**LAPORAN PRAKTIKUM 3**

**APLIKASI MOBILE**

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**PADANG**

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**Database SQLite**

1. **Model**

**Model pelanggan**

package com.najwa.laundryapps;  
  
public class ModelPelanggan {  
 String id, nama, email, hp;  
  
 public String getId(){ return id; }  
 public void setId(String id){ this.id = id; }  
  
 public String getNama() { return nama ;}  
 public void setNama(String nama) { this.nama = nama; }  
  
 public String getEmail() { return email ;}  
 public void setEmail(String email) { this.email = email; }  
  
 public String getHp() { return hp ;}  
 public void setHp(String hp) { this.hp = hp; }  
 }

**model layanan**

package com.najwa.laundryapps;  
  
public class ModelLayanan {  
 String id, tipe, harga;  
  
 public String getId(){ return id; }  
 public void setId(String id) { this.id = id ;}  
  
 public String getTipe(){ return tipe;}  
 public void setTipe(String tipe) { this.tipe = tipe ;}  
  
 public String getHarga(){ return harga ;}  
 public void setHarga(String harga) { this.harga = harga ; }  
}

1. **SQLite Helper**

package com.najwa.laundryapps;  
  
import android.content.ContentValues;  
import android.content.Context;  
import android.database.Cursor;  
import android.database.sqlite.SQLiteDatabase;  
import android.database.sqlite.SQLiteOpenHelper;  
  
import com.najwa.laundryapps.ModelPelanggan;  
  
import java.util.ArrayList;  
import java.util.List;  
  
public class SQLiteHelper extends SQLiteOpenHelper {  
 public static String *DATABASE\_NAME* = "laundryApp.db";  
 public static final int *DATABASE\_VERSION* = 1;  
 public static final String *TABLE\_PELANGGAN* = "pelanggan";  
 public static final String *KEY\_PELANGGAN\_ID* = "pelanggan\_id";  
 public static final String *KEY\_PELANGGAN\_NAMA* = "nama";  
 public static final String *KEY\_PELANGGAN\_EMAIL* = "email";  
 public static final String *KEY\_PELANGGAN\_HP* = "hp";  
 private static final String *CREATE\_TABLE\_PELANGGAN* = "CREATE TABLE " +  
 *TABLE\_PELANGGAN* + "("  
 + *KEY\_PELANGGAN\_ID* + " TEXT, " + *KEY\_PELANGGAN\_NAMA* + " TEXT, "+  
 *KEY\_PELANGGAN\_EMAIL* + " TEXT, "+*KEY\_PELANGGAN\_HP* +" TEXT )";  
 public SQLiteHelper(Context context){  
 super(context, *DATABASE\_NAME*, null, *DATABASE\_VERSION*);  
 }  
 @Override  
 public void onCreate(SQLiteDatabase db) {  
 db.execSQL(*CREATE\_TABLE\_PELANGGAN*);  
 }  
 @Override  
 public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion)  
 {  
 db.execSQL("DROP TABLE IF EXISTS " + *TABLE\_PELANGGAN*);  
 onCreate(db);  
 }  
 public boolean insertPelanggan(ModelPelanggan mp){  
 SQLiteDatabase database = this.getReadableDatabase();  
 ContentValues contentValues = new ContentValues();  
 contentValues.put(*KEY\_PELANGGAN\_ID*, mp.getId());  
 contentValues.put(*KEY\_PELANGGAN\_NAMA*, mp.getNama());  
 contentValues.put(*KEY\_PELANGGAN\_EMAIL*, mp.getEmail());  
 contentValues.put(*KEY\_PELANGGAN\_HP*, mp.getHp());  
 long id = database.insert(*TABLE\_PELANGGAN*, null, contentValues);  
 database.close();  
 if (id != -1){  
 return true;  
 }else{  
 return false;  
 }  
 }  
 public List<ModelPelanggan> getPelanggan(){  
 List<ModelPelanggan> pel = new ArrayList<ModelPelanggan>();  
 String query = "SELECT \* FROM " + *TABLE\_PELANGGAN*;  
 SQLiteDatabase db = this.getWritableDatabase();  
 Cursor cursor = db.rawQuery(query, null);  
 if (cursor.moveToFirst()){  
 do{  
 ModelPelanggan k = new ModelPelanggan();  
 k.setId(cursor.getString(0));  
 k.setNama(cursor.getString(1));  
 k.setEmail(cursor.getString(2));  
 k.setHp(cursor.getString(3));  
 pel.add(k);  
 }while (cursor.moveToNext());  
 }  
 return pel;  
 }  
 public ModelPelanggan getPelangganById(String id){  
 SQLiteDatabase db = this.getReadableDatabase();  
 String query = "SELECT \* FROM " + *TABLE\_PELANGGAN* + " WHERE " + *KEY\_PELANGGAN\_ID* + " = ?";  
 Cursor cursor = db.rawQuery(query, new String[]{id});  
 ModelPelanggan pelanggan = null;  
 if (cursor.moveToFirst()){  
 pelanggan = new ModelPelanggan();  
 pelanggan.setId(cursor.getString(0));  
 pelanggan.setNama(cursor.getString(1));  
 pelanggan.setEmail(cursor.getString(2));  
 pelanggan.setHp(cursor.getString(3));  
 }  
 cursor.close();  
 return pelanggan;  
 }  
 public boolean deletePelanggan(String id) {  
 SQLiteDatabase db = this.getWritableDatabase();  
 int result = db.delete(*TABLE\_PELANGGAN*, *KEY\_PELANGGAN\_ID* + " = ?", new String[]{id});  
 db.close();  
 return result > 0;  
 }  
  
