How to use Android Studio

- Introduction
- Install Java
 - Test your Java installation
 - <u>Configure the System Environment Variable for Android</u> <u>Studio</u>
- Install the USB drive for your smartphone or tablet for using it in debug with Android Studio
- Install Android Studio
 - Do a simple APP for test your Android Studio installation
 - Select a smartphone or tablet to use in debug
 - Build the project
 - Debug project using your smartphone or tablet
 - End debug

Introduction

This tutorial was tested on Win7 64bit Pro. The PC that I used is HP with processor i5 vPro and 4G of RAM. Pay attention that when you choose some options (Build, Debug) you must waiting some seconds before to see the execution of your selection.

For using <u>Android Studio</u> must be present on your PC the Java JDK. The <u>JDK</u> is a development environment for building applications, applets, and components using the Java programming language. The JDK is also called: Java SE Development Kit

Install Java JDK

If you don't know if there is a **JDK** (also called: **Java SE Development Kit**), on your PC do this steps.

Select START (1) and next Control Panel (2), see below.



From the window that appears select: **Programs and Features** see below.

00	I III > Control Panel > All Control Panel Items >								
Adjus	t your computer's settings								
P	Date and Time	•	Default Programs		Desktop Gadgets	4	Device Manager		
	Devices and Printers		Display	٩	Ease of Access Center	F	Flash Player (32-bit)		
F	Folder Options	A	Fonts		Getting Started	•3	HomeGroup		
	HP 3D DriveGuard	R	Indexing Options	N	Intel(R) Graphics and Media		Internet Options		
S	Java	٩	Keyboard		Location and Other Sensors		Mail (32-bit)		
Ì	Mouse	t,	Network and Sharing Center	••••	Notification Area Icons	14	Performance Information and Tools		
×	Personalization		Phone and Modem	1	Power Options	2	Program Download Monitor (32-bit)		
	Programs and Features	Q	QuickTime (32-bit)	R	Recovery		Region and Language		
-	Remote Control (32-bit)	-	RemoteApp and Desktop Connections	3	Run Advertised Programs (32-bit)	Ma	SAP GUI Configuration		
O	Sound	0	Speech Recognition	0	SRS Premium Sound		Sync Center		

From the new window that appears you must see something like below, see the red box. In my case I have installed the: Available Development Kit 8 Update 25 (64-bit)

Control Panel >	All Control Panel Items Programs and Features			▼ ⁴ 7 Se	arch Program		
Control Panel Home	Uninstall or change a program						
View installed updates	To uninstall a program, select it from the list and then click Uninstall, Change, or Repair.						
🛞 Turn Windows features on or							
off	Organize 🔻				-		
Install a program from the network	Name	Publisher	Installed On	Size	Version		
	40 HP HotKey Support	Hewlett-Packard Company	29/01/2013	15.2 MB	4.0.18.1		
	😵 HP Webcam	Roxio	25/03/2013		1.0.26.3		
	IAR Embedded Workbench for ARM	IAR Systems	04/09/2014		7.20.5		
	Image Resizer Powertoy Clone for Windows (64 bit)	Brice Lambson	24/09/2012	295 KB	2.1		
	🖆 Intel® Hardware Accelerated Execution Manager	Intel Corporation	07/01/2015	606 KB	1.1.1		
	IPcamera	Foscam	03/07/2014	21.9 MB	1.4.0		
	IPCamSetup	FOSCAM	14/08/2014		1.00.0000		
	🝰 Java SE Development Kit 8 Update 25 (64-bit)	Oracle Corporation	09/01/2015	311 MB	8.0.250.18		
	J-Link ARM V4.77a	SEGGER Microcontroller System	06/09/2013		V4.77a		
	🔣 Keil µVision4	ARM Ltd	28/12/2014		5.13.0.0		
	LibreOffice 3.6 Help Pack (English)	The Document Foundation	02/02/2013	20.8 MB	3.6.5.2		
	LibreOffice 4.3.5.2	The Document Foundation	27/12/2014	529 MB	4.3.5.2		
	MBAXP 1.4.10		28/10/2014				
	McCAD GView	VAMP, Inc.	27/08/2014		2.5.0.23		
	Microsoft .NET Framework 4.5.1	Microsoft Corporation	19/12/2013	38.8 MB	4.5.50938		

If you don't see Java JDK (JSE), please install it. You must choose the right JDK (32bit or 64bit). See <u>here</u>.

ORACLE [.]	Sign In/Register Help Country ~ Communities ~ I am a ~ I want to ~ Search Products Solutions Downloads Store Support Training Partners	About OTN
Oracle Technology Network > J	ava > Java SE > Downloads	
Java SE	Overview Downloads Documentation Community Technologies Training	Java SDKs and Too
Java EE		🛓 Java SE
Java ME	Java SE Development Kit 8 Downloads	差 Java EE and Glassfish
Java SE Support	These you far developing this release of the Joyn TM Distance Standard Edition Development Vit	差 Java ME
Java SE Advanced & Suite	(JDK TM) The JDK is a development environment for building applications, applets, and	差 Java Card
Java Embedded	components using the Java programming language.	差 NetBeans IDE
Java DB	The JDK includes tools useful for developing and testing programs written in the Java	差 Java Mission Control
Web Tier	programming language and running on the Java platform.	Java Resources
Java Card	See also:	差 Java APIs
Java Calu	 Java Developer Newsletter (tick the checkbox under Subscription Center > Oracle Technology 	
Java TV	News)	Technical Articles
Java TV New to Java	News)	Technical Articles Demos and Videos
Java Caru Java TV New to Java Community	News) Java Developer Day hands-on workshops (free) and other events	 Technical Articles Demos and Videos Forums

Test your Java installation using this link, see below.



