



# Java Foundations Course

## Introduction

Java is a winner in the world of programming languages. From web to mobile, electronic appliances to servers, Java is used everywhere. If you are dreaming of a rewarding career in IT, the expertise in Java is an essential skill to have.

The Java Foundations course provides an ideal entry into application development, even if you have little to no prior programming experience. Through this course, you will learn the fundamentals of computer programming, Object-Oriented Programming with Java and programming best practices.

Besides programming theory using the latest version of Java, you will also be building a number of projects to demonstrate your newly-acquired skills as well as learn content that goes beyond the Oracle Certification such as JavaFX. After following this course, you will be able to create effective programs in Java and be prepared to sit for the Oracle Java Foundations certification exam.



# Java

## Foundations Course



### Course Content

#### Basic Java Elements

Object-Oriented Programming in a Nutshell.  
Using Reserved Words & Structure.  
Using Comments.  
Creating and Importing Packages.  
Describe the java.lang Package.  
Java Conventions.

#### Declaring Variables

Type Casting.  
Working with Strings.

#### Working with Operators

Java Arithmetic.  
Relational Operators.  
Conditional Operators.  
Operator Precedence & Associativity.

#### Use Input & Decision Statements

User Input.  
Decision-making Statements.  
Project: BMI Calculator.  
Comparing Primitives & Objects.  
Using the compareTo() and equals() methods.

#### Using Looping Statements

Looping in Java.  
Further Loops.  
Project: Interactive Calculator.

#### Arrays & ArrayLists

Project: MarkStats.  
Traversing ArrayLists.  
Project: TempMonitor.

#### Working with the String Class

String Methods.  
String Formatting.

#### Working with Random & Math Classes

Using the Random Class.  
Using the Math Class.

#### Object-Oriented Programming

Access Modifiers & Encapsulation.  
Constructors & Overloading.  
Static Members.

#### Debugging & Exception Handling

Handling Exceptions.

#### Introduction to JavaFX

Building a JavaFX Application.  
Using Scene Builder.

### Course Details

#### Study Mode

*PARTTIME*  
Frequency: Once Weekly

#### Duration

24 Hours (12 Lessons of 2 Hours)

#### Delivery Method

Lectures & Hands-on Practice

#### Entry Requirements

Good knowledge of English  
Basic Computer Skills

#### Award (Optional)

Java Foundations Certified  
Junior Associate

#### Partner

**ORACLE**<sup>®</sup>

**€ 395**

#### Study Experience Includes:

Training by an Oracle Certified Professional Educator,  
Detailed Courseware.

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