}

1. **Adapter**

**Adapter Pelanggan**

package com.najwa.laundryapps;  
  
import android.content.Context;  
import android.view.LayoutInflater;  
import android.view.View;  
import android.view.ViewGroup;  
import android.widget.TextView;  
  
import androidx.recyclerview.widget.RecyclerView;  
  
import com.najwa.laundryapps.ModelPelanggan;  
  
import java.util.List;  
  
public class AdapterPelanggan extends  
 RecyclerView.Adapter<AdapterPelanggan.ViewHolder> {  
 private static final String *TAG* =  
 AdapterPelanggan.class.getSimpleName();  
 private Context context;  
 private List<ModelPelanggan> list;  
 private View.OnClickListener onItemClicked;  
 public void setOnItemClickListener(View.OnClickListener  
 itemClickListener) {  
 onItemClicked = itemClickListener;  
 }  
 public AdapterPelanggan(Context context, List<ModelPelanggan> list) {  
 this.context = context;  
 this.list = list;  
 }  
 @Override  
 public ViewHolder onCreateViewHolder(ViewGroup parent, int viewType) {  
 View view =  
 LayoutInflater.*from*(parent.getContext()).inflate(R.layout.*item\_pelanggan*,  
 parent, false);  
 return new ViewHolder(view);  
 }  
 @Override  
 public void onBindViewHolder(ViewHolder holder, int position) {  
 ModelPelanggan item = list.get(position);  
 holder.tvNama.setText(item.getNama());  
 holder.tvHp.setText(item.getHp());  
 }  
 @Override  
 public int getItemCount() {  
 return list.size();  
 }  
 public void clear() {  
 int size = this.list.size();  
 this.list.clear();  
 notifyItemRangeRemoved(0, size);  
 }  
 public class ViewHolder extends RecyclerView.ViewHolder {  
 TextView tvNama, tvHp;  
 public ViewHolder(View itemView) {  
 super(itemView);  
 tvNama = (TextView) itemView.findViewById(R.id.*tvItemPelNama*);  
 tvHp = (TextView) itemView.findViewById(R.id.*tvItemPelHp*);  
 itemView.setTag(this);  
 itemView.setOnClickListener(onItemClicked);  
 }  
 }  
  
}

**Adapter Layanan**

package com.najwa.laundryapps;  
  
import android.content.Context;  
import android.view.LayoutInflater;  
import android.view.View;  
import android.view.ViewGroup;  
import android.widget.TextView;  
  
import androidx.recyclerview.widget.RecyclerView;  
  
import com.najwa.laundryapps.ModelLayanan;  
  
import java.util.List;  
  
