

Lesson 1: Introduction to the Android Development Environment

Key Terms and Definitions

Term	Definition
Linux kernel	The computer program that manages input/output requests from software and it is a fundamental component of the operating system
object-oriented programming	A programming language model organized around objects which are data structures that contain data, or attributes; the object's behavior is represented by a method
Class libraries	Contain classes which describe characteristics and methods that of objects. With Java, class libraries are contained in library files (.jar)
Usability testing	Evaluates a product by testing it with users to measure whether or not the product is meeting its intended purpose
Integrated Development Environment	A programming environment packaged as an application program that includes a code editor, a compiler, a graphical user interface (GUI), and a debugger
Android Software Development Kit (SDK)	A set of development tools that can be used to design the app interface, write the code, and test the app
Android Development Tools Plugin	A plugin for Eclipse that provides a suite of tools that integrate with the Eclipse IDE. The plugin extends the capabilities of Eclipse so that the user can quickly setup and create Android projects.
Android emulator	A tool included as part of the SDK that allows a developer to prototype and test Android apps without having access to a physical device
Android Virtual Device (AVD)	Defines the characteristics of the device such as screen size (in pixels), pixel density, the physical size of the screen, and size of the SD card for data storage
frameworks	Technologies, services and features that can be used as building blocks when creating apps for iOS devices
Java Development Kit	A program development environment for writing Java applications. There is a runtime environment that runs on top of the operating systems in addition to the tools needed to compile, debug, and run applications written in Java.
Java Runtime Environment	A set of software tools that are a part of the JDK that consists of a Java Virtual Machine (JVM), platform core classes and supporting libraries

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Java compiler	Translates Java programs into a language called Java bytecode. The Java interpreter is used to run the bytecode program.
Application programming interface	(API) A set of routines and tools for building software applications. An API provides the building blocks.
Android package file	Contains the entire app and has an .apk file extension
Security sandbox	A mechanism for keeping running programs separate
XML	(Extensible Markup Language) A markup language that defines a set of rules used to format documents or to represent data structures
Activities	An app component that provides a single screen for user interaction
Services	An app component that runs in the background while the user continues to use other apps; no user interface is provided
Content Providers	An app component that manages shared app data
Broadcast receivers	An app component which responds to broadcast announcements
Intent	Used to request an action from another app component
Manifest file	A required XML file found in the root of the app project directory that names the java package and is used to declare all of the app's components

