Block
- Static Block
- **Company use cases & real time examples**

5. Logic Building
- Programs on string
- Programs on array
- Program on control statements

6. Object-Oriented Programming (OOP)
- Classes and objects.
- Encapsulation.
- Inheritance
- Polymorphism
- Abstraction
- **Company scenarios & real-life examples**

7. Access Specifier / Modifier
- Private
- Default
- Protected
- Public
- **Company scenarios & real-life examples**

8. Useful Keywords
- Static
- Final
- Super and this
- Synchronized
- Abstract
- **Company Scenarios & real-life examples**

9. Input/Output (I/O) Streams
- Reading & writing data to files
- Input stream
- Output stream.
- **Company scenarios & real-life examples**

10. Exception Handling
- Why exception handling
- Understanding exceptions & errors
- Handling exception
- Exception hierarchy
- Types of exception
- Try
- Catch
- Throw
- Throws
- Finally
- User defined exception
- **Company scenarios & real-life examples**

11. Multithreading
- Thread Introduction
- Creating & managing threads
- Extending thread class
- Implementing runnable interface
- Thread life cycle
- Demon thread & non-demon thread
- Useful methods
- **Company scenarios & real-life examples**

12. Garbage Collection (GC)
- Memory management
- Demon thread concept
- Importance of finalize() method
- System.gc() & runtime.gc()

13. Utility Classes
- String class
- String manipulation and formatting
- StringBuffer
- StringBuilder
- Wrapper classes
- Math class
- Arrays class
- **Company use cases and real time examples**

14. Collections Framework

- Introduction to collection framework
- Interfaces of collection framework

List | **Set** | **Map**

- **Frequently Used Classes of Collection Framework**

1. ArrayList	4. HashSet	7. HashMap	10. HashTable
2. Vector	5. TreeSet	8. TreeMap	
3. Linkedlist	6. LinkedHashSet	9. LinkedHashMap	

- Collections utility class
- Introduction to generics
- Importance and implementation of generics
- Data structure using collection
- Auto boxing
- Comparator and comparable
- Iterators
- forEach loop
- forEach() methods
- **Company use cases and real time examples**

15. Java 8 features

- Lambda expressions
- Company use case of lambda expressions
- functional interfaces
- Default and static methods in Interface
- Stream API with collections
- Date and time API
- **Company use cases and real time examples**

16. Utility Classes

- **String class**
- **String manipulation & formatting**
- **StringBuffer**
- **StringBuilder**
- **Wrapper classes**
- **Math class**
- **Arrays class**
- **Company use cases & Real Time Examples**

1. HTML Basics ....

- HTML Introduction
- HTML Syntax
- HTML Document Structure

2. Text Formatting ....

- Headings (‹h1› to ‹h6›)
- Paragraphs (‹p›)
- Line Breaks (‹br›) and Horizontal Rules (‹hr›)
- All Basic Tags

3. Lists ....

- Ordered Lists (‹ol›)
- Unordered Lists (‹ul›)
- List Items (‹li›)

4. Links & Anchors ....

- Hyperlinks (‹a›)
- URLs and Paths
- Link Text
- Link Targeting

1. Introduction to CSS ....

- What is CSS & its role in web development.
- Inline, internal, & external CSS.
- CSS syntax & basic structure.

2. CSS Selectors & Properties ....

- Understanding CSS selectors
- Applying styles using element, class, and ID selectors
- Changing text and background colors
- Adjusting font properties (size, family, weight)

3. CSS Borders ....

- Exploring different border styles
- Adjusting border width and color
- Creating decorative borders
- Adding rounded corners to elements

4. CSS Margins & Padding ....

- Exploring margin properties for spacing control
- Setting margins for individual sides
- Using shorthand margin notation for efficiency
- Creating spacing between elements
- Combining margin & padding

5. CSS Fonts ....

- Customizing text styles with font properties
- Choosing font families & font stacks
- Adjusting font size, weight, style, & color

Introduction to JavaScript

1. Introduction to JavaScript............

- Introduction to JavaScript
- Role in web development.
- Setting up a basic HTML file & adding JavaScript.
- Variables, data types, and basic operations.
- Control structures: if statements & loops (for, while).
- Introduction to functions and their usage.

7. Advanced SQL Concepts

Grouping and Aggregating Data
- GROUP BY Statement
- HAVING Clause

Subqueries and EXISTS Operator
- Subqueries
- EXISTS Operator

Comparison with ANY and ALL Operators
- ANY Operator
- ALL Operator

Joining Tables
- INNER JOIN
- LEFT JOIN (LEFT OUTER JOIN)
- RIGHT JOIN (RIGHT OUTER JOIN)
- FULL JOIN (FULL OUTER JOIN)

Database

Introduction to Database

1. Introduction
- Definition and importance of databases.
- Overview of SQL (Structured Query Language)

2. Database Fundamentals
- Explanation of databases as structured data repositories
- Types and applications of databases (relational, NoSQL, etc.)
- Role of databases in various industries

