

Kumpulan Project Aplikasi Android Untuk Pemula

Narendra Ragan Prabu



Kata Pengantar

Puji syukur penulis penyatkan kehadiran Allah SWT, yang atas rahmat-Nya maka penulis dapat menyelesaikan penyusunan buku yang berjudul “Kumpulan Project Aplikasi Android Untuk Pemula”.

Penulisan buku adalah merupakan salah satu tugas dan persyaratan untuk menyelesaikan mata kuliah pemrograman lanjut di jurusan teknik informatika PENS.

Dalam Penulisan buku ini penulis merasa masih banyak kekurangan-kekurangan baik pada teknis penulisan maupun materi, mengingat akan kemampuan yang dimiliki penulis. Untuk itu kritik dan saran dari semua pihak sangat penulis harapkan demi penyempurnaan pembuatan buku ini.

Daftar Isi

Contents

Kata Pengantar.....	2
Daftar Isi	3
Pengenalan Android.....	6
Bab 1.....	7
1. Melakukan Konfigurasi Android SDK pada Eclipse IDE	8
2. Membuat Project Baru	12
3. First Android App.....	16
Bab 2.....	21
1. Basic Layout-Membuat Simple Date Button	21
2. Basic Layout-UI Hierarchy.....	23
3. Basic Layout-Table Layout	26
4. Basic Layout-Relative Layout.....	28
5. Basic Layout Absolute Layout	30
6. Basic Widget-Radio Button	31
7. Creating Layout without xml.....	34
8. Advanced Layout-ScrollView.....	37
Bab 3.....	41
1. Selection Widget-ListView	41
2. Selection Widget-Spinner	43

3. Selection Widget-GridView	46
Bab 4.....	50
1. Adding List Data.....	51
2. Adding Spinner Data	55
3. Adding List with AutoComplete.....	60
Bab 5.....	67
1. Date And Time Widget.....	67
2. Tab Menu	71
3. Slide Drawer	74
4. Contoh Aplikasi Order Pizza	79
5. Aplikasi Currency Dan Hitung Volume Balok Menggunakan Tabbed Menu	85
Bab 6.....	93
1. Option And Context Menu.....	93
2. Advanced Option And Context Menu.....	98
3. Intent	104
Bab 7	117
1. Android Bundles	117
2. Intent Using Other Java Class	126
Bab 8.....	134
1. Android Persistency-Preferences	134
2. Android Persistency-Files	140

Bab 9.....	148
1. Membuat Aplikasi TODO List	148
Bab 10.....	159
1. Internet Feeders Using RSS.....	159
Bab 11.....	169
1. Location Manager-GPS Service	169
2. Location Manager-Location Based Service	176
Bab 12.....	183
1. Intent Filters.....	183
Bab 13.....	189
Bab 14.....	207
1. App Cycles.....	207
Bab 15.....	216
List Gambar Dan Sumber Materi	217

Pengenalan Android

Android adalah [sistem operasi](#) yang berbasis [Linux](#) untuk [telepon seluler](#) seperti [telepon pintar](#) dan [komputer tablet](#). Android menyediakan platform terbuka bagi para pengembang untuk menciptakan aplikasi mereka sendiri untuk digunakan oleh bermacam peranti bergerak. Awalnya, Google Inc. membeli Android Inc., pendatang baru yang membuat peranti lunak untuk ponsel. Kemudian untuk mengembangkan Android, dibentuklah [Open Handset Alliance](#), konsorsium dari 34 perusahaan peranti keras, peranti lunak, dan telekomunikasi, termasuk [Google](#), [HTC](#), [Intel](#), [Motorola](#), [Qualcomm](#), [T-Mobile](#), dan [Nvidia](#).

Pada saat perilisan perdana Android, 5 November 2007, Android bersama Open Handset Alliance menyatakan mendukung pengembangan standar terbuka pada perangkat seluler. Di lain pihak, Google merilis kode-kode Android di bawah [lisensi Apache](#), sebuah lisensi perangkat lunak dan standar terbuka perangkat seluler.

Di dunia ini terdapat dua jenis distributor sistem operasi Android. Pertama yang mendapat dukungan penuh dari Google atau Google Mail Services (GMS) dan kedua adalah yang benar-benar bebas distribusinya tanpa dukungan langsung Google atau dikenal sebagai Open Handset Distribution (OHD).

Bab 1

Petunjuk Instalasi Android

Sebelum memulai pemrograman android, terlebih dahulu kita harus menyiapkan developers tools yang berupa:

- Android SDK di

<http://developer.android.com/sdk/index.html>

- JDK (Jika Belum Tersedia) di

<http://java.sun.com/javase/downloads/index.jsp>

- Eclipse IDE di

<http://www.eclipse.org/downloads/>

- ADT Plugin

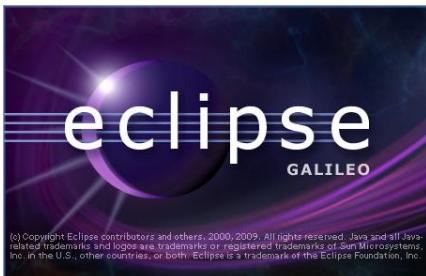
<http://developer.android.com/sdk/eclipse-adt.html>

Setelah semua file pada link diatas kita download. Selanjutnya lakukan instalasi JDK terlebih dahulu. Untuk melakukan instalasi JDK cukup klik dua kali pada file setup JDK dan klik next hingga instalasi selesai. Setelah JDK terinstall maka kita bisa langsung melanjutkan step berikutnya dalam memulai pemrograman android. Sekilas muncul pertanyaan, mengapa harus menginstall JDK?? Ya, karena dasar pemrograman android adalah java. Sehingga kita perlu menginstall JDK terlebih dahulu.

1. Melakukan Konfigurasi Android SDK pada Eclipse IDE

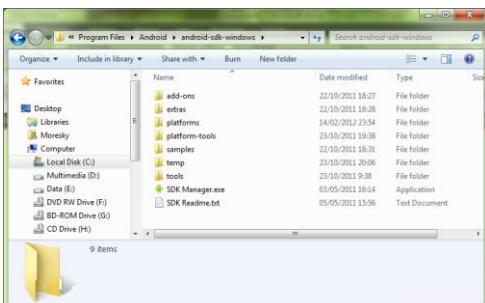
Sekarang saatnya kita untuk memulai pemrograman android. Pertama tama kita letakkan semua file yang didownload pada halaman sebelumnya pada satu folder yang sama agar mudah dicari.

1. Jalankan aplikasi Eclipse IDE



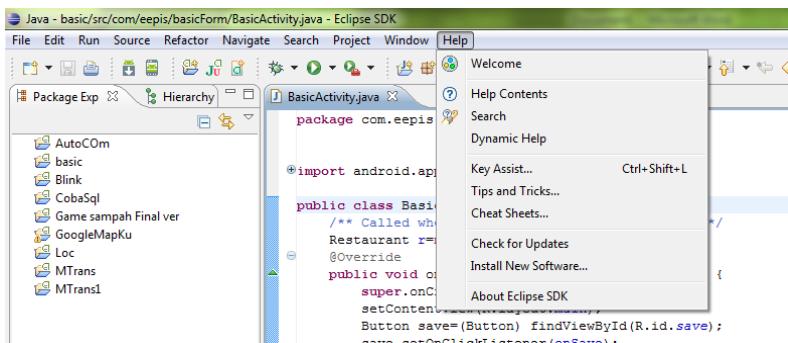
Gambar 1 Loading screen Eclipse IDE

2. Extract isi archive file android SDK yang telah didownload



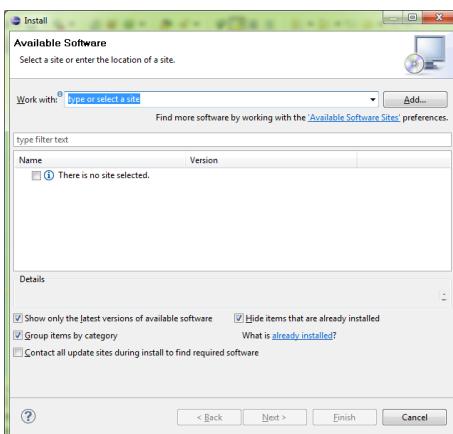
Gambar 2 Hasil extract file archive android SDK

3. Jika muncul notifikasi untuk menentukan lokasi workspace, anda bisa tentukan lokasi workspace terserah anda atau membiarkannya default. Workspace adalah tempat dimana nantinya project yang anda buat akan disimpan. Jika telah masuk ke tampilan utama Eclipse pilih menu Help → install New Software.



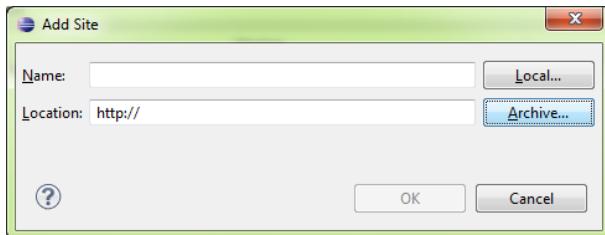
Gambar 3 Menu Pilihan Install New Software

4. Klik add



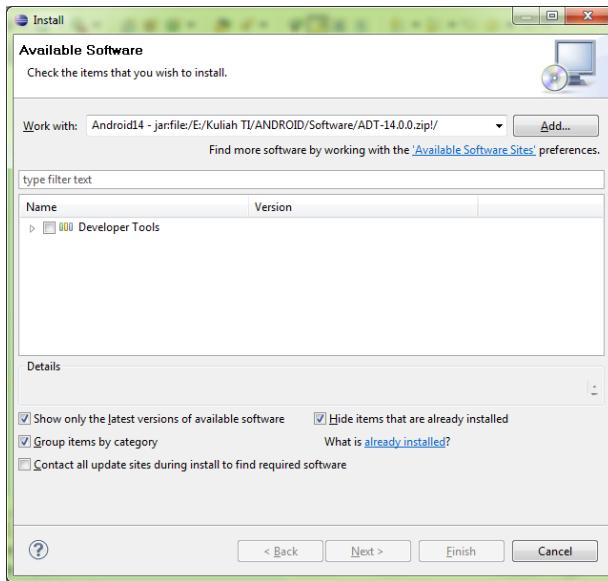
Gambar 4 Kotak Dialog Install New Software

5. Pilih archive dan cari lokasi dimana tadinya anda mendownload file ADT. Kemudian pilih file tersebut dan beri nama lalu klik OK.



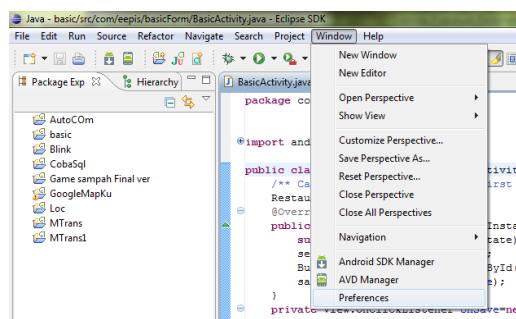
Gambar 5 Kotak Dialog Add Site

6. Maka akan muncul tampilan sebagai berikut, jika ingin menginstall ADT dan Android SDK secara online masukkan link berikut <https://dl-ssl.google.com/android/eclipse/>



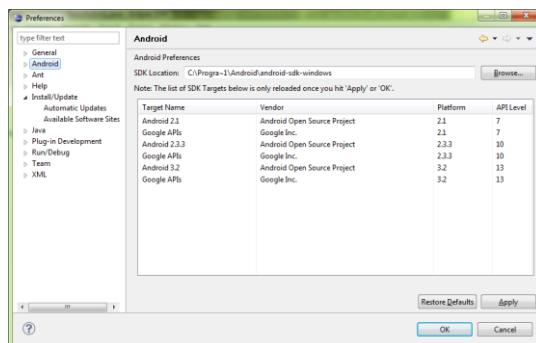
Gambar 6 File ADT setelah ditambahkan

7. Lalu beri centang pada Developer Tools dan klik next. Kemudian lakukan proses installasi dengan mengikuti petunjuk yang ada hingga selesai.
8. Setelah ADT terinstall lakukan konfigurasi SDK dengan membuka menu Window→Preferences.



Gambar 7 Menu Preferences

9. Kemudian pilih menu android dan klik browse. Cari lokasi dimana folder Android SDK yang telah anda ekstrak tadi. Kemudian Klik OK. Jika konfigurasi berhasil maka akan muncul seperti pada gambar



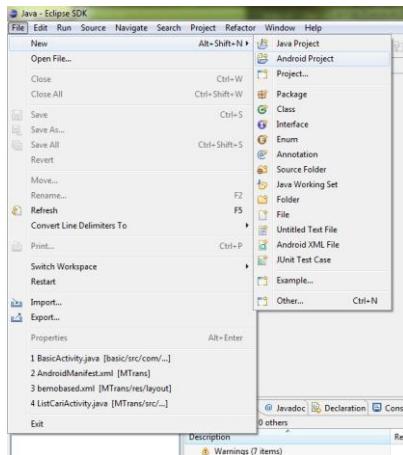
Gambar 8 Lokasi SDK telah dikonfigurasi

Sekarang anda sudah bisa memulai untuk mendevelop aplikasi android. Jumlah SDK yang muncul pada menu preferences sebelumnya bergantung pada berapa banya versi SDK yang anda download.

2. Membuat Project Baru

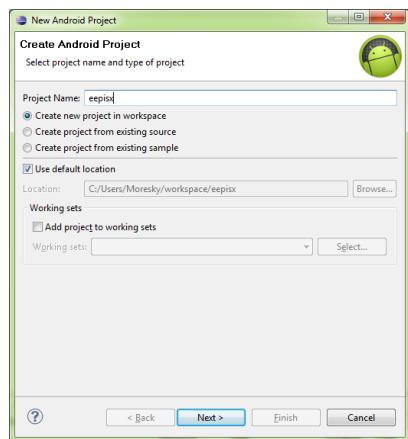
Setelah proses konfigurasi selesai kini kita akan melanjutkan ke tahap selanjutnya yaitu membuat project baru/project pertama kita.

1. Buka Eclipse IDE, kemudian pilih File → New → Android Project



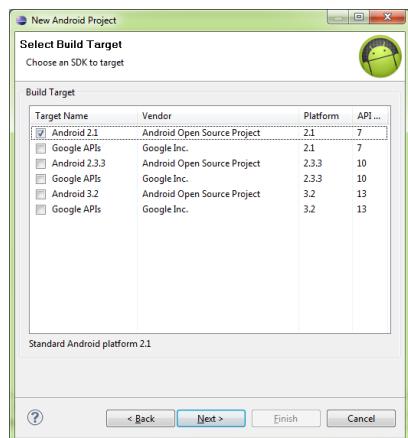
Gambar 9 Membuat project baru

2. Beri nama project kemudian klik next



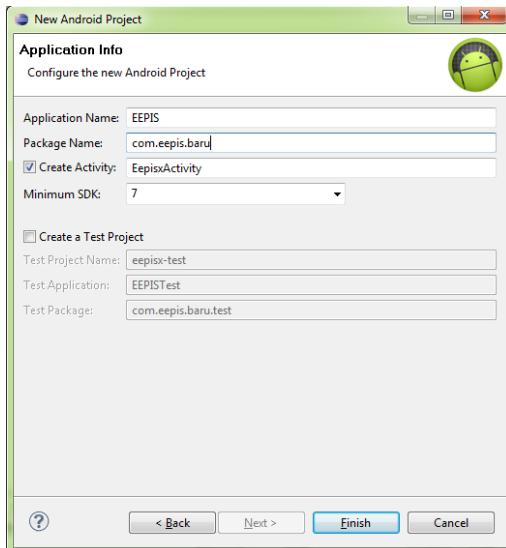
Gambar 10 Memberi nama project

3. Pilih SDK yang akan digunakan



Gambar 11 Memilih SDK yang akan digunakan

4. Isi package name sesuai dengan keinginan anda. Pada contoh dalam buku ini package yang digunakan sesuai dengan yang tertera pada Source Code



Gambar 12 Memberi nama Package

5. Dan project baru pun selesai dibuat

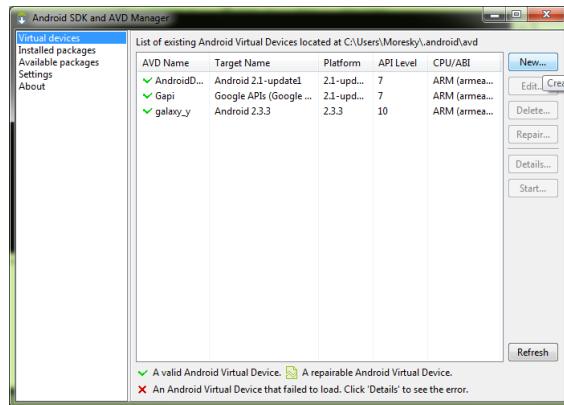
```
package com.eepis.baru;

import android.app.Activity;

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

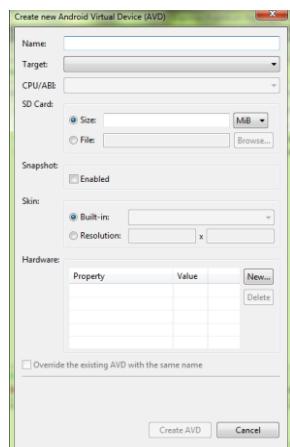
Gambar 13 Source First Project

6. Untuk menjalankan project dibutuhkan emulator. Untuk membuat emulator. Pilih menu Windows → AVD Manager kemudian pilih new



Gambar 14 Tampilan window AVD Manager

7. Isi nama,tipe SDK dan Size SD Card kemudian klik Create AVD



Gambar 15 Create AVD

Nah sekarang kita bisa menjalankan project android yang baru saja kita baru tadi dengan klik kanan pada project dan pilih Run As → Android Application.

3. First Android App

Sekarang saatnya untuk membuat aplikasi android pertama kita, silahkan dimulai dengan mengikuti langkah langkah berikut:

1. Buat project baru dengan kriteria

- Project Name= coba

- SDK= Android 2.1

- Application Name= coba

- Package Name=com.tes.coba

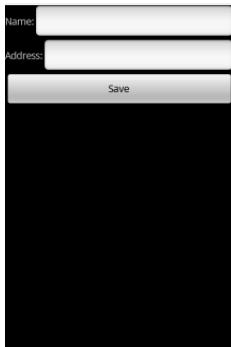
- Create Activity=cobaActivity

2. Buka folder coba/res/layout/main.xml kemudian replace dengan kode dibawah

```
<?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">
    <LinearLayout android:orientation="horizontal"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content">
        <TextView android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Name: " />
        <EditText android:id="@+id/name"
            android:layout_width="fill_parent"
            android:layout_height="wrap_content" />
    </LinearLayout>
    <LinearLayout android:orientation="horizontal"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content">
```

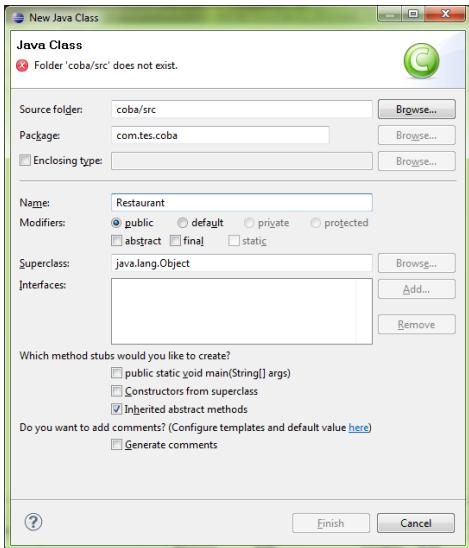
```
        android:layout_height="wrap_content">
        <TextView android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Address:" />
        <EditText android:id="@+id/addr"
            android:layout_width="fill_parent"
            android:layout_height="wrap_content" />
    </LinearLayout>
    <Button android:id="@+id/save"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Save" />
    <LinearLayout android:orientation="horizontal"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content">
        <TextView android:layout_width="wrap_content"
            android:id="@+id/textnama"
            android:layout_height="wrap_content"
            android:text="Name" />
        <TextView android:layout_width="wrap_content"
            android:id="@+id/textaddress"
            android:layout_height="wrap_content"
            android:text="Address" />
    </LinearLayout>
</LinearLayout>
```

3. Maka tampilan pada tab graphical layout akan menjadi seperti ini



Gambar 16 Graphical Layout

4. Buat class baru pada coba/src/com.tes.coba dengan nama Restaurant.java. kemudian isi dengan kode dibawah



Gambar 17 Membuat Class baru

```
package com.eepis.basicForm;

public class Restaurant {

    private String name = "";
    private String address = "";

    public String getName() {
        return (name);
    }

    public void setName(String name) {
        this.name = name;
    }
}
```

```
public String getAddress() {
    return (address);
}

public void setAddress(String address) {
    this.address = address;
}

}
```

5. Pada class cobaActivity isi dengan kode berikut

```
package com.tes.coba;
import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;

public class BasicActivity extends Activity {
    /** Called when the activity is first created. */
    Restaurant r=new Restaurant();
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.main);
        Button save=(Button) findViewById(R.id.save);
        save.setOnClickListener(onSave);
    }
    private View.OnClickListener onSave=new View.OnClickListener() {

        @Override
        public void onClick(View v) {
            // TODO Auto-generated method stub
            EditText name=(EditText)findViewById(R.id.name);
            EditText address=(EditText)findViewById(R.id.addr);
```

```
    TextView  
    textNama=(TextView)findViewById(R.id.textnama);  
    TextView  
    textAddress=(TextView)findViewById(R.id.textaddress);  
  
    r.setName(name.getText().toString());  
    r.setAddress(address.getText().toString());  
    textNama.setText(r.getName());  
    textAddress.setText(r.getAddress());  
}  
};  
}
```

6. Kemudian jalankan aplikasi dengan cara klik kanan pada project dan pilih Run As → Android Application. Hasilnya adalah sebagai berikut



Gambar 18 First Android Project

Bab 2

Design Layout Pada Aplikasi Android

Pada android untuk melakukan design layout atau tampilan aplikasi kita cukup dimudahkan dengan menggunakan xml file. Ditambah lagi tersedianya layout designer yang WYSIWYG(*what you see is what you get*) tentu saja amat memudahkan para developer android dalam mendekvelop aplikasinya.

1. Basic Layout-Membuat Simple Date Button

Kita akan membuat sebuah button pada aplikasi android kita yang nantinya jika kita klik maka akan muncul tanggal dan waktu saat ini.

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :SimpleDateButton
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<Button
    xmlns:android="http://schemas.android.com/apk/res
    /android"
    android:orientation="vertical"
    android:id="@+id/myButton"
    android:text=""
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
/>
```

3. Ketik kode berikut pada SimpleDateButton.java(Main Class)

```
package com.eepis.android;

import java.util.Date;
import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;

public class SimpleDateButton extends Activity {
    /** Called when the activity is first created. */
    Button btn;
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.main);
        btn =(Button) findViewById(R.id.myButton);
        btn.setOnClickListener(new OnClickListener() {
            @Override
            public void onClick(View v) {
                updateTime();
            }
        });
    }
    public void updateTime(){
        btn.setText(new Date().toString());
    }
}
```

4. Hasil tampilan program ketika dijalankan



Gambar 19 Simple Date Button

2. Basic Layout-UI Hierarchy

UI Hierarchy merupakan aturan peletakan dan pengurutan dalam layout android. Untuk lebih jelasnya bisa dilihat pada project berikut

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :UIHierarchy
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:id="@+id/LinearLayout01"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:orientation="vertical">

    <LinearLayout
        android:id="@+id/LinearLayout02"
        android:layout_height="wrap_content"
        android:layout_width="fill_parent">
        <EditText
            android:id="@+id/Edittext01"
            android:layout_width="wrap_content"

            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:text="X Coord">
        </EditText>
        <EditText
            android:id="@+id/Edittext02"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:text="Y Coord">
        </EditText>
    </LinearLayout>
    <LinearLayout
        android:id="@+id/LinearLayout03"
        android:layout_height="wrap_content"
        android:layout_width="fill_parent">
        <Button
            android:id="@+id/Button01"
            android:layout_width="wrap_content"
```

```
        android:layout_height="wrap_content"
    android:layout_weight="1"
        android:text="red">
    </Button>
    <Button
        android:id="@+id/Button02"
    android:layout_width="wrap_content"
        android:layout_height="wrap_content"
    android:layout_weight="1"
        android:text="green">
    </Button>
</LinearLayout>
</LinearLayout>
```

3. Ketik kode berikut pada UIHierarchy.java(Main Class)

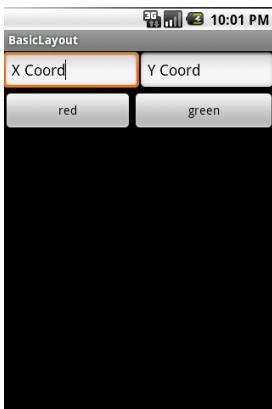
```
package com.eepis.android;

import java.util.Date;
import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;

public class UIHierarchy extends Activity {
    /** Called when the activity is first created. */
    Button btn1;
    Button btn2;
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.main2);
        btn1 = (Button)
findViewByI
```

```
        btn1.setOnClickListener(null);
        btn2 = (Button)
findViewById(R.id.Button02);
        btn2.setOnClickListener(null);
    }
}
```

4. Hasil tampilan program ketika dijalankan



Gambar 20 UI Hierarchy

3. Basic Layout-Table Layout

Tabel merupakan design layout yang umum digunakan terutama dalam android. Karena layout android berbasis xml file yang dimana mirip dalam desain layout web yang juga menggunakan xml dan css.

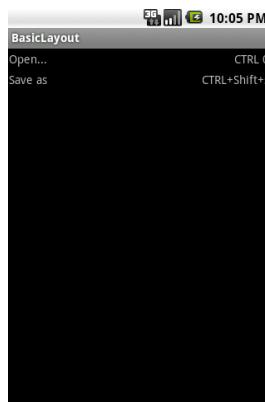
1. Buat project baru dengan kriteria sebagai berikut:

Project Name	:TableLayout
Package	:com.eepis.android
SDK version	:Android 2.1

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<TableLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:stretchColumns="*">
    <TableRow>
        <TextView android:text="Open..." 
            android:padding="3dip"/>
        <TextView android:text="CTRL 0"
            android:gravity="right" android:padding="3dip"/>
    </TableRow>
    <TableRow>
        <TextView android:text="Save as"
            android:padding="3dip"/>
        <TextView android:text="CTRL+Shift+s"
            android:gravity="right" android:padding="3dip"/>
    </TableRow>
</TableLayout>
```

3. Tak perlu melakukan modifikasi pada file java. Dan jika dijalankan maka tampilannya akan seperti berikut



Gambar 21 Tabel Layout

4. Basic Layout-Relative Layout

Relative layout juga termasuk seringkali digunakan dalam desain layout android. Dikarena penentuan posisi layout objek yang cukup mudah. Dimana pada layout ini objek yang kita buat mengacu pada objek atau bagian pada screen.