public class AdapterLayanan extends RecyclerView.Adapter<AdapterLayanan.ViewHolder> {  
 private static final String *TAG* = AdapterLayanan.class.getSimpleName();  
 private Context context;  
 private List<ModelLayanan> list;  
 private View.OnClickListener onItemClicked;  
 public void setOnItemClickListener(View.OnClickListener  
 itemClickListener){  
 onItemClicked = itemClickListener;  
 }  
 public AdapterLayanan(Context context, List<ModelLayanan> list){  
 this.context = context;  
 this.list = list;  
 }  
 @Override  
 public ViewHolder onCreateViewHolder(ViewGroup parent, int viewtype){  
 View view =  
 LayoutInflater.*from*(parent.getContext()).inflate(R.layout.*item\_layanan*,  
 parent, false);  
 return new ViewHolder(view);  
 }  
 @Override  
 public void onBindViewHolder(ViewHolder holder, int position){  
 ModelLayanan item = list.get(position);  
 holder.tvTipe.setText(item.getTipe());  
 holder.tvHarga.setText(item.getHarga());  
 }  
 @Override  
 public int getItemCount(){  
 return list.size();  
 }  
 public void clear(){  
 int size = this.list.size();  
 this.list.clear();  
 notifyItemRangeRemoved(0, size);  
 }  
 public class ViewHolder extends RecyclerView.ViewHolder{  
 TextView tvTipe, tvHarga;  
  
 public ViewHolder(View itemview){  
 super(itemview);  
 tvTipe = (TextView) itemview.findViewById(R.id.*tvLayanan*);  
 tvHarga = (TextView) itemview.findViewById(R.id.*tvHarga*);  
 itemview.setTag(this);  
 itemview.setOnClickListener(onItemClicked);  
 }  
 }  
}

1. **Pelanggan**

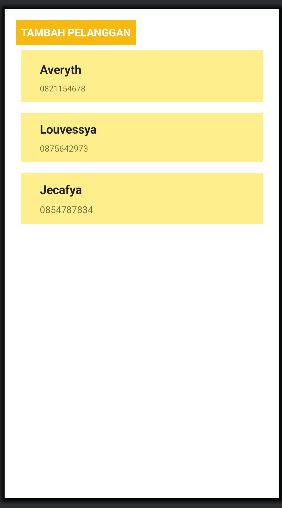
* **Pelanggan Activity**
* **Java**

package com.najwa.laundryapps;  
  
import android.annotation.SuppressLint;  
import android.app.ProgressDialog;  
import android.content.Intent;  
import android.os.Bundle;  
import android.view.View;  
import android.view.animation.AlphaAnimation;  
import android.widget.TextView;  
import android.widget.Toast;  
  
import androidx.appcompat.app.AppCompatActivity;  
import androidx.core.view.ViewCompat;  
import androidx.core.view.WindowInsetsCompat;  
import androidx.recyclerview.widget.LinearLayoutManager;  
import androidx.recyclerview.widget.RecyclerView;  
  
import com.najwa.laundryapps.R;  
import com.najwa.laundryapps.AdapterPelanggan;  
import com.najwa.laundryapps.SQLiteHelper;  
import com.najwa.laundryapps.Constant;  
import com.najwa.laundryapps.ModelPelanggan;  
  
import java.util.ArrayList;  
import java.util.List;  
  
public class PelangganActivity extends AppCompatActivity {  
 SQLiteHelper db;  
 TextView btnPelAdd;  
 RecyclerView rvPelanggan;  
 AdapterPelanggan adapterPelanggan;  
 ArrayList<ModelPelanggan> list;  
 ProgressDialog progressDialog;  
 AlphaAnimation btnAnimasi = new AlphaAnimation(1F, 0.5F);  
  
 @SuppressLint("MissingInflatedId")  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_pelanggan*);  
  
 // Handling insets for edge-to-edge layout  
 ViewCompat.*setOnApplyWindowInsetsListener*(findViewById(R.id.*main*), (v, insets) -> {  
 v.setPadding(insets.getInsets(WindowInsetsCompat.Type.*systemBars*()).left,  
 insets.getInsets(WindowInsetsCompat.Type.*systemBars*()).top,  
 insets.getInsets(WindowInsetsCompat.Type.*systemBars*()).right,  
 insets.getInsets(WindowInsetsCompat.Type.*systemBars*()).bottom);  
 return insets;  
 });  
  
 setView();  
 eventHandling();  
 getData();  
 }  
  
 private View.OnClickListener onClickListener = new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 v.startAnimation(btnAnimasi);  
 RecyclerView.ViewHolder viewHolder = (RecyclerView.ViewHolder) v.getTag();  
 int position = viewHolder.getAdapterPosition();  
 ModelPelanggan mp = list.get(position);  
 Intent intent= new Intent(PelangganActivity.this, PelangganEditActivity.class);  
 intent.putExtra(Constant.*ID*, mp.getId());  
 intent.putExtra(Constant.*NAMA*, mp.getNama());  
 intent.putExtra(Constant.*EMAIL*, mp.getEmail());  
 intent.putExtra(Constant.*HP*, mp.getHp());  
 startActivity(intent);  
  
