



Pengenalan Android

Disadur dari modul Training SEAMEO SEAMOLEC

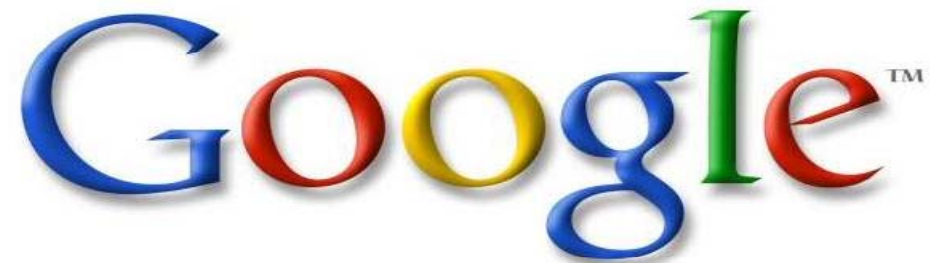


Sejarah Android (1)



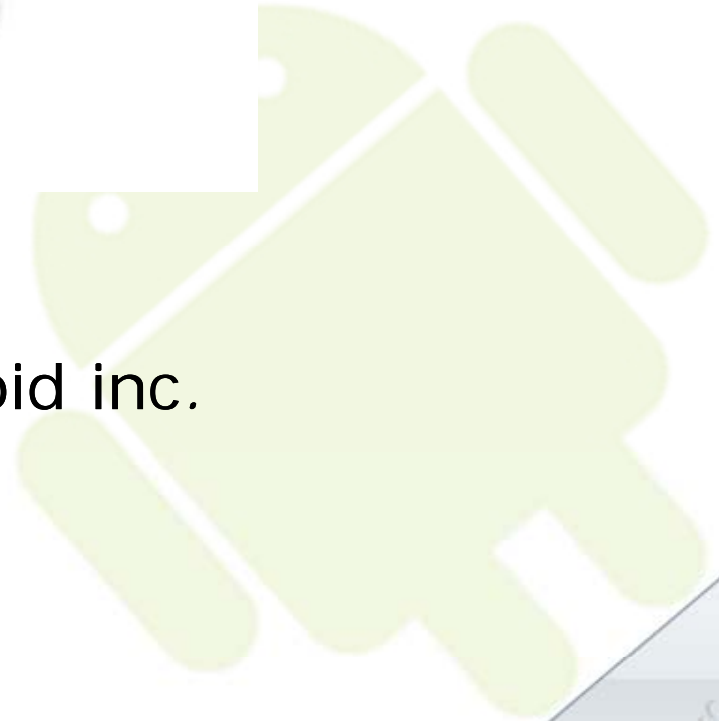
- Android inc.
- Terletak di Palo Alto, California

Sejarah Android (2)

The Google logo is displayed in its characteristic multi-colored font (blue, red, yellow, green, red) with a trademark symbol. It is centered on the slide, positioned between two horizontal dashed lines.

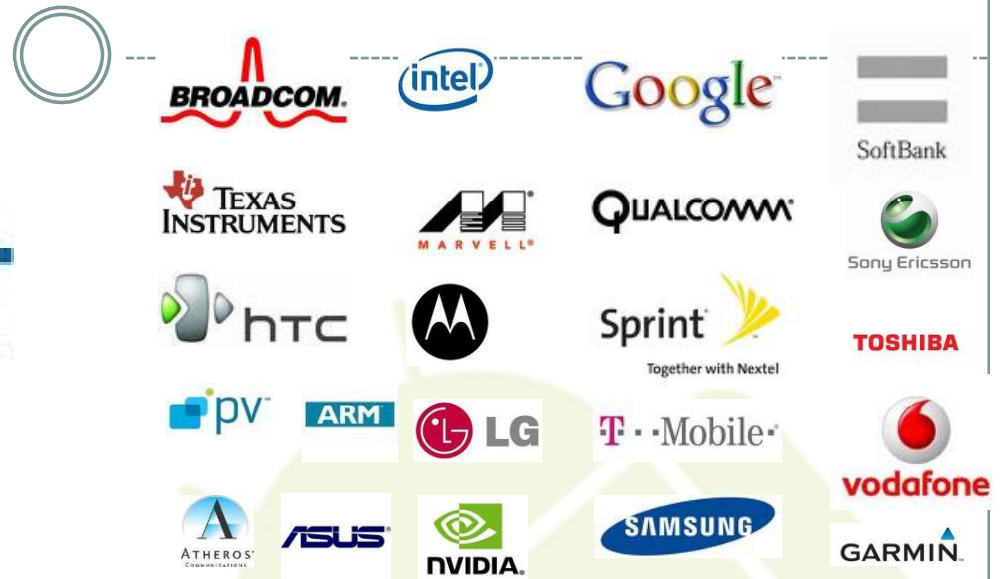
Google™

- Google mengakuisisi Android inc.
- Pada tahun 2005



Sejarah Android (3)