1. Buat project baru dengan kriteria sebagai berikut:

Project Name	:RelativeLayout
Package	:com.eepis.android
SDK version	:Android 2.1

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:background="#ff0000ff"
    android:padding="10px">
    <TextView
        android:id="@+id/label"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:background="#ffff0077"
        android:text="Type Here" />
    <EditText
        android:id="@+id/entry"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/label" />
    <Button
        android:id="@+id/ok"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
```

```
        android:layout_below="@+id/entry"
        android:layout_alignParentRight="true"
        android:layout_marginLeft="10px"
        android:text="ok" />
<Button
    android:id="@+id/cancel"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/entry"
    android:layout_toLeftOf="@+id/ok"
    android:layout_alignTop="@+id/ok"
    android:text="Cancel" />
</RelativeLayout>
```

3. Tak perlu melakukan modifikasi pada file java. Dan jika dijalankan maka tampilannya akan seperti berikut



Gambar 22 RelativeLayout

5. Basic Layout Absolute Layout

Absolute layout pada android memungkinkan kita untuk meletakkan object sesuai yang kita inginkan pada posisi yang sudah kita tentukan secara absolute. Jadi kita harus benar benar tahu berapa posisi koordinat untuk mengatur posisi sebuah object pada layout android.

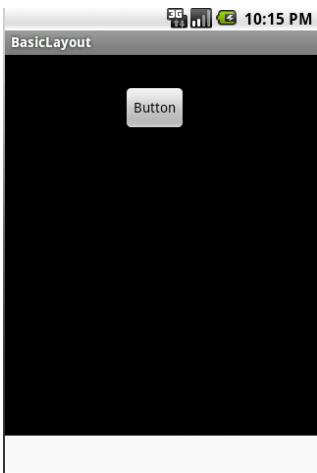
1. Buat project baru dengan kriteria sebagai berikut:

Project Name	:	AbsoluteLayout
Package	:	com.eepis.android
SDK version	:	Android 2.1

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<AbsoluteLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:id="@+id/myAbsoluteLayout"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent">
    <Button
        android:id="@+id/Tombolku"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_x="120px"
        android:layout_y="32px"
        android:text="Button" />
</AbsoluteLayout>
```

3. Tak perlu melakukan modifikasi pada file java. Dan jika dijalankan maka tampilannya akan seperti berikut



Gambar 23 Absolute Layout

6. Basic Widget-Radio Button

Radio button adalah sebuah selection widget berupa pilihan yang bisa dipilih salah satu.

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :RadioButton
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<TableLayout
    xmlns:android="http://schemas.android.com/apk/res
    /android"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
```

```
    android:stretchColumns="1">
        <TableRow>
            <TextView android:text="Name:" />
            <EditText android:id="@+id/name" />
        </TableRow>
        <TableRow>
            <TextView android:text="Address:" />
            <EditText android:id="@+id/addr" />
        </TableRow>
        <TableRow>
            <TextView android:text="Type:" />
            <RadioGroup android:id="@+id/types">
                <RadioButton android:id="@+id/take_out"
                    android:text="Take-Out" />
                <RadioButton android:id="@+id/sit_down"
                    android:text="Sit-Down" />
                <RadioButton android:id="@+id/delivery"
                    android:text="Delivery" />
            </RadioGroup>
        </TableRow>
        <Button android:id="@+id/save"
            android:layout_width="fill_parent"
            android:layout_height="wrap_content"
            android:text="Save" />
    </TableLayout>
```

3. Ketik kode berikut pada RadioButton.java

```
package com.eepis.android;

import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.RadioGroup;
```

```
public class RadioButton extends Activity {
    /** Called when the activity is first
     * created. */
    Restaurant r = new Restaurant();

    @Override
    public void onCreate(Bundle
savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.main);
        Button save = (Button)
findViewById(R.id.save);
        save.setOnClickListener(onSave);
    }

    private View.OnClickListener onSave = new
View.OnClickListener() {

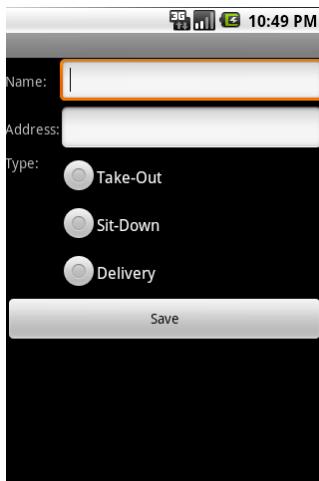
        @Override
        public void onClick(View v) {
            // TODO Auto-generated method
stub
            EditText name = (EditText)
findViewById(R.id.name);
            EditText address = (EditText)
findViewById(R.id.addr);

            r.setName(name.getText().toString());

            r.setAddress(address.getText().toString());
            RadioGroup type = (RadioGroup)
findViewById(R.id.types);
            switch
(type.getCheckedRadioButtonId()) {
                case R.id.sit_down:
                    r.setTypes("sit_down");
                    break;
                case R.id.take_out:
                    r.setTypes("take_out");
            }
        }
    }
}
```

```
        break;
    case R.id.delivery:
        r.setTypes("delivery");
        break;
    }
}
}
```

4. Hasil tampilan program ketika dijalankan



Gambar 24 Radio Button Widget

7. Creating Layout without xml

Di android umumnya developer mendesain menggunakan xml layout. Namun android juga menyediakan opsi mendesain layout tanpa xml. Cukup menggunakan kode dari file java.

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :Noxml
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada Noxml.java

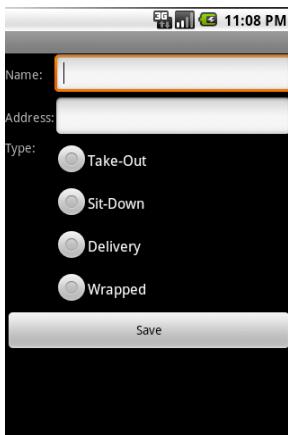
```
package com.eepis.androud

import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.RadioGroup;

public class Noxml extends Activity {
    Restaurant r = new Restaurant();
    RadioButton rb;
    @Override
    public void onCreate(Bundle
savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.main);
        Button save = (Button)
findViewById(R.id.save);
        save.setOnClickListener(onSave);
        rb=new RadioButton(getApplicationContext());
        rb.setText("Wrapped");
    }
    private View.OnClickListener onSave = new
View.OnClickListener() {
        public void onClick(View v) {
            EditText name = (EditText)
findViewById(R.id.name);
            EditText address = (EditText)
findViewById(R.id.addr);
```

```
r.setName(name.getText().toString());  
  
r.setAddress(address.getText().toString());  
RadioGroup types=(RadioGroup)  
findViewById(R.id.types);  
types.addView(rb);  
switch  
(types.getCheckedRadioButtonId()) {  
    case R.id.sit_down:  
  
        r.setTypes("sit_dawn");  
        break;  
    case R.id.take_out:  
  
        r.setTypes("take_out");  
        break;  
    case R.id.delivery:  
  
        r.setTypes("delivery");  
        break;  
    }  
}  
};  
}
```

3. Hasil tampilan program ketika dijalankan



Gambar 25 Membuat Layout tanpa xml

8. Advanced Layout-ScrollView

ScrollView pada android digunakan untuk menampilkan layout yang memanjang baik ke samping atau kebawah. Fungsi cukup sama ketika kita membuka sebuah web page.

1. Buat project baru dengan kriteria sebagai berikut:

Project Name : ScrollView
Package : com.eepis.android
SDK version : Android 2.1

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<ScrollView
    xmlns:android="http://schemas.android.com/apk/res
    /android"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content" >
```

```
<TableLayout
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:stretchColumns="1" >
    <TableRow >
        <TextView android:text="Name:" />
        <EditText android:id="@+id/name" />
    </TableRow>
    <TableRow >
        <TextView android:text="Address:" />
        <EditText android:id="@+id/addr" />
    </TableRow>
    <TableRow >
        <TextView android:text="Type:" />
        <RadioGroup android:id="@+id/types" >
            <RadioButton
                android:id="@+id/take_out"
                android:text="Take-Out" />
            <RadioButton
                android:id="@+id/sit_down"
                android:text="Sit-Down" />
            <RadioButton
                android:id="@+id/delivery"
                android:text="Delivery" />
        </RadioGroup>
    </TableRow>
    <Button
        android:id="@+id/save"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Save" />
</TableLayout>
</ScrollView>
```

3. Ketik kode berikut pada ScrollView.java

```
package com.eepis.android;
```

```

import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.RadioGroup;

public class ScrollView extends Activity {
    Restaurant r = new Restaurant();
    RadioButton rb, rt, rs, rc;
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.main);
        Button save = (Button)
findViewById(R.id.save);
        save.setOnClickListener(onSave);
        rb=new RadioButton(getApplicationContext());
        rb.setText("Wrapped");
        rt=new RadioButton(getApplicationContext());
        rt.setText("Wrapped");
        rs=new RadioButton(getApplicationContext());
        rs.setText("Wrapped");
        rc=new RadioButton(getApplicationContext());
        rc.setText("Wrapped");
    }
    private View.OnClickListener onSave = new
View.OnClickListener() {
        public void onClick(View v) {
            EditText name = (EditText)
findViewById(R.id.name);
            EditText address = (EditText)
findViewById(R.id.addr);
            r.setName(name.getText().toString());
            r.setAddress(address.getText().toString());
            RadioGroup types=(RadioGroup)
findViewById(R.id.types);

```

```

        types.addView(rb);
        types.addView(rt);
        types.addView(rs);
        types.addView(rc);
        switch
        (types.getCheckedRadioButtonId()) {
            case R.id.sit_down:
                r.setTypes("sit_down");
                break;
            case R.id.take_out:
                r.setTypes("take_out");
                break;
            case R.id.delivery:
                r.setTypes("delivery");
                break;
        }
    };
}
}

```

4. Hasil tampilan program ketika dijalankan



Gambar 26 ScrollView

Bab 3

Selection Widget

Selection widget adalah widget yang digunakan untuk melakukan pemilihan fungsi apa yang ingin dijalankan. Pada contoh project yang akan kita buat adalah ListView,Spinner dan GridView.

1. Selection Widget-ListView

ListView merupakan widget pada android untuk menampilkan pilihan dalam bentuk list baik berurutan maupun tidak. Dan setiap pilihan dalam list bisa diberi fungsi sendiri sendiri.

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :ListView
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik Kode berikut pada 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:id="@+id/selection"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:background="#ff0000cc"
```

```
        android:textStyle="bold" />
<ListView
    android:id="@+id/list"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:drawSelectorOnTop="false"/>
<TextView
    android:id="@+id/empty"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Empty set"/>
</LinearLayout>
```

3. Ketik kode berikut pada ListView.java

```
package com.eepis.android;

import android.app.ListActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.TextView;

public class ListView extends ListActivity {
    /** Called when the activity is first created. */
    TextView selection;
    String[] items = {"this","is","a","really","really2",
                     "really3","really4","really5","silly","list"};

    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.main);
        setListAdapter(new ArrayAdapter<String>(this,
                android.R.layout.simple_list_item_1,
                items));
        selection= (TextView) findViewById(R.id.selection);
```

```
}

protected void onListItemClick(ListView l, View v,
                               int position, long id){
    super.onListItemClick(l, v, position, id);
    String text = "position:" + position + "" + items[position];
    selection.setTag(text);
}
}
```

4. Hasil tampilan program ketika dijalankan



Gambar 27 Simple ListView

2. Selection Widget-Spinner

Spinner bisa dikatakan mirip dengan dropdown menu, dimana untuk memilih kita harus klik terlebih dahulu pada widget tersebut untuk memunculkan pilihan.

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :Spinner
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada 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:id="@+id/selection"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:background="#ff0000cc"
        android:textStyle="bold"
        android:textSize="14pt" />
    <Spinner
        android:id="@+id/spinner"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"/>
</LinearLayout>
```

3. Ketik kode berikut pada spinner.java

```
package com.eepis.android;

import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.widget.ArrayAdapter;
```

```
import android.widget.AdapterView;
import android.widget.Spinner;
import android.widget.TextView;

public class Spinner extends Activity implements AdapterView.OnItemSelectedListener{
    /** Called when the activity is first created. */
    TextView selection;
    String[] items =
{"this","is","a","really","really2",
 "really3","really4","really5","silly","list
"};
    @Override
    public void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.main);
        selection= (TextView)
findViewById(R.id.selection);
        Spinner spin=(Spinner)
findViewById(R.id.spinner);
        spin.setOnItemSelectedListener(this);
        ArrayAdapter<String> aa=new
ArrayAdapter<String>(this,
            android.R.layout.simple_spinner_dropdown_it
em,items);

aa.setDropDownViewResource(android.R.layout.simple_
spinner_dropdown_item);
        spin.setAdapter(aa);
    }
    @Override
    public void onItemSelected(AdapterView<?>
parent, View v, int position,
        long id) {
        // TODO Auto-generated method stub
    }
}
```

```
        selection.setText(items[position]);
    }
    @Override
    public void
onNothingSelected(AdapterView<?> parent) {
        // TODO Auto-generated method stub
        selection.setText("");
    }
}
```

4. Hasil tampilan program ketika dijalankan



Gambar 28 Spinner

3. Selection Widget-GridView

GridView merupakan selection widget dengan tampilan berupa grid. Yaitu mirip dengan tampilan tile icons pada windows.

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :GridView
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada 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:id="@+id/selection"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:background="#ff0033cc"
        android:textStyle="bold"
        android:textSize="14pt" />
    <GridView
        android:id="@+id/grid"
        android:background="#ff0000ff"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:verticalSpacing="35px"
        android:horizontalSpacing="5px"
        android:numColumns="auto_fit"
        android:columnWidth="100px"
        android:stretchMode="columnWidth"
        android:gravity="center"/>
</LinearLayout>
```

3. Ketik kode berikut pada GridView.java

```
package com.eepis.android;
```

```
import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.widget.ArrayAdapter;
import android.widget.AdapterView;
import android.widget.GridView;
import android.widget.TextView;

public class GridView extends Activity implements
AdapterView.OnItemClickListener{
    /** Called when the activity is first
created. */
    TextView selection;
    String[] items={
"this","is","a","really","really2","really3","rea
lly4","really5","silly","list"};

    @Override
    Public void onCreate(Bundle
savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.main);
        selection= (TextView)
findViewById(R.id.selection);
        GridView gv=(GridView)
findViewById(R.id.grid);
        ArrayAdapter<String> aa=new
ArrayAdapter<String>(this,
            android.R.layout.simple_list_item_1,items);
        gv.setAdapter(aa);
        gv.setOnItemClickListener(this);
    }

    @Override
    public void onItemClick(AdapterView<?>
parent, View v, int position,
        long id) {
        // TODO Auto-generated method stub
```

```
        selection.setText(items[position]);  
    }  
}
```

4. Hasil tampilan program ketika dijalankan



Gambar 29 GridView

Bab 4

Selection Widget-Advanced

Kali ini kita akan membahas lebih lanjut tentang selection widget. Khusus untuk bab ini ada class khusus yang digunakan pada setiap percobaan. Berikut class tersebut:

Restaurant.java

```
package com.coba.tes;
public class Restaurant {
    private String name = "";
    private String address = "";
    private String type="";

    public String getName() {
        return (name);
    }
    public String getType() {
        return(type);
    }
    public void setType(String type) {
        this.type=type;
    }
    public void setName(String name) {
        this.name = name;
    }
    public String getAddress() {
        return (address);
    }
    public void setAddress(String address) {
        this.address = address;
    }
    public String toString(){
        return(getName());
```

```
    }  
}
```

1. Adding List Data

Kita akan mencoba untuk menambah data ke dalam list selection widget yang telah kita buat.

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :AddingList
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>  
<RelativeLayout  
    xmlns:android="http://schemas.android.com/apk/res  
    /android"  
    android:layout_width="fill_parent"  
    android:layout_height="fill_parent">  
    <TableLayout android:id="@+id/details"  
        android:layout_width="fill_parent"  
        android:layout_height="wrap_content"  
        android:layout_alignParentBottom="true"  
        android:stretchColumns="1">  
        <TableRow>  
            <TextView android:text="Name:" />  
            <EditText  
                android:id="@+id/name" />  
        </TableRow>  
        <TableRow>  
            <TextView  
                android:text="Address:" />  
            <EditText
```

```
        android:id="@+id/addr" />
    </TableRow>
    <TableRow>
        <TextView
            android:text="Type:" />
        <RadioGroup
            android:id="@+id/types">
            <RadioButton
                android:id="@+id/take_out" android:text="Take-
                Out" />
            <RadioButton
                android:id="@+id/sit_down" android:text="Sit-
                Down" />
            <RadioButton
                android:id="@+id/delivery"
                android:text="Delivery" />
        </RadioGroup>
    </TableRow>
    <Button android:id="@+id/save"
        android:layout_width="fill_parent"

        android:layout_height="wrap_content"
        android:text="Save" />
    </TableLayout>
    <ListView
        android:id="@+id/restaurants"
        android:layout_width="fill_parent"

        android:layout_height="wrap_content"
        android:layout_alignParentTop="true"

        android:layout_above="@+id/details" />
    </RelativeLayout>
```

3. Ketik kode berikut pada AddingList.java

```
package com.eepis.android;
```

```
import java.util.ArrayList;
import java.util.List;

import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.EditText;
import android.widget.ListView;
import android.widget.RadioGroup;

public class AddingList extends Activity {
    /** Called when the activity is first created. */
    List<Restaurant> model = new ArrayList<Restaurant>();
    ArrayAdapter<Restaurant> adapter = null;

    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.main);
        Button save = (Button) findViewById(R.id.save);
        save.setOnClickListener(onSave);
        ListView list = (ListView)
findViewById(R.id.restaurants);
        adapter = new ArrayAdapter<Restaurant>(this,
                android.R.layout.simple_list_item_1, model);
        list.setAdapter(adapter);
    }

    private View.OnClickListener onSave = new
View.OnClickListener() {

        @Override
        public void onClick(View v) {
            // TODO Auto-generated method stub
    }
}
```

```
Restaurant r = new Restaurant();
EditText name = (EditText)
findViewById(R.id.name);
EditText address = (EditText)
findViewById(R.id.addr);

r.setName(name.getText().toString());
r.setAddress(address.getText().toString());
RadioGroup types = (RadioGroup)
findViewById(R.id.types);
switch (types.getCheckedRadioButtonId()) {
case R.id.sit_down:
    r.setType("sit_down");
    break;
case R.id.take_out:
    r.setType("take_out");
    break;
case R.id.delivery:
    r.setType("delivery");
    break;
}
adapter.add(r);
};

}
```

4. Hasil tampilan program ketika dijalankan



Gambar 30 Adding List Item

2. Adding Spinner Data

Untuk menambahkan data pada Spinner hampir mirip dengan penambahan data pada ListView. Jadi cermati baik baik.