3. SQL Essentials
- Introduction to SQL as the language for managing databases
- Categories of SQL statements (DDL, DML, DQL)
- Significance of SQL in data manipulation and retrieval

4. Installation of MySQL
- Steps to install MySQL
- Configuring database server settings
- Command-line and graphical tools for MySQL

5. Exploring SQL Statements

Data Definition Language (DDL)
- CREATE statement
- ALTER statement
- TRUNCATE statement
- DROP statement
- RENAME statement

Data Manipulation Language (DML)
- INSERT statement
- UPDATE statement
- DELETE statement

Data Query Language (DQL)
- SELECT statement

6. SQL Query Basics
- Data filtering
- ORDER BY
- Logical operators
- Handling NULL values.
- LIKE operator & wildcard characters
- Aggregate functions
- IN and BETWEEN operators
- String, Date & Time functions

MANUAL TESTING

Module 1 — Software Testing Introduction
- What is testing?
- Importance of testing
- Roles & responsibilities
- Principles of software testing
- What is quality?
- How much testing is enough?
- Differences between Manual & Automation Testing

Module 2 — Software Development Life Cycle

1. SDLC Phases
- Requirements phase
- Analysis phase
- Design phase
- Coding phase
- Testing phase
- Delivery & maintenance phase

2. SDLC Models
- Waterfall model
- V model
- Agile model
- Prototype model
- Spiral model

Module 3 — Software Testing Methodologies
- White box testing
- Black box testing
- Grey box testing

Module 4 — Software Testing Methodologies
- Boundary value analysis
- Equivalence class partition
- State transition technique
- Use case testing

Experienced Based Techniques
- Error guessing
- Exploratory testing

Module 5 — Levels of Testing
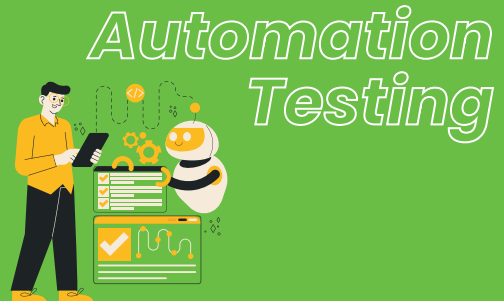
1. Functional Testing
- Unit testing
- Integration testing
- System testing
- User acceptance testing
- Sanity/Smoke testing
- Regression test
- Retest

2. Non-Functional Testing
- Performance testing
- Memory testing
- Scalability testing
- Compatibility testing
- Security testing
- Cookies testing
- Session testing
- Recovery testing
- Installation testing
- Adhoc testing
- Risk based testing
- I18N testing
- L10N testing
- Compliance testing

Module 6 — Software Testing Life Cycle

1. Requirements Analysis/Design
- Understand the requirements
- Prepare traceability matrix

2. Test Planning
- Objectives
- Scope of Testing
- Schedule
- Approach
- Roles & Responsibilities
- Assumptions
- Risks & Mitigations
- Entry & Exit Criteria
- Test Automation
- Deliverables

3. Test Cases Design
- Test cases write
- Review test cases
- Test cases template
- Types of test Cases
- Difference between Test scenarios & test cases

4. Test Environment setup
- Understanding the SRS
- Hardware & software requirements
- Test data Preparation

5. Test Execution
- Execution of test cases
- Defect tracking & reporting

1. Types of bugs
2. Identifying the bugs
3. Bug/defect life cycle
4. Reporting the bugs
5. Severity & priority

6. Test Closure
- Criteria for test closure
- Test summary report

7. Test Metrics
- What is Test Measurements?
- Why Test Metrics?
- Metric Life Cycle
- Types of Manual Test Metrics

Module 7 — QA & QC & Testing
- What is quality assurance?
- What is quality control?
- Differences of QA & QC & testing

Automation Testing

Introduction to Automation Testing ＞＞＞

AUTOMATION TESTING

Selenium Introduction
- Selenium History

Installations & Configurations with Java basics
- Java Installation
- Eclipse Installation ,configuration
- Selenium Jars download/Configuration
- Brush up basic java concepts

Basic Concepts for first WebDriver program
- WebDriver Interface explanation & Invoking Browser
- Basic Methods of WebDriver
- How to run tests in Google Chrome
- How to run tests in Internet Explorer
- How to run tests in Safari Browser

Locator Techniques& Tools used
- Locator Techniques

  - Xpath identification using Firepath, Name ,ID, ClassName, LinkText,- Handling links

ADVANCED WAYS-locating objects
- Writing Customized xpath Using Attributes
- Writing customized xpath Using Tag names Traversing
- Css Selectors locators

Techniques to automate Web UI
- Handle Dynamic dropdowns with WebDriver API
- Handling Static dropdowns with Select WebDriver API
- Handling Checkboxes with WebDriver API
- Handling Radio buttons with Customized xpath
- Handling Radio button dynamically- real time examples
- Types of Alerts present and Methods to handle them
- Handling Java Alerts using WebDriver API
- Web Elements Validation
- End to End Practise Exercise

