ANDROID-INTERMEDIATE

Definisi dan fnugsi SQLite

SQLite adalah database Internal Pada pembuatan Aplikasi android Yang dimana dapat berguna untuk :

- a. sebagai Penyimpanan Chache apabilah meload Data dari Cloud/API.
- b. Sebagai Storage Internal Aplikasi.

Pengenalan SQLite:

1. Cursor

Kursor adalah pointer ke dalam satu baris data terstruktur. Kelas Cursor menyediakan metode untuk menggerakkan kursor melalui struktur data, dan metode untuk mendapatkan data dari bidang-bidang di setiap baris.

<u>SQLiteCursor</u> mengekspos hasil kueri dari sebuah <u>SQLiteDatabase</u>. SQLiteCursor tidak disinkronkan secara internal, sehingga kode yang menggunakan SQLiteCursor dari beberapa thread harus melakukan sinkronisasi sendiri saat menggunakan SQLiteCursor.

<u>MatrixCursor</u> adalah implementasi kursor lengkap dan tidak tetap, yang didukung oleh larik objek yang secara otomatis meluaskan kapasitas internal bila diperlukan.

Beberapa operasi yang umum pada kursor adalah:

- getCount() mengembalikan jumlah baris dalam kursor.
- <u>getColumnNames()</u> mengembalikan larik string yang berisi nama semua kolom dalam rangkaian hasil dalam urutan pencantumannya dalam hasil.
- <u>getPosition()</u> mengembalikan posisi kursor saat ini dalam rangkaian baris.
- Getter tersedia untuk tipe data tertentu, seperti getString(int column) dan getInt(int column).
- Operasi seperti <u>moveToFirst()</u> dan <u>moveToNext()</u> akan menggerakkan kursor.
- <u>close()</u> membebaskan semua sumber daya dan membuat kursor menjadi tidak valid sama sekali. (untuk pembebasan Sumberdaya)

2. ContentValues

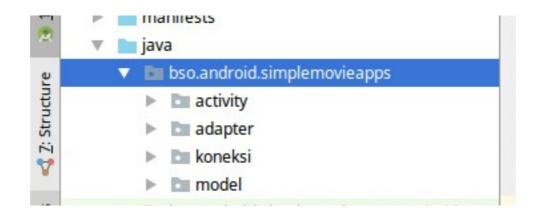
Serupa dengan cara ekstra menyimpan data, instance <u>ContentValues</u> menyimpan data sebagai pasangan nilai-kunci, dalam ini kuncinya adalah nama kolom dan nilainya adalah nilai untuk sel. Satu instance ContentValues menyatakan satu baris tabel.

Prepare:

- Buat New Project Dengan Nama "SQLitemovie"
- Masukan Semua Library yang dibutuhkan di gradle Module:apps Lalu klik Sync di Kanan Atas :

```
// RecyclerView
compile 'com.android.support:recyclerview-v7:25.3.1'
// CardView
compile 'com.android.support:cardview-v7:25.3.1'
// Design
compile 'com.android.support:design:25.3.1'
```