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :AddingListSpinner

Package :com.eepis.android

SDK version :Android 2.1

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent">
    <TableLayout android:id="@+id/details"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"

            android:layout_alignParentBottom="true"
        android:stretchColumns="1">
        <Spinner      android:id="@+id/spinner"
        android:layout_width="fill_parent"

            android:layout_height="wrap_content"
        android:layout_alignParentTop="true"

            android:layout_above="@+id/details" />
        <TableRow>
            <TextView    android:text="Name :"
/>
            <EditText
        android:id="@+id/name" />
        </TableRow>
        <TableRow>
            <TextView
        android:text="Address :" />
            <EditText
        android:id="@+id/addr" />
        </TableRow>
        <TableRow>
            <TextView    android:text="Type :"
/>
            <RadioGroup
        android:id="@+id/types">
                <RadioButton
        android:id="@+id/take_out"      android:text="Take-
Out" />
```

```
        <RadioButton
    android:id="@+id/sit_down"      android:text="Sit-
    Down" />
        <RadioButton
    android:id="@+id/delivery"
    android:text="Delivery" />
    </RadioGroup>
</TableRow>
<Button      android:id="@+id/save"
    android:layout_width="fill_parent"

    android:layout_height="wrap_content"
    android:text="Save" />
</TableLayout>
<TextView      android:id="@+id/selection"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:background="#ff0000cc"
    android:textStyle="bold"
    android:textSize="14pt" />
</RelativeLayout>
```

3. Ketik kode berikut pada AddingListSpinner.java

```
package com.eepis.android;

import java.util.ArrayList;
import java.util.List;

import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.widget.Adapter;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.Button;
```

```
import android.widget.EditText;
import android.widget.ListView;
import android.widget.RadioGroup;
import android.widget.Spinner;
import android.widget.TextView;

public class AddingListSpinner extends Activity
implements AdapterView.OnItemSelectedListener{
    /** Called when the activity is first created. */
    List<Restaurant> model = new ArrayList<Restaurant>();
    ArrayAdapter<Restaurant> aa = null;
    TextView selection;

    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.main);
        selection= (TextView) findViewById(R.id.selection);
        Button save = (Button) findViewById(R.id.save);
        save.setOnClickListener(onSave);
        Spinner spin=(Spinner) findViewById(R.id.spinner);
        spin.setOnItemSelectedListener(this);
        aa=new ArrayAdapter<Restaurant>(this,
            android.R.layout.simple_spinner_dropdown_item,model);

        aa.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
        spin.setAdapter(aa);
    }

    private View.OnClickListener onSave = new
    View.OnClickListener() {

        @Override
        public void onClick(View v) {
```

```

// TODO Auto-generated method stub
Restaurant r = new Restaurant();
EditText name = (EditText)
findViewById(R.id.name);
EditText address = (EditText)
findViewById(R.id.addr);

r.setName(name.getText().toString());
r.setAddress(address.getText().toString());
RadioGroup types = (RadioGroup)
findViewById(R.id.types);
switch (types.getCheckedRadioButtonId()) {
case R.id.sit_down:
    r.setType("sit_down");
    break;
case R.id.take_out:
    r.setType("take_out");
    break;
case R.id.delivery:
    r.setType("delivery");
    break;
}
aa.add(r);
};

@Override
public void onItemSelected(AdapterView<?> parent, View v, int
position,
long id) {
selection.setText(model.get(position).toString());

}

@Override
public void onNothingSelected(AdapterView<?> arg0) {

```

```
// TODO Auto-generated method stub  
selection.setText("");  
}  
}
```

4. Hasil tampilan program ketika dijalankan



Gambar 31 Adding Spinner Data

3. Adding List with AutoComplete

AutoComplete merupakan fitur yang memberikan kemudahan dengan menebak teks yang akan diinputkan user. Kali ini kita akan menggabungkan dengan percobaan Adding List.

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :AutoComplete
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent">
    <TableLayout android:id="@+id/details"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"

            android:layout_alignParentBottom="true"
        android:stretchColumns="1">
            <Spinner android:id="@+id/spinner"
        android:layout_width="fill_parent"

            android:layout_height="wrap_content"
        android:layout_alignParentTop="true"

            android:layout_above="@id/details" />
            <TableRow>
                <TextView android:text="Name:" />
        <AutoCompleteTextView
        android:id="@+id/name"

            android:layout_width="fill_parent"
        android:layout_height="wrap_content"

            android:completionThreshold="3" />
```

```
        </TableRow>
        <TableRow>
            <TextView
                android:text="Address:" />
            <EditText
                android:id="@+id/addr" />
        </TableRow>
        <TableRow>
            <TextView android:text="Type:" />
            <RadioGroup
                android:id="@+id/types">
                <RadioButton
                    android:id="@+id/take_out" android:text="Take-Out" />
                <RadioButton
                    android:id="@+id/sit_down" android:text="Sit-Down" />
                <RadioButton
                    android:id="@+id/delivery"
                    android:text="Delivery" />
            </RadioGroup>
        </TableRow>
        <Button android:id="@+id/save"
            android:layout_width="fill_parent"
            android:layout_height="wrap_content"
            android:text="Save" />
    </TableLayout>
    <TextView android:id="@+id/selection"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:background="#ff0000cc"
        android:textStyle="bold"
        android:textSize="14pt" />
</RelativeLayout>
```

3. Ketik kode berikut pada AutoComplete.java

```
package com.eepis.android;

import java.util.ArrayList;
import java.util.List;

import android.app.Activity;
import android.os.Bundle;
import android.text.Editable;
import android.text.TextWatcher;
import android.view.View;
import android.widget.Adapter;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.AutoCompleteTextView;
import android.widget.Button;
import android.widget.EditText;
import android.widget.ListView;
import android.widget.RadioGroup;
import android.widget.Spinner;
import android.widget.TextView;

public class AutoComplete extends Activity
implements AdapterView.OnItemSelectedListener,TextWatcher{
    /** Called when the activity is first created. */
    List<Restaurant> model = new ArrayList<Restaurant>();
    ArrayAdapter<Restaurant> aa = null;
    String[] items = {"this","is","a","really","really2",
                     "really3","really4","really5","silly","list"};
    TextView selection;
    AutoCompleteTextView name;

    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
```

```
setContentView(R.layout.main);
selection= (TextView) findViewById(R.id.selection);
Button save = (Button) findViewById(R.id.save);
save.setOnClickListener(onSave);
Spinner spin=(Spinner) findViewById(R.id.spinner);
spin.setOnItemSelectedListener(this);
aa=new ArrayAdapter<Restaurant>(this,
        android.R.layout.simple_spinner_dropdown_item,model);
aa.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
spin.setAdapter(aa);
name = (AutoCompleteTextView) findViewById(R.id.name);
        name.addTextChangedListener(this);
        name.setAdapter(new ArrayAdapter<String>(this,
        android.R.layout.simple_dropdown_item_1line,items));
    }
private View.OnClickListener onSave = new
View.OnClickListener() {
    @Override
    public void onClick(View v) {
        // TODO Auto-generated method stub
        Restaurant r = new Restaurant();
        EditText address = (EditText)
findViewById(R.id.addr);
        r.setName(name.getText().toString());
        r.setAddress(address.getText().toString());
        RadioGroup types = (RadioGroup)
findViewById(R.id.types);
        switch (types.getCheckedRadioButtonId()) {
        case R.id.sit_down:r.setType("sit_down");
        break;
        case R.id.take_out:
            r.setType("take_out");
            break;
        case R.id.delivery:
            r.setType("delivery");
        
```

```
        break;
    }
    //model.listIterator().previous().toString());
    aa.add(r);
}
};

@Override
public void onItemSelected(AdapterView<?> parent, View v, int
position,long id) {
    selection.setText(model.get(position).toString());

}

@Override
public void onNothingSelected(AdapterView<?> arg0) {
    selection.setText("");
}

@Override
public void afterTextChanged(Editable s) {

}

@Override
public void beforeTextChanged(CharSequence s, int start, int
count,int after) {

}

@Override
public void onTextChanged(CharSequence s, int start, int
before, int count) {
}
}
```

4. Hasil tampilan program ketika dijalankan



Gambar 32 AutoComplete

Bab 5

Advanced Layout

Saatnya kita beralih ke design layout lebih lanjut. Setelah kita mempelajari dasar dasar layout pada bab selanjutkan kini kita akan memasuki tahap layout lanjutan.

1. Date And Time Widget

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :DateTime
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
        android:id="@+id/widget28"
        android:orientation="vertical"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent">
    <TextView
        android:id="@+id/lblDateAndTime"
        android:layout_width="fill_parent"
        android:layout_height="47px"
        android:background="#ff000099"
        android:textStyle="bold" />
    <Button
        android:id="@+id/btnDate" />
```

```
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Set the Date" />
    <Button
        android:id="@+id/btnTime"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Set the Time" />
</LinearLayout>
```

3. Ketik kode berikut pada DateTime.java

```
package com.eepis.android;

import android.app.Activity;
import android.os.Bundle;
import android.app.DatePickerDialog;
import android.app.TimePickerDialog;
import android.view.View;
import android.widget.Button;
import android.widget.DatePicker;
import android.widget.TimePicker;
import android.widget.TextView;
import java.text.DateFormat;
import java.util.Calendar;

public class DateTime extends Activity {
    /** Called when the activity is first created. */
    DateFormat fmtDateAndTime =
    DateFormat.getDateInstance();
    TextView lblDateAndTime;
    Calendar myCalendar = Calendar.getInstance();
    DatePickerDialog.OnDateSetListener d = new
    DatePickerDialog.OnDateSetListener() {

        @Override
```

```

        public void onDateSet(DatePicker view, int year, int
monthOfYear, int dayOfMonth) {
            myCalendar.set(Calendar.YEAR, year);
            myCalendar.set(Calendar.MONTH, monthOfYear);
            myCalendar.set(Calendar.DAY_OF_MONTH,
dayOfMonth);
            updateLabel();
        }
    };
    TimePickerDialog.OnTimeSetListener t = new
TimePickerDialog.OnTimeSetListener() {
        public void onTimeSet(TimePicker view, int hourOfDay, int
minute) {
            myCalendar.set(Calendar.HOUR_OF_DAY, hourOfDay);
            myCalendar.set(Calendar.MINUTE, minute);
            updateLabel();
        }
    };
    private void updateLabel() {
        lblDateAndTime.setText(fmtDateAndTime.format(myCalendar.g
etTime()));
    }
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.main);
        lblDateAndTime = (TextView)
findViewById(R.id.lblDateAndTime);
        Button btnDate = (Button) findViewById(R.id.btnDelete);
        btnDate.setOnClickListener(new
View.OnClickListener() {
            public void onClick(View v) {
                new DatePickerDialog(dateandtime.this, d,
myCalendar.get(Calendar.YEAR),
myCalendar.get(Calendar.MONTH),

```

```

        myCalendar.get(Calendar.DAY_OF_MONTH)).show();
    }
});
Button btnTime = (Button) findViewById(R.id.btnTime);
btnTime.setOnClickListener(new
View.OnClickListener() {
    public void onClick(View v) { new
TimePickerDialog(dateandtime.this, t,
        myCalendar.get(Calendar.HOUR_OF_DAY),
        myCalendar.get(Calendar.MINUTE), true).show();
}
});
updateLabel();
// onCreate
}

```

4. Hasil tampilan program ketika dijalankan



Gambar 33 Date and Time Picker

2. Tab Menu

Tab menu merupakan fitur layout untuk membagi tampilan menjadi bagian dari tab tab sebanyak yang kita butuhkan.

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :TabMenu
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada 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">
    <TabHost android:id="@+id/tabhost"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent">
        <TabWidget
            android:id="@+id/tabs"
            android:layout_width="fill_parent"
            android:layout_height="wrap_content" />
            <FrameLayout
                android:id="@+id/tabcontent"
                android:layout_width="fill_parent"
                android:layout_height="fill_parent"
                android:paddingTop="62px">
                    <AnalogClock
                        android:id="@+id/tab1"
                        android:layout_width="fill_parent"
                        android:layout_height="fill_parent"
                        android:layout_centerHorizontal="true"/>
```

```
<LinearLayout  
    android:id="@+id/tab2"  
    android:layout_width="fill_parent"  
    android:layout_height="fill_parent"  
    android:orientation="vertical"  
    xmlns:android="http://schemas.android.com/a  
pk/res/android">  
    <TextView  
        android:id="@+id/caption1"  
        android:layout_width="fill_parent"  
        android:layout_height="wrap_content"  
        android:background="#ff0000ff"  
        android:text="Person Name"  
        android:textSize="20px">  
    </TextView>  
    <EditText  
        android:id="@+id/txtPerson"  
        android:layout_width="fill_parent"  
        android:layout_height="wrap_content"  
        android:text="txtPerson"  
        android:textSize="18sp">  
    </EditText>  
    <Button  
        android:id="@+id/btnGo"  
        android:layout_width="wrap_content"  
        android:layout_height="wrap_content"  
        android:text="Go">  
    </Button>  
    </LinearLayout>  
    </FrameLayout>  
</TabHost>  
</LinearLayout>
```

3. Ketik kode berikut pada TabMenu.java

```
package com.eepis.android;  
  
import android.app.Activity;
```

```
import android.os.Bundle;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TabHost;
public class TabMenu extends Activity {
    @Override
    public void onCreate(Bundle icicle) {
        super.onCreate(icicle);
        setContentView(R.layout.main);
        TabHost tabs = (TabHost) findViewById(R.id.tabhost);
        tabs.setup();
        TabHost.TabSpec spec;
        spec = tabs.newTabSpec("tag1");
        spec.setContent(R.id.tab1);
        spec.setIndicator("1-Clock");
        tabs.addTab(spec);
        spec = tabs.newTabSpec("tag2");
        spec.setContent(R.id.tab2);
        spec.setIndicator("2-Login");
        tabs.addTab(spec);
        tabs.setCurrentTab(0);
        Button btnGo = (Button) findViewById(R.id.btnGo);
        btnGo.setOnClickListener(new OnClickListener() {
            @Override
            public void onClick(View arg0) {
                EditText txtPerson = (EditText)
                findViewById(R.id.txtPerson);
                String theUser =
                txtPerson.getText().toString();
                txtPerson.setText("Hola " + theUser);
            }
        });
    }
}
```

4. Hasil tampilan program ketika dijalankan



Gambar 34 Tab Menu

3. Slide Drawer

Slide drawer merupakan sub menu yang akan muncul jika kita klik drawer button di screen. Fitur ini mirip dengan ketika kita membuka menu di android

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :SlideDrawer
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    xmlns:android="http://schemas.android.com/apk/res
```

```
/android"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:background="#FF4444CC" >

<TextView
    android:id="@+id/label0"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:layout_alignParentTop="true"
    android:background="#ffcc3300"
    android:text="SlidingDrawer Demo"
    android:textSize="24sp" />

<SlidingDrawer
    android:id="@+id/drawer"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:layout_alignParentBottom="true"
    android:content="@+id/content"
    android:handle="@+id/handle" >

    <ImageView
        android:id="@+id/handle"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:src="@drawable/ic_launcher"
    />

    <LinearLayout
        android:id="@+id/content"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"
        android:orientation="vertical" >

        <TextView
            android:id="@+id/label1"
            android:layout_width="fill_parent"
            android:layout_height="wrap_content"
```

```
        android:background="#ff006666"
        android:text="Line 1"
        android:textSize="22sp" />

    <TextView
        android:id="@+id/label2"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:background="#ff669900"
        android:text="Line 2"
        android:textSize="22sp" />
    <TextView
        android:id="@+id/label3"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:background="#ff0000cc"
        android:text="Line 3"
        android:textSize="22sp" />
    <TextView
        android:id="@+id/filler1"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:textSize="6sp" />
    <Button
        android:id="@+id/btn1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:padding="4px"
        android:text=" btn1 - time? " />
    <Button
        android:id="@+id/btn2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:padding="4px"
        android:text=" btn2 - close " />
    </LinearLayout>
</SlidingDrawer>
</RelativeLayout>
```

3. Ketik kode berikut pada SlideDrawer.java

```
package com.eepis.android;

import java.util.Date;
import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.*;

public class SlideDrawer extends Activity {
    Button btn1;
    Button btn2;
    TextView label1;
    TextView label2;
    TextView label3;
    SlidingDrawer myDrawer;

    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.main);
        myDrawer = (SlidingDrawer)
findViewById(R.id.drawer);
        btn1 = (Button) findViewById(R.id.btn1);
        btn2 = (Button) findViewById(R.id.btn2);
        label1 = (TextView) findViewById(R.id.label1);
        label2 = (TextView) findViewById(R.id.label2);
        label3 = (TextView) findViewById(R.id.label3);
        btn1.setOnClickListener(new OnClickListener() {
            @Override
            public void onClick(View v) {
                Date dt = new Date();
                String now = dt.toLocaleString();
                label1.setText("111 - Hola amigos " + now);
            }
        });
    }
}
```

```
label2.setText("222 - Hola amigos " + now);
    label3.setText("333 - Hola amigos " + now);
}
});
btn2.setOnClickListener(new OnClickListener() {
@Override
public void onClick(View v) {
    myDrawer.animateClose();
}
});
} // onCreate
} // class
```

4. Hasil tampilan program ketika dijalankan



Gambar 35 Slide Drawer Widget

4. Contoh Aplikasi Order Pizza

Sekarang saat mengaplikasikan percobaan percobaan yang telah dilakukan. Kita akan menerapkannya pada aplikasi order pizza yang akan kita buat berikut ini:

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :AppOrder
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada 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">
    <LinearLayout
        android:id="@+id/LinearLayout01"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical">
        <EditText
            android:id="@+id/txtName"
            android:layout_width="fill_parent"
            android:layout_height="wrap_content"
            android:text="Enter your Name here"
            android:textColor="#cccccc"/>
        <EditText
            android:id="@+id/txtPhone"
            android:layout_width="fill_parent"
            android:layout_height="wrap_content"
            android:text="Enter your phone"
```

```
number"
    android:textColor="#cccccc"/>
</LinearLayout>
<RadioGroup
    android:id="@+id/group1"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal">
    <RadioButton
        android:id="@+id/keju"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Cheese"/>
    <RadioButton
        android:id="@+id/keju2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="2xCheese"/>
    <RadioButton
        android:id="@+id/noKeju"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="None"/>
</RadioGroup>
<RadioGroup
    android:id="@+id/group2"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal">
    <RadioButton
        android:id="@+id/square"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Square"/>
    <RadioButton
        android:id="@+id/round"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Round Pizza"/>
```

```
        </RadioGroup>
    <LinearLayout
        android:id="@+id/LinearLayout01"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical">
        <CheckBox
            android:id="@+id/pep"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="pepperoni"/>
        <CheckBox
            android:id="@+id/mus"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Mushroom"/>
        <CheckBox
            android:id="@+id/veg"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="veggies"/>
        <CheckBox
            android:id="@+id/anc"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Anchoives"/>
        <Button
            android:id="@+id/butsms"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="sms-Place Your order"
            />
    </LinearLayout>
</LinearLayout>
```

3. Ketik kode berikut pada AppOrder.java

```
package com.eepis.android;
```

```
import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.CheckBox;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.Toast;
import android.view.View.*;;

public class Main extends Activity {
    /** Called when the activity is first created. */
    EditText name;
    EditText phone;
    RadioGroup group1;
    RadioGroup group2;
    RadioButton keju;
    RadioButton keju2;
    RadioButton none;
    RadioButton square;
    RadioButton round;
    CheckBox pep;
    CheckBox mus;
    CheckBox veg;
    CheckBox anc;
    Button sms;

    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.main);
        name = (EditText) findViewById(R.id.txtName);
        phone = (EditText) findViewById(R.id.txtPhone);
        group1 = (RadioGroup) findViewById(R.id.group1);
        group2 = (RadioGroup) findViewById(R.id.group2);
```

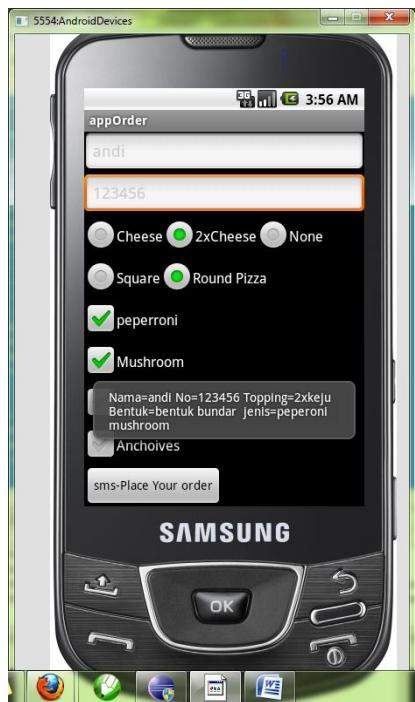
```

keju = (RadioButton) findViewById(R.id.keju);
keju2 = (RadioButton) findViewById(R.id.keju2);
none = (RadioButton) findViewById(R.id.noKeju);
square = (RadioButton) findViewById(R.id.square);
round = (RadioButton) findViewById(R.id.round);
pep = (CheckBox) findViewById(R.id.pep);
mus = (CheckBox) findViewById(R.id.mus);
veg = (CheckBox) findViewById(R.id.veg);
anc = (CheckBox) findViewById(R.id.anc);
sms = (Button) findViewById(R.id.butSMS);
sms.setOnClickListener(new OnClickListener() {
    @Override
    public void onClick(View v) {
        if(pep.isChecked()==false && mus.isChecked() == false
&& veg.isChecked() ==false && anc.isChecked() ==false ){
            Toast.makeText(getApplicationContext(), "harap Pilih
jenis Pizza", 1).show();
        }
        String msg="";
        msg=msg+" Topping=";
        int radio1=
group1.getCheckedRadioButtonId(),radio2=group2.getCheckedRadioButtonId();
        if (keju.getId()==radio1){
            msg=msg+"keju ";
        }
        else if (keju2.getId()==radio1){
            msg=msg+"2xkeju ";
        }
        else if (none.getId()==radio1){
            msg=msg+"tanpa keju ";
        }
        msg=msg+" Bentuk=";
        if (square.getId()==radio2){
            msg=msg+"bentuk kotak ";
        }
    }
}

```

```
else if (round.getId()==radio2){
    msg=msg+"bentuk bundar ";
}
msg=msg+" jenis=";
if (pep.isChecked()){
    msg=msg+"peperoni ";
}
if (mus.isChecked()){
    msg=msg+"mushroom ";
}
if (veg.isChecked()){
    msg=msg+"Veggie ";
}
if (anc.isChecked()){
    msg=msg+"anchoives ";
}
Toast.makeText(appOrder.this,
>Nama="+name.getText().toString()+" No>"+
phone.getText().toString()+" "+msg, 1).show();
}
});
}
}
```

4. Hasil tampilan program ketika dijalankan



Gambar 36 Aplikasi Order Pizza

5. Aplikasi Currency Dan Hitung Volume Balok Menggunakan Tabbed Menu

Tabbed menu memiliki banyak sekali kegunaan. Salah satunya menggabungkan 2 aplikasi dengan fungsi berbeda seperti yang akan kita coba berikut ini

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :TabApp
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada 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">
    <TabHost android:id="@+id/tabhost"
            android:layout_width="fill_parent"
            android:layout_height="fill_parent">
        <TabWidget
            android:id="@+id/tabs"
                android:layout_width="fill_parent"
                android:layout_height="wrap_content" />
        <FrameLayout
            android:id="@+id/tabcontent"
                android:layout_width="fill_parent"
                android:layout_height="fill_parent"
                android:paddingTop="62px">
            <LinearLayout
                android:id="@+id/tab1"
                    android:layout_width="fill_parent"
                    android:layout_height="fill_parent"
                    android:orientation="vertical"
                    xmlns:android="http://schemas.android.com/apk/res/android">
                <RadioGroup
                    android:id="@+id/group"
                        android:layout_width="fill_parent"
                        android:layout_height="wrap_content"
                        android:orientation="horizontal">
                    <RadioButton
                        android:id="@+id/rupitodol"
                        android:layout_width="wrap_content"
                        android:layout_height="wrap_content"
                        android:text="Rupiah ke dollar"/>
                    <RadioButton>
                </RadioGroup>
            </LinearLayout>
        </FrameLayout>
    </TabWidget>
</TabHost>
</LinearLayout>
```

```
        android:id="@+id/doltorupi"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Dollar ke rupiah"/>
    
```

```
</RadioGroup>
<TextView
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:background="#ff0000ff"
    android:text="Rupiah"
    android:textSize="20px">

```

```
</TextView>
<EditText
    android:id="@+id/txtRupiah"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:text=""
    android:textSize="18sp">

```

```
</EditText>
<TextView
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:background="#ff0000ff"
    android:text="Dollar"
    android:textSize="20px">

```

```
</TextView>
<EditText
    android:id="@+id/txtDollar"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:text=""
    android:textSize="18sp">

```

```
</EditText>
<Button
    android:id="@+id/btnConvert"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Convert">

```

```
</Button>
```

```
</LinearLayout>
<LinearLayout
    android:id="@+id/tab2"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:orientation="vertical"
    xmlns:android="http://schemas.android.com/a
pk/res/android">
    <TextView
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:background="#ff0000ff"
        android:text="Masukkan Panjang"
        android:textSize="20px">
    </TextView>
    <EditText
        android:id="@+id/txtPanjang"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text=""
        android:textSize="18sp"/>
    <TextView
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:background="#ff0000ff"
        android:text="Masukkan Lebar"
        android:textSize="20px">
    </TextView>
    <EditText
        android:id="@+id/txtLebar"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text=""
        android:textSize="18sp"/>
    <TextView
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:background="#ff0000ff"
        android:text="Masukkan Tinggi"
```