open
handset
alliance



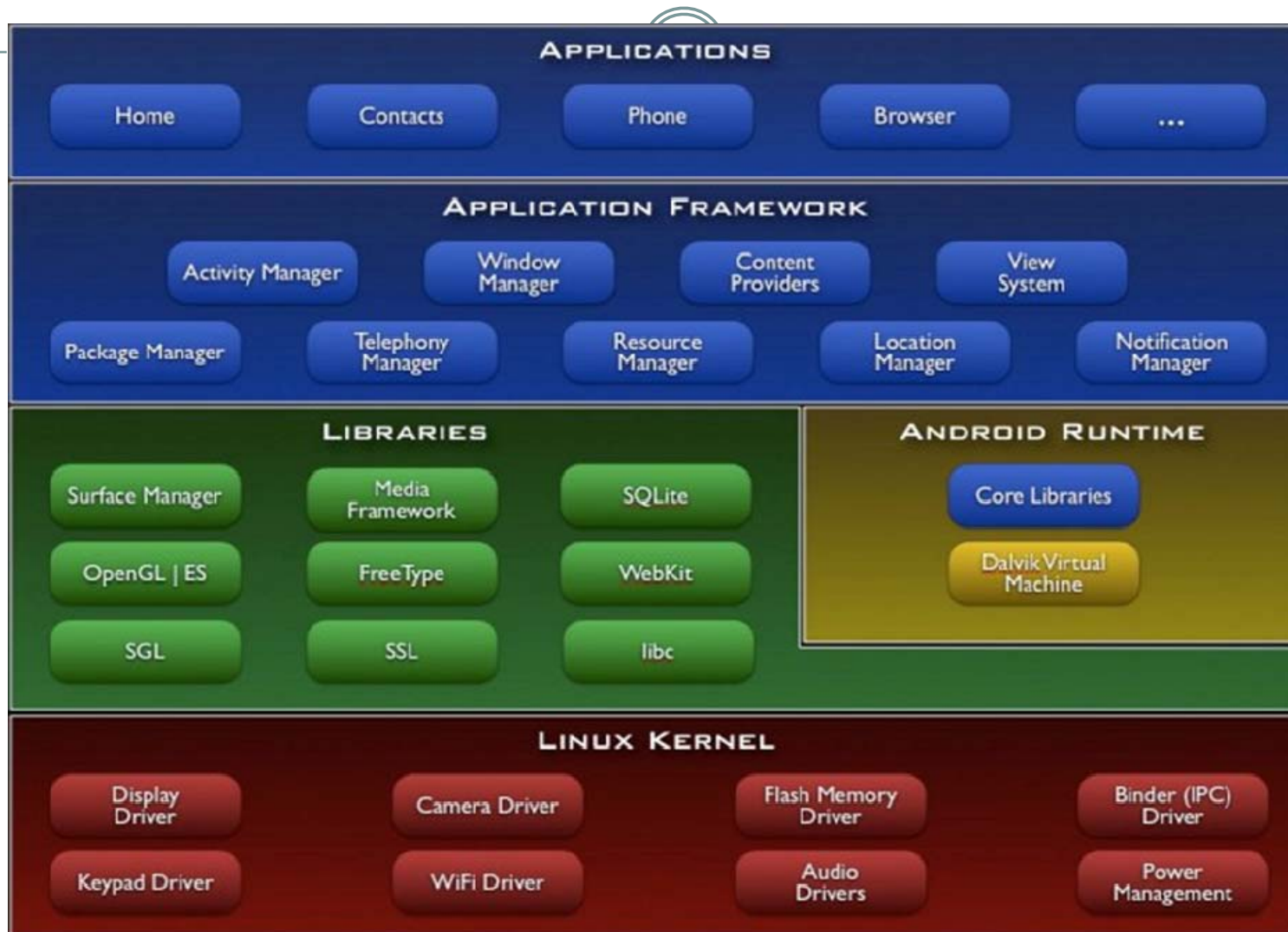
- Membentuk *Open Handset Alliance*
- Membuat *project* Android
- Didukung oleh 22 perusahaan

Versi Android

- 1.1 
- 1.5 (*Cupcake*) 
- 1.6 (*Donut*) 
- 2.0/2.1 (*Eclair*) 
- 2.2 (*Froyo*) 
- 2.3 (*Gingerbread*) 
- 3.0 (*Honeycomb*) 



Arsitektur Android



Android Device

Handphone pertama Android
HTC Dream



Kelebihan Android



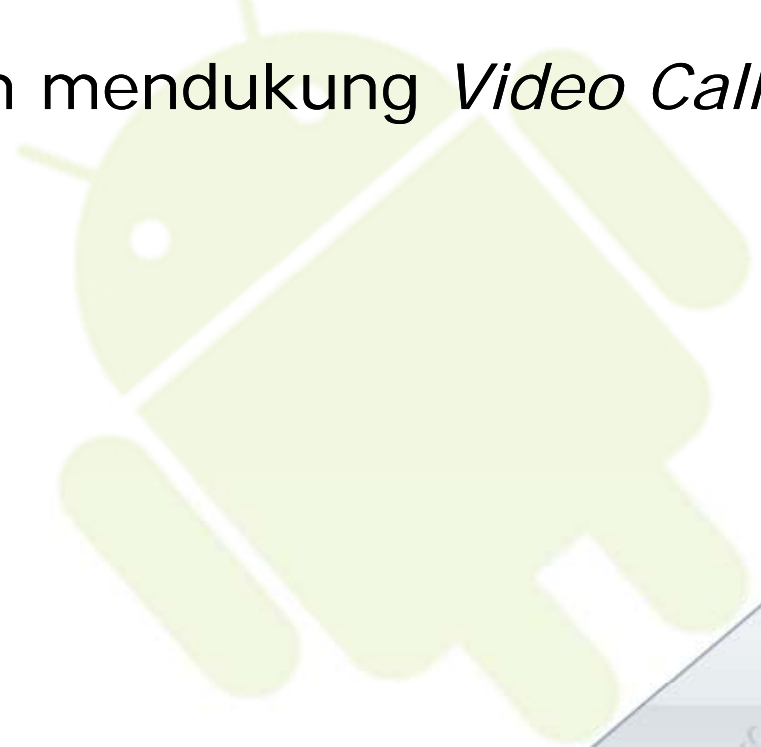
- *Open source*
- Konektivitas
- *Object oriented*
- *Multitasking*
- Stabilitas



Kekurangan Android



- Aplikasi terbatas
- Belum mendukung *Video Call*



Pengembangan Android

- Berbasis Linux
- Mendukung Java
- Beragam fitur



Pengembangan Android

- Berbasis Linux
- Mendukung Java
- Beragam fitur





Hello Android World

Pemrograman Android (1)