1. Buat Package Seperti di Bawah:



2. Dalam Package Acvitvity, Buat Activity DashboardActivity.java

```
public class DashboardActivity extends AppCompatActivity {
    Button tdata, ldata, edata, hdata;
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_dashboard);
        tdata = (Button) findViewById(R.id.tdata);
        ldata = (Button) findViewById(R.id.ldata);
        hdata = (Button) findViewById(R.id.hdata);
        edata = (Button) findViewById(R.id.edata);
        tdata.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent i = new
Intent(DashboardActivity.this, TambahDataActivity.class);
                startActivity(i);
            }
        });
        edata.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent i= new
Intent(DashboardActivity.this, EditDataActivity.class);
                startActivity(i);
        });
        ldata.setOnClickListener(new View.OnClickListener() {
```

```
@Override
            public void onClick(View view) {
                 Intent i= new
Intent(DashboardActivity.this,LihatDataActivity.class);
                 startActivity(i);
            }
        });
        hdata.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                 Intent i= new
Intent(DashboardActivity.this, HapusDataActivity.class);
                 startActivity(i);
        });
    }
}
3. Dalam Package Acvitvity, Buat Activity DetailMovieActivity.java,
public class DetailMovieActivity extends AppCompatActivity {
    TextView title,genre,year;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity detail movie);
        initialized();
        Intent intent = getIntent();
        String mTitle = intent.getStringExtra("title");
        String mGenre = intent.getStringExtra("genre");
        String mYear = intent.getStringExtra("year");
        title.setText(mTitle);
        genre.setText(mGenre);
        year.setText(mYear);
    }
    public void initialized(){
        title =(TextView) findViewById(R.id.tv_title);
        genre = (TextView) findViewById(R.id.tv_genre);
        year = (TextView) findViewById(R.id.tv year);
    }
}
4. Pada Package Activity Buat Activity: EditDataActivity.java
public class EditDataActivity extends AppCompatActivity {
    KoneksiDatabase moviedb;
    EditText Id, Title, Genre, Year;
    Button edit:
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity edit data);
        moviedb = new KoneksiDatabase(this);
        Title = (EditText) findViewById(R.id.mTitle);
        Genre = (EditText) findViewById(R.id.mGenre);
```

```
Year = (EditText) findViewById(R.id.mYear);
        Id = (EditText) findViewById(R.id.mId);
        edit = (Button) findViewById(R.id.edit);
        edit.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                UpdateData();
            }
        });
    }
    public void UpdateData() {
        String id = Id.getText().toString();
        String title = Title.getText().toString();
        String genre = Genre.getText().toString();
        String years = Year.getText().toString();
        Boolean hasil = moviedb.EditData(id, title, genre, years);
        if (hasil == true) {
            Toast.makeText(this, "Data berhasil di Update",
Toast.LENGTH SHORT).show();
            Intent i = new Intent(EditDataActivity.this,LihatDataActivity.class);
            startActivity(i);
        } else {
            Toast.makeText(this, "Data gagal di Update",
Toast. LENGTH_SHORT).show();
        }
    }
}
5. Dalam Package Activity buat HapusDataActivity .java :
public class HapusDataActivity extends AppCompatActivity {
    EditText Id;
    Button hapus:
    KoneksiDatabase moviedb;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity hapus data);
        Id = (EditText) findViewById(R.id.mId);
        hapus = (Button) findViewById(R.id.hapus);
        moviedb = new KoneksiDatabase(this);
        hapus.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                 hapusData();
        });
    }
    public void hapusData(){
        String id = Id.getText().toString();
        int hasil = moviedb.DeleteData(id);
        Toast.makeText(this, "Databerhasil Di hapus", Toast.LENGTH_SHORT).show();
        Intent i = new Intent(HapusDataActivity.this,LihatDataActivity.class);
        startActivity(i);
    }
}
```

```
6. Dalam package Activity Buat : LihatDataActivity.java
public class LihatDataActivity extends AppCompatActivity {
    KoneksiDatabase moviedb;
    private List<Movie> movieList = new ArrayList<>();
    private RecyclerView recyclerView;
    private MoviesAdapter mAdapter;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_lihat_data);