```
    android:textSize="20px">
  </TextView>
<EditText
  android:id="@+id/txtTingga"
  android:layout_width="fill_parent"
  android:layout_height="wrap_content"
  android:text=""
  android:textSize="18sp">
</EditText>
<Button
  android:id="@+id/btnHitung"
  android:layout_width="wrap_content"
  android:layout_height="wrap_content"
  android:text="Hitung">
</Button>
</LinearLayout>
</FrameLayout>
</TabHost>
</LinearLayout>
```

3. Ketik Kode berikut pada TabApp.java

```
package com.eepis.android;

import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.view.View.*;
import android.widget.Button;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.TabHost;
import android.widget.Toast;
import android.widget.RadioGroup.OnCheckedChangeListener;

public class TabApp extends Activity {
```

```
EditText rupiah;
EditText dollar;
EditText panjang;
EditText lebar;
EditText tinggi;
Button convert;
Button hitung;
RadioGroup group;
RadioButton rtod;
RadioButton dtor;
@Override
public void onCreate(Bundle icicle) {
    super.onCreate(icicle);
    setContentView(R.layout.main);
    TabHost tabs = (TabHost) findViewById(R.id.tabhost);
    tabs.setup();
    TabHost.TabSpec spec;
    // Tab 1
    spec = tabs.newTabSpec("tag1");
    spec.setContent(R.id.tab1);
    spec.setIndicator("Converter");
    tabs.addTab(spec);
    // Tab 2
    spec = tabs.newTabSpec("tag2");
    spec.setContent(R.id.tab2);
    spec.setIndicator("Box Calcu");
    tabs.addTab(spec);
    tabs.setCurrentTab(0);
    //identifier
    rupiah = (EditText) findViewById(R.id.txtRupiah);
    dollar = (EditText) findViewById(R.id.txtDollar);
    panjang = (EditText) findViewById(R.id.txtPanjang);
    lebar = (EditText) findViewById(R.id.txtLebar);
    tinggi = (EditText) findViewById(R.id.txtTingga);
    convert = (Button) findViewById(R.id.btnConvert);
    hitung = (Button) findViewById(R.id.btnHitung);
```

```
group = (RadioGroup) findViewById(R.id.group);
rtod = (RadioButton) findViewById(R.id.rupitodol);
dtor = (RadioButton) findViewById(R.id.doltorupi);
rupiah.clearFocus();
rupiah.setEnabled(false);
dollar.setEnabled(false);
group.setOnCheckedChangeListener(new
OnCheckedChangeListener() {

    @Override
    public void onCheckedChanged(RadioGroup group, int
checkedId) {
        int radiooid=group.getCheckedRadioButtonId();
        if (rtod.getId()==radiooid){
            rupiah.setEnabled(true);
            dollar.setEnabled(false);
        }else if (dtor.getId()==radiooid){
            dollar.setEnabled(true);
            rupiah.setEnabled(false);
        }
    }
});
convert.setOnClickListener(new OnClickListener() {
    @Override
    public void onClick(View v) {
        int radiooid=group.getCheckedRadioButtonId();
        if (rtod.getId()==radiooid){
            dollar.setText(""+Float.parseFloat(rupiah.getText().toString())/9
000);
            rupiah.setEnabled(true);
            dollar.setEnabled(true);
        }else if (dtor.getId()==radiooid){
            rupiah.setText(""+Float.parseFloat(dollar.getText().toString())*9
000);
            dollar.setEnabled(true);
            rupiah.setEnabled(true);
        }
    }
});
```

```

        }
    });
    hitung.setOnClickListener(new OnClickListener() {
        @Override
        public void onClick(View v) {
            int hasil=0,panjangBox,lebarBox,tinggiBox;
            panjangBox=Integer.parseInt(panjang.getText().toString());
            lebarBox=Integer.parseInt(lebar.getText().toString());
            tinggiBox=Integer.parseInt(tinggi.getText().toString());
            hasil=panjangBox*lebarBox*tinggiBox;
            Toast.makeText(CurrencyAndBox.this, "volumenya
adalah="+hasil, 1).show();
        }
    });
}
}

```

4. Hasil tampilan program ketika dijalankan



Gambar 37 Aplikasi dalam Tab Menu

Bab 6

Menu dan Intent

Pada bab ini kita akan mempelajari apa itu intent, option menu dan context menu. Intent sendiri adalah sebuah proses dimana ketika activity dijalankan maka akan dipanggil. Sedangkan option menu ada menu yang muncul ketika kita menekan dan menahan tombol menu. Context menu adalah menu yang muncul ketika kita menekan dan menahan objek di screen.

1. Option And Context Menu

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :Menu
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada 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">
    <EditText
        android:id="@+id/etMessage1"
        android:text="Hello world"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:layout_margin="5dp" />
    <EditText
```

```
        android:id="@+id/etMessage2"
        android:text="Holamundo"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:layout_margin="5dp" />
    <TextView
        android:text="Press the MENU key, or
\nLong-press text-boxes"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center" />
</LinearLayout>
```

3. Ketik kode berikut pada Menu.java

```
package com.eepis.android;

import android.app.Activity;
import android.os.Bundle;
import android.text.Html;
import android.text.Spanned;
import android.view.ContextMenu;
import android.view.Menu;
import android.view.MenuItem;
import android.view.View;
import android.view.ContextMenu.ContextMenuItemInfo;
import android.widget.EditText;
import android.widget.PopupWindow;

public class Menu extends Activity {
    /** Called when the activity is first created. */
    EditText etMessage1;
    EditText etMessage2;
    Integer[] arrayPointSize= {10, 20, 30, 40, 50};
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
```

```

        setContentView(R.layout.main);
        etMessage1=(EditText)findViewById(R.id.etMessage1);
        etMessage2=(EditText)findViewById(R.id.etMessage2);
        registerForContextMenu(etMessage1);
        registerForContextMenu(etMessage2);
    }
    @Override
    public boolean onCreateOptionsMenu(Menu menu){
        PopulateMyFirstMenu(menu);
        return super.onCreateOptionsMenu(menu);
    }

    @Override
    public void onCreateContextMenu(ContextMenu menu,View v,
ContextMenuItemInfo menuInfo){
        super.onCreateContextMenu(menu, v, menuInfo);
        if (v.getId() == etMessage1.getId())
            PopulateMyFirstMenu(menu);
        if (v.getId() == etMessage2.getId())
            PopulateMySecondMenu(menu);
    }
    private void PopulateMyFirstMenu(Menu menu) {
        int groupId=0,order=0;
        menu.add(groupId,1,1,"10 points");
        menu.add(groupId,2,2,"20 points");
        menu.add(groupId,3,3,"30 points");
        menu.add(groupId,4,4,"40 points");
        menu.add(groupId,5,5,"50 points");
        menu.add(groupId, 6, 8, "Red text");
        menu.add(groupId, 7, 7, "Green Text");
        menu.add(groupId, 8, 6, "Blue text");
    }
    private void PopulateMySecondMenu(ContextMenu menu) {
        int groupId= 0,order= 0;
        //arguments: groupId, optionId, order, title
        menu.add(groupId, 9, 1, "Bold");
    }
}

```

```

        menu.add(groupId, 10, 2, "Italic");
        menu.add(groupId, 11, 3, "Normal");
    }

    public boolean onContextItemSelected(MenuItem item){
        return (applyMenuOption(item));
    }

    public boolean onOptionsItemSelected(MenuItem item){
        return (applyMenuOption(item));
    }

    private boolean applyMenuOption(MenuItem item) {
        int menuItemId= item.getItemId(); // 1, 2, 3, ...11
        String strMsg2 = etMessage2.getText().toString();
        if(menuItemId<= 5) {
            int newPointSize= ArrayPointSize [menuitemId-1];
            etMessage1.setTextSize(newPointSize);
            etMessage2.setTextSize(newPointSize);
        }
        else{
            // either change color on text1 or style on text2
            if(menuItemId == 6)
                etMessage1.setTextColor(0xffff0000); // red
            else if(menuItemId == 7)
                etMessage1.setTextColor(0xff00ff00); // green
            else if(menuItemId == 8)
                etMessage1.setTextColor(0xff0000ff); // blue
            else if(menuItemId == 9)
                etMessage2.setText(beautify(strMsg2,      "BOLD"));
        }
        //bold
        else if(menuItemId == 10)
            etMessage2.setText(beautify(strMsg2,      "ITALIC"));
        //italic
        else if(menuItemId == 11)
            etMessage2.setText(beautify(strMsg2,      "NORMAL"));
    }
}

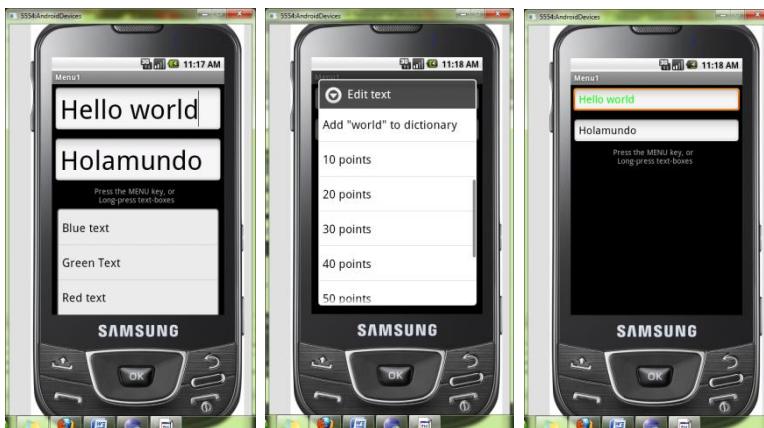
```

```

//normal
    }
    return false;
}
private Spanned beautify (String originalText, String selectedStyle){
    Spanned answer = null;
    if(selectedStyle.equals("BOLD"))
        answer = Html.fromHtml("<b>" + originalText+"</b>");
    else if(selectedStyle.equals("ITALIC"))
        answer = Html.fromHtml("<i>" + originalText+"</i>");
    else if(selectedStyle.equals("NORMAL"))
        answer = Html.fromHtml("<normal>" +
originalText+"</normal>");
    return answer;
}
}

```

4. Hasil tampilan program ketika dijalankan



Gambar 38 Option and context menu

2. Advanced Option And Context Menu

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :MenuAdvanced
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<TableLayout
    android:id="@+id/myTableLayout"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:orientation="vertical"
    android:stretchColumns="1,2,3"
    xmlns:android="http://schemas.android.com/a
pk/res/android">
    <TableRow
        android:id = "@+id/tableRow1"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal">
        <TextView
            android:id= "@+id/text0"
            android:layout_width="fill_parent"
            android:layout_height="100px"
            android:background="#ff006666"
            android:text="TextView"
            android:layout_span="3">
        </TextView>
    </TableRow>
    <TableRow
        android:id= "@+id/tableRow2"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal">
<RelativeLayout
```

```
    android:id="@+id/myRelativeLayout"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content">
    <EditText
        android:id="@+id/text1"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:hint="Type something..."
        android:textSize="18sp"
        android:layout_alignTop="@+id/myRadioGroup"
        android:layout_alignBottom="@+id/myRadioGroup"
        android:layout_toRightOf="@+id/myRadioGroup"
        ">

        android:padding="10px"
        android:paddingLeft="20px">
    </EditText>
    <RadioGroup
        android:id="@+id/myRadioGroup"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:orientation="vertical"
        android:layout_alignParentTop="true"
        android:layout_alignParentLeft="true">
        <RadioButton
            android:id="@+id/radio1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Radio1">
        </RadioButton>
        <RadioButton
            android:id="@+id/radio2"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Radio2">
        </RadioButton>
    </RadioGroup>
</RelativeLayout>
</TableRow>
<TableRow
```

```
        android:id="@+id/tableRow3"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:background="#ffff9900"
        android:orientation="vertical"
        android:layout_weight="2">
        <ListView
            android:id="@+id/list1"
            android:layout_width="fill_parent"
            android:layout_height="wrap_content"
            android:isScrollContainer="true">
        </ListView>
    </TableRow>
</TableLayout>
```

3. Ketik kode berikut pada MenuAdvanced.java

```
package com.eepis.android;

import java.util.ArrayList;

import android.app.Activity;
import android.os.Bundle;
import android.view.ContextMenu;
import android.view.Menu;
import android.view.MenuItem;
import android.view.SubMenu;
import android.view.View;
import android.view.ContextMenu.ContextMenuItemInfo;
import android.widget.ArrayAdapter;
import android.widget.EditText;
import android.widget.ListView;
import android.widget.RadioButton;
import android.widget.TextView;

public class MenuAdvanced extends Activity {
    /** Called when the activity is first created. */
    TextView text0;
```

```
EditText text1;
RadioButton radio1;
RadioButton radio2;
ListView list1;
ArrayList<String> arrOptions;
ArrayAdapter<String> adaOptions;
final int PICK1= Menu.FIRST;
final int PICK2= Menu.FIRST+ 1;
final int PICK3= Menu.FIRST+ 2;
final int PICK4= Menu.FIRST+ 3;

@Override
public void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.main);
    text0= (TextView)findViewById(R.id.text0);
    text1= (EditText)findViewById(R.id.text1);
    radio1=(RadioButton)findViewById(R.id.radio1);
    radio2=(RadioButton)findViewById(R.id.radio2);
    list1= (ListView)findViewById(R.id.list1);
    arrOptions= new ArrayList<String>();
    adaOptions= new ArrayAdapter<String>(
        this, R.layout.main1, arrOptions);
    list1.setAdapter(adaOptions);
    //long-press menu for list and textbox
    registerForContextMenu(list1);
    registerForContextMenu(text1);
}

@Override
public boolean onCreateOptionsMenu(Menu menu) {
    super.onCreateOptionsMenu(menu);
    MenuItem item1 = menu.add(0, PICK1, Menu.NONE, "Option UNO");
    MenuItem item2 = menu.add(0, PICK2, Menu.NONE, "Option DOS");
    MenuItem item3 = menu.add(0, PICK3, Menu.NONE, "Option TRES");
    MenuItem item4 = menu.add(1, PICK4, Menu.NONE, "Option CUATRO");
```

```

//set icons
item1.setIcon(R.drawable.uno);
item2.setIcon(R.drawable.dos);
item3.setIcon(R.drawable.tres);
item4.setIcon(R.drawable.cuatro);
//shortcuts using device's keyboard-keypad
item1.setShortcut('1', 'u');
item2.setShortcut('2', 'd');
item3.setShortcut('3', 't');
item4.setShortcut('4', 'c');
// adding a sub-menu as fifth entry of this menu
SubMenu mySubMenu5 = menu.addSubMenu(0, 0, Menu.NONE,
"Sub-Menu-CINCO");
mySubMenu5.setHeaderIcon(R.drawable.uno);
mySubMenu5.setIcon(R.drawable.uno);
MenuItem sub51 = mySubMenu5.add(0,0,Menu.NONE,"Sub Menu 5-1");
MenuItem sub52 = mySubMenu5.add(0,0,Menu.NONE,"Sub Menu 5-2");
MenuItem sub53 = mySubMenu5.add(0,0,Menu.NONE,"Sub Menu 5-3");
return true;
}

@Override
public boolean onOptionsItemSelected(MenuItem item) {
try{
    super.onOptionsItemSelected(item);
    int itemID= item.getItemId();
    //title to display is taken from current menu item
    String msg= item.getTitle().toString();
    //add selection to historical array and show in listview
    arrOptions.add(msg);
    adaOptions.notifyDataSetChanged();
    //values in the green TextViewbox include:
    msg+= "\n"+ "radio1: "+ Boolean.toString(radio1.isChecked());
}

```

```

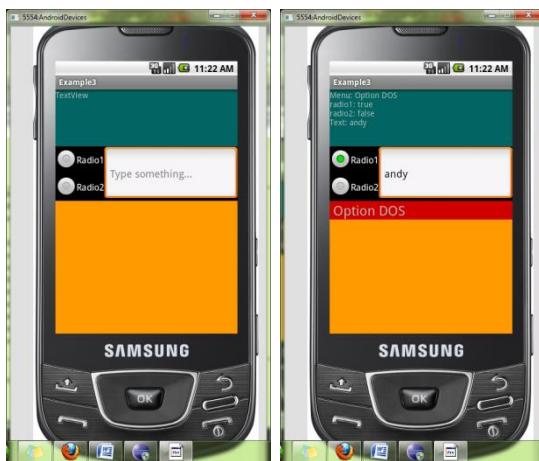
        msg+="\n"+ "radio2: "+ Boolean.toString(radio2.isChecked());
        msg+="\n"+ "Text: "+ text1.getText();
        text0.setText("Menu: "+ msg);
    }
    catch(Exception e) {
        text0.setText(e.getMessage());
    }
    return false;
}//onOptionsItemSelected

@Override
public void onCreateContextMenu(ContextMenu menu, View v, ContextMenuItemInfo menuInfo) {
    super.onCreateContextMenu(menu, v, menuInfo);
    //add a couple of options to the context menu
    menu.setHeaderTitle("Select Special Action");
    menu.add(0, PICK1, Menu.NONE, "Option-1 UNO special");
    menu.add(0, PICK2, Menu.NONE, "Option-2 DOS special");
}//onCreateContextMenu

@Override
public boolean onContextItemSelected(MenuItem item) {
    super.onContextItemSelected(item);
    String msg= item.getTitle().toString();
    text0.setText(msg);
    arrOptions.add(msg);
    adaOptions.notifyDataSetChanged();
    return false;
}//onContextItemSelected
}

```

4. Hasil tampilan program ketika dijalankan



Gambar 39 Advanced option and context menu

3. Intent

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :Intent
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<ScrollView
    xmlns:android="http://schemas.android.com/apk/res
    /android"
    android:layout_width="fill_parent"
```

```
    android:layout_height="fill_parent"
    android:orientation="vertical" >
    <LinearLayout
        android:id="@+id/linear1"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical">
        <TextView
            android:layout_width="fill_parent"
            android:layout_height="wrap_content"
            android:text="Using Intent" />
        <Button
            android:id="@+id/call"
            android:layout_width="fill_parent"
            android:layout_height="wrap_content"
            android:text="Calling" />
        <Button
            android:id="@+id/contacts"
            android:layout_width="fill_parent"
            android:layout_height="wrap_content"
            android:text="Contacts" />
        <Button
            android:id="@+id/showContact"
            android:layout_width="fill_parent"
            android:layout_height="wrap_content"
            android:text="Show Particular Contact" />
        <Button
            android:id="@+id/editContact"
            android:layout_width="fill_parent"
            android:layout_height="wrap_content"
            android:text="Edit Particular Contact" />
        <Button
            android:id="@+id/viewWeb"
            android:layout_width="fill_parent"
            android:layout_height="wrap_content"
            android:text="View Web Page" />
        <Button
            android:id="@+id/geoMapAdress"
            android:layout_width="fill_parent"
```

```
        android:layout_height="wrap_content"
        android:text="Geo Mapping an Address" />
    <Button
        android:id="@+id/geoMapCoordinate"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Geo Mapping Coordinate" />
    <Button
        android:id="@+id/streetView"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Street View" />
    <Button
        android:id="@+id/musicPlayer"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Music Player" />
    <Button
        android:id="@+id/playSDCard"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Playing Song in SD Card" />
    <Button
        android:id="@+id/SendMMS"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Send MMS" />
    <Button
        android:id="@+id/sendEmail"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Send Email" />
    <Button
        android:id="@+id/setting"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Open System Setting" />
    <Button
        android:id="@+id/settingLocale"
```

```
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Locale System Setting" />
    </LinearLayout>
</ScrollView>
```

3. Ketik kode berikut pada Intent.java

```
package com.eepis.android;

import android.app.Activity;
import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.widget.Button;
import android.view.View;
import android.view.View.OnClickListener;

public class Intent extends Activity {
    /** Called when the activity is first created. */
    Button call;
    Button contacts;
    Button showContact;
    Button editContact;
    Button viewWeb;
    Button geoMapAddress;
    Button geoMapCoordinate;
    Button geoMapStreetView;
    Button musicPlayer;
    Button playSDCard;
    Button sendMMS;
    Button sendEmail;
    Button setting;
    Button settingLocale;
    @Override
    public void onCreate(Bundle savedInstanceState) {
```

```
super.onCreate(savedInstanceState);
setContentView(R.layout.main);
call=(Button)findViewById(R.id.call);
contacts=(Button)findViewById(R.id.contacts);
showContact=(Button)findViewById(R.id.showContact);
editContact=(Button)findViewById(R.id.editContact);
viewWeb=(Button)findViewById(R.id.viewWeb);
geoMapAddress=(Button)findViewById(R.id.geoMapAdress);
geoMapCoordinate=(Button)findViewById(R.id.geoMapCoordinate);
geoMapStreetView=(Button)findViewById(R.id.streetView);
musicPlayer=(Button)findViewById(R.id.musicPlayer);
playSDCard=(Button)findViewById(R.id.playSDCard);
sendMMS=(Button)findViewById(R.id.SendMMS);
sendEmail=(Button)findViewById(R.id.sendEmail);
setting=(Button)findViewById(R.id.setting);
settingLocale=(Button)findViewById(R.id.settingLocale);
call.setOnClickListener(new OnClickListener() {
    @Override
    public void onClick(View v) {
        String myData="tel:555-1234";
        Intent myActivity = new
Intent(Intent.ACTION_CALL,Uri.parse(myData));
        startActivity(myActivity);
    }
});
contacts.setOnClickListener(new OnClickListener() {
    @Override
    public void onClick(View v) {
        String myData= "content://contacts/people/";
        Intent myActivity2 = new
Intent(Intent.ACTION_VIEW,Uri.parse(myData));
        startActivity(myActivity2);
    }
});
showContact.setOnClickListener(new OnClickListener() {
    @Override
```

```
public void onClick(View v) {
    String myData= "content://contacts/people/2";
    Intent myActivity2 = new
Intent(Intent.ACTION_VIEW,Uri.parse(myData));
    startActivity(myActivity2);
}
});
editContact.setOnClickListener(new OnClickListener() {
@Override
public void onClick(View v) {
    String myData= "content://contacts/people/2";
    Intent myActivity2 = new
Intent(Intent.ACTION_EDIT,Uri.parse(myData));
    startActivity(myActivity2);
}
});
viewWeb.setOnClickListener(new OnClickListener() {
@Override
public void onClick(View v) {
    String myData= "http://www.youTube.com";
    Intent myActivity2 = new
Intent(Intent.ACTION_VIEW,Uri.parse(myData));
    startActivity(myActivity2);
}
});
geoMapAddress.setOnClickListener(new OnClickListener() {
@Override
public void onClick(View v) {
    String geoCode="geo:0,0?q=lTS+Surabaya";
    Intent intent= new
Intent(Intent.ACTION_VIEW,Uri.parse(geoCode));
    startActivity(intent);
}
});
geoMapCoordinate.setOnClickListener(new OnClickListener() {
@Override
```

```
public void onClick(View v) {
    String geoCode= "geo:41.5020952,-81.6789717";
    Intent intent= new
Intent(Intent.ACTION_VIEW,Uri.parse(geoCode));
    startActivity(intent);
}
});
geoMapStreetView.setOnClickListener(new OnClickListener() {
    @Override
    public void onClick(View v) {
        String geoCode=
        "google.streetview:cbll=41.5020952,-
81.6789717&cbp=1,270,,45,1&mz=1";
        Intent intent= new
Intent(Intent.ACTION_VIEW,Uri.parse(geoCode));
        startActivity(intent);
    }
});
musicPlayer.setOnClickListener(new OnClickListener() {
    @Override
    public void onClick(View v) {
        Intent myActivity2 = new
Intent("android.intent.action.MUSIC_PLAYER");
        startActivity(myActivity2);
    }
});
playSDCard.setOnClickListener(new OnClickListener() {
    @Override
    public void onClick(View v) {
        Intent myActivity2 = new
Intent(android.content.Intent.ACTION_VIEW);
        Uri data = Uri.parse("file:///sdcard/amarcord.mp3");
        String type = "audio/mp3";
        myActivity2.setDataAndType(data, type);
        startActivity(myActivity2);
}
});
```

```
    });
    sendMMS.setOnClickListener(new OnClickListener() {
        @Override
        public void onClick(View v) {
            Uri uri=
            Uri.parse("content://media/external/images/media/1");
            Intent myActivity2 = new Intent(Intent.ACTION_SEND);
            myActivity2.putExtra("address", "555-1234");
            myActivity2.putExtra("sms_body", "some text message
goes here");
            myActivity2.putExtra(Intent.EXTRA_STREAM, uri);
            myActivity2.setType("image/png");
            startActivity(myActivity2);
        }
    });
    sendEmail.setOnClickListener(new OnClickListener() {
        @Override
        public void onClick(View v) {
            Uri uri= Uri.parse("mailto:v.matos@csuohio.edu");
            Intent myActivity2 = new
Intent(Intent.ACTION_SENDTO, uri);
            myActivity2.putExtra(Intent.EXTRA_SUBJECT,
"subject goes here");
            myActivity2.putExtra(Intent.EXTRA_TEXT,
"The email's body goes here");
            startActivity(myActivity2);
        }
    });
    setting.setOnClickListener(new OnClickListener() {
        @Override
        public void onClick(View v) {
            Intent intent= new Intent(
                android.provider.Settings.ACTION_SETTINGS);
            startActivity(intent);
        }
    });
});
```

```
settingLocale.setOnClickListener(new OnClickListener() {  
    @Override  
    public void onClick(View v) {  
        Intent intent= new Intent(  
            android.provider.Settings.ACTION_LOCALE_SETTINGS);  
        startActivity(intent);  
    }  
});  
}  
}
```