- Berbasis Java
- Menggunakan Linux Kernel 2.6

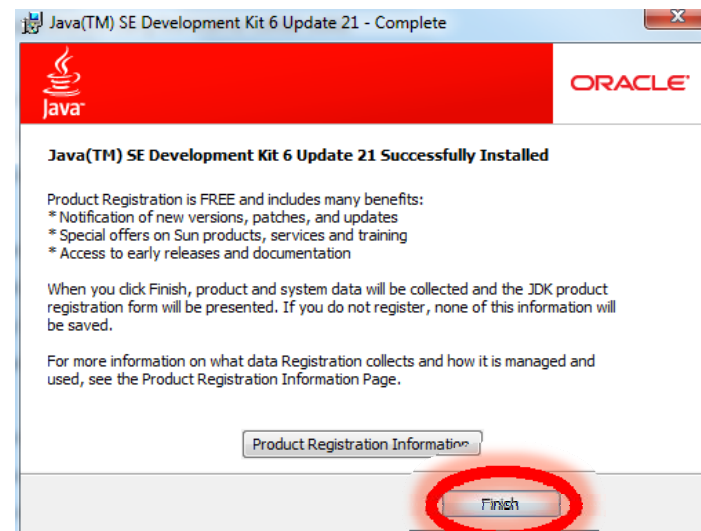
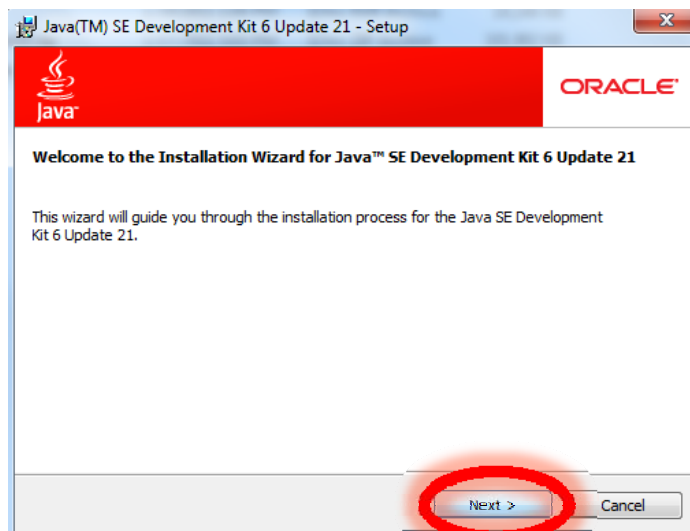
Pemrograman Android (2)



- *Download* Java Runtime Environment
- *Download* Eclipse IDE
- *Download* Android SDK

Instalasi Java Runtime Env.

- Install JRE
- Ikuti langkah -langkah instalasi JRE



Instalasi Eclipse (1)



- *Open source*
- Mendukung pemrograman lain (PHP, C/C++ dan lainnya)
- *Simple*
- Sistem Operasi Windows dan Linux

Instalasi Eclipse (2)

Download Eclipse www.eclipse.org/downloads

Eclipse Downloads

Packages Developer Builds Projects

Compare Packages

Older Versions

Eclipse Helios (3.6.1) Packages for Windows



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Hint:

You will need a [Java runtime environment \(JRE\)](#) to use Eclipse (Java 5 JRE recommended). All downloads are provided under the terms and conditions of the [Eclipse Foundation Software User Agreement](#) unless otherwise specified.

Follow your own migration path

Get full support for Eclipse 3.3 through 3.6



Installing Eclipse

[Install Guide](#)

Instalasi Eclipse (3)

- *Extract file* Eclipse
- Jalankan Eclipse.exe



Instalasi Android SDK (1)



Download Android SDK

developer.android.com/sdk/index.html

Download the Android SDK

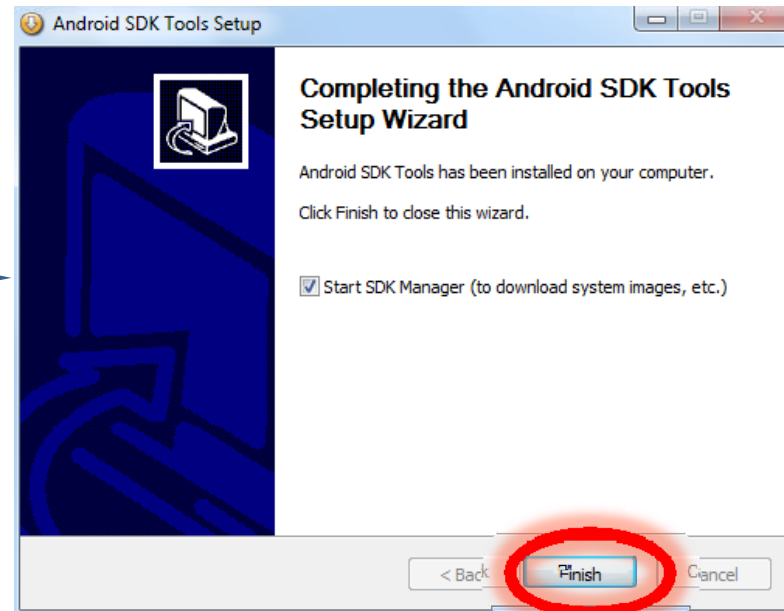
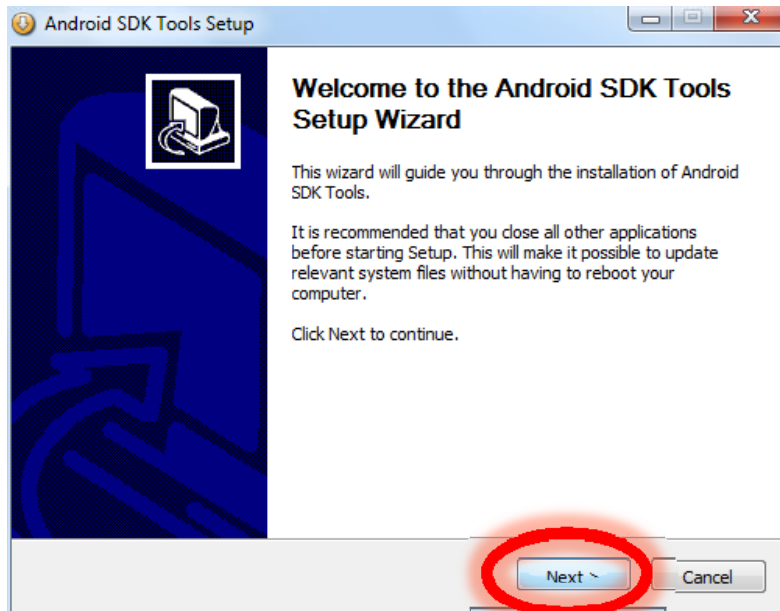
Welcome Developers! If you are new to the Android SDK, please read the steps below, for an overview of how to set up the SDK.