        moviedb = new KoneksiDatabase(this);
        recyclerView = (RecyclerView) findViewById(R.id.recycler view);
        mAdapter = new MoviesAdapter(movieList, getApplicationContext());
        RecyclerView.LayoutManager mLayoutManager = new
LinearLayoutManager(getApplicationContext());
        recyclerView.setLayoutManager(mLayoutManager);
        recyclerView.setItemAnimator(new DefaultItemAnimator());
        recyclerView.setAdapter(mAdapter);
        prepareMovieData();
    }
    private void prepareMovieData() {
        Cursor res = moviedb.TampilData();
        if (res != null && res.getCount() > 0) {
            while (res.moveToNext()) {
                String id = res.getString(0);
                String title = res.getString(1);
                String genre = res.getString(2);
                String years = res.getString(3);
                Movie movie = new Movie(id,title, genre, years);
                movieList.add(movie);
            mAdapter.notifyDataSetChanged();
        }
    }
}
7. Dalam Package Activity buat : TambahDataActivity.java
public class TambahDataActivity extends AppCompatActivity {
    KoneksiDatabase moviedb;
    EditText Id, Title, Genre, Year;
    String id,title,genre,year;
    Button insert;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_tambah_data);
        moviedb =new KoneksiDatabase(this);
        Id = (EditText) findViewById(R.id.mId);
        Title = (EditText) findViewById(R.id.mTitle);
        Genre = (EditText) findViewById(R.id.mGenre);
        Year = (EditText) findViewById(R.id.mYear);
```

```
insert = (Button) findViewById(R.id.inser);
        insert.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                masukanData();
            }
        });
    }
    public void masukanData(){
        id = Id.getText().toString();
        title = Title.getText().toString();
        genre = Genre.getText().toString();
        year = Year.getText().toString();
        Boolean hasil = moviedb.MasukanData(id,title,genre,year);
        if (hasil== true){
            Toast.makeText(this, "Data berhasil di
input", Toast.LENGTH_SHORT).show();
            Intent i = new
Intent(TambahDataActivity.this,LihatDataActivity.class);
            startActivity(i);
        else{
            Toast.makeText(this, "Data gagal di input", Toast.LENGTH_SHORT).show();
        }
    }
}
8. Dalam Package Adapter Buat class : MoviesAdapter.java
public class MoviesAdapter extends
RecyclerView.Adapter<MoviesAdapter.MyViewHolder> {
    private List<Movie> moviesList:
    private Context;
    public class MyViewHolder extends RecyclerView.ViewHolder {
        public TextView title, year, genre,id;
        CardView cvMovie;
        public MyViewHolder(View view) {
            super(view);
            id = (TextView) view.findViewById(R.id.id);
            title = (TextView) view.findViewById(R.id.title);
            genre = (TextView) view.findViewById(R.id.genre);
            year = (TextView) view.findViewById(R.id.year);
            cvMovie = (CardView) view.findViewById(R.id.cv movie);
        }
    public MoviesAdapter(List<Movie> moviesList, Context context) {
        this.moviesList = moviesList;
        this.context = context;
    }
    @Override
    public MyViewHolder onCreateViewHolder(ViewGroup parent, int viewType) {
        View itemView = LayoutInflater.from(parent.getContext())
                .inflate(R.layout.movie list row, parent, false);
        return new MyViewHolder(itemView);
    @Override
```

```
public void onBindViewHolder(MyViewHolder holder, int position) {
        final Movie movie = moviesList.get(position);
        holder.id.setText(movie.getId());
        holder.title.setText(movie.getTitle());
        holder.genre.setText(movie.getGenre());
        holder.year.setText(movie.getYear());
        holder.cvMovie.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent i =new Intent(context, DetailMovieActivity.class);
                i.putExtra("title", movie.getTitle());
                i.putExtra("genre", movie.getGenre());
                i.putExtra("year", movie.getYear());
                context.startActivity(new Intent(i));
            }
        });
    }
    @Override
    public int getItemCount() {
        return moviesList.size();
    }
}
9. Dalam Package koneksi buat class : KoneksiDatabase.java Sebagai Helper
Database.
public class KoneksiDatabase extends SQLiteOpenHelper {
    public static final String DATABASE_NAME ="Movie.db";
    public static final String TABLE NAME = "DataMovie";
    public static final String colom1 = "ID";