4. Ketik kode berikut pada AndroidManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>  
<manifest  
    xmlns:android="http://schemas.android.com/apk/res  
    /android"  
    package="com.eepis.android"  
    android:versionCode="1"  
    android:versionName="1.0" >  
  
    <uses-sdk android:minSdkVersion="7" />  
        <uses-permission  
        android:name="android.permission.CALL_PHONE"/>  
            <uses-permission  
            android:name="android.permission.INTERNET"/>  
                <uses-permission  
                android:name="android.permission.ACCESS_COARSE_LOCATION"/>  
  
    <application  
        android:icon="@drawable/ic_launcher"  
        android:label="UsingIntent" >  
        <activity  
            android:label="@string/app_name"  
            android:name=".Intent" >  
            <intent-filter >
```

```
<action
    android:name="android.intent.action.MAIN" />

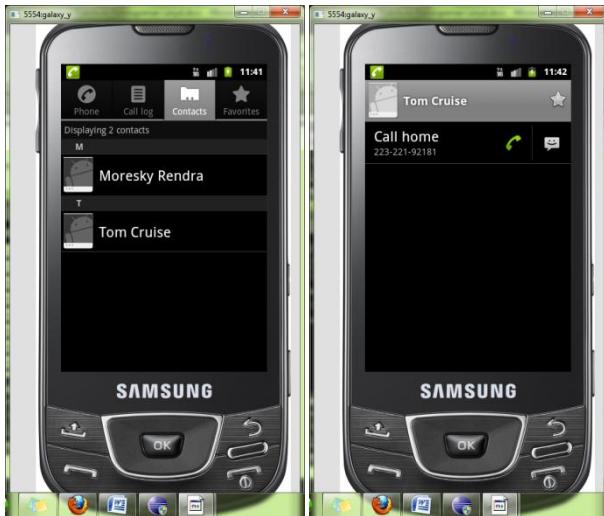
    <category
        android:name="android.intent.category.LAUNCHER"
    />
        </intent-filter>
    </activity>
</application>

</manifest>
```

5. Hasil tampilan program ketika dijalankan



Gambar 40 Tampilan Menu dan Intent Calling



Gambar 41 Tampilan show contact dan view contact



Gambar 42 Tampilan edit contact dan view web page



Gambar 43 Tampilan Geo Map Address dan Coordinate



Gambar 44 Tampilan Street View dan Music Player



Gambar 45 Playing from SD card dan send MMS



Gambar 46 System dan Locale Setting

Bab 7

Bundle

Bundle merupakan cara kita untuk mengirim data antar intent. Hal ini sangat penting karena intent dipanggil setiap activity dijalankan. Sehingga disediakanlah oleh android system pengiriman data antar intent dengan menggunakan bundle ini.

1. Android Bundles

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :Bundle
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    android:id="@+id/linLayout"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:background="#ffccffff"
    android:orientation="vertical"
    xmlns:android="http://schemas.android.com/apk/res
    /android"
>
<TextView
    android:id="@+id/caption1"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:background="#fffff3300"
```

```
    android:padding="4sp"
    android:text=" Activity1 "
    android:textSize="20px"
    android:textStyle="bold"
    android:textColor="#ff000000"
    >
</TextView>
<TextView
    android:id="@+id/widget107"
    android:layout_width="fill_parent"
    android:layout_height="2sp"
    >
</TextView>
<TextView
    android:id="@+id/label1"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:background="#ff0033cc"
    android:text="Data to be sent to SubActivity:"
    android:textStyle="bold"
    >
</TextView>
<Button
    android:id="@+id/btnCallActivity2"
    android:layout_width="149px"
    android:layout_height="wrap_content"
    android:padding="6sp"
    android:text="Call Activity2"
    android:textStyle="bold"
    >
</Button>
<TextView
    android:id="@+id/label1Returned"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:background="#ff0033cc"
    android:text=" Data returned by Activity2"
    android:textStyle="bold"
    >
```

```
</TextView>
</LinearLayout>
```

3. Ketik kode berikut pada main2.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    android:id="@+id/linearLayout"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:background="#fffffcc"
    android:orientation="vertical"
    xmlns:android="http://schemas.android.com/apk/res
    /android"
    >
    <TextView
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:background="#ffff9900"
        android:padding="4sp"
        android:text=" Activity2"
        android:textSize="20px"
        android:textStyle="bold"
        >
    </TextView>
    <TextView
        android:id="@+id/widget107"
        android:layout_width="fill_parent"
        android:layout_height="2sp"
        >
    </TextView>
    <TextView
        android:id="@+id/label2"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:background="#ff0033cc"
        android:text="Data Received from Activity1 . . . "
        android:textStyle="bold"
        >
    </TextView>

```

```
>
</TextView>
<Button
    android:id="@+id/btnCallActivity1"
    android:layout_width="149px"
    android:layout_height="wrap_content"
    android:padding="6sp"
    android:text="CallBackActivity1"
    android:textStyle="bold"
>
</Button>
</LinearLayout>
```

4. Ketik kode berikut pada Main.java

```
package com.eepis.android;

import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.*;

public class Main extends Activity {
    TextView label1;
    TextView label1Returned;
    Button btnCallActivity2;
    private final int IPC_ID = 1122;
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        try{
            setContentView(R.layout.main);
            label1 = (TextView) findViewById(R.id.label1);
label1Returned = (TextView) findViewById(R.id.label1Returned);
```

```

btnCallActivity2 = (Button) findViewById(R.id.btnCallActivity2);
btnCallActivity2.setOnClickListener(new Clicker1());
label1.setText("Activity1 (sending...) \n\n"+ "myString1: Hello Android" +
"\n"+ "myDouble1: 3.141592 " + "\n"+ "myIntArray: {1 2 3} ");
        } catch(Exception e) {
            Toast.makeText(getApplicationContext(),
e.getMessage(), Toast.LENGTH_LONG).show();
        }
    }// onCreate
    private class Clicker1 implements OnClickListener{
        @Override
        public void onClick(View v) {
            try{
                Intent myIntentA1A2 = new Intent(Main.this, Main2.class);
                Bundle myData= new Bundle();
                myData.putString("myString1", "Hello Android");
                myData.putDouble("myDouble1", 3.141592);
                int[] myLittleArray={ 1, 2, 3 };
                myData.putIntArray("myIntArray1", myLittleArray);
                myIntentA1A2.putExtras(myData);
                startActivityForResult(myIntentA1A2, IPC_ID);
            } catch(Exception e) {
                Toast.makeText(getApplicationContext(),e.getMessage(),Toast.LENGTH_
LONG).show();
            }
        }
    }// onClick
    }// Clicker1
        @Override
        protected void onActivityResult(int requestCode, int
resultCode, Intent data) {
            super.onActivityResult(requestCode, resultCode, data);
            try{
                switch(requestCode) {
                    case IPC_ID: {
                        if(resultCode== Activity.RESULT_OK) {
                            Bundle myReturnedData= data.getExtras();

```

```
String myReturnedString1 =
myReturnedData.getString("myReturnedString1");
    Double myReturnedDouble1 =
myReturnedData.getDouble("myReturnedDouble1");
        String myReturnedString2 =
myReturnedData.getString("myCurrentTime");
            label1Returned.setText(myReturnedString1 + "\n"
+ Double.toString(myReturnedDouble1) + "\n"
+ myReturnedString2);
        } else{
            label1.setText("Selection CANCELLED!");
        }// if
        break;
    }// case
    }// switch
} catch(Exception e) {
    Toast.makeText(getApplicationContext(), e.getMessage(),
Toast.LENGTH_LONG).show();
}// try
}// onActivityResult
}// AndroiIntent1
```

5. Ketik kode berikut pada Main2.java

```
package com.eepis.android;

import java.util.Date;
import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.*;
public class Main2 extends Activity {
    TextView label2;
```

```

Button btnCallActivity1;
//Activity2 –cont...
@Override
public void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.main2);
    //bind UI variables to Java code
    label2 = (TextView) findViewById(R.id.label2);
    btnCallActivity1 =
(Button)findViewById(R.id.btnCallActivity1);
    btnCallActivity1.setOnClickListener(new Clicker1());
    //create a local Intent handler –we have been called!
    Intent myLocalIntent= getIntent();
    //grab the data package with all the pieces sent to us
    Bundle myBundle= myLocalIntent.getExtras();
    //extract the individual data parts of the bundle
    String str1 = myBundle.getString("myString1");
    double dob1 = myBundle.getDouble("myDouble1");
    int[] arr1 = myBundle.getIntArray("myIntArray1");
    //Activity2 –cont...
    //do something with the data here (for example...)
    String strArr= "{ ";
    int sumIntValues= 0;
    for (int i=0; i<arr1.length; i++) {
        sumIntValues+= arr1[i];
        strArr+= Integer.toString( arr1[i] ) + " ";
    }
    strArr+= " }";
    //show arriving data in GUI label
    label2.setText("Activity2 (receiving...) \n\n +
"myString1: " + str1 + "\n" +
"myDouble1: " +
Double.toString(dob1) + "\n" + "myIntArray1: " + strArr);
double someNumber= sumIntValues+ dob1;
    myBundle.putString("myReturnedString1", "Adios
Android");

```

```
myBundle.putDouble("myReturnedDouble1", someNumber);
myBundle.putString("myCurrentTime", new
Date().toLocaleString() );
myLocalIntent.putExtra(myBundle);
setResult(Activity.RESULT_OK, myLocalIntent);
}
private class Clicker1 implements OnClickListener{
    @Override
    public void onClick(View v) {
        Intent(Main2.this, Main.class);
        Main2.this.finish();
    } // onClick
}
}
```

6. Ketik kode berikut pada AndroidManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest
    xmlns:android="http://schemas.android.com/apk/res
    /android"
    package="com.eepis.android"
    android:versionCode="1"
    android:versionName="1.0" >

    <uses-sdk android:minSdkVersion="7" />

    <application
        android:icon="@drawable/ic_launcher"
        android:label="@string/app_name" >
        <activity
            android:label="@string/app_name"
            android:name=".Main" >
            <intent-filter >
                <action
                    android:name="android.intent.action.MAIN" />
```

```

<category
    android:name="android.intent.category.LAUNCHER"
/>
        </intent-filter>
    </activity>
    <activity
        android:label="@string/app_name"
        android:name=".Main2" >
        <intent-filter >
            <action
                android:name="android.intent.action.VIEW" />
            <category
                android:name="android.intent.category.LAUNCHER"
/>
        </intent-filter>
    </activity>
</application>
</manifest>

```

7. Hasil tampilan program ketika dijalankan



Gambar 47 Intent bundles

2. Intent Using Other Java Class

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :Intent2
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada 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:id="@+id/selection"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:background="#ff0000cc"
        android:textStyle="bold" />
    <ListView
        android:id="@+id/list"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"
        android:drawSelectorOnTop="false"/>
    <TextView
        android:id="@+id/empty"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Empty data"/>
</LinearLayout>
```

3. Ketik kode berikut pada main2.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content">
    <Button android:text="view Map"
        android:id="@+id/viewMap"
            android:layout_width="wrap_content"
        android:layout_height="wrap_content"></Button>
    <Button android:text="More Info"
        android:id="@+id/info"
            android:layout_width="wrap_content"
        android:layout_height="wrap_content"></Button>
</LinearLayout>
```

4. Ketik kode berikut pada Main.java

```
package com.eepis.android;

import android.app.ListActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.TextView;

public class Main extends ListActivity {
    /** Called when the activity is first created. */
    TextView selection;
    String[] items = {"ITS Surabaya", "Balai Pemuda", "PTC", "Kenjeran", "Bundaran Waru"};
    Intent infoPage;
```

```
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.main);
        setListAdapter(new ArrayAdapter<String>(this,
                android.R.layout.simple_list_item_1,
                items));
        selection= (TextView) findViewById(R.id.selection);
    }

    protected void onListItemClick(ListView l, View v,
            int position, long id){
        super.onListItemClick(l, v, position, id);
        String text = items[position];
        selection.setText(text);
        Main2.id=position;
        infoPage=new Intent(Main.this,Main2.class);
        startActivity(infoPage);
    }
}
```

5. Ketik kode berikut pada Main2.java

```
package com.eepis.android;

import android.app.Activity;
import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.view.View.*;
import android.widget.Button;
import android.widget.TextView;

public class Main2 extends Activity{
```

```
/** Called when the activity is first created. */
TextView selection;
Button viewMap;
Button moreInfo;
public static int id;
String ITS = "geo:-7.277378,112.793148";
String BalaiPemuda = "geo:-7.263777,112.745365";
String PTC = "geo:-7.290213,112.675155";
String Kenjeran = "geo:-7.231614,112.793491";
String BundarWaru = "geo:-7.346506,112.72856";
Intent intent;
@Override
public void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.maininfo);
    viewMap=(Button)findViewById(R.id.viewMap);
    moreInfo=(Button)findViewById(R.id.main2);
    viewMap.setOnClickListener(new OnClickListener() {
        @Override
        public void onClick(View v) {
            switch (id) {
                case 0:
                    intent= new Intent(Intent.ACTION_VIEW,
                        Uri.parse(ITS));
                    startActivity(intent);
                    break;
                case 1:
                    intent= new Intent(Intent.ACTION_VIEW,
                        Uri.parse(BalaiPemuda));
                    startActivity(intent);
                    break;
                case 2:
                    intent= new Intent(Intent.ACTION_VIEW,
                        Uri.parse(PTC));
                    startActivity(intent);
                    break;
            }
        }
    });
}
```

```
        case 3:
            intent= new Intent(Intent.ACTION_VIEW,
                Uri.parse(Kenjeran));
            startActivity(intent);
            break;
        case 4:
            intent= new Intent(Intent.ACTION_VIEW,
                Uri.parse(BundarWaru));
            startActivity(intent);
            break;
        default:
            break;
    }
}
});
```

```
moreInfo.setOnClickListener(new OnClickListener() {
    @Override
    public void onClick(View v) {
        switch (id) {
            case 0:
                intent= new Intent(Intent.ACTION_VIEW,
                    Uri.parse("http://www.its.ac.id/"));
                startActivity(intent);
                break;
            case 1:
                intent= new Intent(Intent.ACTION_VIEW,
                    Uri.parse("http://id.wikipedia.org/wiki/Balai_Pemuda_Surabaya"));
                startActivity(intent);
                break;
            case 2:
                intent= new Intent(Intent.ACTION_VIEW,
                    Uri.parse("http://www.transsurabaya.com/2010/12/pakuwon-
trade-center-ptc-surabaya/"));
                startActivity(intent);
                break;
            case 3:
```

```
        intent= new Intent(Intent.ACTION_VIEW,
Uri.parse("id.wikipedia.org/wiki/Kenjeran,_Surabaya"));
        startActivity(intent);
        break;
    case 4:
        intent= new Intent(Intent.ACTION_VIEW,
Uri.parse("wikimapia.org/13364434/Bundaran-Waru"));
        startActivity(intent);
        break;
    default:
        break;
    }
}
});  

}  

}
```

6. Ketik kode berikut pada AndroidManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest
    xmlns:android="http://schemas.android.com/apk/res
    /android"
    package="com.eepis.android"
    android:versionCode="1"
    android:versionName="1.0">
    <application android:icon="@drawable/icon"
        android:label="@string/app_name">
        <activity android:name=".Main"
            android:label="@string/app_name">
            <intent-filter>
                <action
                    android:name="android.intent.action.MAIN" />
                <category
                    android:name="android.intent.category.LAUNCHER"
                />
```

```
        </intent-filter>
    </activity>
    <activity android:name=".Main2"
        android:label="@string/app_name">
        <intent-filter>
            <action
                android:name="android.intent.action.VIEW" />
            <category
                android:name="android.intent.category.LAUNCHER" />
        </intent-filter>
    </activity>
</application>
<uses-sdk android:minSdkVersion="7" />
<uses-permission
    android:name="android.permission.INTERNET" />
<uses-permission
    android:name="android.permission.ACCESS_COARSE_LOCATION"/>
<uses-permission
    android:name="android.permission.INTERNET"/>
</manifest>
```

7. Hasil tampilan program ketika dijalankan



Gambar 48 Intent 2



Bab 8

Storage

Android menyediakan fitur khusus untuk melakukan penyimpanan data baik secara permanen maupun sementara. Pada bab ini kita akan membahas tentang bagaimana penyimpanan data pada android bekerja.

1. Android Persistency-Preferences

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :Preferences
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res
    /android"
    android:id="@+id/linLayout1Vertical"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:orientation="vertical" >

    <LinearLayout
        android:id="@+id/linLayout2Horizontal"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content" >

        <Button
            android:id="@+id/btnPrefSimple"
```

```

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        Simple=""
        UI=""
        android:text="Pref" />

    <Button
        android:id="@+id(btnPrefFancy"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        Fancy=""
        UI=""
        android:text="Pref" />
</LinearLayout>

<TextView
    android:id="@+id/txtCaption1"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:background="#ff006666"
    is=""
    sample=""
    some=""
    android:text="This"
    text="" />

</LinearLayout>

```

3. Ketik kode berikut pada Preferences.java

```

package com.eepis.android;

import java.util.Date;
import android.app.Activity;
import android.content.SharedPreferences;
import android.graphics.Color;
import android.graphics.Typeface;
import android.os.Bundle;

```

```
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.TextView;
import android.widget.Toast;

public class Preferences extends Activity
implements OnClickListener {
    Button btnSimplePref;
    Button btnFancyPref;
    TextView txtCaption1;
    Boolean fancyPrefChosen = false;
    View myLayout1Vertical;
    final int mode = Activity.MODE_PRIVATE;
    final String MYPREFS = "MyPreferences_001";
    // create a reference to the shared
    preferences object
    SharedPreferences mySharedPreferences;
    // obtain an editor to add data to my
    SharedPreferences object
    SharedPreferences.Editor myEditor;

    @Override
    public void onCreate(Bundle
savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.main);
        myLayout1Vertical = (View)
findViewById(R.id.linLayout1Vertical);
        txtCaption1 = (TextView)
findViewById(R.id.txtCaption1);
        txtCaption1.setText("This is a sample
line \n"
                           + "suggesting the way the
UI looks \n"
                           + "after you choose your
preference");
        // create a reference & editor for
        the shared preferences object
```

```

        mySharedPreferences =
getSharedPreferences(MYPREFS, 0);
        myEditor =
mySharedPreferences.edit();
        // has a Preferences file been
already created?
        if (mySharedPreferences != null
            &&
mySharedPreferences.contains("backColor")) {
            // object and key found show
all saved values
            applySavedPreferences();
        } else {

            Toast.makeText(getApplicationContext(), "No
Preferences found", 1)
                    .show();
        }
        btnSimplePref = (Button)
findViewById(R.id.btnPrefSimple);

        btnSimplePref.setOnClickListener(this);
        btnFancyPref = (Button)
findViewById(R.id.btnPrefFancy);

        btnFancyPref.setOnClickListener(this);
    } // onCreate

    @Override
    public void onClick(View v) {
        // clear all previous selections
        myEditor.clear();
        // what button has been clicked?
        if (v.getId() ==
btnSimplePref.getId()) {
            myEditor.putInt("backColor",
Color.BLACK); // black background
            myEditor.putInt("textSize",
12); // humble small font

```

```

        } else { // case btnFancyPref
            myEditor.putInt("backColor",
Color.BLUE); // fancy blue
            myEditor.putInt("textSize",
20); // fancy big
            myEditor.putString("textStyle",
"bold"); // fancy bold
            myEditor.putInt("layoutColor",
Color.GREEN); // fancy green
        }
        myEditor.commit();
        applySavedPreferences();
    }

    @Override
    protected void onPause() {
        // warning: activity is on its last
        state of visibility!.
        // It's on the edge of been killed!
        Better save all current
        // state data into Preference object
        (be quick!)

        myEditor.putString("DateLastExecution", new
Date().toLocaleString());
        myEditor.commit();
        super.onPause();
    }

    public void applySavedPreferences() {
        // extract the <key/value> pairs, use
        default param for missing data
        int backColor =
mySharedPreferences.getInt("backColor",
Color.BLACK);
        int textSize =
mySharedPreferences.getInt("textSize", 12);
        String textStyle =
mySharedPreferences.getString("textStyle",

```

```
"normal");
        int layoutColor =
mySharedPreferences.getInt("layoutColor",
                           Color.DKGRAY);
        String msg = "color " + backColor +
"\n" + "size " + textSize + "\n"
        + "style " + textStyle;

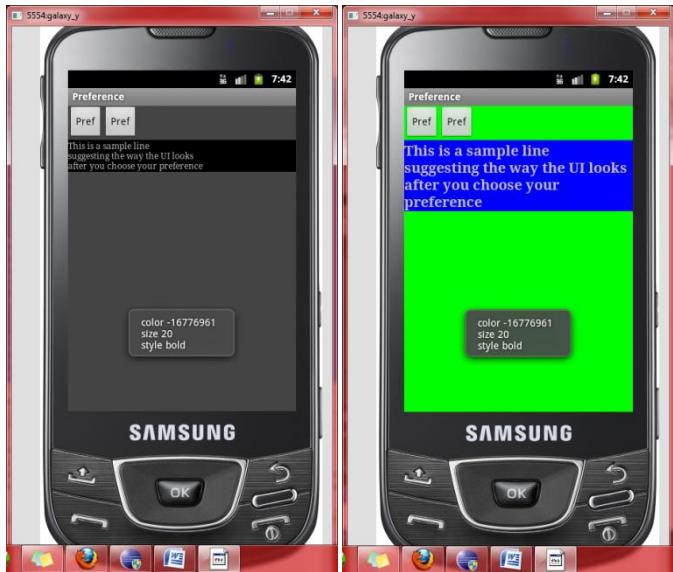
        Toast.makeText(getApplicationContext(),
msg, 1).show();

        txtCaption1.setBackgroundColor(backColor);
        txtCaption1.setTextSize(textSize);
        if (textStyle.compareTo("normal") ==
0) {

            txtCaption1.setTypeface(Typeface.SERIF,
Typeface.NORMAL);
        } else {

            txtCaption1.setTypeface(Typeface.SERIF,
Typeface.BOLD);
        }
        myLayout1Vertical.setBackgroundColor(layout
Color);
    } // applySavedPreferences
}
```

4. Hasil tampilan program ketika dijalankan



Gambar 49 Preferences dalam menyimpan Tema Screen

2. Android Persistency-Files

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :Files
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
        android:id="@+id/widget28"
        android:layout_width="fill_parent"
            android:layout_height="fill_parent"
        android:background="#ff0000ff"
```

