Android Application Development

Self Study

ATC
Advanced Training Consultants

Self Study Guide Content:

- ✓ Course Prerequisite
- ✓ Course Content
- ✓ Android SDK Lab Installation Guide
- ✓ Start Training
- ✓ Be Certified
- ✓ Exam sample

Course Prerequisite

The prerequisite for this course, the trainee must has good knowledge in Java in the first place, if not , it is recommended to start with the Java fundamentals course, which available in the Android ATC web site, self study tab.

Course Contents

Lesson 4 Intents and Intent filters

Lesson 5: Custom Views

Lesson 6: Dialogs and Toasts

Lesson 7: More UI - Options Menu, Context Menu, and WebView

Lesson 8: Android Storage: Network, File I/O, and SharedPreferences

Lesson 9: Android Storage: SQLite and Content Providers

Lesson 10: Android Notifications

Android SDK Lab Installation Guide

Introduction

The following is a short guide on how to install all software needed to start your Android development.

Lab software include the following:

1. ***Java SDK***

   This includes the Java virtual machine and development tools, which allows you to compile and run your Java code.

2. ***Android SDK***

   The Android SDK provides you the API libraries and developer tools necessary to build, test, and debug apps for Android.

3. ***Eclipse IDE***

   This is the integrated development environment you need to facilitate your programming task. Google officially provides a set of Eclipse plugins for Android development.

4. ***Eclipse ADT plugin***

   This is a set of plugins for the Eclipse IDE built to give Android developers a powerful, integrated environment to build Android applications.

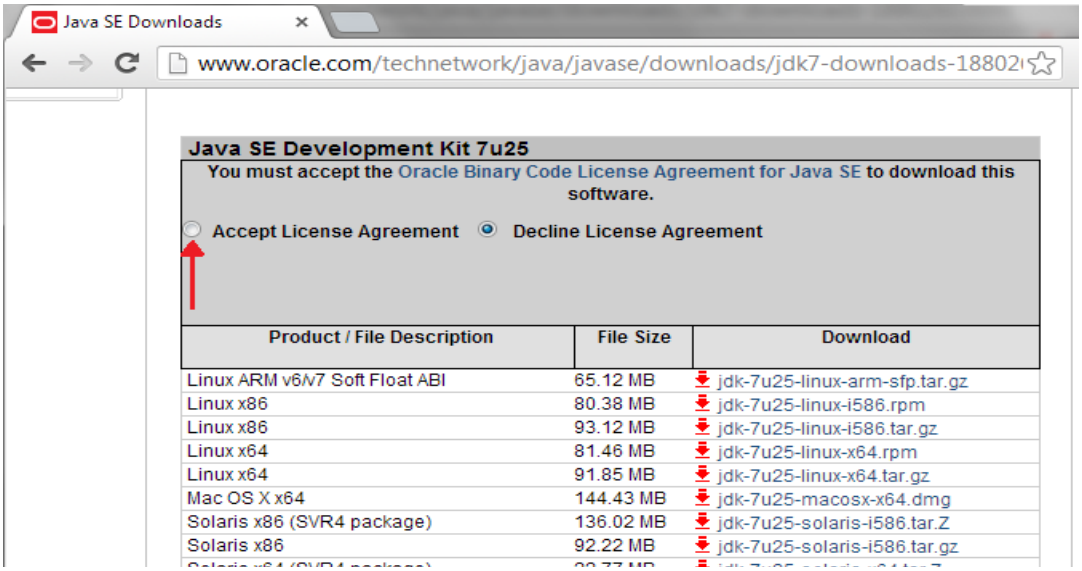
5. ***Download Android SDK Platform and system image for emulator***

   This includes an emulator for any Android version you require, and allows you to test your Android application without the need for a real Android device.