    public static final String colom2 = "title";
    public static final String colom3 = "genre";
    public static final String colom4 = "year";
    public KoneksiDatabase(Context context){
        super(context, DATABASE_NAME, null, 1);
    @Override
    public void onCreate(SQLiteDatabase db){
        db.execSQL("CREATE TABLE " + TABLE_NAME +" " +
                "(ID INTEGER PRIMARY KEY ," +
                " title TEXT," +
                " genre TEXT ," +
                " year TEXT)");
    }
    @Override
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion){
        db.execSQL("DROP TABLE IF EXISTS "+TABLE_NAME);
    public Cursor TampilData(){
        SQLiteDatabase db = this.getWritableDatabase();
        Cursor res = db.rawQuery("select * from "+TABLE NAME, null);
        return res;
    public boolean MasukanData(String id,String title,String genre, String year){
        SQLiteDatabase db = this.getWritableDatabase();
        ContentValues konten = new ContentValues();
```

```
konten.put(colom1,id);
        konten.put(colom2, title);
        konten.put(colom3, genre);
        konten.put(colom4, year);
        long hasil= db.insert(TABLE_NAME, null, konten);
        db.close();
        if (hasil== -1){
            return false;
        }
        else {
            return true;
    }
    public boolean EditData(String id,String title,String genre, String year){
        SQLiteDatabase db = this.getWritableDatabase();
        ContentValues konten = new ContentValues();
        konten.put(colom2, title);
        konten.put(colom3,genre);
        konten.put(colom4, year);
        int hasil= db.update(TABLE_NAME, konten, "ID =? ", new String[]{id});
        if (hasil>0){
            return true;
        }
        else {
            return false;
    public Integer DeleteData ( String id){
        SQLiteDatabase db = this.getWritableDatabase();
        int i = db.delete(TABLE_NAME,"ID=? ", new String[]{id});
        return i;
    }
}
10. Dalam Package model buat class Model : Movie.java
public class Movie {
    private String id, title, genre, year;
    public Movie() {
    public Movie(String id, String title, String genre, String year) {
        this.id = id;
        this.title = title;
        this.genre = genre;
        this.year = year;
    public String getId() {
        return id;
    public void setId(String id) {
        this.id = id;
    public String getTitle() {
        return title;
    public void setTitle(String name) {
```

```
this.title = name;
}
public String getYear() {
    return year;
}
public void setYear(String year) {
    this.year = year;
}
public String getGenre() {
    return genre;
}
public void setGenre(String genre) {
    this.genre = genre;
}
```

```
Resource File XML. Pindah Ke Res → Layout . Setting Layout seperti berikut :
1. Layout activity dashboard.xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout width="match parent"
    android:layout height="match parent"
    android:orientation="vertical"
    tools:context="bso.android.simplemovieapps.activity.DashboardActivity">
    <TextView
        android:layout_width="match_parent"
        android:layout height="wrap content"
        android:layout gravity="center"
        android:text="Aplikasi Movie List"
        android:textAlignment="center"
        android:textSize="30dp" />
    <View
        android:layout width="wrap content"
        android:layout height="5dp"
        android:background="#000" />
    <LinearLayout
        android:layout width="match parent"
        android:layout height="wrap content"
        android:layout weight="1"
        android:orientation="horizontal">
        <Button
            android:textColor="#fff"
            android:id="@+id/ldata"
            android:layout width="0dp"
            android:layout_height="match_parent"
            android:layout weight="1"
            android:text="LIHAT FILM"
            android:layout_margin="10dp"
            android:textSize="28sp" />
    </LinearLayout>
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout weight="1"
        android:orientation="vertical">
            android:layout margin="10dp"
            android:id="@+id/tdata"
            android:layout width="match parent"
            android:layout_height="wrap_content"
            android:text="TAMBAH FILM"
            android:textColor="#fff"
            android:textSize="24sp"
            android:background="#466"/>
        <Button
            android:background="#466"
            android:id="@+id/edata"
            android:layout width="match parent"
            android:layout height="wrap content"
```

