



Java Fundamentals for Android Development Course 16 Contact Hours

Course Overview

Developing applications for Android systems requires basic knowledge of Java programming language. This is an introductory course that focuses on the fundamentals of Java programming language, its framework, syntax, and paradigm.

The course will focus on object-oriented programming and techniques which are mainly used in Android software development kit (SDK). It will provide the basic tools and skills to ensure a smooth start with Android application development.

This is a crucial course for any non-Java programmer planning to learn the development of Android applications, though it is not mapped to any exam.

Target Audience

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Prerequisites

This course is designed for software developers or anyone interested in building Android applications. However, computer programming experience in any language is required before taking this course in order to benefit from it to the most.

This course is a pre-requisite of the course "Android Application Development" which is four full days instructor led training leading towards a certification exam # AND-401 offered by Android-ATC. The exam facility is provided by SitesPower Training Center on a week advance notice.

Delivery Method

Instructor-led, group-paced, classroom-delivery learning model with structured hands-on activities.

Benefits

At Course Completion, a student will learn:

The fundamentals of Java Virtual Machine.

Writing, compiling, and running basic Java applications.

Using the Eclipse integrated development environment (IDE).

Java basic syntax and control statements.

Java object oriented programming's basic concepts: classes, interfaces, inheritance, polymorphism... etc.

Java collections, file input/output, serialization, try/catch/finally ...etc.

Installation and setup of Android SDK, plugins and Android emulator.

Writing a 'Hello World' Android application.



Examination

There is no exam offered by Andriod-ATC alone for this course. The student must attend a four days training "Android Application Development" to be qualified for exam no. AND-401.

Course Outline

Lesson 1: Java Basics

Introduction
Java programming language
Java Virtual Machine
JDK and JRE
Setting up your machine for Java programming
Hello World in Java
Using a text Editor
Using an IDE
Java Primitive Data Type
Naming
Arrays
Control Flow
If/Else and Switch
Switch statement
While loop
For Loop

Lesson 2: Object Oriented Programming

Introduction
Object Oriented Programming
Objects
Classes
Inheritance
Interface
Access Modifiers
Constructors
Method overriding and overloading
Polymorphism

Lesson 3: Java Topics

Introduction
Java Collections
Interfaces
Implementations
Enumerated types
Serialization
Deserializing