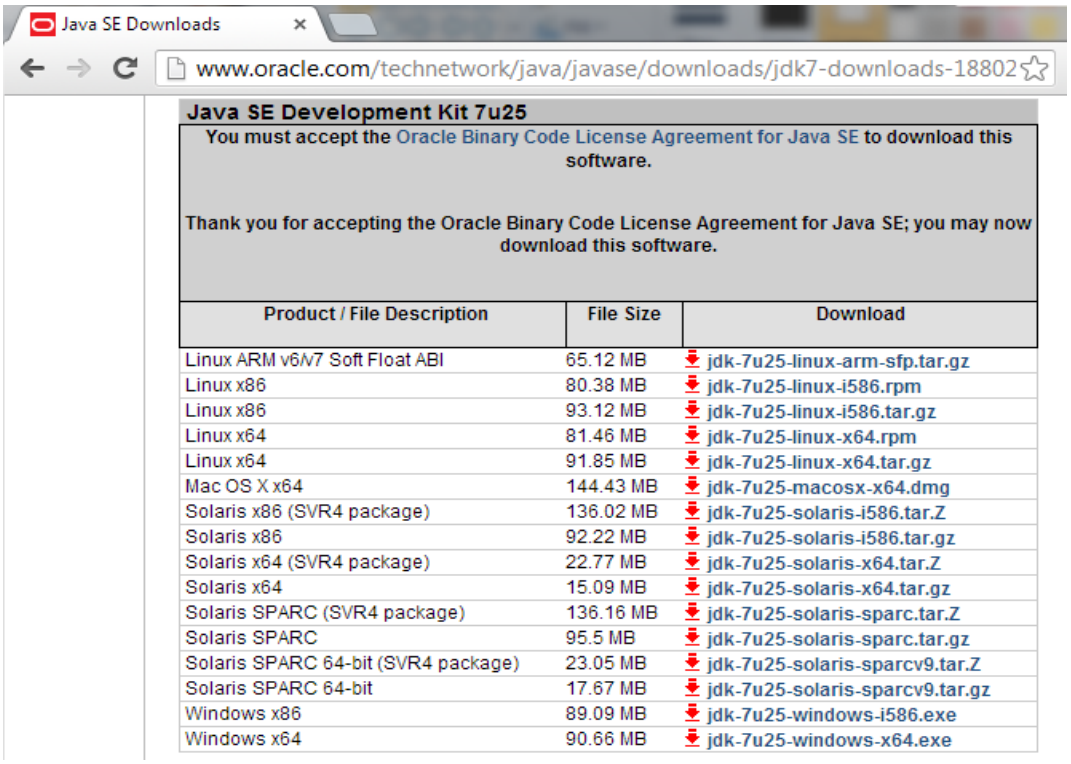
Lab setup step by step

To fully setup your machine for Android development, you only need to setup two programs.

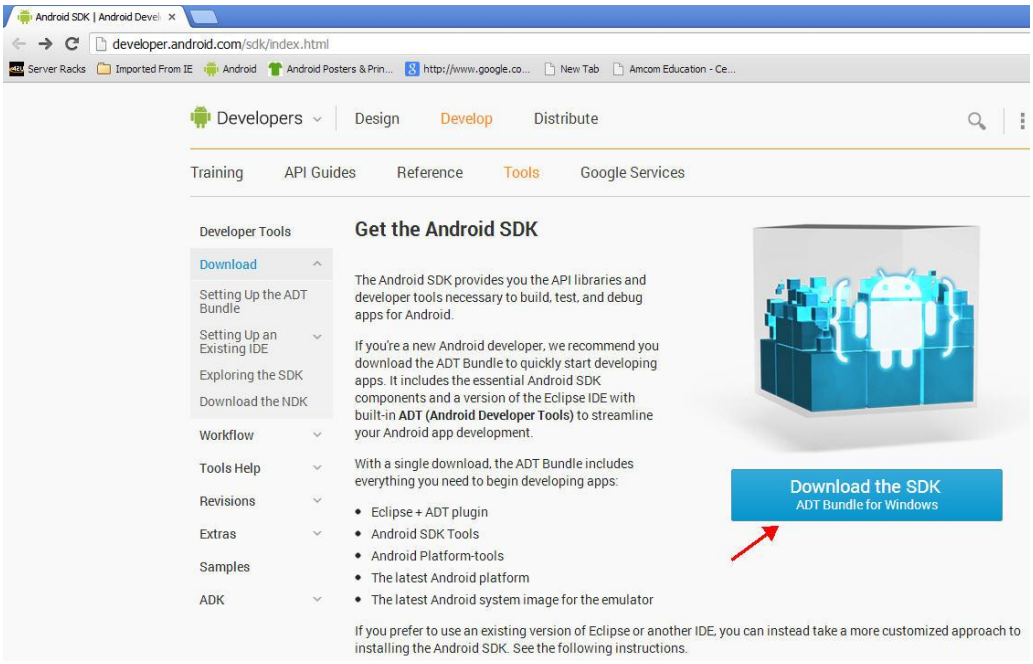
1. Install the Java SDK compatible with your operating system using the following link: http://www.oracle.com/technetwork/java/javase/downloads/jdk7-downloads-1880260.html
   a. Click on **Accept License Agreement**



