



Introduction to Java

Unit 1: Getting Started

Computing Concepts
Java History & Architecture
The Structure of a Java Program
Installing the Java Development Kit (JDK)
Compiling & Running a Java Program

Unit 2: Introduction to Java

Declaring & Initializing Java Variables
Rules for Java Variable Names
The Scope & Lifetime of Variables
Source Code Comments
Doing Basic Program Output

Unit 3: Java Programming Basics

Java Primitive Types
Basic Arithmetic Operators
Precedence & Order of Evaluation
Defining & Using Constants
Mixed Mode Expressions & Type Conversion

Unit 4: Program Decision Making

Relational Operators & Expressions
The **If-Else** Construct
The **Switch** Construct
The Conditional Operator

Unit 5: More Java Operators

Increment and Decrement Operators
Arithmetic Assignment Operators
Logical Operators
Bitwise Operators

Unit 6: Iteration Constructs

The **For** Construct
The **While** Construct
The **Do-While** Construct
Comparing Java Iteration Constructs
Nested Iteration Constructs
Additional Iteration Topics

Unit 7: Introduction to Java Class Methods

Defining Class Methods
Scope of Method Arguments & Variables
Passing Arguments to Class Methods

Returning Values from Class Methods
Type Conversion & Type Checking
Some Built-In Java Class Methods

Unit 8: Arrays

Creating & Using Arrays
Passing Arrays as Method Arguments
Returning Arrays from Methods
Multi-Dimensional Arrays
Referencing Arrays Dynamically

Unit 9: Working With Java Strings

The Java String Class
Creating & Using String Objects
Manipulating Strings
String Immutability & Equality
Passing Strings To & From Methods
The StringBuffer Class

Unit 10: Introduction to Object-Oriented Programming

Object-Oriented Programming Basics
Defining & Using Classes
Controlling Access to Class Members
Class Constructors
Method Overloading
Class Variables & Methods

Unit 11: Java Packages

Introduction to Java Packages
Accessing Java Packages
Creating Java Packages
Package & Class Visibility

Unit 12: Java Applets

Introduction to Applets
Writing Java Applets
Working with Graphics
Incorporating Images & Sounds

Grade Summary

Final Exam: 92%
Overall Average: 98.43%
Letter Grade: A+

Comments

Congratulations on successfully finishing Introduction to Java. Your overall score on this course is 98.43% and your letter grade is A+.

You did a good job on the programming assignments, the quizzes, the projects and the final exam.

You achieved a flawless score (100%) on the 12 programming assignments. Your programs worked great on the first try. Your code is clean and easy to understand and you use the programming constructs appropriately. Your programs often include some extra features, showing that you are able to think independently and further improve your work.

Your quiz scores (98.75%) showed that you understood the fundamental Java concepts introduced in this course very good.

You did great job on two projects too: 100%. The project instructions provide you with more freedom to choose your approaches, and you have used this freedom in very smart and creative ways.

All these demonstrated that you have mastered not only the basic programming skills in Java, but also some advanced techniques.

You put the self-paced nature of the course to a good use, running through the work smoothly with virtually no hitches in an excellent time frame.

I really enjoyed working with you and I am sure I will hear about you again.

Daniel Lessner
Instructor