|  |
| --- |
| Android Tutorial – Part 7 |

|  |
| --- |
| 6-29-2018 |



Table of Contents

[Introduction 2](#_Toc518042583)

[References 3](#_Toc518042584)

# Introduction

This is the part seven of the android tutorial series. It is a continuation from last week. In order to follow this successfully, it is required to have,

* A basic understanding given about android in last session.
* The environment set up.
* The project created during last tutorial, opened in Android Studio.
* AVD or an Actual device ready for app deployment.

To catch up, in the last session (Android Tutorial Part 6),

* Using Emulator to Test Sensors
* Android Motion Sensors
  + Rotational Vector Sensor
  + Gyroscope
* Android Position Sensor
  + Orientation Sensor
* Creating a Custom View in Android
  + Using paint object
  + Using canvas
* The proximity sensor
* Android environment sensors
  + Ambient Temperature
  + Light
  + Pressure
  + Relative Humidity
* Temperature

Source code for the previous tutorial:-<https://github.com/nadee158/android_tutorial_part_6.git>

With that knowledge in hand, in this session below areas will be covered,

* Android Camera API

# Android Camera API

Most Android devices have at least one camera. Some devices have a front and a back facing camera.

The Android framework includes support for various cameras and camera features available on devices, allowing developers to capture pictures and videos in the applications.

The Android framework supports capturing images and video through the **android.hardware.camera2 API** or **camera Intent**

## Things to consider before using Camera in the app

Before enabling the application to use cameras on Android devices, we should consider about how the app intends to use this hardware feature.

### Camera Requirement

* Is the app totally dependent on Camera – app will not work without it?
  + If yes, the camera requirement should be declared in the manifest.

### Quick Picture or Customized Camera

* How will the application use the camera?
  + Is it for just snapping a quick picture or video clip?
    - If yes, consider Using Existing Camera Apps
  + Does the app provide a new way to use cameras?
    - If yes, build a camera using the Camera API

### Storage

* The visibility, availability and security of the generated images or videos through the app

Source code for this tutorial part can be found in Git Repository given below: - <https://github.com/nadee158/android_tutorial_part_7.git>

# References

Ableson, F. (2009, June 16). *Tapping into Android's sensors*. Retrieved from www.ibm.com: https://www.ibm.com/developerworks/library/os-android-sensor/index.html

*Android AutoCompleteTextView Example*. (2018, January 1). Retrieved from JavaTPoint: https://www.javatpoint.com/android-autocompletetextview-example

*Application Fundamentals*. (2018, May 2018). Retrieved from Android Developers: https://developer.android.com

CHUGH, A. (2018, April 2). *Android AutoCompleteTextView Example Tutorial*. Retrieved from JournalDev: https://www.journaldev.com/9574/android-autocompletetextview-example-tutorial

*Creating and Using Fragments*. (2015, 01 01). Retrieved from guides.codepath.com: https://guides.codepath.com/android/creating-and-using-fragments

google-developer-training. (2018, June 18). *Working with sensor data*. Retrieved from google-developer-training.gitbooks.io: https://google-developer-training.gitbooks.io/android-developer-advanced-course-practicals/unit-1-expand-the-user-experience/lesson-3-sensors/3-1-p-working-with-sensor-data/3-1-p-working-with-sensor-data.html

Green, P. (2015, April 03). *Using Android Sensors in Your App*. Retrieved from www.sitepoint.com: https://www.sitepoint.com/using-android-sensors-application/

Hathibelagal, A. (2017, January 27). *Android Sensors in Depth: Proximity and Gyroscope*. Retrieved from Envato.com: https://code.tutsplus.com/tutorials/android-sensors-in-depth-proximity-and-gyroscope--cms-28084

*Sensors Overview*. (2018, June 19). Retrieved from Android Developers: https://developer.android.com/guide/topics/sensors/sensors\_overview

Tutorialspoint. (2018, June 18). *Android - Sensors*. Retrieved from Tutorialspoint: https://www.tutorialspoint.com/android/android\_sensors.htm