 }  
 };  
  
 private void getData() {  
 list.clear();  
 showMsg();  
 try {  
 List<ModelPelanggan> pelangganList = db.getPelanggan();  
 if (pelangganList.size() > 0) {  
 list.addAll(pelangganList); // Simplified adding all data  
  
 adapterPelanggan = new AdapterPelanggan(this, list);  
 rvPelanggan.setAdapter(adapterPelanggan);  
 adapterPelanggan.setOnItemClickListener(onClickListener); // Handle click event  
 adapterPelanggan.notifyDataSetChanged();  
 } else {  
 Toast.*makeText*(this, "Data pelanggan tidak ditemukan", Toast.*LENGTH\_SHORT*).show();  
 }  
 } catch (Exception e) {  
 e.printStackTrace(); // Log the error for debugging  
 } finally {  
 progressDialog.dismiss();  
 }  
 }  
  
 private void eventHandling() {  
 btnPelAdd.setOnClickListener(v -> {  
 v.startAnimation(btnAnimasi);  
 startActivity(new Intent(PelangganActivity.this, PelangganAddAcivity.class));  
 });  
 }  
  
 private void setView() {  
 db = new SQLiteHelper(this);  
 progressDialog = new ProgressDialog(this);  
 btnPelAdd = findViewById(R.id.PelangganAddActivity);  
 rvPelanggan = findViewById(R.id.rvPelanggan);  
 list = new ArrayList<>();  
  
 LinearLayoutManager llm = new LinearLayoutManager(this);  
 llm.setOrientation(LinearLayoutManager.*VERTICAL*);  
 rvPelanggan.setLayoutManager(llm);  
 rvPelanggan.setHasFixedSize(true);  
 }  
  
 private void showMsg() {  
 progressDialog.setTitle("Informasi");  
 progressDialog.setMessage("Loading Data..");  
 progressDialog.setCancelable(false);  
 progressDialog.show();  
 }  
 @Override  
 protected void onResume() {  
 super.onResume();  
 getData(); // Memuat ulang data setelah penghapusan atau pembaruan  
 }  
  
}

* **XML**

<?xml version="1.0" encoding="utf-8"?>  
<androidx.constraintlayout.widget.ConstraintLayout 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:id="@+id/main"  
 android:background="@color/white"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".PelangganActivity">  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="vertical"  
 android:padding="@dimen/lg"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.497">  
  
 <TextView  
 android:id="@+id/textView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:background="@color/yellow"  
 android:padding="@dimen/sm"  
 android:text="TAMBAH PELANGGAN"  
 android:textColor="@color/white"  
 android:textStyle="bold"  
 android:textSize="@dimen/lg"/>  
  
 <RelativeLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_margin="@dimen/sm"  
 android:padding="@dimen/sm"  
 android:paddingTop="@dimen/lg"  
 tools:layout\_editor\_absoluteX="0dp"  
 tools:layout\_editor\_absoluteY="86dp"  
 android:background="@color/softyelow">  
  
 <TextView  
 android:id="@+id/textView1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentStart="true"  
 android:layout\_marginStart="16dp"  
 android:layout\_marginTop="@dimen/xs"  
 android:padding="4dp"  
 android:text="Averyth"  
 android:textColor="@color/abu"  
 android:textSize="18sp"  
 android:textStyle="bold" />  
  
 <TextView  
 android:id="@+id/textNomor1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/textView1"  
 android:layout\_alignParentStart="true"  
 android:layout\_marginStart="16dp"  
 android:padding="@dimen/xs"  
 android:text="0821154678"  
 android:textSize="12sp" />  
 </RelativeLayout>  
  
 <RelativeLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_margin="@dimen/sm"  
 android:padding="@dimen/sm"  
 tools:layout\_editor\_absoluteX="0dp"  
 tools:layout\_editor\_absoluteY="185dp"  
 android:background="@color/softyelow">  
  
 <TextView  
 android:id="@+id/textView2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentStart="true"  
 android:layout\_marginStart="16dp"  
 android:padding="4dp"  
 android:text="Louvessya"  
 android:textColor="@color/abu"  
 android:textSize="18sp"  
 android:textStyle="bold" />  
  
 <TextView  
 android:id="@+id/textNomor2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/textView2"  
 android:layout\_alignParentStart="true"  
 android:layout\_marginStart="16dp"  
 android:padding="@dimen/xs"  
 android:text="0875642973"  
 android:textSize="13sp" />  
 </RelativeLayout>  
  