android:textColor="#fff"

```
android:text="EDIT FILM"
            android:textSize="24sp"
            android:layout margin="10dp"/>
        <Button
            android:background="#466"
            android:id="@+id/hdata"
            android:textColor="#fff"
            android:layout_width="match_parent"
            android:layout height="wrap content"
            android:text="HAPUS FILM"
            android:textSize="24sp"
            android:layout margin="10dp"/>
    </LinearLayout>
</LinearLayout>
2. Layout activity detail movie.xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="bso.android.simplemovieapps.activity.DetailMovieActivity">
    <android.support.v7.widget.CardView</pre>
        android:layout_width="match_parent"
        android:layout height="wrap content">
        <LinearLayout
            android:layout width="match parent"
            android:layout height="wrap content"
            android:layout margin="10dp"
            android:orientation="vertical">
            <TextView
                android:id="@+id/tv_title"
                android:layout width="match parent"
                android:layout height="wrap content"
                android:text="Judul"
                android:textSize="30dp"
                android:textStyle="bold" />
            <TextView
                android:id="@+id/tv_genre"
                android:layout_width="match_parent"
                android:layout height="wrap content"
                android:text="Genre"
                android:textSize="19dp" />
            <TextView
                android:id="@+id/tv year"
                android:layout width="match parent"
                android:layout height="wrap content"
                android:layout marginLeft="300dp"
                android:text="Tahun" />
        </LinearLayout>
    </android.support.v7.widget.CardView>
</LinearLayout>
```

```
3. Layout activity edit data.xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout width="match parent"
android: layout height="match parent"
android:orientation="vertical">
<EditText
    android:layout height="wrap content"
    android:layout_width="match_parent"
    android:hint="Nomor Film"
    android:id="@+id/mId" />
<EditText
    android:layout_height="wrap_content"
    android: layout width="match parent"
    android:hint="title"
    android:id="@+id/mTitle"
    />
<EditText
    android:layout height="wrap content"
    android:layout width="match parent"
    android:hint="genre"
    android:id="@+id/mGenre"
    />
<EditText
    android:layout height="wrap content"
    android: layout width="match parent"
    android:hint="year"
    android:id="@+id/mYear"
    />
<Button
    android:layout_marginTop="20dp"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Update Data"
    android: layout gravity="center"
    android:textColor="#fff"
    android:background="#908"
    android:id="@+id/edit"
    android:padding="10dp"/>
</LinearLayout>
Layout activity_hapus_data.xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"
```

```
android:orientation="vertical"
tools:context="bso.android.simplemovieapps.activity.HapusDataActivity">
<EditText
    android:layout height="wrap content"
    android:layout width="match parent"
    android:hint="Nomor Film"
    android:id="@+id/mId"
    />
<Button
    android:layout marginTop="20dp"
    android:layout width="match parent"
    android:layout height="wrap content"
    android:text="Hapus Data"
    android:layout gravity="center"
    android:textColor="#fff"
    android:background="#908"
    android:id="@+id/hapus"
    android:padding="10dp"/>
</LinearLayout>
Layout activity_lihat_data.xml
<?xml version="1.0" encoding="utf-8"?>
<android.support.design.widget.CoordinatorLayout</pre>
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"
android:fitsSystemWindows="true"
tools:context="bso.android.simplemovieapps.activity.LihatDataActivity">>
<android.support.design.widget.AppBarLayout</pre>
    android:layout height="wrap content"
    android:layout width="match parent"
    android:theme="@style/AppTheme.AppBarOverlay">
    <android.support.v7.widget.Toolbar</pre>
        android:id="@+id/toolbar"
        android:layout width="match parent"
        android:layout height="?attr/actionBarSize"
        android:background="?attr/colorPrimary"
        app:popupTheme="@style/AppTheme.PopupOverlay" />
</android.support.design.widget.AppBarLayout>
<include layout="@layout/content main"/>
</android.support.design.widget.CoordinatorLayout>
Layout activity_tambah_data.xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
    xmlns:app="http://schemas.android.com/apk/res-auto"
```

```
xmlns:tools="http://schemas.android.com/tools"
    android:layout width="match parent"