```
    android:orientation="vertical">
        <EditText      android:id="@+id/txtData"
        android:layout_width="fill_parent"
            android:layout_height="180px"
        android:text="Enter some data here ..."
            android:textSize="18sp" />
        <Button      android:id="@+id/btnWriteSDFFile"
        android:layout_width="143px"
            android:layout_height="44px"
        android:text="1. Write SD File" />
        <Button      android:id="@+id/btnClearScreen"
        android:layout_width="141px"
            android:layout_height="42px"
        android:text="2. Clear Screen" />
        <Button      android:id="@+id/btnReadSDFile"
        android:layout_width="140px"
            android:layout_height="42px"
        android:text="3. Read SD File" />
        <Button      android:id="@+id/btnClose"
        android:layout_width="141px"
            android:layout_height="43px"
        android:text="4. Close" />
    </LinearLayout>
```

3. Ketik kode berikut pada Files.java

```
package com.eepis.android;

import java.io.*;
import java.util.Date;
import java.util.Scanner;

import android.app.Activity;
import android.content.Context;
import android.os.Bundle;
import android.os.Environment;
import android.view.*;
import android.view.View.OnClickListener;
```

```
import android.widget.*;
public class Main extends Activity {
    // GUI controls
    EditText txtData, tvMessage;
    Button btnWriteSDFile;
    Button btnReadSDFile;
    Button btnClearScreen;
    Button btnClose;
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.main);
        // bind GUI elements with local controls
        txtData= (EditText)findViewById(R.id.txtData);
        txtData.setHint("Enter some lines of data here..");
        btnWriteSDFile=
        (Button)findViewById(R.id.btnWriteSDFile);
        btnWriteSDFile.setOnClickListener(new
        OnClickListener() {
            @Override
            public void onClick(View v) {
                // write on SD card file data from the
                text box
                try{
                    File myFile= new
                    File("/sdcard/mysdfile.txt");
                    myFile.createNewFile();
                    FileOutputStream fOut=
                    new FileOutputStream(myFile);
                    OutputStreamWriter myOutWriter= new
                    OutputStreamWriter(fOut);
                    myOutWriter.append(txtData.getText());
                    myOutWriter.close();
                    fOut.close();
                    Toast.makeText(getApplicationContext(),
                    "Done writing SD 'mysdfile.txt'", Toast.LENGTH_SHORT).show();
                }
            }
        });
    }
}
```

```
        } catch(Exception e) {
            Toast.makeText(getApplicationContext(),e.getMessage(),
Toast.LENGTH_SHORT).show();
        }
    }// onClick
}); // btnWriteSDFile
btnReadSDFile= (Button) findViewById(R.id.btnReadSDFile);
btnReadSDFile.setOnClickListener(new OnClickListener() {
@Override
public void onClick(View v) {
try{
    File myFile= new File("/sdcard/mysdfile.txt");
    FileInputStream fIn= new FileInputStream(myFile);
    BufferedReader myReader= new BufferedReader(new
InputStreamReader(fIn));
    String aDataRow= "";
    String aBuffer= "";
    while((aDataRow= myReader.readLine()) != null) {
        aBuffer+= aDataRow+ "\n";
    }
    txtData.setText(aBuffer);
    myReader.close();
    Toast.makeText(getApplicationContext(),
"Done reading SD 'mysdfile.txt'", 1).show();
} catch(Exception e) {
    Toast.makeText(getApplicationContext(), e.getMessage(), 1).show();
}
}// onClick
}); // btnReadSDFile
btnClearScreen= (Button)
findViewById(R.id.btnClearScreen);
btnClearScreen.setOnClickListener(new
OnClickListener() {
@Override
public void onClick(View v) {
// clear text box

```

```

        txtData.setText("");
    }
}); // btnClearScreen
btnClose= (Button) findViewById(R.id.btnClose);
btnClose.setOnClickListener(new OnClickListener() {
    @Override
    public void onClick(View v) {
        // clear text box
        finish();
    }
}); // btnClose
} // onCreate
// class
private void testScannerFiles() throws FileNotFoundException{
    // Add to manifest the following permission request
    // <uses-permission
    android:name="android.permission.WRITE_EXTERNAL_STORAGE" />
    try{
        String SDcardPath=
Environment.getExternalStorageDirectory().getPath();
        String mySDFFileName= SDcardPath+ "/" +
"mysdfilename.txt";
        tvMessage.setText("Writing to: " +
mySDFFileName);
        PrintWriter outfile= new PrintWriter( new
FileWriter(mySDFFileName) );
        outfile.println("HolaAndroid");
        outfile.println("Adios Android");
        outfile.println(new Date().toString());
        outfile.close();
        // read SD-file,showrecords.
        Scanner infile= new Scanner(new
FileReader(mySDFFileName));
        String inString= "\n\nReading from: " +
mySDFFileName+ "\n";
        while(infile.hasNextLine()) {

```

```

        inString+= infile.nextLine() + "\n";
    }
    tvMessage.append(inString);
    infile.close();
} catch(FileNotFoundException e) {
    tvMessage.setText( "Error: "+
e.getMessage());
} catch(IOException e) {
    tvMessage.setText( "Error: "+
e.getMessage());
}

//writing
FileOutputStream fos= openFileOutput("XYZ",
Context.MODE_PRIVATE);
PrintWriter outfile= new PrintWriter( fos);
outfile.println("HolaAndroid");
outfile.close();
// reading
InputStream is = openFileInput("XYZ");
Scanner infile= new Scanner(is);
String inString= "";
while(infile.hasNextLine()) {
inString= infile.nextLine();
}
}
}

```

4. Ketik kode berikut pada AndroidManifest.xml

```

<?xml version="1.0" encoding="utf-8"?>
<manifest
xmlns:android="http://schemas.android.com/apk/res
/android"
package="com.eepis.android"
android:versionCode="1"

```

```
    android:versionName="1.0">
    <application android:icon="@drawable/icon"
    android:label="@string/app_name">
        <activity android:name=".SDCardActivity">

        android:label="@string/app_name">
            <intent-filter>
                <action
    android:name="android.intent.action.MAIN" />
                <category
    android:name="android.intent.category.LAUNCHER"
/>
            </intent-filter>
        </activity>

    </application>
    <uses-sdk android:minSdkVersion="7" />
    <uses-permission
    android:name="android.permission.WRITE_EXTERNAL_S
TORAGE"></uses-permission>
    <uses-permission
    android:name="android.permission.WRITE_EXTERNAL_S
TORAGE"></uses-permission>
</manifest>
```

5. Hasil tampilan program ketika dijalankan



Gambar 50 Using SD Card to save data

Bab 9

Database dan SQL

Selain penyimpanan file dengan persistency ada cara lain yaitu dengan menggunakan database. Untuk mengolah database di android bisa menggunakan SQLite Admin yang bisa di download pada

<http://sqliteadmin.orbmku2k.de/>

1. Membuat Aplikasi TODO List

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :TODOList
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res
    android"
        android:id="@+id/widget28"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"
        android:background="#ff0000ff"
        android:orientation="vertical"
    >
    <TextView
        android:id="@+id/title"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:textColor="#fffff0ff"
        android:text=""/>
```

```
<EditText  
    android:id="@+id/txtData"  
    android:layout_width="fill_parent"  
    android:layout_height="120px"  
    android:text="Enter some data here  
..."  
    android:textSize="18sp" />  
<ListView  
    android:id="@+id/list"  
    android:layout_width="fill_parent"  
    android:layout_height="fill_parent"  
    android:drawSelectorOnTop="false"/>  
</LinearLayout>
```

3. Ketik kode berikut pada TODOList.java

```
package com.eepis.android;  
  
import java.util.ArrayList;  
import java.util.List;  
  
import android.app.Activity;  
import android.app.AlertDialog;  
import android.content.DialogInterface;  
import android.database.sqlite.*;  
import android.os.Bundle;  
import android.view.*;  
import android.widget.*;  
  
public class TODOList extends Activity {  
    /** Called when the activity is first created. */  
    EditText txtEntry;  
    ListView listData;  
    ArrayAdapter<String> adapter = null;  
    List<String> items = new ArrayList<String>();  
    String value = "";  
    public static SQLiteDatabase db;
```

```

@Override
public void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.main);
    // items.add("Ikan");
    listData = (ListView)
findViewById(R.id.list);
    adapter = new
ArrayAdapter<String>(this,
    android.R.layout.simple_list_item_1,
    items);
    listData.setAdapter(adapter);
    txtEntry = (EditText)
findViewById(R.id.txtData);
}

@Override
public boolean onCreateOptionsMenu(Menu menu) {
    super.onCreateOptionsMenu(menu);
    MenuItem item1 = menu.add(0, 1,
    Menu.NONE, "Save List");
    MenuItem item2 = menu.add(0, 2,
    Menu.NONE, "Close App");
    MenuItem item3 = menu.add(0, 3,
    Menu.NONE, "Add Entry");
    MenuItem item4 = menu.add(0, 4,
    Menu.NONE, "Delete Entry");
    MenuItem item5 = menu.add(0, 5,
    Menu.NONE, "Update Entry");
    return true;
}

public void addData() {
    adapter.add((adapter.getCount() + 1)
+ ". "
+

```

```
txtEntry.getText().toString());
}

public void removeData() {

    AlertDialog.Builder alert = new
AlertDialog.Builder(this);
    alert.setTitle("Delete Data");
    alert.setMessage("Choose Item To Be
Deleted");

    // Set an EditText view to get user
input
    final EditText input = new
EditText(this);
    alert.setView(input);

    alert.setPositiveButton("Ok", new
DialogInterface.OnClickListener() {
        public void
onClick(DialogInterface dialog, int whichButton)
{
            value =
input.getText().toString();
            // Do something with
value!
            if (!value.equals("")) {

                items.remove(Integer.parseInt(value) - 1);

                adapter.notifyDataSetChanged();
            }
        }
    });
    alert.setNegativeButton("Cancel",
new
DialogInterface.OnClickListener() {
        public void
onClick(DialogInterface dialog, int whichButton)
```

```

    {
        // Canceled.
    }
}

alert.show();
}

public void saveData() {
    //Creating Database
    try {
        db
            =
SQLiteDatabase.openDatabase("data/data/com.eepis.
android/databases/list.s3db", null,
    SQLiteDatabase.CREATE_IF_NECESSARY);
        //db.close();
    } catch (SQLiteException e) {
        Toast.makeText(this,
e.getMessage(), 1).show();
    }

    //Starting Database Transaction
    db.beginTransaction();
    try{
        db.execSQL("create      table
todolist("
                + "listid      integer
PRIMARY KEY autoincrement,"
                + "list text);");
        for (int
i=0;i<items.size();i++){
            db.execSQL("insert      into
todolist(list)
values
('"+items.get(i).toString()+"')");
        }
        db.setTransactionSuccessful();
    }
    catch (SQLiteException e) {
        // TODO: handle exception
    }
}

```

```

        }

    finally{
        db.endTransaction();
    }

}

public void updateData(){
    final String position =
txtEntry.getText().toString();
    AlertDialog.Builder alert = new
AlertDialog.Builder(this);
    alert.setTitle("Edit Data");
    alert.setMessage("Enter New Value");

    // Set an EditText view to get user
input
    final EditText input = new
EditText(this);
    alert.setView(input);

    alert.setPositiveButton("Ok", new
DialogInterface.OnClickListener() {
        public void
onClick(DialogInterface dialog, int whichButton)
{
        value =
input.getText().toString();
        // Do something with
value!
        if (!value.equals("")) {

            items.set(Integer.parseInt(position) -
1,position+". "+value);
        }
    }
});
    alert.setNegativeButton("Cancel",
new

```

```
DialogInterface.OnClickListener() {
    public void onClick(DialogInterface dialog, int whichButton)
    {
        // Canceled.
    }
});
alert.show();
}

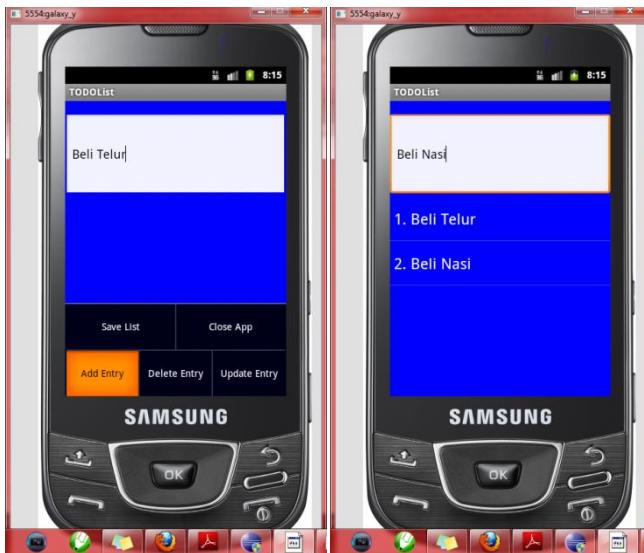
@Override
public boolean onOptionsItemSelected(MenuItem item) {
    super.onOptionsItemSelected(item);

    try {
        int itemID = item.getItemId();
        switch (itemID) {
            case 1:
                saveData();
                break;
            case 2:
                this.finish();
                break;
            case 3:
                addData();
                break;
            // Case 4 Delete
            case 4:
                removeData();
                break;
            case 5:
                updateData();
                break;
            default:
                break;
        }
    } catch (NullPointerException e) {
        e.printStackTrace();
    }
}
```

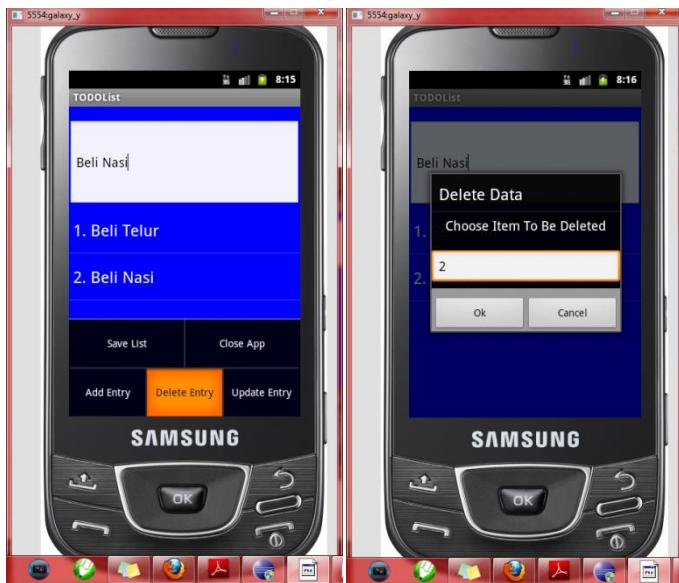
```
        }
        return false;
    } // onOptionsMenuSelected

}
```

4. Hasil tampilan program ketika dijalankan

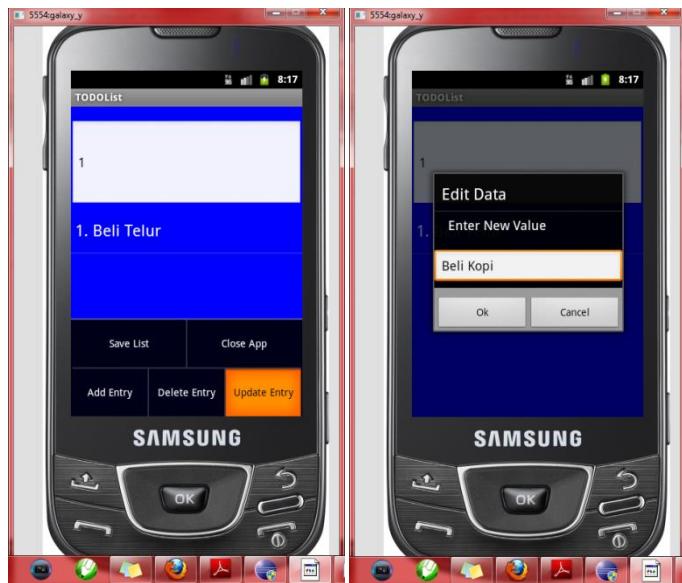


Gambar 51 Menambah Data

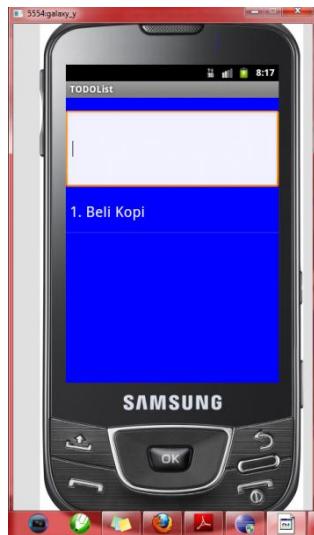


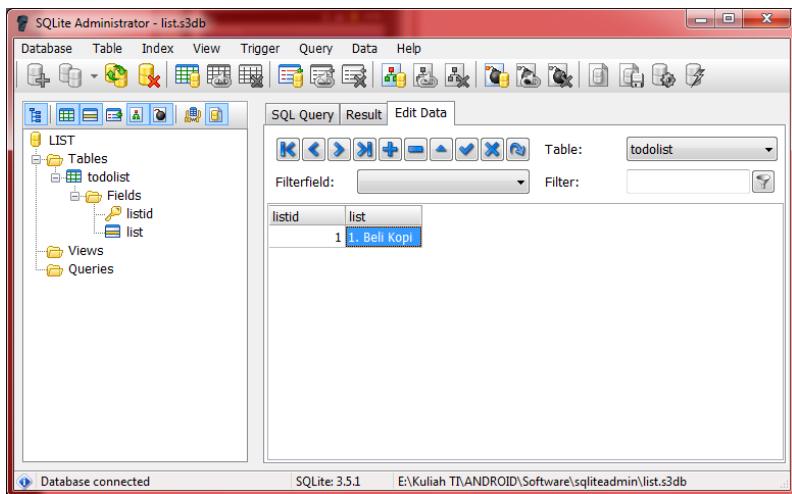
Gambar 52 Menghapus data





Gambar 53 Mengupdate Data





Gambar 54 Hasil data tersimpan bisa dilihat melalui SQLite Admin

Bab 10

Webkit And Internet Feeders

Banyak macam webkit dan internet feeders yang tersedia di android baik yang built in maupun tambahan. Namun disini kita akan fokuskan ke RSS Reader.

1. Internet Feeders Using RSS

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :RSS
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:id="@+id/widget28"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:background="#ff000033"
    android:orientation="vertical" >

    <ImageView
        android:id="@+id/image01"
        android:contentDescription="@string/app_name"
        android:layout_width="70dp"
        android:layout_height="30dp"
        android:background="@drawable/logo_detik"/>
```

```
<ListView  
    android:id="@+id/myListView"  
    android:layout_width="fill_parent"  
    android:layout_height="wrap_content" >  
</ListView>  
  
</LinearLayout>
```

3. Ketik kode berikut pada my_simple_list_item1.xml

```
<?xml version="1.0" encoding="utf-8"?>  
<TextView  
    xmlns:android="http://schemas.android.com/apk/res/android"  
    android:id="@+android:id/text1"  
    android:layout_width="fill_parent"  
    android:layout_height="wrap_content"  
    android:gravity="center_vertical"  
    android:paddingLeft="10dip"  
    android:textSize="18sp"  
    android:minHeight="40sp"  
    />
```

4. Ketik kode berikut pada AndroidDetik.java

```
package com.eepis.android;  
  
import java.text.DateFormatSymbols;  
import java.util.Calendar;  
import java.util.Locale;  
import android.app.Activity;  
import android.content.Context;  
import android.content.Intent;  
import android.os.Bundle;
```

```
import android.view.View;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.AdapterView.OnItemClickListener;

public class AndroidDetik extends Activity {
    ArrayAdapter<String> aa;
    ListView myListView;
    Context context;
    SingleNewsItem selectedNewsItem;
    String[] myUrlAddress = {
        "http://rss.detik.com/index.php/detikcom",
        "http://rss.detik.com/index.php/finance",
        "http://rss.detik.com/index.php/hot",
        "http://detikinet.com/index.php/detik.feed",
        "http://rss.detik.com/index.php/sport",
        "http://rss.detik.com/index.php/otomotif",
        "http://rss.detik.com/index.php/food",
        "http://rss.detik.com/index.php/foto" };
    String[] myUrlCaption = { "frontPage", "DetikFinance",
    "DetikHot",
        "DetikInet", "DetikSport", "DetikOto",
        "DetikFood", "DetikFoto" };
    //String[] myUrlAddress2 = new String[myUrlAddress.length];
    //String[] myUrlCaption2 = new String[myUrlCaption.length];

    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.main);
        context = getApplicationContext();
        this.setTitle("Berita Detik Terbaru " + niceDate());
        myListView = (ListView)
this.findViewById(R.id.listView);
        myListView.setOnItemClickListener(new
```

```
OnItemClickListener() {
    public void onItemClick(AdapterView<?> _av, View _v, int
_index, long _id) {
        String urlAddress = myUrlAddress[_index];
        String urlCaption = myUrlCaption[_index];
        Intent DetikNewsDetailsIntent = new Intent(AndroidDetik.this,
        DetikNewsDetails.class);
        Bundle myData = new Bundle();
        myData.putString("urlAddress", urlAddress);
        myData.putString("urlCaption", urlCaption);
        DetikNewsDetailsIntent.putExtras(myData);

        startActivity(DetikNewsDetailsIntent);
    }
});
int layoutID = R.layout.my_simple_list_item_1;
aa = new ArrayAdapter<String>(this, layoutID, myUrlCaption);
myListView.setAdapter(aa);
}// onCreate

public static String niceDate() {
    DateFormatSymbols dfs = new DateFormatSymbols();
    String shortWeekdaysArray[] = dfs.getShortWeekdays();
    String shortMonthArray[] = dfs.getShortMonths();
    Calendar cal = Calendar.getInstance(Locale.US);
    int dd = cal.get(Calendar.DAY_OF_MONTH);
    int mm = cal.get(Calendar.MONTH);
    String mmText = shortMonthArray[mm];
    int yy = cal.get(Calendar.YEAR);
    int wd = cal.get(Calendar.DAY_OF_WEEK);
    String wdText = shortWeekdaysArray[wd];
    return (wdText + " " + mmText + " " + dd + ", " + yy);
}
// niceDate
}// AndroDetik
```

5. Ketik kode berikut pada DetikNewsDetails.java

```
package com.eepis.android;

import java.io.IOException;
import java.io.InputStream;
import java.net.HttpURLConnection;
import java.net.MalformedURLException;
import java.net.URL;
import java.net.URLConnection;
import java.util.ArrayList;
import javax.xml.parsers.DocumentBuilder;
import javax.xml.parsers.DocumentBuilderFactory;
import javax.xml.parsers.ParserConfigurationException;
import org.w3c.dom.DOMException;
import org.w3c.dom.Document;
import org.w3c.dom.Element;
import org.w3c.dom.NodeList;
import org.xml.sax.SAXException;
import android.app.Activity;
import android.app.AlertDialog;
import android.content.Context;
import android.content.DialogInterface;
import android.content.Intent;
import android.content.DialogInterface.OnClickListener;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.Toast;
import android.widget.AdapterView.OnItemClickListener;

public class DetikNewsDetails extends Activity {
    ArrayList<SingleNewsItem> newsList = new
```

```
ArrayList<SingleNewsItem>();  
        ArrayAdapter<String> aa;  
        ListView myListview;  
        String urlAddress2 = "";  
        String urlCaption2 = "";  
        SingleNewsItem selectedNewsItem;  
        Context context = getApplication();  
  
    @Override  
    public void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.main);  
        Intent myLocalIntent = getIntent();  
        Bundle myBundle = myLocalIntent.getExtras();  
        urlAddress2 = myBundle.getString("urlAddress");  
        urlCaption2 = myBundle.getString("urlCaption");  
        String todayStr = AndroidDetik.niceDate();  
        this.setTitle("Detik - " + urlCaption2 + " \t" + todayStr);  
        myListview = (ListView)  
this.findViewById(R.id.listView);  
        myListview.setOnItemClickListener(new  
OnItemClickListener() {  
            public void onItemClick(AdapterView<?> _av, View _v, int  
_index, long _id) {  
                selectedNewsItem = newsList.get(_index);  
                showNiceDialogBox(selectedNewsItem, context);  
            }  
        });  
    } // onCreate  
  