 <RelativeLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_margin="@dimen/sm"  
 android:padding="@dimen/sm"  
 tools:layout\_editor\_absoluteX="0dp"  
 tools:layout\_editor\_absoluteY="281dp"  
 android:background="@color/softyelow">  
  
 <TextView  
 android:id="@+id/textView3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentStart="true"  
 android:layout\_marginStart="16dp"  
 android:padding="4dp"  
 android:text="Jecafya"  
 android:textColor="@color/abu"  
 android:textSize="18sp"  
 android:textStyle="bold" />  
  
 <TextView  
 android:id="@+id/textNomor3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/textView3"  
 android:layout\_alignParentStart="true"  
 android:layout\_marginStart="16dp"  
 android:padding="@dimen/xs"  
 android:text="0854787834"  
 android:textSize="14sp" />  
 </RelativeLayout>  
  
 </LinearLayout>  
  
</androidx.constraintlayout.widget.ConstraintLayout>

**Tampilan**

****

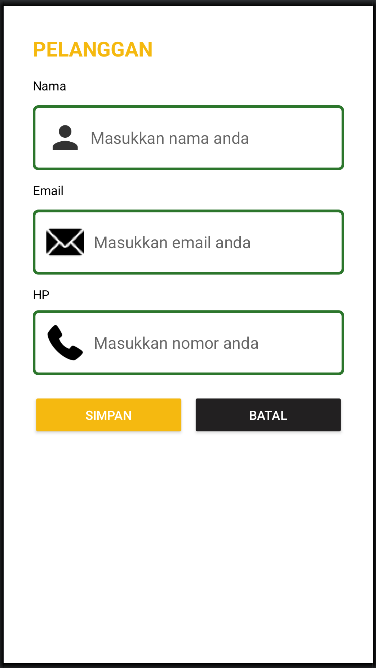
* **Pelanggan add activity**
* **Java**

package com.najwa.laundryapps;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
import android.widget.Toast;  
  
import androidx.activity.EdgeToEdge;  
import androidx.appcompat.app.AppCompatActivity;  
import androidx.core.graphics.Insets;  
import androidx.core.view.ViewCompat;  
import androidx.core.view.WindowInsetsCompat;  
  
import java.util.UUID;  
  
public class PelangganAddAcivity extends AppCompatActivity {  
  
 EditText nama, email, hp;  
 Button btnSimpan, btnBatal;  
 SQLiteHelper db;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 EdgeToEdge.*enable*(this);  
 setContentView(R.layout.*activity\_pelanggan\_add\_acivity*);  
 ViewCompat.*setOnApplyWindowInsetsListener*(findViewById(R.id.*main*), (v, insets) -> {  
 Insets systemBars = insets.getInsets(WindowInsetsCompat.Type.*systemBars*());  
 v.setPadding(systemBars.left, systemBars.top, systemBars.right, systemBars.bottom);  
 return insets;  
 });  
  
 nama = (EditText) findViewById(R.id.*edPelAddNama*);  
 email = (EditText) findViewById(R.id.*edPelAddEmail*);  
 hp = (EditText) findViewById(R.id.*edPelAddHp*);  
 btnSimpan = (Button) findViewById(R.id.*btnPelAddSimpan*);  
 btnBatal = (Button) findViewById(R.id.*btnPelAddBatal*);  
  
 db = new SQLiteHelper(PelangganAddAcivity.this);  
 btnSimpan.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 ModelPelanggan mp = new ModelPelanggan();  
 String uniqueID = UUID.*randomUUID*().toString();  
 mp.setId(""+uniqueID);  
 mp.setNama(nama.getText().toString());  
 mp.setEmail(email.getText().toString());  
 mp.setHp(hp.getText().toString());  
  
 Toast.*makeText*(PelangganAddAcivity.this, ""+mp.getId()+mp.getNama()+mp.getEmail()+mp.getHp(), Toast.*LENGTH\_SHORT*).show();  
 boolean cek = db.insertPelanggan(mp);  
 if(cek == true){  
 Toast.*makeText*(PelangganAddAcivity.this, "Data berhenti disimpan", Toast.*LENGTH\_SHORT*).show();  
 startActivity(new Intent(PelangganAddAcivity.this, PelangganActivity.class));  
 finish();  
 }else {  
 Toast.*makeText*(PelangganAddAcivity.this, "Data gagal disimpan", Toast.*LENGTH\_SHORT*).show();  
 }  
 }  
 });  
 btnBatal.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 finish();  
 }  
 });  
 }  
}

