

# JAVA PROGRAMMING AND SOFTWARE ENGINEERING FUNDAMENTALS CERTIFICATION

As per International Standards



## UNICHROME

# Unichrone Training **Advantages**

- ✓ 2 Day Interactive Instructor-led Online/Classroom or Group Training
- ✓ Course study materials designed by subject matter experts
- ✓ Mock Tests to prepare in a best way
- ✓ Highly qualified, expert & accredited trainers with vast experience
- ✓ Enrich with Industry best practices and case studies and present trends
- ✓ Java Programming and Software Engineering Fundamentals Training Course adhered with International Standards
- ✓ End-to-end support via phone, mail, and chat
- ✓ Convenient Weekday/weekend Java Programming and Software Engineering Fundamentals Training Course schedule



# About Unichrone

✓ We are a professional training institute with an extensive portfolio of professional certification courses. Our training programs are meant for those who want to expand their horizons by acquiring professional certifications across the spectrum. We train small- and medium-sized organizations all around the world, including in USA, Canada, Australia, UK, Ireland and Germany.



Guaranteed Quality



Handpicked Trainers



Global Presence



Online Training Option

## We've trained professionals across global companies

PHILIPS

AXCESS  
FINANCIAL PRODUCT MANAGEMENT

CLARIANT



AkerSolutions

WÜRTH

baycoat

DU PONT

DASHTI

GlobalSign

Triskele Labs

مصرف الراجحي  
Al Rajhi Bank

DHL

ARASCO



أراسكو



## Importance of Java Programming and Software Engineering Fundamentals Training

- ✓ Java Programming and Software Engineering Fundamentals Certification is a valuable credential for aspiring developers and engineers. It advances knowledge and lays a solid foundation for both entry-level and experienced professionals. It is a certification that provides a graphic understanding of core programming concepts, software engineering principles, and Java development. It helps enhance one's resume and provides career opportunities in realms like software development, IT consulting, and system analysis. Completing this Java Programming and Software Engineering Fundamentals Certification provides participants with constructive knowledge and expertise to build high-quality applications, troubleshoot codes, and efficiently collaborate in a tech-driven context.
- ✓ Java Programming and Software Engineering Fundamentals Training equips candidates with essential skills for software development. Participants gain proficiency in Java programming, covering syntax, object-oriented programming principles, and core Java APIs. Java Programming and Software Engineering Fundamental Course encompasses data structures and algorithms, enabling efficient problem-solving and code optimization. Participants learn software development methodologies, including Agile and Waterfall, understanding the software development lifecycle.

## ELIGIBILITY CRITERIA

- ✓ Aspirants need not meet any requirements to pursue Java Programming and Software Engineering Fundamentals Training Course. However, having prior knowledge is beneficial.

## WHO SHOULD ATTEND

- ✓ Any individual who wants to gain skills in Java Programming and Software Engineering Fundamentals can enroll in the Java Programming and Software Engineering Fundamentals Training course.

# JAVA PROGRAMMING AND SOFTWARE ENGINEERING FUNDAMENTALS CERTIFICATION ADVANTAGES



# Syllabus of Java Programming and Software Engineering Fundamentals Training

## Lesson 01 – Introduction to Java

1.	What is Java?
2.	How does Java Run?
3.	Java Basics
4.	Importance of Java
5.	Advantages of Java

## Lesson 2 – Java Basics

1.	Java Basic Syntax
2.	First Java Program (Hello World)
3.	Datatypes in Java
4.	Difference Between Primitive and Non-Primitive Datatypes
5.	Java Identifiers
6.	Operators in Java
7.	Java Variables
8.	Scope of Variables
9.	Wrapper Classes in Java

# Syllabus of Java Programming and Software Engineering Fundamentals Training

## Lesson 03 – Flow Control in Java

1.	Decision Making
2.	If Statement
3.	If-Else Statement
4.	If-Else-If ladder
5.	Loops
6.	For loop
7.	While Loop
8.	Do While loop
9.	For Each loop
10.	Continue Statement
11.	Break Statement
12.	Usage of Break
13.	Return Statement

## Lesson 04 – Operators in Java

1.	Arithmetic Operator
2.	Unary Operator
3.	Assignment Operator
4.	Relational Operator
5.	Logical Operator
6.	Ternary Operator
7.	Bitwise Operator



# Syllabus of Java Programming and Software Engineering Fundamentals Training

## Lesson 05 – Arrays in Java

1.	Introduction to Arrays in Java
2.	Arrays Class in Java
3.	Multi-Dimensional Array in Java
4.	How to Declare and Initialize 2D Arrays?
5.	Array in Java
6.	Jagged
7.	Final
8.	Reflect
9.	Difference Between util.Arrays and reflect.Arrays
10.	Java Array Programs

## Lesson 06 – List in Java

1.	ArrayList in Java
2.	Class in Java
3.	Vector
4.	Stack
5.	LinkedList in Java
6.	AbstractList
7.	AbstractSequentialList
8.	CopyOnWriteArrayList
9.	Custom ArrayList in Java

# Syllabus of Java Programming and Software Engineering Fundamentals Training

## Lesson 07 – Files and I/O

1.	Stream
2.	Standard Streams
3.	Reading and Writing Files
4.	Directories in Java

## Lesson 08 – Introduction to Software Engineering

1.	What is Software Engineering?
2.	Importance of Software Engineering
3.	Need for Software Engineering
4.	Characteristics of a Good Software Engineer

# Syllabus of Java Programming and Software Engineering Fundamentals Training

## Lesson 09 – Software Development Life Cycle (SDLC)

1.	Client-Server Architecture
2.	Multi-Tier Architecture
3.	Broker Architectural Style
4.	Service-Oriented Architecture

## Lesson 10 – Software Project Management

1.	Software Project
2.	Need for Software Project Management
3.	Software Project Manager
4.	Software Management Activities
5.	Project Estimation Techniques
6.	Project Scheduling
7.	Resource management
8.	Project Risk Management
9.	Risk Management Process
10.	Project Execution and Monitoring
11.	Project Communication Management
12.	Configuration Management
13.	Project Management Tools

# Syllabus of Java Programming and Software Engineering Fundamentals Training

## Lesson 11 – Software Design

1.	Software Requirements
2.	Design Basics
3.	Analysis and Design Tools
4.	Design Strategies
5.	User Interface Design
6.	Design Complexity

## Lesson 12 – Software Implementation and Testing

1.	Structured Programming
2.	Functional Programming
3.	Programming Style
4.	Software Documentation
5.	Implementation and Challenges

# Exam Format of Java Programming and Software Engineering Fundamentals Certification

Examination Format	
<b>Exam Name</b>	<b>Java Programming and Software Engineering Fundamentals Exam</b>
Exam Format	Multiple Choice
Total Questions & Duration	30 Questions, 1 Hour
Passing Score	Minimum passing score of 70%
Exam Cost	Included in training fee

To get you fully prepared with the knowledge and skills for Java Programming and Software Engineering Fundamentals, a training session at Unichrone gives immense importance to mock questions at the end of every module and problem-solving exercises within the session. Prepared by certified faculty, the practice tests are a true simulation of the Java Programming and Software Engineering Fundamentals exam.



# Contact Us

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