    android:layout height="match parent"
    android:orientation="vertical"
    tools:context="bso.android.simplemovieapps.activity.TambahDataActivity">
    <EditText
        android:id="@+id/mId"
        android:layout_width="match_parent"
        android:layout height="wrap content"
        android:hint="Nomor Film" />
    <EditText
        android:id="@+id/mTitle"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="title" />
    <EditText
        android:id="@+id/mGenre"
        android:layout_width="match_parent"
        android:layout height="wrap content"
        android:hint="genre" />
    <EditText
        android:id="@+id/mYear"
        android:layout width="match parent"
        android:layout_height="wrap_content"
        android:hint="year" />
    <Button
        android:id="@+id/inser"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:layout gravity="center"
        android:layout marginTop="20dp"
        android:background="#908"
        android:padding="10dp"
        android:text="Masukan Data"
        android:textColor="#fff" />
</LinearLayout>
7. buat Resource Layout dengan Nama Layout content_main.xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:layout_width="match_parent"
    android:layout height="match parent"
    app:layout_behavior="@string/appbar_scrolling_view_behavior"
    tools:showIn="@layout/activity lihat data">
    <android.support.v7.widget.RecyclerView</pre>
        android:id="@+id/recycler view"
        android:layout width="match parent"
        android:layout height="wrap content"
        android:scrollbars="vertical" />
</RelativeLayout>
```

```
8. buat Resource Layout dengan Nama Layout movie_list_row.xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
    android:layout_width="match_parent"
    android:layout height="wrap content"
    android:clickable="true"
    android:focusable="true"
    android:orientation="vertical"
    android:layout_margin="@dimen/row_padding_vertical">
    <android.support.v7.widget.CardView</pre>
        android:id="@+id/cv movie"
        android:layout width="match parent"
        android:layout_height="wrap_content" >
        <LinearLayout
            android:layout width="match parent"
            android:layout_height="match_parent"
            android:orientation="vertical"
            android:padding="@dimen/row padding vertical">
            <TextView
                android: id="@+id/id"
                android:layout marginLeft="300dp"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout alignParentTop="true"
                android:textColor="@color/title"
                android:textSize="25dp"
                android:textStyle="bold" />
            <TextView
                android: id="@+id/title"
                android:layout width="match parent"
                android:layout height="wrap content"
                android:layout_alignParentTop="true"
                android:textColor="@color/title"
                android:textSize="16dp"
                android:textStyle="bold" />
            <TextView
                android: id="@+id/genre"
                android:layout width="match parent"
                android:layout_height="wrap_content"
                android:layout below="@id/title" />
            <TextView
                android: id="@+id/year"
                android:layout width="wrap content"
                android:layout height="wrap content"
                android:layout alignParentRight="true"
                android:textColor="@color/year" />
        </LinearLayout>
```

</android.support.v7.widget.CardView>

</RelativeLayout>

```
9. Modifikasi Manifests.xml Seperti Berikut :
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"</pre>
    package="bso.android.simplemovieapps">
    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic launcher"
        android:label="@string/app name"
        android:roundIcon="@mipmap/ic launcher round"
        android:supportsRtl="true"
        android:theme="@style/AppTheme.NoActionBar">
        <activity android:name=".activity.DashboardActivity">
             <intent-filter>
                 <action android:name="android.intent.action.MAIN" />
                 <category android:name="android.intent.category.LAUNCHER" />
             </intent-filter>
        </activity>
        <activity android:name=".activity.EditDataActivity" />
        <activity android:name=".activity.TambahDataActivity" />
        <activity android:name=".activity.LihatDataActivity" /> <activity android:name=".activity.HapusDataActivity" />
        <activity android:name=".activity.DetailMovieActivity"></activity>
    </application>
</manifest>
```

10. Silakan RUN Project dan Nikmati Error :))