* **Xml**

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout 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:id="@+id/main"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"  
 android:padding="@dimen/lg"  
 android:background="@color/white"  
 tools:context=".PelangganAddAcivity">  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="vertical"  
 android:layout\_margin="16dp">  
 <TextView  
 android:textColor="@color/yellow"  
 android:textStyle="bold"  
 android:layout\_marginBottom="16dp"  
 android:textSize="23sp"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="PELANGGAN"/>  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="vertical">  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Nama"  
 android:textColor="@android:color/black"/>  
 <EditText  
 android:id="@+id/edPelAddNama"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="12dp"  
 android:background="@drawable/border"  
 android:drawableLeft="@mipmap/ic\_username"  
 android:drawablePadding="@dimen/xs"  
 android:padding="12dp"  
 android:hint="Masukkan nama anda"/>  
 </LinearLayout>  
  
 <LinearLayout  
 android:layout\_marginTop="12dp"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="vertical">  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Email"  
 android:textColor="@android:color/black"/>  
  
 <EditText  
 android:id="@+id/edPelAddEmail"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="12dp"  
 android:background="@drawable/border"  
 android:drawableLeft="@mipmap/ic\_email"  
 android:drawablePadding="8dp"  
 android:inputType="textEmailAddress"  
 android:padding="12dp"  
 android:hint="Masukkan email anda"/>  
 </LinearLayout>  
  
 <LinearLayout  
 android:layout\_marginTop="12dp"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="vertical">  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="HP"  
 android:textColor="@android:color/black"/>  
 <EditText  
 android:id="@+id/edPelAddHp"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="8dp"  
 android:background="@drawable/border"  
 android:drawableLeft="@mipmap/ic\_telepon"  
 android:drawablePadding="8dp"  
 android:inputType="number"  
 android:padding="12dp"  
 android:hint="Masukkan nomor anda" />  
 </LinearLayout>  
  
 <LinearLayout  
 android:layout\_marginTop="20dp"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="horizontal"  
 android:weightSum="2">  
 <Button  
 android:id="@+id/btnPelAddSimpan"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginRight="4dp"  
 android:layout\_weight="1"  
 android:backgroundTint="@color/yellow"  
 android:text="Simpan"  
 android:textColor="@color/white" />  
 <Button  
 android:id="@+id/btnPelAddBatal"  
 android:layout\_marginLeft="4dp"  
 android:textColor="@color/white"  
 android:backgroundTint="@color/abu"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_weight="1"  
 android:text="Batal"/>  
 </LinearLayout>  
 </LinearLayout>  
</LinearLayout>

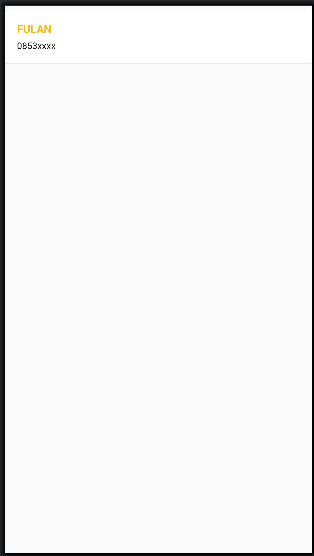
**Tampilan**

****

* **Item pelanggan**
* **Xml**

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 android:orientation="vertical"  
 android:layout\_marginTop="@dimen/xs"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content">  
 <androidx.cardview.widget.CardView  
 android:id="@+id/cvItemPel"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 app:cardCornerRadius="@dimen/xs">  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:padding="@dimen/lg"  
 android:orientation="vertical">  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:weightSum="2"  
 android:orientation="horizontal">  
 <LinearLayout  
 android:layout\_weight="1"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="vertical">  
 <TextView  
 android:id="@+id/tvItemPelNama"  
 android:textSize="15sp"  
 android:textStyle="bold"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="FULAN"  
 android:textColor="@color/yellow"/>  
 <TextView  
 android:id="@+id/tvItemPelHp"  
 android:textSize="12sp"  
 android:layout\_marginTop="@dimen/xs"  
 android:textColor="@color/black"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="0853xxxx"/>  
 </LinearLayout>  
 </LinearLayout>  
 </LinearLayout>  
 </androidx.cardview.widget.CardView>  
</LinearLayout>