    @Override  
    protected void onResume() {  
        super.onResume();  
        try {  
            URL url = new URL(urlAddress2);  
            URLConnection connection =
```

```

url.openConnection();
    HttpURLConnection httpConnection = (HttpURLConnection)
connection;
        int responseCode = httpConnection.getResponseCode();
        if (responseCode == HttpURLConnection.HTTP_OK) {
            InputStream in = httpConnection.getInputStream();
            DocumentBuilderFactory dbf = DocumentBuilderFactory
                .newInstance();
            DocumentBuilder db = dbf.newDocumentBuilder();
            Document dom = db.parse(in);
            Element docEle = dom.getDocumentElement();
            NodeList nl = docEle.getElementsByTagName("item");
            if ((nl != null) && (nl.getLength() > 0)) {
                for (int i = 0; i < nl.getLength(); i++) {
                    dissectNode(nl, i);
                    }// for
                }// if
            }// if
            int layoutID = R.layout.my_simple_list_item_1;
            ArrayAdapter<SingleNewsItem> aaNews =
new ArrayAdapter<SingleNewsItem>(this, layoutID, newsList);
            myListview.setAdapter(aaNews);
        } catch (MalformedURLException e) {
            e.printStackTrace();
        } catch (IOException e) {
            e.printStackTrace();
            Toast.makeText(context, "Trouble!!!",
1).show();
        } catch (ParserConfigurationException e) {
            e.printStackTrace();
        } catch (SAXException e) {
            e.printStackTrace();
        }
    }// onResume
    public void dissectNode(NodeList nl, int i) {
        try {

```

```

Element entry = (Element) nl.item(i);
Element title = (Element) entry.getElementsByTagName("title").item(0);
Element description = (Element) entry.getElementsByTagName(
    "description").item(0);
Element pubDate = (Element) entry.getElementsByTagName("pubDate")
.item(0);
Element link = (Element) entry.getElementsByTagName("link").item(0);
String titleValue = title.getFirstChild().getNodeValue();
String descriptionValue = description.getFirstChild().getNodeValue();
String dateValue = pubDate.getFirstChild().getNodeValue();
String linkValue = link.getFirstChild().getNodeValue();
SingleNewsItem singleItem = new SingleNewsItem(dateValue,
titleValue, descriptionValue, linkValue);
newsList.add(singleItem);
} catch (DOMException e) {
    e.printStackTrace();
}
}// dissectNode
public void showNiceDialogBox(SingleNewsItem
selectedNewsItem,
Context context) {
try {
    final Uri myLink =
Uri.parse(selectedNewsItem.getLink());
    AlertDialog.Builder myBuilder = new
AlertDialog.Builder(this);
    myBuilder.setIcon(R.drawable.logo_detik)
.setTitle(urlCaption2).setMessage(
selectedNewsItem.getTitle() + "\n\n"
+ selectedNewsItem.getDescription() + "\n")
.setPositiveButton("Close", null)
.setNegativeButton("More", new OnClickListener() {
    public void onClick(DialogInterface dialog, int whichOne) {
Intent webIntent = new Intent(Intent.ACTION_VIEW,myLink);
startActivity(webIntent);
}
}

```

```
        }))/ setNegativeButton
        .show();
    } catch (Exception e) {
        e.printStackTrace();
    }
}// showNiceDialogBox
}// DetikNewsDetails
```

6. Ketik kode berikut pada SingleNewsItem.java

```
package com.eepis.android;

public class SingleNewsItem {
    private String pubDate;
    private String title;
    private String description;
    private String link;

    public String getPubDate() {
        return pubDate;
    }

    public String getTitle() {
        return title;
    }

    public String getDescription() {
        return description;
    }

    public String getLink() {
        return link;
    }

    public SingleNewsItem(String _pubDate,
String _title, String _description,
String _link) {
```

```

    pubDate = _pubDate;
    description = _description;
    title = _title;
    link = _link;
}

@Override
public String toString() {
    return title;
}
}

```

7. Hasil tampilan ketika program dijalankan



Gambar 55 RSS Feed dengan Android

Bab 11

GPS and Maps

Saatnya memasuki fitur utama yang dimiliki android dan ini merupakan fitur penggebrak android. Ya, GPS service dan maps nya yang mana terintegrasi dengan google Maps sehingga lebih mudah untuk mencari lokasi yang diinginkan.

1. Location Manager-GPS Service

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :GPSService
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:id="@+id/widget32"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:orientation="vertical" >

    <EditText
        android:id="@+id/txtMsg"
        android:layout_width="fill_parent"
        android:layout_height="120px"
        android:textSize="12sp" >
    </EditText>
```

```
<Button  
    android:id="@+id	btnStopService"  
    android:layout_width="151px"  
    android:layout_height="wrap_content"  
    android:text="Stop Service" >  
</Button>  
  
</LinearLayout>
```

3. Ketik kode berikut pada MyGPSActivity.java

```
package com.eepis.android;  
  
import android.app.Activity;  
import android.os.Bundle;  
import android.content.BroadcastReceiver;  
import android.content.ComponentName;  
import android.content.Context;  
import android.content.Intent;  
import android.content.IntentFilter;  
import android.telephony.gsm.SmsManager;  
import android.util.Log;  
import android.view.View;  
import android.view.View.OnClickListener;  
import android.widget.*;  
  
@SuppressWarnings("deprecation")  
public class MyGPSActivity extends Activity {  
    Button btnStopService;  
    TextView txtMsg;  
    Intent intentMyService;  
    ComponentName service;  
    BroadcastReceiver receiver;  
    String GPS_FILTER = "com.action.GPS_LOCATION";
```

```

@Override
public void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.main);
    txtMsg = (TextView) findViewById(R.id.txtMsg);
    // initiate the service
    intentMyService = new Intent(this,
        MyGpsService.class);
    service = startService(intentMyService);
    txtMsg.setText("MyGpsService started -(see DDMS
Log)");
    IntentFilter mainFilter = new IntentFilter(GPS_FILTER);
    receiver = new MyMainLocalReceiver();
    registerReceiver(receiver, mainFilter);
    btnStopService = (Button)
        findViewById(R.id.btnStopService);
    btnStopService.setOnClickListener(new
        OnClickListener() {
            public void onClick(View v) {
                try {
                    stopService(new Intent(intentMyService));
                    txtMsg.setText("After stopingService: \n"
                        + service.getClassName());
                    btnStopService.setText("Finished");
                    btnStopService.setClickable(false);
                } catch (Exception e) {
                    Log.e("MYGPS", e.getMessage());
                }
            }
        });
    });
// onCreate

@Override
protected void onDestroy() {
    super.onDestroy();
}

```

```

        try {
            stopService(intentMyService);
            unregisterReceiver(receiver);
        } catch (Exception e) {
            Log.e("MAIN-DESTROY>>>", e.getMessage());
        }
        Log.e("MAIN-DESTROY>>>", "Adios");
    }// onDestroy
    private class MyMainLocalReceiver extends BroadcastReceiver {
        @Override
    public void onReceive(Context localContext, Intent callerIntent) {
        double latitude = callerIntent.getDoubleExtra("latitude", -1);
        double longitude = callerIntent.getDoubleExtra("longitude", -1);
        Log.e("MAIN>>>", Double.toString(latitude));
        Log.e("MAIN>>>", Double.toString(longitude));
        String msg = " lat: " + Double.toString(latitude) + " " + " lon: "
        + Double.toString(longitude);
        txtMsg.append("\n" + msg);
    }
    }// MyMainLocalReceiver
    private void texting(String msg) {
        try {
            SmsManager smsMgr = SmsManager.getDefault();
            smsMgr.sendTextMessage("5556", "5554", "Please
meet me at: " + msg, null, null);
        } catch (Exception e) {
            Toast.makeText(this, "texting\n" + e.getMessage(), 1).show();
        }
    }// texting
}// MyGPS

```

4. Ketik kode berikut pada MyGPSService.java

```
package com.eepis.android;
```

```
import android.app.Service;
import android.content.Context;
import android.content.Intent;
import android.location.Location;
import android.location.LocationListener;
import android.location.LocationManager;
import android.os.Bundle;
import android.os.IBinder;
import android.os.Looper;
import android.util.Log;

public class MyGpsService extends Service {
    String GPS_FILTER = "cis493.action.GPS_LOCATION";
    Thread triggerService;
    LocationManager lm;
    GPSListener myLocationListener;
    boolean isRunning = true;
    @Override
    public void onCreate() {
        super.onCreate();
    }
    @Override
    public void onStart(Intent intent, int startId) {
        super.onStart(intent, startId);
        Log.e("<<MyGpsService-onStart>>", "I am alive-GPS!");
        triggerService = new Thread(new Runnable() {
            public void run() {
                try {
                    Looper.prepare();
                lm = (LocationManager) getSystemService(Context.LOCATION_SERVICE);
                myLocationListener = new GPSListener();
                long minTime = 10000; // frequency update: 10 seconds
                float minDistance = 50; // frequency update: 50 meter
                lm.requestLocationUpdates(
                    LocationManager.GPS_PROVIDER, minTime, minDistance,
                    myLocationListener);
                
```

```
       Looper.loop();
    } catch (Exception e) {
        Log.e("MYGPS", e.getMessage());
    }
}// run
});
triggerService.start();
}// onStart

private class GPSListener implements LocationListener {
    public void onLocationChanged(Location location) {
        double latitude = location.getLatitude();
        double longitude = location.getLongitude();
        Intent myFilteredResponse = new Intent(GPS_FILTER);
        myFilteredResponse.putExtra("latitude", latitude);
        myFilteredResponse.putExtra("longitude", longitude);
        Log.e(">>GPS_Service<<", "Lat:" + latitude + " lon:" + longitude);
        sendBroadcast(myFilteredResponse);
    }
    public void onProviderDisabled(String provider) {
    }
    public void onProviderEnabled(String provider) {
    }
    public void onStatusChanged(String provider, int
status, Bundle extras) {
    }
}
@Override
public IBinder onBind(Intent arg0) {
    // TODO Auto-generated method stub
    return null;
}// GPSListenerclass
}// MyService3
```

5. Ketik kode berikut pada AndroidManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest
    xmlns:android="http://schemas.android.com/apk/res/android"
        package="com.eepis.android"
        android:versionCode="1"
        android:versionName="1.0" >

    <uses-sdk android:minSdkVersion="7" />

    <application
        android:icon="@drawable/ic_launcher"
        android:label="@string/app_name" >
        <activity
            android:label="@string/app_name"
            android:name=".MyGPSActivity" >
            <intent-filter >
                <action android:name="android.intent.action.MAIN" />

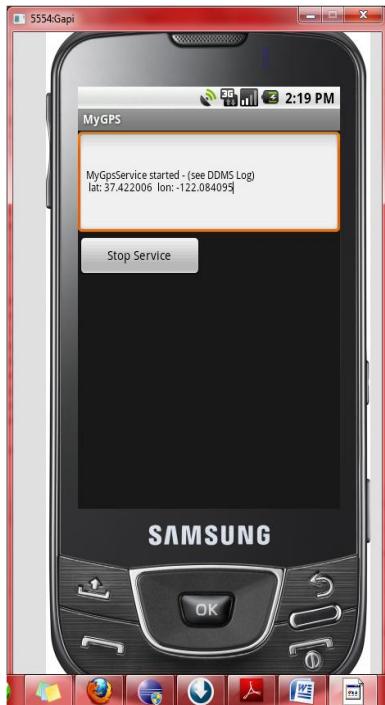
                <category android:name="android.intent.category.LAUNCHER"
/>
            </intent-filter>
        </activity>

        <service android:name="MyGpsService" >
        </service>
    </application>

    <uses-permission android:name="android.permission.SEND_SMS" />
    <uses-permission
        android:name="android.permission.ACCESS_FINE_LOCATION" />

</manifest>
```

6. Hasil tampilan program ketika dijalankan



Gambar 56 GPS Services

2. Location Manager-Location Based Service

1. Buat project baru dengan kriteria sebagai berikut:

Project Name	:	LBS
Package	:	com.eepis.android
SDK version	:	Android 2.1

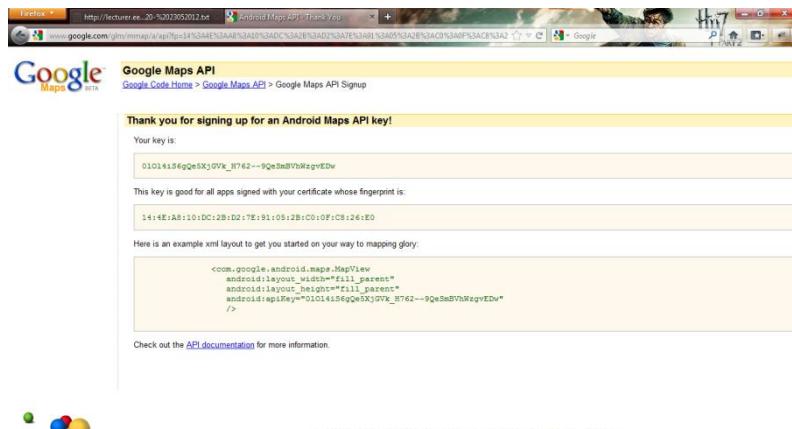
Namun khusus jika kita menggunakan Google API maka kita harus mendapatkan API KEY dari google caranya adalah dengan menggunakan keytool yang bisa dilihat pada gambar berikut:

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Moresky>keytool -list -alias androiddebugkey -keystore "E:\debug.keystore" -storepass android -keypass android
androiddebugkey, 22 Okt 11, PrivateKeyEntry,
Certificate fingerprint (MD5): 14:4E:88:10:DC:2B:D2:7E:91:05:2B:C0:0F:C8:26:E0
C:\Users\Moresky>
```

Gambar 57 Keytool untuk mendapatkan fingerprint

Kemudian lakukan registrasi API KEY di
<https://developers.google.com/maps/signup>



Gambar 58 API KEY yang berhasil didapatkan

Kemudian masukkan API key tersebut ke xml layoutnya.

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res
    /android"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:orientation="vertical" >

    <com.google.android.maps.MapView
        android:id="@+id/mapView"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"
        android:apiKey="01014iS6gQe5XjGVk_H762--
9QeSmBVhWzgvEDw" />

</LinearLayout>
```

3. Ketik kode berikut pada LBSActivity.java

```
package com.eepis.android;

import android.os.Bundle;
import com.google.android.maps.MapActivity;
import com.google.android.maps.MapView;
import android.view.KeyEvent;
import com.google.android.maps.MapController;
import com.google.android.maps.GeoPoint;
import android.graphics.Bitmap;
import android.graphics.BitmapFactory;
import android.graphics.Canvas;
import android.graphics.Point;
import com.google.android.maps.Overlay;
import java.util.List;

public class LBSActivity extends MapActivity {
    /** Called when the activity is first created. */
```

```
MapView mapView;
MapController mc;
GeoPoint p;

class MapOverlay extends com.google.android.maps.Overlay {
    @Override
    public boolean draw(Canvas canvas, MapView
mapView, boolean shadow,
    long when) {
        super.draw(canvas, mapView, shadow);
        // ---translate the GeoPoint to screen pixels---
        Point screenPts = new Point();
        mapView.getProjection().toPixels(p,
screenPts);
        // ---add the marker---
        Bitmap bmp =
BitmapFactory.decodeResource(getResources(),
                    R.drawable.ic_launcher);
        canvas.drawBitmap(bmp, screenPts.x,
screenPts.y - 50, null);
        return true;
    }
}

@Override
public void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.main);
    mapView = (MapView) findViewById(R.id.mapView);
    mapView.setBuiltInZoomControls(true);
    // mapView.setSatellite(true);
    //mapView.setStreetView(true);
    mapView.setTraffic(true);
    //---Add a location marker---
    MapOverlay mapOverlay = new MapOverlay();
    List<Overlay> listOfOverlays = mapView.getOverlays();
```

```
listOfOverlays.clear();
listOfOverlays.add(mapOverlay);
mc = mapView.getController();
String coordinates[] = { "1.352566007",
"103.78921587" };
    double lat = Double.parseDouble(coordinates[0]);
    double lng = Double.parseDouble(coordinates[1]);
    p = new GeoPoint((int) (lat * 1E6), (int) (lng * 1E6));
    mc.animateTo(p);
    mc.setZoom(13);
    mapView.invalidate();
}

public boolean onKeyDown(int keyCode, KeyEvent event) {
    MapController mc = mapView.getController();
    switch (keyCode) {
        case KeyEvent.KEYCODE_3:
            mc.zoomIn();
            break;
        case KeyEvent.KEYCODE_1:
            mc.zoomOut();
            break;
    }
    return super.onKeyDown(keyCode, event);
}

@Override
protected boolean isRouteDisplayed() {
    // TODO Auto-generated method stub
    return false;
}
}
```

4. Ketik kode berikut pada AndroidManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest
    xmlns:android="http://schemas.android.com/apk/res
    /android"
        package="com.eepis.android"
        android:versionCode="1"
        android:versionName="1.0" >

    <uses-sdk android:minSdkVersion="7" />
    <uses-permission
        android:name="android.permission.INTERNET"/>

    <application
        android:icon="@drawable/ic_launcher"
        android:label="@string/app_name" >
        <uses-library
            android:name="com.google.android.maps" />
        <activity
            android:label="@string/app_name"
            android:name=".LBSActivity" >
            <intent-filter >
                <action
                    android:name="android.intent.action.MAIN" />

                <category
                    android:name="android.intent.category.LAUNCHER"
                />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

5. Hasil tampilan program ketika dijalankan



Gambar 59 Menampilkan Map

Bab 12

Intent Filters

Intent filters berhubungan dengan broadcast dan receiver yang terjadi antar activity. Dengan ini kita bisa menangkap data yang bergerak tiap activity tersebut.

1. Intent Filters

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :IntentFilters
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
        android:id="@+id/mainLayout"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"
        android:orientation="vertical" >

    <TextView
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:background="#ff0000ff"
        android:text="Intercepting SMS messages"
        android:textSize="20px"
        android:textStyle="bold" />

<ScrollView
```

```

        android:id="@+id/myScroller1"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent" >

    <TextView
        android:id="@+id/theMessage"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"
        android:background="#ffffffff"
        android:padding="4px"
        android:textColor="#ff000000"
        android:textSize="14px" />
</ScrollView>

</LinearLayout>

```

3. Ketik kode berikut pada IntentFiltersActivity.java

```

package com.eepis.android;

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

public class IntentFiltersActivity extends Activity {
    static TextView txtMsg;
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.main);
        txtMsg = (TextView)
        findViewById(R.id.theMessage);
    }
} // class FancySms

```

4. Ketik kode berikut pada SMSReceiver.java

```

package com.eepis.android;

import android.content.BroadcastReceiver;
import android.content.Context;
import android.content.Intent;
import android.os.Bundle;
import android.telephony.gsm.SmsMessage;
import android.widget.Toast;

@SuppressWarnings("deprecation")
public class SMSReceiver extends
BroadcastReceiver {
    static String msg = "";
    @Override
    public void onReceive(Context context,
Intent intent) {
        // Android saves in a bundle the
current text-message
        // under name "pdus" and type:
Object[]. Later we cast to
        // SmsMessage[]. Jargon pdu stands
for "protocol data unit"
        Bundle bundle = intent.getExtras();
        Object messages[] = (Object[])
bundle.get("pdus");
        SmsMessage smsMessage[] = new
SmsMessage[messages.length];
        // Note: long sms are broken and
transmitted into various pieces

        int smsPieces = messages.length;
        for (int n = 0; n < smsPieces; n++) {
            smsMessage[n] =
SmsMessage.createFromPdu((byte[])
messages[n]);
            // grab all pieces of the
intercepted sms
            msg += "\n" + (n + 1) + " -of-
" + smsPieces + "\n" + "Sender:\t"
            +
}
    }
}

```

```

        smsMessage[n].getOriginatingAddress() + "\n"
                                + "Body: \n " +
        smsMessage[n].getMessageBody();
    }

        // show first part of intercepted
        (current) message
        Toast toast = Toast.makeText(context,
        "FANCY >>> Received SMS: "
        +
        smsMessage[0].getMessageBody(),
        Toast.LENGTH_LONG);
        toast.show();

        com.eepis.android.IntentFiltersActivity.txt
        Msg.setText(msg);

    }
} // class SMSReceiver

```

5. Ketik kode berikut pada AndroidManifest.xml

```

<?xml version="1.0" encoding="utf-8"?>
<manifest
    xmlns:android="http://schemas.android.com/apk/res
    /android"
    package="com.eepis.android"
    android:versionCode="1"
    android:versionName="1.0" >

    <uses-permission
        android:name="android.permission.RECEIVE_SMS" />

    <application
        android:icon="@drawable/ic_launcher"
        android:label="@string/app_name" >
        <activity
            android:label="@string/app_name"
            android:name=".IntentFiltersActivity"
        >

```

```
<intent-filter >
    <action
        android:name="android.intent.action.MAIN" />

    <category
        android:name="android.intent.category.LAUNCHER"
    />
</intent-filter>
</activity>

<receiver
    android:enabled="true"
    android:name="SMSReceiver" >
    <intent-filter >
        <action
            android:name="android.provider.Telephony.SMS_RECEIVED" />
        </intent-filter>
    </receiver>
</application>

</manifest>
```

6. Hasil tampilan program ketika dijalankan



Gambar 60 Intent Filters untuk menangkap SMS

Bab 13

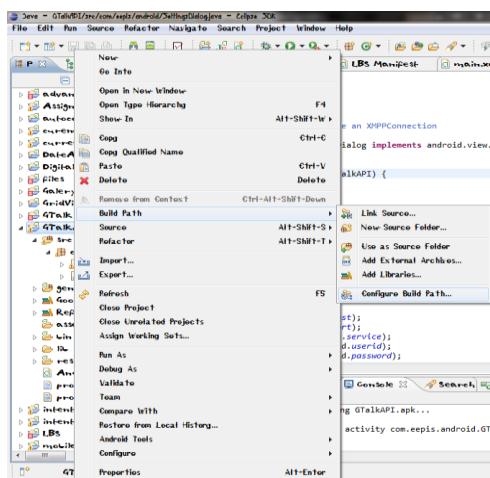
Projects

Pada bab ini kita akan membuat aplikasi chat sederhana yang menggunakan Gtalk. Namun karena masalah keamanan google menghapus class Gtalk service pada google API sejak android versi pertama. Namun ada cara lain yaitu menggunakan Smack API . Inilah yang akan kita gunakan untuk project ini

Konfigurasi emulator android untuk GTalk

Sebelum membuat coding aplikasi ini, dibutuhkan settingan Emulator Android, misal XMPP setting. Selain itu, juga dibutuhkan akun dari Google yang berguna untuk menerima dan mengirim pesan chatting ke Google dan juga lakukan settingan pada emulator Android misal pada Eclipse dengan seperti berikut :

- a. Klik kanan pada project yang dibuat lalu pilih build path dan selanjutnya pilih configure build path.

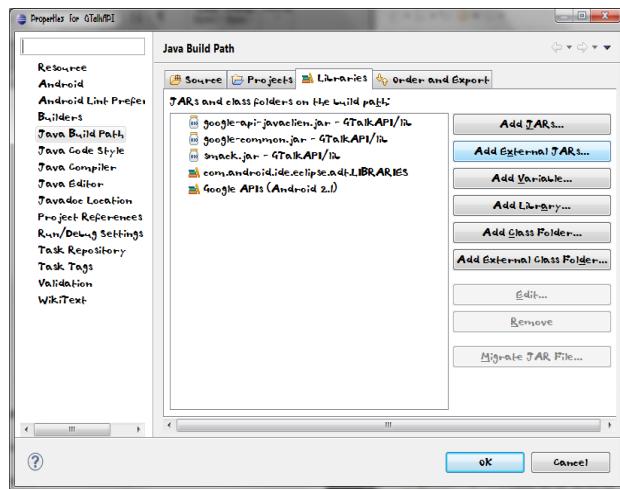


Gambar 61 Configure Build Path

- b. Setelah itu pilih platform Android yang digunakan.
Misal menggunakan platform 2.1. Lalu klik OK.