If you're already using the Android SDK, you should update to the latest tools or platform using the *Android SDK and AVD Manager*, rather than downloading a new SDK starter package. See [Adding SDK Components](#).

Platform	Package	Size	MD5 Checksum
Windows	android-sdk_r08-windows.zip	32696391 bytes	3e0b08ade5bfa9624bce9ddc164a48cb
	installer_r08-windows.exe (Recommended)	32746192 bytes	04ce87b10a8361a1f63cf2238bbc1ee3
Mac OS X (intel)	android-sdk_r08-mac_86.zip	28797617 bytes	d2e392c4e4680cbf2dfd6dbf82b662c7
Linux (i386)	android-sdk_r08-linux_86.tgz	26817291 bytes	3b626645b223d137d27beefbda0c94bc

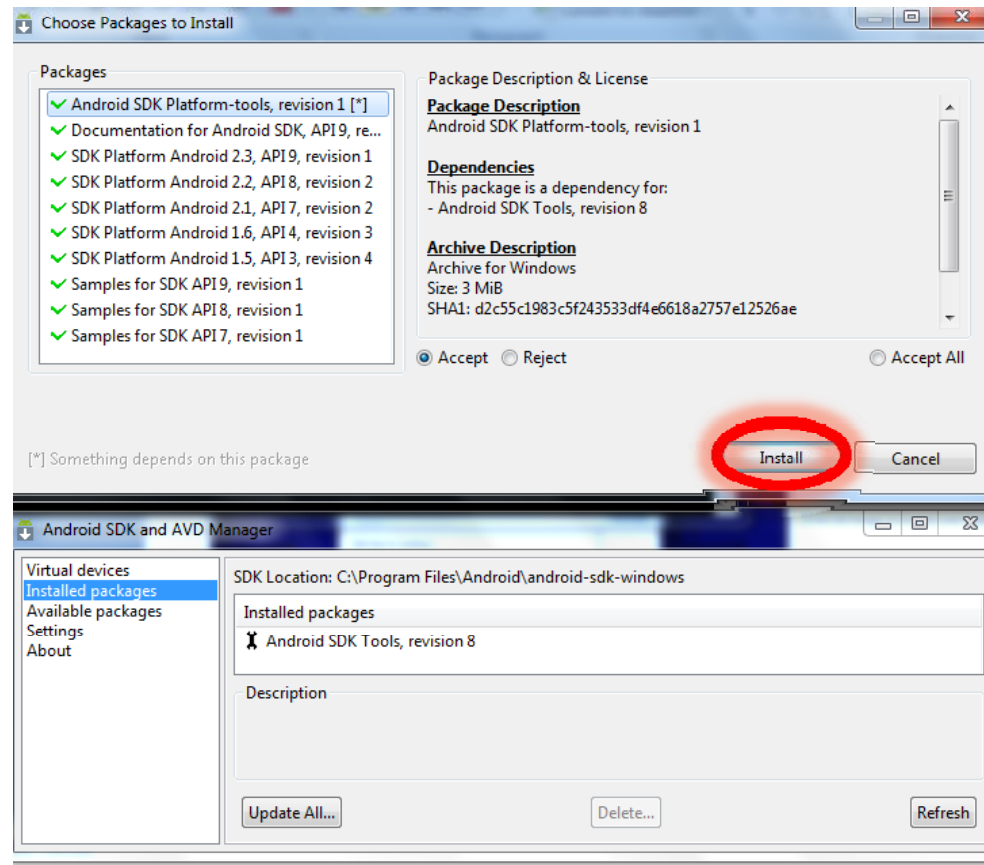
Instalasi Android SDK (2)

- *Install Android SDK Manager*
- Ikuti langkah instalasi



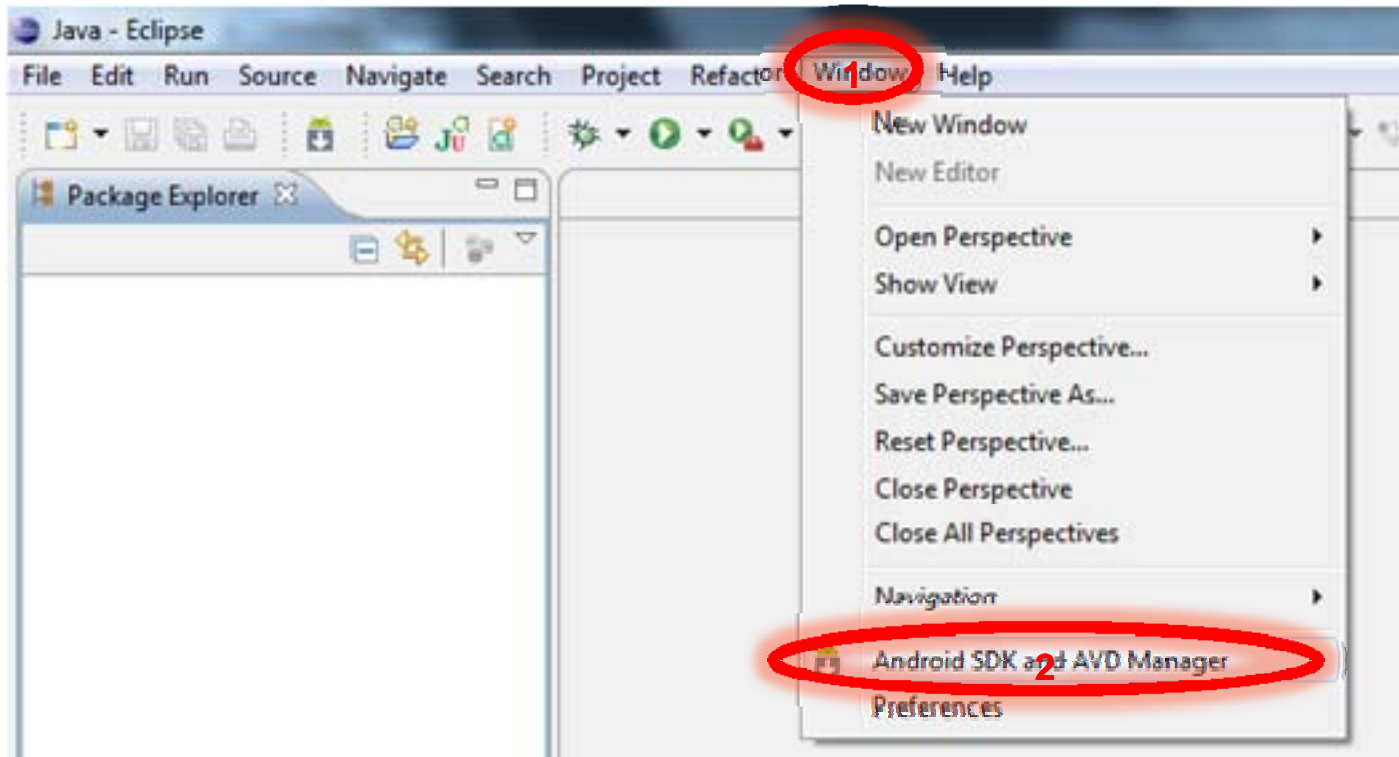
Instalasi Android SDK (3)

