# ANDROID GAME PROGRAMMING


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COMPLETE INTRODUCTION
FOR BEGINNERS

# ANDROID GAME PROGRAMMING:

## Step by Step Guide
## How to create Your Own Android App Easy!

By Matthew Gimson

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# Introduction

This book is a continuation of the first Android© programming book. You should begin by reading the first part of the series “ANDROID PROGRAMMING: Complete Introduction for Beginners”, if you have not already done so, to familiarize yourself with the Android programming basics. This book solely explores Android application development and game programming.

The games you play on your Android devices are created by Android developers. This might seem to be complex to most of you, however, this book makes it very clear how to enhance your understanding. By the end of this book, you will be in a position to create your own game from scratch.

# Chapter 1- Definition

In the first part of this book, you learned many aspects of basic Android programming. You are now in a position to develop your own Android application. If you have not read the first book, then consider doing that before going on.

Without the basics of Android programming, the tasks demonstrated in this book will be far more difficult. In this book, we are going to explore Android game programming and development. The majority of you are experts in playing games on your Android devices. It will be good if you learn how to develop your own game to use on your own device or sell in the apps store.

Android games are of different types. You should come up with an idea or plan for the game that you wish to develop. There are athlete games, car racing games, and those involving robots, among others. Once you have come up with the plan for the game, you can then begin the actual programming. However, you should also get the environment ready for programming. If you do not know how to do this, you can consult from the first part of this book.

It is after this that you will be in a position to get into the actual programming. The rendering of the objects for the game involves the use of graphics. This means that you need to understand how to use graphics libraries in Android to be able to render your objects or images.

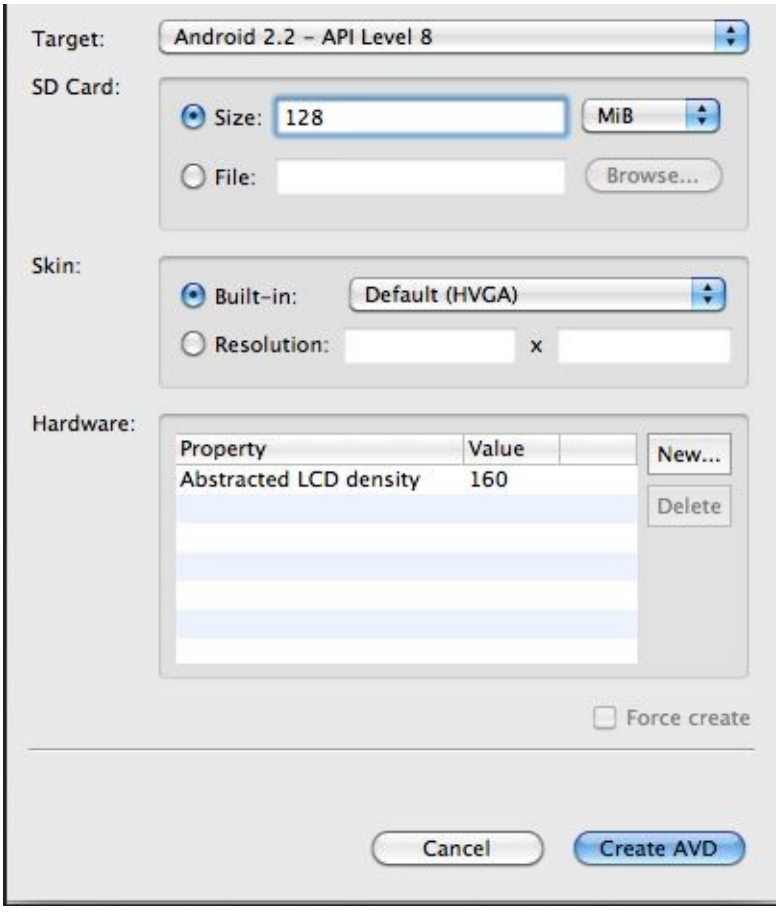
An example of a graphics library in Android is the OpenGL which is discussed in

this book. You also need to understand how the coordinates of the Cartesian plane are related since you will make use of these during game programming. To move the object or the image around the screen of the Android device, you will make use of these coordinates to update the new location of the object on the screen. This calls for a deep understanding of this concept.

# Chapter 2- Creating the project

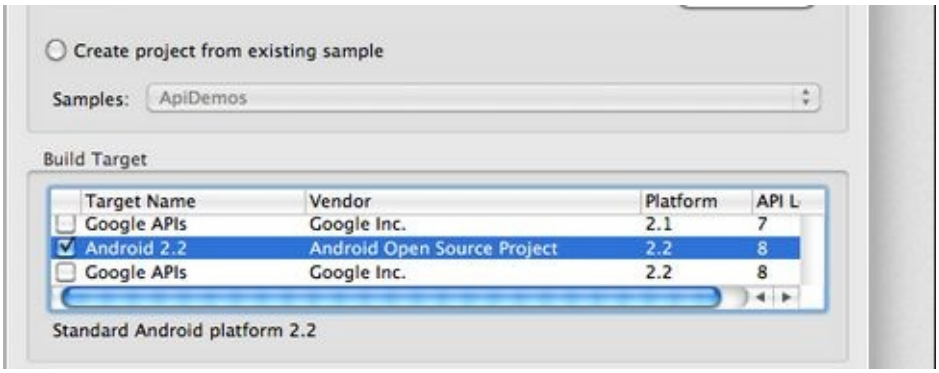
You now have the idea of what you need to achieve in your game. We need to prepare the environment for programming. You can choose to use either eclipse or Android studio as the IDE (Integrated Development Environment). If you have not created the AVD (Android Virtual Device), then begin by doing this. In case you do not know how to do this, consult the first part of this book and you will definitely get assistance you need.

To create the AVD, navigate to "*Window -> Android SDK and AVD Manager*". At this point, click on the button labeled as "*New*" and then specify the details for your AVD.




You can then create a new project for your game application. Just click on "*New* ->

*Project”* and then choose “*Android Project”*. A dialog will appear in which you will have to specify the details of the project:




You can try to test the project by running it. You will notice that it comes with a default “*Hello World!”* program. Once you see this, just know that you are set to get into programming.

You can open the main java class with name “*MainActivity.java*”. It comes with the following code by default:

```
import Android.os.Bundle;
import Android.app.Activity;
public class MainActivity extends Activity {
/** Called when the activity is first created. */
@Override
public void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.main);
}
}
```