Lalu tambahkan library untuk dapat melakukan chatting.
Dengan cara klik kanan pada project yang sudah dibuat,
pilih Build Path, pilih Configure Build Path. Jika belum
mempunya file library-nya, bisa mendownload di internet.
Nama file library yaitu smack.jar

- c. Lalu pilih Java Build Path dan pilih Libraries. Klik Add External Jars.



Gambar 62 Menambahkan Library

- d. Setelah itu pilih library yang sudah didapatkan (smack.jar). Lalu klik open.
- e. Setelah itu klik OK. Maka library sudah ada pada project yang akan dibuat.

Source Code

Pertama, kita edit main.xml seperti berikut untuk tampilan awal pada chatting-nya :

```
<?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"
    >
    <LinearLayout xmlns:android="http://schemas.android.com/
apk/res/android"
```

```
    android:orientation="horizontal"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    >
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Recipient:"
        android:minWidth="70dp"
    />
    <EditText android:id="@+id/recipient"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:singleLine="true"
        android:textSize="16sp"
        android:autoText="false"
        android:minWidth="250dp"
        android:capitalize="none"
        android:scrollHorizontally="true"/>
    </LinearLayout>
    <ListView android:id="@+id/listMessages"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:scrollbars="horizontal"
    />
    <EditText android:id="@+id/sendText"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:singleLine="true"
        android:textSize="16sp"
        android:autoText="false"
        android:capitalize="none"
        android:scrollHorizontally="true"/>
    <Button android:id="@+id/send"
        android:layout_width="fill_parent"
```

```
    android:layout_height="wrap_content"
    android:text="Send"
  
```

```
  
```

```
</LinearLayout>
```



Gambar 63 Tampilan Login Dialog

Selanjutnya kita buat file xml untuk multi-line dari chatting seperti berikut :

```
<?xmlversion="1.0"encoding="utf-8"?>
<TextViewxmlns:android="http://schemas.android.com/a
pk/res/android"
    android:id="@+id/text1"
    android:textStyle="bold"
```

```
    android:singleLine="false"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"/>
```

Ini berguna untuk membuat baris baru setelah kita melakukan chatting semisal sebaris adalah chat dari recipient atau kita dan bisa juga seumpama recipient atau kita ingin menulis chat lagi sebelum dibalas maka akan ditampilkan pada baris baru. Selanjutnya untuk hasil dari balasan juga ditampilkan pada baris selanjutnya.

Lalu kita membuat file xml untuk setting xml pada chatting-nya.

```
<?xmlversion="1.0"encoding="utf-8"?>
<LinearLayoutxmlns:android="http://schemas.android.co
m/apk/res/android"
    android:orientation="vertical"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    >
    <LinearLayoutxmlns:android="http://schemas.android.co
m/apk/res/android"
        android:orientation="horizontal"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        >
        </LinearLayout>

        <LinearLayout
            xmlns:android="http://schemas.android.com/apk/res/an
            droid"
            android:layout_width="fill_parent"
            android:layout_height="wrap_content"
            android:orientation="horizontal">

            <TextView
```

```
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="0.93"
    android:minWidth="70dp"
    android:text="Please Login Here"/>
  </LinearLayout>

<LinearLayout xmlns:android="http://schemas.android.co
m/apk/res/android"
    android:orientation="horizontal"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
  >
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Userid:"
        android:minWidth="70dp"
      />
    <EditText android:id="@+id/userid"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:singleLine="true"
        android:textSize="16sp"
        android:autoText="false"
        android:minWidth="250dp"
        android:capitalize="none"
        android:scrollHorizontally="true"/>
  </LinearLayout>
<LinearLayout xmlns:android="http://schemas.android.co
m/apk/res/android"
    android:orientation="horizontal"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
  >
    <TextView
```

```
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Password:"
        android:minWidth="70dp"
    />
<EditText android:id="@+id/password"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:singleLine="true"
        android:password="true"
        android:textSize="16sp"
        android:autoText="false"
        android:minWidth="250dp"
        android:capitalize="none"
        android:scrollHorizontally="true"/>
</LinearLayout>

<Button android:id="@+id/ok"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"
        android:text="OK">
<requestFocus/>
</Button>
</LinearLayout>
```

Selanjutnya buat dan edit AndroidManifest.xml seperti berikut :

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.eepis.android"
    android:versionCode="1"
    android:versionName="1.0">

    <uses-sdk android:minSdkVersion="7"/>
```

```
<uses-  
    permissionandroid:name="android.permission.INTERNET" />  
  
<application android:icon="@drawable/ic_launcher">  
  
    <activity  
        android:label="@string/app_name"  
        android:name=".GTalkAPI">  
        <intent-filter>  
            <action android:name="android.intent.action.MAIN" />  
  
            <category android:name="android.intent.category.LAUNCHER" />  
        </intent-filter>  
    </activity>  
</application>  
  
</manifest>
```

Ini digunakan untuk memilih versi API yang kita buat dan versi emulator yang digunakan.

Setelah membuat file xml dan android manifest-nya, kita buat file java-nya misal dengan nama GTalkAPI.java seperti berikut :

```
package com.eepis.android;  
  
import android.app.Activity;  
import android.os.Bundle;  
import android.os.Handler;  
import android.util.Log;  
import android.view.View;  
import android.widget.ArrayAdapter;  
import android.widget.Button;  
import android.widget.EditText;
```

```
import android.widget.ListView;
import android.widget.Toast;

import org.jivesoftware.smack.PacketListener;
import org.jivesoftware.smack.XMPPConnection;
import org.jivesoftware.smack.filter.MessageTypeFilter;
import org.jivesoftware.smack.filter.PacketFilter;
import org.jivesoftware.smack.packet.Message;
import org.jivesoftware.smack.packet.Packet;
import org.jivesoftware.smack.util.StringUtils;

import java.util.ArrayList;

public class GTalkAPI extends Activity {

    private ArrayList<String> messages = new
ArrayList();
    private Handler mHandler = new Handler();
    private SettingsDialog mDialog;
    private EditText mRecipient;
    private EditText mSendText;
    private ListView mList;
    private XMPPConnection connection;
    Button send;
    /**
     * Called with the activity is first created.
     */
    @Override
    public void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.main);

        mRecipient = (EditText)
this.findViewById(R.id.recipient);
        mSendText = (EditText)
```

```

this.findViewById(R.id.sendText);
mList = (ListView)
this.findViewById(R.id.listMessages);
setListAdapter();

// Dialog for getting the xmpp settings
mDialog = new SettingsDialog(this);

// Set a listener to show the settings
dialog
mHandler.post(new Runnable() {
    publicvoid run() {
        mDialog.show();
    }
});

// Set a listener to send a chat text
message
send = (Button)
this.findViewById(R.id.send);
send.setOnClickListener(new
View.OnClickListener() {
    publicvoid onClick(View view)
{
    String to =
mRecipient.getText().toString();
    String text =
mSendText.getText().toString();
    Message msg = new
Message(to, Message.Type.chat);
    msg.setBody(text);

    connection.sendPacket(msg);

    messages.add(connection.getUser().substring(0,

```

```

connection.getUser().length()-14) + ":");

        messages.add(text);
        setListAdapter();
    }

}

/***
 * Called by Settings dialog when a connection is
establised with the XMPP
 * server
 *
 * @param connection
 */
publicvoid setConnection(XMPPConnection
connection) {
    this.connection = connection;
    if (connection != null) {
        // Add a packet listener to get
        messages sent to us
        PacketFilter filter = new
        MessageTypeFilter(Message.Type.chat);

        connection.addPacketListener(new
        PacketListener() {
            publicvoid
processPacket(Packet packet) {
                Message
message = (Message) packet;
                if
(message.getBody() != null) {

                    String fromName =
StringUtils.parseBareAddress(message
.getFrom());

```

```
messages.add(fromName + ":");

messages.add(message.getBody());
// Add the incoming message to the list view

mHandler.post(new Runnable() {

    public void run() {
        setListAdapter();
    }
});
```

}

```
} } } } }
```

}

```
} }, filter); }
```

}

```
} else{ Toast.makeText(this, "Login Failed", 1).show(); send.setEnabled(false); }
```

}

```
}

private void setListAdapter() {
    ArrayAdapter<String> adapter = new ArrayAdapter<String>(this,
```

R.layout.multi_line_list_item, messages);

```
    mList.setAdapter(adapter);
}
```

}

Selanjutnya membuat settingan file java misal dengan membuat file java dengan nama SettingsDialog.java seperti berikut :

```
package com.eepis.android;

import android.app.Dialog;
import android.util.Log;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

import org.jivesoftware.smack.ConnectionConfiguration;
import org.jivesoftware.smack.XMPPConnection;
import org.jivesoftware.smack.XMPPEexception;
import org.jivesoftware.smack.packet.Presence;

/**
 * Gather the xmpp settings and create an
 XMPPConnection
 */
public class SettingsDialog extends Dialog implements
        android.view.View.OnClickListener {
    private GTalkAPI gTalkAPI;

    public SettingsDialog(GTalkAPI gTalkAPI) {
        super(gTalkAPI);
        this.gTalkAPI = gTalkAPI;
    }

    protected void onStart() {
        super.onStart();
        setContentView(R.layout.settings);
        getWindow().setFlags(4, 4);
        setTitle("Login Dialog");
    }
}
```

```

        Button ok = (Button)
findViewById(R.id.ok);
        ok.setOnClickListener(this);
    }

public void onClick(View v {

    // Create a connection
    String host = "talk.google.com";
    String port = "5222";
    String service = "gmail.com";
    String username = getText(R.id.userid);
    String password =
getText(R.id.password);
    if (username.isEmpty() || password.isEmpty()) {
        Toast.makeText(getContext(),
"Please Fill All Blank TextBox", 1).show();
    } else {

        ConnectionConfiguration
connConfig = new ConnectionConfiguration(
                host,
                Integer.parseInt(port), service);
        XMPPConnection connection
= new XMPPConnection(connConfig);

        try {

            connection.connect();
        } catch (XMPPException ex) {

            gTalkAPI.setConnection(null);
        }
        try {

```

```

        connection.login(username, password);
Presence presence = new
Presence(Presence.Type.available);
connection.sendPacket(presence);
gTalkAPI.setConnection(connection);
} catch (XMPPException ex) {
gTalkAPI.setConnection(null);
}
dismiss();
}
}
private String getText(int id) {
EditText widget = (EditText) this.findViewById(id);
return widget.getText().toString();
}
}

```

Maka hasil output awalnya tampak seperti berikut :

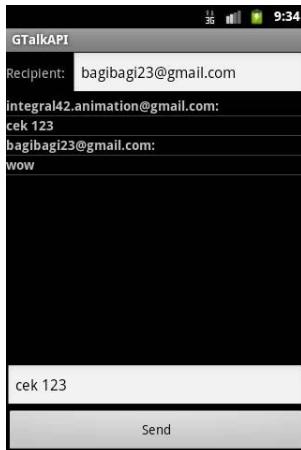


Gambar 64 Hasil Akhir Aplikasi

Pada gambar tersebut kita mengisi ID dan Password dari E-mail pada Gmail yang telah kita punya.

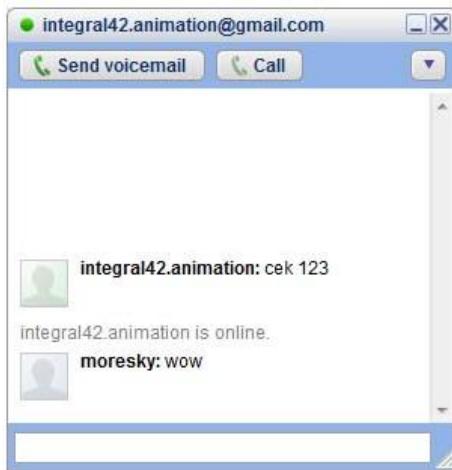
Selanjutnya setelah mengisi ID dan Password Gmail, kita mengisi alamat tujuan Gmail yang lain. Misal

bagibagi23@gmail.com dan setelah itu ketikkan chat pada kolom text field. Setelah selesai mengetik chat-nya, klik send. Maka setelah terkoneksi akan tampak tampilan seperti berikut :



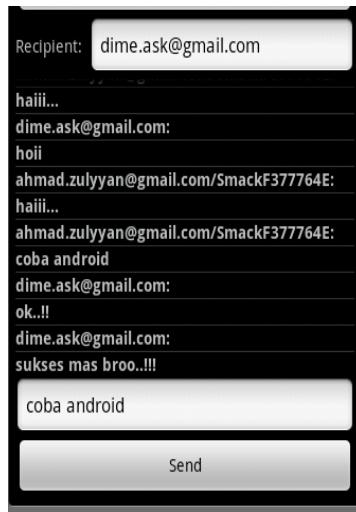
Gambar 65 Chat Session

Gambar berikut adalah tampilan dari gmail milik recipient yang telah terkoneksi dan chatting dengan aplikasi ini :



Gambar 66 Tampilan pada Gtalk

Untuk tampilan chatting yang lain juga bisa tampak seperti berikut :



Gambar 67 Hasil Chatting

Bab 14

Bonus Chapter-App Cycles

1. App Cycles

1. Buat project baru dengan kriteria sebagai berikut:

Project Name :AppCycles
Package :com.eepis.android
SDK version :Android 2.1

2. Ketik kode berikut pada main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res
    android"
        android:id="@+id/myScreen"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"
        android:background="#ff000000"
        android:orientation="vertical" >

    <TextView
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="@string/hello" />

    <EditText
        android:id="@+id/txtColorSelect"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:hint="Background color (red,
green, blue)" >
```

```
</EditText>

<TextView
    android:id="@+id/txtToDo"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:background="#00000000" >

    <!-- transparent -->
</TextView>

<Button
    android:id="@+id	btnFinish"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Finish " >
</Button>
</LinearLayout>
```

3. Ketik kode berikut pada AppCycleActivity.java

```
package com.eepis.android;

import android.app.Activity;
import android.content.SharedPreferences;
import android.os.Bundle;
import android.text.Editable;
import android.text.TextWatcher;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.*;

public class AppCycleActivity extends Activity {
    // GOAL: show the following life-cycle
events in action
    //protected void onCreate(Bundle
savedInstanceState);
    //protected void onStart();
```

```

// protected void onRestart();
// protected void onResume();
// protected void onPause();
// protected void onStop();
// protected void onDestroy();
LinearLayout myScreen;
TextView txtToDo;
EditText txtColorSelect;
@Override
public void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.main);
    myScreen = (LinearLayout)
findViewById(R.id.myScreen);
    txtToDo = (TextView)
findViewById(R.id.txtToDo);
    String msg = "Instructions: \n "
        + "0. New instance
.onCreate, onStart, onResume) \n "
        + "1. Back Arrow
.onPause, onStop, onDestroy) \n "
        + "2. Finish (onPause,
onStop, onDestroy) \n "
        + "3. Home (onPause,
onStop) \n "
        + "4. After 3 > App Tab >
re-execute current app \n "
        + " (onRestart, onStart,
onResume) \n "
        + "5. Run DDMS > Receive
a phone call or SMS \n "
        + " (onRestart, onStart,
onResume) \n "
        + "6. Enter some data -
repeat steps 1-5 \n ";
    txtToDo.setText(msg);
    txtColorSelect = (EditText)
findViewById(R.id.txtColorSelect);
}

```

```
txtColorSelect.addTextChangedListener(new
TextWatcher() {
    public void
onTextChanged(CharSequence s, int start, int
before,
                           int count) {
}

    @Override
    public void
afterTextChanged(Editable s) {
                           // TODO Auto-generated
method stub

}

    @Override
    public void
beforeTextChanged(CharSequence s, int start, int
count,
                           int after) {
                           // TODO Auto-generated
method stub

}

});

Button btnFinish = (Button)
findViewById(R.id.btnFinish);
btnFinish.setOnClickListener(new
OnClickListener() {
    public void onClick(View arg0)
{
                           finish();
}
});

Toast.makeText(getApplicationContext(),
```

```
"onCreate", 1).show();
}

@Override
protected void onPause() {
    super.onPause();
    saveDataFromCurrentState();
    Toast.makeText(this, "onPause",
1).show();
}

@Override
protected void onRestart() {
    super.onRestart();
    Toast.makeText(this, "onRestart",
1).show();
}

@Override
protected void onResume() {
    super.onResume();
    Toast.makeText(this, "onResume",
1).show();
}

@Override
protected void onStart() {
    // TODOAuto-generated method stub
    super.onStart();
    updateFromSavedState();
    Toast.makeText(this, "onStart",
1).show();
}

@Override
protected void onDestroy() {
    // TODOAuto-generated method stub
    super.onDestroy();
    Toast.makeText(this, "onDestroy",
```

```

    1).show();
}

@Override
protected void onStop() {
    // TODOAuto-generated method stub
    super.onStop();
    Toast.makeText(this, "onStop",
1).show();
}

protected void saveDataFromCurrentState() {
    SharedPreferences myPrefs =
getSharedPreferences(INPUT_METHOD_SERVICE,
RESULT_OK);
    SharedPreferences.Editor myEditor =
myPrefs.edit();
    myEditor.putString("myBkColor",
txtColorSelect.getText().toString());
    myEditor.commit();
} // saveDataFromCurrentState

protected void updateFromSavedState() {
    SharedPreferences myPrefs =
getSharedPreferences(INPUT_METHOD_SERVICE,
RESULT_OK);
    if ((myPrefs != null) &&
(myPrefs.contains("myBkColor")))
        String theChosenColor =
myPrefs.getString("myBkColor", "");
    txtColorSelect.setText(theChosenColor);
    changeBackgroundColor(theChosenColor);
}
} // UpdateFromSavedState

protected void clearMyPreferences() {
    SharedPreferences myPrefs =

```

```

getSharedPreferences(INPUT_METHOD_SERVICE,
RESULT_OK);
    SharedPreferences.Editor myEditor =
myPrefs.edit();
        myEditor.clear();
        myEditor.commit();
    }

private void changeBackgroundColor(String
theChosenColor) {
    if (theChosenColor.contains("red"))

        myScreen.setBackgroundColor(0xffff0000);
    else if
(theChosenColor.contains("green"))

        myScreen.setBackgroundColor(0xff00ff00);
    else if
(theChosenColor.contains("blue"))

        myScreen.setBackgroundColor(0xff0000ff);
    else {
        clearMyPreferences();

        myScreen.setBackgroundColor(0xff000000);
    }
}

@Override
protected void
onRestoreInstanceState(Bundle savedInstanceState)
{

    super.onRestoreInstanceState(savedInstanceState);
        Toast.makeText(getApplicationContext(),
"onRestoreInstanceState...BUNDLING",

        Toast.LENGTH_LONG).show();
}

```

```

    }

    @Override
    protected void onSaveInstanceState(Bundle
outState) {
        super.onSaveInstanceState(outState);
        Toast.makeText(getApplicationContext(),
"onSaveInstanceState...BUNDLING",
        Toast.LENGTH_LONG).show();
    }
}

```

4. Hasil tampilan program ketika dijalankan



Gambar 68 OnCreate dan On Resume



Gambar 69 OnPause dan OnStart

Bab 15

Penutup

Demikian coretan tinta demi tinta hasil laporan tugas praktikum saya, yang telah dibukukan. Semoga apa yang saya tulis disini bisa menjadi lebih bermanfaat di tangan orang yang tepat. Jika ditemukannya kesalahan atau kekurangan dalam karya singkat ini mohon dimaklumi. Sebagai penulis pemula tentu saya masih harus banyak belajar. Untuk segala kritik dan saran bisa dikirim kan ke email bagibagi23@gmail.com

Sekian dan Terima Kasih

Penulis,Narendra Ragan Prabu

Dosen Pembimbing, Rizky Yuniar Hakkun

Politeknik Elektronika Negeri Surabaya Jurusan Teknik Informatika

Copyright ©2012

List Gambar Dan Sumber Materi

Gambar 1 Loading screen Eclipse IDE	8
Gambar 2 Hasil extract file archive android SDK	8
Gambar 3 Menu Pilihan Install New Software.....	9
Gambar 4 Kotak Dialog Install New Software.....	9
Gambar 5 Kotak Dialog Add Site	10
Gambar 6 File ADT setelah ditambahkan	10
Gambar 7 Menu Preferences.....	11
Gambar 8 Lokasi SDK telah dikonfigurasi	11
Gambar 9 Membuat project baru.....	12
Gambar 10 Memberi nama project	13
Gambar 11 Memilih SDK yang akan digunakan	13
Gambar 12 Memberi nama Package.....	14
Gambar 13 Source First Project	14
Gambar 14 Tampilan window AVD Manager	15
Gambar 15 Create AVD	15
Gambar 16 Graphical Layout	17
Gambar 17 Membuat Class baru	18
Gambar 18 First Android Project	20
Gambar 19 Simple Date Button	23
Gambar 20 UI Hierarchy.....	26
Gambar 21 Tabel Layout	27
Gambar 22 Relative Layout	29
Gambar 23 Absolute Layout	31
Gambar 24 Radio Button Widget.....	34
Gambar 25 Membuat Layout tanpa xml	37
Gambar 26 ScrollView	40
Gambar 27 Simple ListView	43

Gambar 28 Spinner.....	46
Gambar 29 GridView	49
Gambar 30 Adding List Item	55
Gambar 31 Adding Spinner Data.....	60
Gambar 32 AutoComplete	66
Gambar 33 Date and Time Picker.....	70
Gambar 34 Tab Menu.....	74
Gambar 35 Slide Drawer Widget.....	78
Gambar 36 Aplikasi Order Pizza	85
Gambar 37 Aplikasi dalam Tab Menu.....	92
Gambar 38 Option and context menu.....	97
Gambar 39 Advanced option and context menu	104
Gambar 40 Tampilan Menu dan Intent Calling	113
Gambar 41 Tampilan show contact dan view contact	114
Gambar 42 Tampilan edit contact dan view web page	114
Gambar 43 Tampilan Geo Map Address dan Coordinate	115
Gambar 44 Tampilan Street View dan Music Player	115
Gambar 45 Playing from SD card dan send MMS	116
Gambar 46 System dan Locale Setting	116
Gambar 47 Intent bundles	125
Gambar 48 Intent 2	132
Gambar 49 Preferences dalam menyimpan Tema Screen	140
Gambar 50 Using SD Card to save data	147
Gambar 51 Menambah Data	155
Gambar 52 Menghapus data	156
Gambar 53 Mengupdate Data	157
Gambar 54 Hasil data tersimpan bisa dilihat melalui SQLite Admin	158
Gambar 55 RSS Feed dengan Android.....	168

Gambar 56 GPS Services.....	176
Gambar 57 Keytool untuk mendapatkan fingerprint.....	177
Gambar 58 API KEY yang berhasil didapatkan.....	177
Gambar 59 Menampilkan Map	182
Gambar 60 Intent Filters untuk menangkap SMS.....	188
Gambar 61 Configure Build Path	190
Gambar 62 Menambahkan Library	191
Gambar 63 Tampilan Login Dlalog	193
Gambar 64 Hasil Akhir Aplikasi	204
Gambar 65 Chat Session.....	205
Gambar 66 Tampilan pada Gtalk	206
Gambar 67 Hasil Chatting.....	206
Gambar 68 OnCreate dan On Resume	214
Gambar 69 OnPause dan OnStart.....	215

Sumber diambil dari

-J.F. DiMarzio(2007).*Android Programmer's Guide*.Mc Graw Hill

-Mark L. Murphy(2010).*Android Progammimg Tutorial*.CommonsWare

-Developers.android.com

-diskusiandroid.com