Update SDK Platform secara online



Konfigurasi Emulator (1)

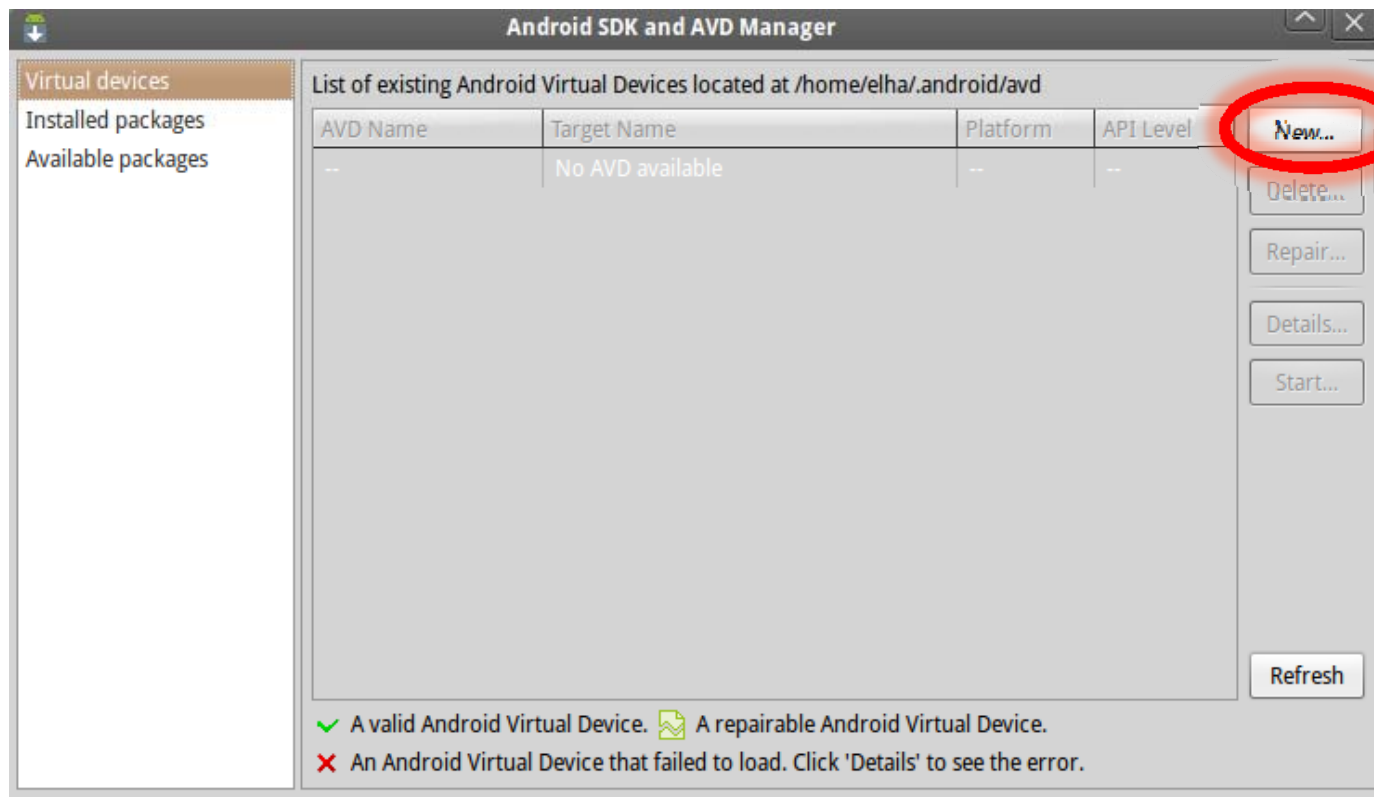
1. Window
2. Android SDK



Konfigurasi Emulator (2)