Techniques to automate ADVANCNED Web UI
- Handling Ajax/Mouse Interactions
- Actions class-real time example
- Handling Multiple Windows
- Window Handle concepts-real time example

- Live Example on working with Child windows
- Handling ul li Tags in Selenium
- How to handle Frames?
- Frames Techniques-real time example

Practical problems & Methods to Handle them with Selenium
- How to handle table Grids in webpage
- Techniques used for table grid-Real time example.
- How to overcome Synchronization problems
- Maximizing window and deleting cookies
- Handling HTTPS certifications
- How to troubleshoot if its not invoking in Firefox
- Killing the Process and Cookies using Selenium
- How to take Screenshots in Selenium

Data driving from Excel for feeding data
- What is Apache POI API / JXL API
- Excel API Methods explanation
- Program for Retrieving data from excel
- Program for Updating data back to excel

Framework Part 1   TestNG
- Why TestNG and Its Advantages
- TestNG Installation and Setup in Eclipse
- TestNG Annotations Part
- Prioritizing the tests using TestNG
- Disabling Enabling the Testcases & putting Timeout
- Importance of TestNG xml file
- Including & excluding the Testcases from Execution with TestNG xml file
- Importance of Groups in TestNG
- Data driving Testing with TestNG
- Data Provider Annotation-Parameterizing Testcases
- Parameterizing from TestNG xml file

Framework Part 2   Data driven Framework
- Why we should not hard code the data?
- How to write Global parameters with java code
- Data driving parameterization from Properties file
- How to deal with Reusable Components

Framework Part 3   MAVEN-Build Management Tool
- What is Build Management tool?
- Installing & configuring MAVEN
- Understanding pom.xml file

Framework Part 4 — Generating Reports

- What Execution reports we need to impress clients?
- Downloading and Configuring XSLT reports
- Generating Excellent HTML reports for Selenium Test Execution

Framework Part 5 — Jenkins- CI Tool

- Why Jenkins
- Installing & Configuring Jenkins with Java
- Creating Jenkins Project & Integrating Existing Framework
- Running the Framework & Scheduling it from Jenkins
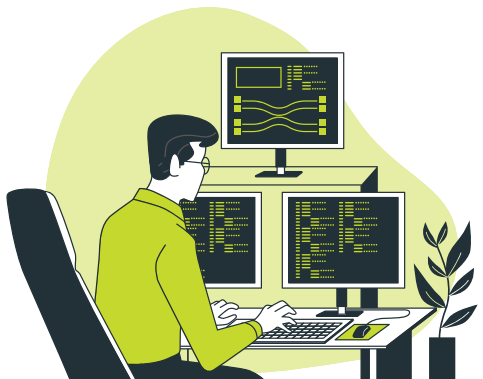
Page Object Pattern & Page Factory

- What is Page Object Model?
- Creating Page Object Constructor in classes
- Object repository Mechanism
- Practical Exercise explaining Page Object Model
- Page Object Factory and its advantages
- Page Factory Annotations FindBy
- Practical Example explaining Page Factory Model

Cross Browser Testing with Selenium Grid

- How to execute Selenium Tests Remotely
- Grid Concepts & Architecture
- Configuring Hub and Node
- Registering Nodes with Hub Server
- Desired Capabilities-Grid Program
- Execution Selenium scripts in Remote Machine
- Code and Commands

TheKiranAcademy

Industry's Finest Trainers

Our Top Courses

Java Full Stack Development

Python Full Stack Development

AWS

Selenium Software Testing

MEΛRN
MongoDB | Express.js | Angular | React JS | Node.js

C#.NET

TheKiranAcademy
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Higher IT-Courses
Institute & Placement Centre

Training Hubs in Pune: Karve Nagar | Deccan | Warje | Chinchwad

⌖ Corporate Office & Branch

Add: 403, 2nd Floor, Park Plaza, above Birla Super Market, State Bank Nagar, Shramik Vasahat, **Karve Nagar**, Pune, Maharashtra 411052

⌖ Branch: Deccan

Add: 2nd floor, Rainbow Plaza, Jangali Maharaj Rd, opp Modern High School, Shivajinagar, **Deccan** Gymkhana, Pune, Maharashtra 411005

⌖ Branch: Chinchwad

Add: KUNAL PLAZA, 2nd Floor, Old Mumbai - Pune Hwy, **Pimpri-Chinchwad**, Maharashtra 411019

⌖ Branch: Warje

Add: 1st floor, The Kiran Academy, Dr Ambedkar Chowk, above Royal Car Decor, **Warje** Jakat Naka, Warje, Pune, Maharashtra 411058

⌖ Nagpur 1st Floor, 190/A H.No.227, Ring Rd, near Chatrapati Hall, Chatrapati Nagar, **Nagpur**, Maharashtra 440015

Helpline No. ☎ 9075 777 123