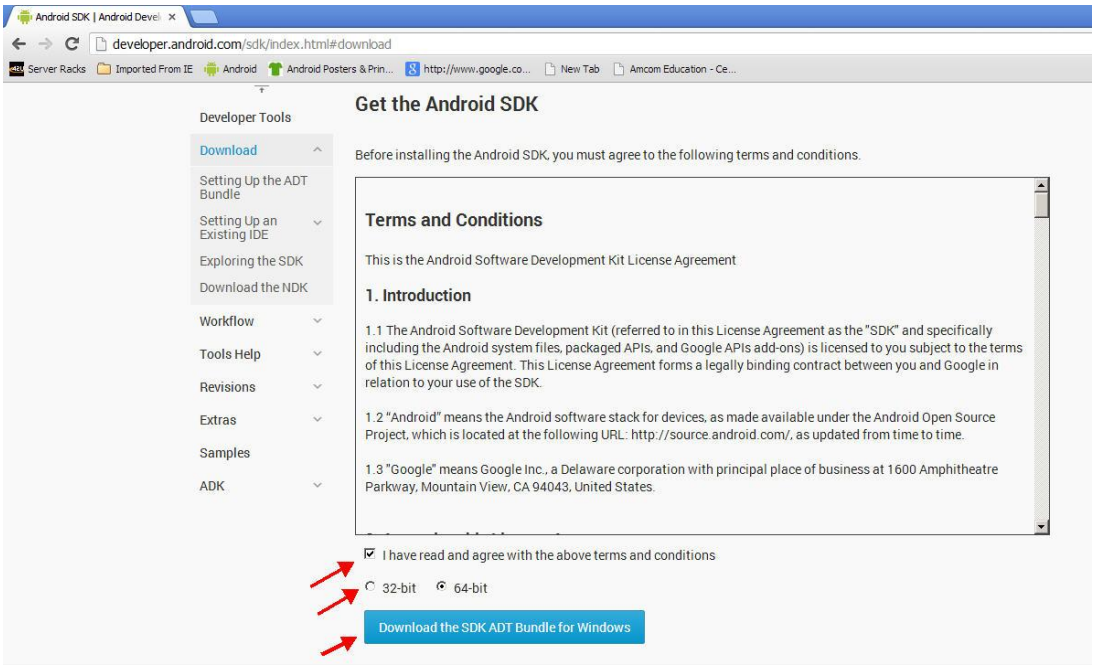
   b. Click on the link under Download that conforms to your operating system. Make sure to choose the x86 version if your operating system is 32-bit, or x64 if your operating system is 64-bit.



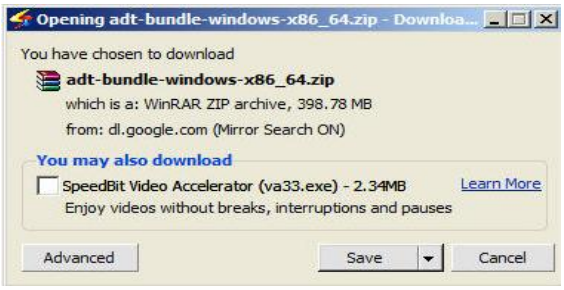
2. All other software components listed above are bundled by android.com in one zipped file (.zip):
    a. Download it from the following location:
    http://developer.android.com/sdk/index.html



    b. Make sure to choose the correct type of your machine (32-bit or 64-bit) before starting the download.