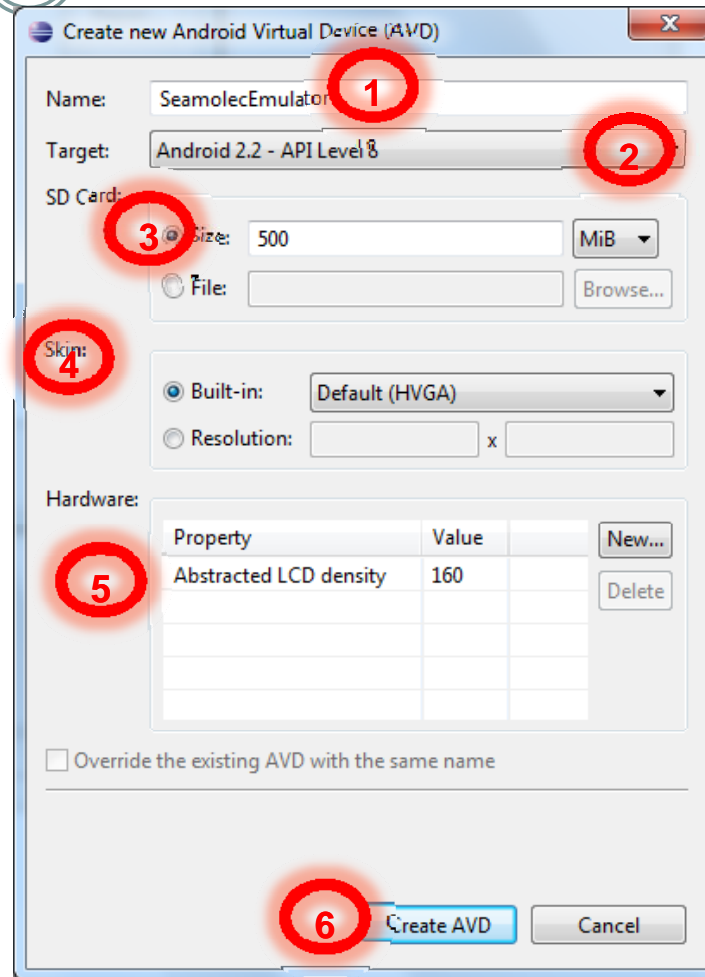
Tampilan *Android SDK and AVD Manager*

Pilih *New* untuk membuat *Emulator*

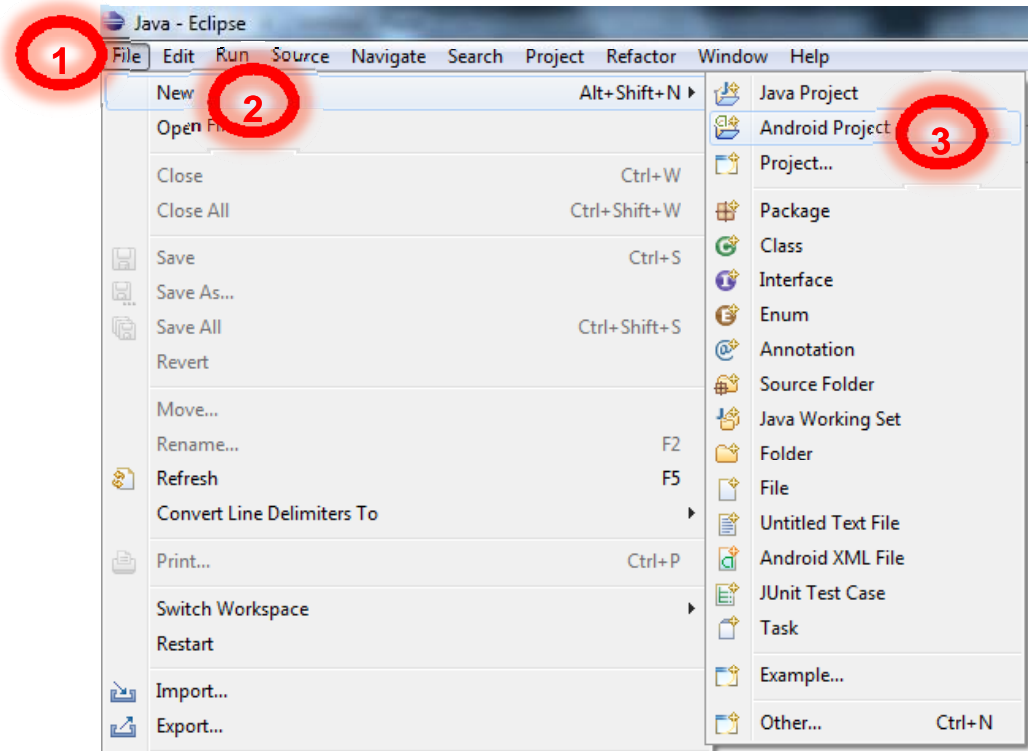


Konfigurasi Emulator (3)

1. *Name* : NamaEmulator
2. *Target* : TipeSDK
3. *SD Card* : 500 MiB
4. *Skin* : Default
5. *Hardware* : Abstracted
6. *Create AVD*



Hello World



1. File
2. New
3. Android Project

Hello World XML (1)

Tampilan Hello.java

```
Hello.java X
package seamolec.jarc.hello;

import android.app.Activity;

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

Mengacu pada **R.java**

Mengacu pada *folder layout*

Mengacu pada **main.xml**

Hello World XML (1)



Tampilan res/layout/main.xml