Configure the Java System Environment Variable for Android Studio

For using Android Studio is necessary configure an environment variable called **JAVA_HOME**, for do this follow the instructions below.

Start \rightarrow System..... (see below)



OK

Cancel

C:\Program Files\Java\jdk1.8.0_25

is the directory where there is JDK on my PC.

Install the USB drive for your smartphone or tablet for using it in debug with Android Studio

For use your smartphone or your tablet for debug your APP you must install the appropriate USB driver.

I have an LG-E610, for find the USB driver I did a search using google and this phrase:

Android Studio LG-E610

and I found this <u>page</u>, see below, that contain the right driver.

MANUALI & DOWNLOAD

MANUALI & DOC	UMENTI	AGGIORNAMENTI SOFTWARE	PC SUITE
. 1>			
	Effettua Driver pe DOWNL	il download dei drivers ed installali. er Windows USB OAD	
. 2>			
	Effettua Nota: "L(software DOWNL	il download di "LG Mobile Support To 3 Mobile Support Tool" è supportato : e potrebbe non funzionare correttam OAD	o l" ed installalo. sui sistemi Microsoft Windows 2000, Windows XP, Windows Vista e Windows 7. Il ente su sistemi a 64bit.

Do the same search for your smartphone or tablet.

Install Android Studio

Download end install the Android Studio from here.

Do a simple APP for test your Android Studio installation

Run the Android Studio



Select New Project and configure the windows that appears, see below.

Create New Project	t / Project Studio Ir new project	
Application name:	Т इप्	
<u>C</u> ompany Domain:	marinonie.example.com	
Package name:	com.example.marinonie.tst	Edit
Project location:	C:\Android_Tst\Tst]

From the new window that appears you must choose the version of Android for which you want develop the APP and press NEXT, see below.

Create New Project	
Select the form factors your app	will run on
Different platforms require separate solks	
✓ Phone and Tablet	
Minimum SDK	API 15: Android 4.0.3 (IceCreamSandwich)
	Lower APT levels target more devices, but have rewer reatures available. By targeting APT15 and later, your app will run on approximately 87.9% of the devices that are active on the Google Play Store. Help me choose.
TV	
Minimum SDK	API 21: Android 5.0 (Lollipop)
Wear	
Minimum SDK	API 21: Android 5.0 (Lollipop)
Glass (Not Installed)	
Minimum SDK	

From the new window that appears select: **Blank Activity** and press NEXT, see below.

🕭 Create New Project				
Add an activity to Mobile	•			
Add No Activity	(_ ~~~~ :			
	Blank Activity	Blank Activity with Fragment	Fullscreen Activity	Google Maps Activity

Configure the last window as show below and press FINISH.

🕭 Create New Project			
Choose options for your new file			
(_ :	Creates a new blank activi	ty, with an action bar and a	contained Fragment.
()	Activity Name:	MainActivity	
	Layout Name:	activity_main	
	Fragment Layout Name:	fragment_main	
	Title:	MainActivity	
	Menu Resource Name:	menu_main	
			J
Blank Activity with Fragment			

After you have pressed FINISH the Android Studio configure the environment

<u>Index</u>

(must be necessary a Internet connections and be patient). At the end you must see something like below.



Select a smatphone or tablet to use in debug

At this point you must choose the right screen resolution for your smartphone for use it in debug.

In my case, I have an LG-E610 (4", 320x480pixel, HVGA) and I choose: HVGA slider (ADP1)(320x480; mdpi) – see below.



Build the project

For build the project select: **Build** \rightarrow **Rebuild Project** see below



At the end of the build you must see something like below.



Debug project using your smartphone or tablet

Now for enter in debug, using your smartphone or tablet, do this:

 On your smartphone or tablet select: Settings
 (Impostazioni (IT))
 Select Developer options
 Check off the USB debugging option
 Check Stay awake
 see below
 (Rimani attivo (IT))
 (Rimani attivo (IT))

> */ 📓 12:42 35/ 📓 12:43 Settings 🖾 Developer options OFF Take bug report Security A Language & input Desktop backup password Desktop full backups aren't currently protected Backup & reset Stay awake ACCOUNTS Screen will never sleep while charging 8 Google HDCP checking Use HDCP checking for DRM content only + Add account Protect SD card Apps must request permission to read SD card SYSTEM O Date & time DEBUGGING USB debugging Accessibility ~ Debug mode when USB is connected { } Developer options Allow mock locations Allow mock locations About phone Colont dahua ann Ĵ IJ ţ \Box

 In Android Studio select: Run → Debug 'app' after some second, appears a window where you have the possibility to select your smartphone for do the debug of your fist APP, see below.

🙍 Choose Device				— ×		
• <u>C</u> hoose a running devi	ce					
Device		Serial Number	State	Com		
LGE LG-E610 Android 4.0	LGE LG-E610 Android 4.0.3 (API 15)			Yes		
Launch emulator						
<u>Android virtual device</u> :	Nexus 5 API 21 x8	6				
Use same device for future launches						
		ОК		ancel		

In my case I chose my LGE LG-E610... and I press OK.

After some seconds on your phone, must appear the result of your APP, see below.



End debug

For stop the debug select: **Debug** and after press the **red button** see below.



Congratulations, you have managed to create and debug your first APP. Now I recommend you thoroughly study Android Studio.