**Tampilan**

****

**Layanan**

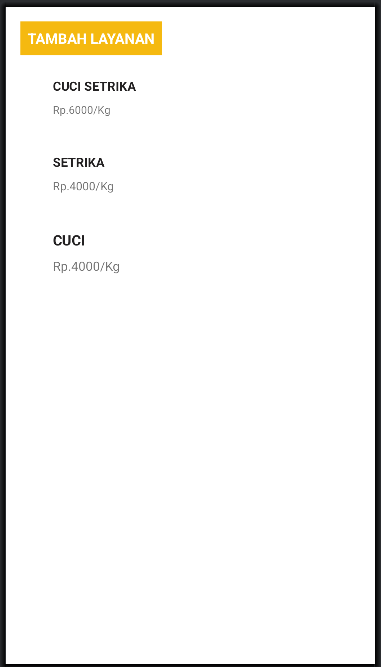
* **Layanan activity**
* **Java**

package com.najwa.laundryapps.layanan;  
  
import android.app.ProgressDialog;  
import android.content.Intent;  
import android.os.Bundle;  
import android.view.View;  
import android.view.animation.AlphaAnimation;  
import android.widget.TextView;  
import android.widget.Toast;  
  
import androidx.activity.EdgeToEdge;  
import androidx.appcompat.app.AppCompatActivity;  
import androidx.core.graphics.Insets;  
import androidx.core.view.ViewCompat;  
import androidx.core.view.WindowInsetsCompat;  
import androidx.recyclerview.widget.LinearLayoutManager;  
import androidx.recyclerview.widget.RecyclerView;  
  
import com.najwa.laundryapps.R;  
import com.najwa.laundryapps.AdapterLayanan;  
import com.najwa.laundryapps.SQLiteHelper;  
import com.najwa.laundryapps.Constant;  
import com.najwa.laundryapps.ModelLayanan;  
import com.najwa.laundryapps.PelangganActivity;  
import com.najwa.laundryapps.PelangganAddAcivity;  
import com.najwa.laundryapps.PelangganEditActivity;  
  
import java.util.ArrayList;  
import java.util.List;  
  
public class LayananActivity extends AppCompatActivity {  
 SQLiteHelper db;  
 TextView btnLayAdd;  
 RecyclerView rvLayanan;  
 AdapterLayanan adapterLayanan;  
 ArrayList<ModelLayanan> list;  
 ProgressDialog progressDialog;  
 AlphaAnimation btnAnimasi = new AlphaAnimation(1f,0.5f);  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 EdgeToEdge.*enable*(this);  
 setContentView(R.layout.*activity\_layanan*);  
 ViewCompat.*setOnApplyWindowInsetsListener*(findViewById(R.id.*main*), (v, insets) -> {  
 Insets systemBars = insets.getInsets(WindowInsetsCompat.Type.*systemBars*());  
 v.setPadding(systemBars.left, systemBars.top, systemBars.right, systemBars.bottom);  
 return insets;  
 });  
 setView();  
 eventHandling();  
 getData();  
 }  
 private View.OnClickListener onClickListener = new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 view.startAnimation(btnAnimasi);  
 RecyclerView.ViewHolder viewHolder = (RecyclerView.ViewHolder)  
 view.getTag();  
 int position = viewHolder.getAdapterPosition();  
 ModelLayanan mp = list.get(position);  
 Intent intent= new Intent(LayananActivity.this, LayananEditActivity.class);  
 intent.putExtra(Constant.*ID*, mp.getId());  
 intent.putExtra(Constant.*TIPE*, mp.getTipe());  
 intent.putExtra(Constant.*HARGA*, mp.getHarga());  
 startActivity(intent);  
 }  
 };  
  