```
main.xml ✕
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    >
<TextView
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:text="@string/hello"
    />
</LinearLayout>
```

Memanggil *string hello* pada **string.xml**

Hello World XML (3)

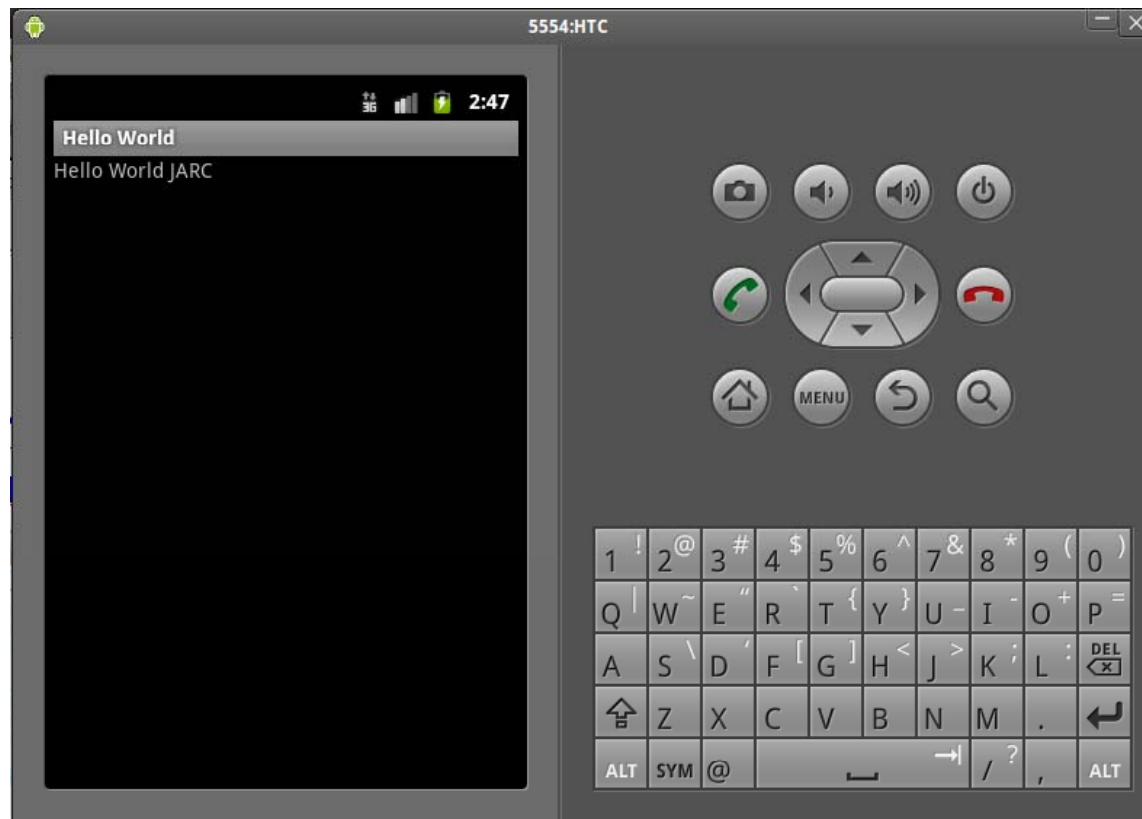


Tampilan res/values/strings.xml

```
strings.xml ✕  
<?xml version="1.0" encoding="utf-8"?>  
<resources>  
    <string name="hello">Hello World JARC</string>  
    <string name="app_name">Hello World</string>  
</resources>
```

Hello World XML (4)

Menampilkan *Hello World* dengan XML



Hello World Widget (1)

Tampilan dari Hello.java dengan *Widget TextView*

```
*Hello.java ✖
package seamolec.jarc.hello;

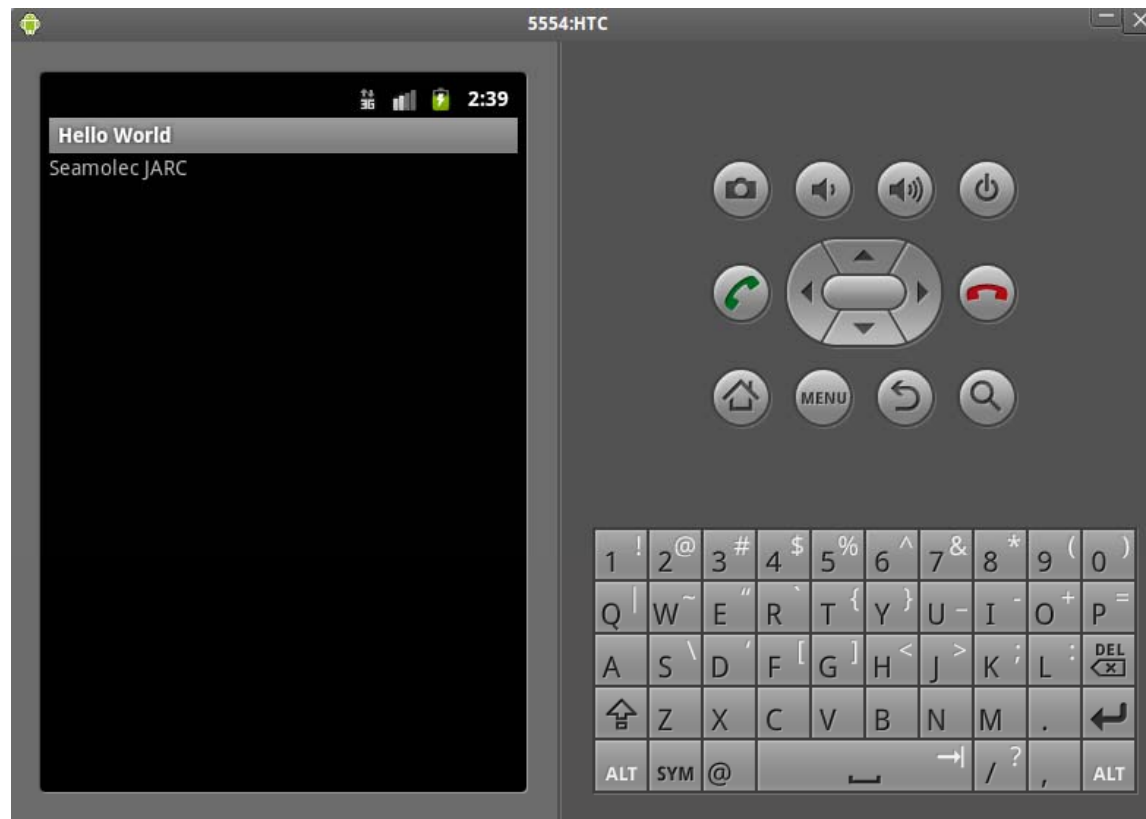
import android.app.Activity;
import android.os.Bundle;
import android.widget.TextView;

public class Hello extends Activity {
    /** Called when the activity is first created. */
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        TextView tv = new TextView(this);
        tv.setText("Hello World");
        setContentView(tv);
    }
}
```

Hello World Widget (2)



Menampilkan *Hello World* dengan *Widget*



PEMBUATAN

Teks dan Gambar XML (1)

Tampilan coba_text_gbr.java