    c. Click **Download the SDK ADT Bundle for Windows**



d. Once downloaded, unzip the file
e. Double click on **eclipse.exe**

3. You're ready to start Android development

Should you have any question or require any additional clarification, you may contact us at: support@androidatc.com

Start Training:

To start training with this course, you can make order for the self study guide of this book, which includes the lessons with explanation step by step and lab for each lesson, this book will shipping to you during 4 working days and it is cover all topics which mentioned in the previous table of contents. To make book order, come back to the Android ATC web site, then click "**Self Study**" tab, then click "**Book Order**", under " Android Application Development", and the payment will be by Visa card, American Express card or PayPal.

Be Certified

After completing the study materials, you should ready to get international certificate displays that you are Android application developer. You can reserve your exam at nearest Pearson VUE testing center for you, for more information, kindly check : http://www.pearsonvue.com/androidatc

The " Android Application Development" exam AND-401 consists of 45 multiple choice questions with 70 % pass score. You can check the exam sample in the next page.

Android Certified Application Developer Exam (AND-401) Sample

Q1. What method you should override to use Android menu system?

A. onCreateOptionsMenu()

B. onCreateMenu()

C. onMenuCreated()

D. onCreateContextMenu()

Answer: A

Q2. What Activity method you use to retrieve a reference to an Android view by using the id attribute of a resource XML?

A. findViewByReference(int id);

B. findViewById(int id)

C. retrieveResourceById(int id)

D. findViewById(String id)

Answer: B

Q3. Which of the following is not an Android component (i.e. a point from which the system can enter your application)?

A. Service

B. Activity

C. Layout

D. Content Provider

Answer: C

Q4. What does the following code achieve?

Intent intent = new Intent(FirstActivity.this, SecondActivity.class);

startActivityForResult(intent);

A. Starts a browser activity

B. Starts a sub-activity

C. Starts an activity service

D. Sends results to another activity.

Answer: B

Q5. When using an implicit intent, what process does the system use to know what to do with it?

A. Intent resolution
B. Intent declaration
C. Intent overloading
D. Intent transition

Answer: A

Q6. Which of the following is NOT true about the MenuItem interface?

A. The MenuItem instance will be returned by the Menu class add(...) method.
B. MenuItem can decide the Intent issued when clicking menu components.
C. MenuItem can display either an icon or text.
D. MenuItem can set a checkbox.

Answer: B

Q7. Which of the following is a valid sequence of invokes to Activity lifecycle methods? (Select Two)

A. onCreate > onStart > onResume > onPause> onStop> onCreate
B. onCreate > onStart > onResume > onPause> onStop>onRestart
C. onCreate > onStart > onResume > onPause> onStop>onDestroy
D. onCreate > onStart > onResume > onPause> onStop>onResume

Answer: B and C

Q8.Consider the following code:

```
Intent i = new Intent(this, MainActivity.class);
i.addFlags(Intent.FLAG_ACTIVITY_CLEAR_TOP);
startActivity(i);
```

What best explains the code above?

A. The activity being launched is already running in the current task, then instead of launching a new instance of that activity, all of the other activities on top of it will be closed and this Intent will be delivered to the (now on top) old activity as a new Intent.
B. Any existing task that would be associated with the activity to be cleared before the activity is started.

C. A new Activity will be launched and it will be on the top of the stack

D. A new activity will be launched but will be in full-screen mode.

Answer: A

Q9: Which of the following lines of code is used to pass a value to the next activity?

```
A. Intent i = new Intent(this,newActivity);
i.addExtra("test");
startActivity(i);

B. Intent i = new Intent(this,newActivity);
i.putValue("test");
startActivity(i);

C. Intent i = new Intent(this,newActivity);
i.putValue("value1","test");
startActivity(i);

D.Intent i = new Intent(this,newActivity);
i.putExtra("value1","test");
startActivity(i);
```

Answer: D