```
1 package pens.com;
2
3 import android.app.Activity;
4 import android.os.Bundle;
5
6 public class coba_text_gbr extends Activity {
7     /** Called when the activity is first created. */
8     @Override
9     public void onCreate(Bundle savedInstanceState) {
10         super.onCreate(savedInstanceState);
11         setContentView(R.layout.main);
12     }
13 }
```

Mengacu
pada **R.java**

Mengacu pada
folder layout

Mengacu pada
main.xml

PEMBUATAN Teks dan Gambar XML (2)

Tampilan res/layout/main.xml

```
1<?xml version="1.0" encoding="utf-8"?>
2<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
3    android:orientation="vertical"
4    android:layout_width="fill_parent"
5    android:layout_height="fill_parent"
6    android:background="@color/warna">
7<TextView
8    android:layout_width="fill_parent"
9    android:layout_height="wrap_content"
10   android:text="@string/hello"
11 />
12<TextView
13   android:id="@+id/TextView01"
14   android:layout_width="wrap_content"
15   android:layout_height="wrap_content"
16   android:text="@string/nama"></TextView>
17<TextView
18   android:id="@+id/TextView02"
19   android:layout_width="wrap_content"
20   android:layout_height="wrap_content"
21   android:text="@string/alamat"></TextView>
22<ImageView
23   android:id="@+id/ImageView01"
24   android:layout_width="wrap_content"
25   android:layout_height="wrap_content"
26   android:background="@drawable/zen"></ImageView>
27</LinearLayout>
```

Memanggil *warna* pada **string.xml**

Memanggil *string hello* pada **string.xml**

Memanggil *string nama* pada **string.xml**

Memanggil *string alamat* pada **string.xml**

Memanggil *gambar* pada **string.xml**

PEMBUATAN

Teks dan Gambar XML (3)

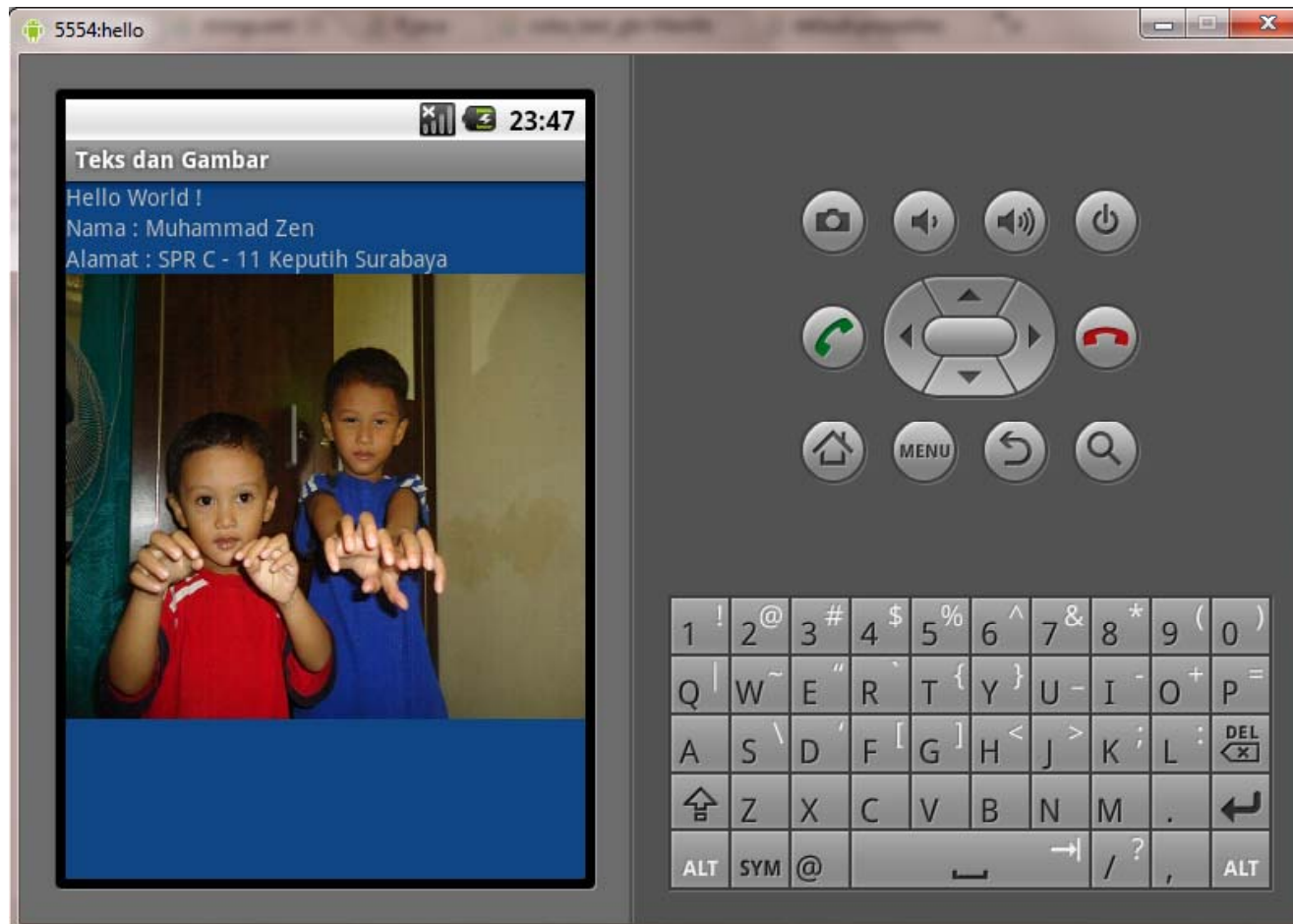


Tampilan res/values/strings.xml

```
1<?xml version="1.0" encoding="utf-8"?>
2<resources>
3    <string name="hello">Hello World !</string>
4    <string name="app_name">Teks dan Gambar</string>
5    <string name="nama">Nama : Muhammad Zen </string>
6    <string name="alamat">Alamat : SPR C - 11 Keputih Surabaya</string>
7    <color name="warna">#124585</color>
8</resources>
```

PEMBUATAN Teks dan Gambar XML (4)

Menampilkan *Teks dan Gambar* dengan XML





Terima Kasih

JARC TEAM
Research & Development
SEAMEO-SEAMOLEC