 private void setView() {  
 db = new SQLiteHelper(this);  
 progressDialog = new ProgressDialog(this);  
 btnLayAdd = (TextView) findViewById(R.id.btnLayAdd);  
 rvLayanan =(RecyclerView) findViewById(R.id.rvLayanan);  
 list = new ArrayList<>();  
 LinearLayoutManager llm = new LinearLayoutManager(this);  
 llm.setOrientation(LinearLayoutManager.*VERTICAL*);  
 rvLayanan.setHasFixedSize(true);  
 rvLayanan.setLayoutManager(llm);  
 }  
 private void showMsg(){  
 progressDialog.setTitle("Informasi");  
 progressDialog.setMessage("Loading Data...");  
 progressDialog.setCancelable(false);  
 progressDialog.show();  
 }  
 private void eventHandling() {  
 btnLayAdd.setOnClickListener(v -> {  
 v.startAnimation(btnAnimasi);  
 startActivityForResult(new Intent(LayananActivity.this, LayananAddActivity.class), 1);  
 });  
 }  
 // Override onActivityResult  
 @Override  
 protected void onActivityResult(int requestCode, int resultCode, Intent data) {  
 super.onActivityResult(requestCode, resultCode, data);  
 if (requestCode == 1 && resultCode == *RESULT\_OK*) {  
 getData(); // Panggil getData() untuk memperbarui tampilan  
 }  
 }  
 private void getData (){  
 list.clear();  
 showMsg();  
 progressDialog.dismiss();  
 try{  
 List<ModelLayanan> l = db.getLayanan();  
 if (l.size() > 0 ){  
 for (ModelLayanan lay : l){  
 ModelLayanan ml = new ModelLayanan();  
 ml.setId((lay.getId()));  
 ml.setTipe((lay.getTipe()));  
 ml.setHarga((lay.getHarga()));  
 list.add(ml);  
 }  
 adapterLayanan = new AdapterLayanan(this, list);  
 adapterLayanan.notifyDataSetChanged();  
 rvLayanan.setAdapter(adapterLayanan);  
 adapterLayanan.setOnItemClickListener(onClickListener);  
 }else{  
 Toast.*makeText*(this, "Data tidak ditemukan", Toast.*LENGTH\_SHORT*).show();  
 }  
 }catch (Exception e ){  
 }  
 }  
 @Override  
 protected void onResume() {  
 super.onResume();  
 getData(); // Memuat ulang data setelah penghapusan atau pembaruan  
 }  
  
  
}

* **Xml**

<?xml version="1.0" encoding="utf-8"?>  
<androidx.constraintlayout.widget.ConstraintLayout 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:id="@+id/main"  
 android:background="@color/white"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".LoginActivity">  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="vertical"  
 android:padding="@dimen/lg"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.497">  
  
 <TextView  
 android:id="@+id/textView1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:background="@color/yellow"  
 android:padding="@dimen/sm"  
 android:text="TAMBAH LAYANAN"  
 android:textColor="@color/white"  
 android:textStyle="bold"  
 android:textSize="16sp"/>  
  
 <RelativeLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_margin="@dimen/sm"  
 android:padding="@dimen/sm"  
 android:paddingTop="@dimen/lg"  
 tools:layout\_editor\_absoluteX="0dp"  
 tools:layout\_editor\_absoluteY="86dp">  
  
 <TextView  
 android:id="@+id/textView2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentStart="true"  
 android:layout\_marginStart="16dp"  
 android:layout\_marginTop="@dimen/xs"  
 android:padding="4dp"  
 android:text="CUCI SETRIKA"  
 android:textColor="@color/abu"  
 android:textSize="14sp"  
 android:textStyle="bold" />  
  
 <TextView  
 android:id="@+id/textview7"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/textView2"  
 android:layout\_alignParentStart="true"  
 android:layout\_marginStart="16dp"  
 android:padding="@dimen/xs"  
 android:text="Rp.6000/Kg"  
 android:textSize="12sp" />  
 </RelativeLayout>  
  
 <RelativeLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_margin="@dimen/sm"  
 android:padding="@dimen/sm"  
 tools:layout\_editor\_absoluteX="0dp"  
 tools:layout\_editor\_absoluteY="185dp">  
  
 <TextView  
 android:id="@+id/textView3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentStart="true"  
 android:layout\_marginStart="16dp"  
 android:padding="4dp"  
 android:text="SETRIKA"  
 android:textColor="@color/abu"  
 android:textSize="14sp"  
 android:textStyle="bold" />  
  
 <TextView  
 android:id="@+id/textView4"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/textView3"  
 android:layout\_alignParentStart="true"  
 android:layout\_marginStart="16dp"  
 android:padding="@dimen/xs"  
 android:text="Rp.4000/Kg"  
 android:textSize="13sp" />  
 </RelativeLayout>  
  
 <RelativeLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_margin="@dimen/sm"  
 android:padding="@dimen/sm"  
 tools:layout\_editor\_absoluteX="0dp"  
 tools:layout\_editor\_absoluteY="281dp">  
  
 <TextView  
 android:id="@+id/textView6"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentStart="true"  
 android:layout\_marginStart="16dp"  
 android:padding="4dp"  
 android:text="CUCI"  
 android:textColor="@color/abu"  
 android:textSize="16sp"  
 android:textStyle="bold" />  
  
 <TextView  
 android:id="@+id/harga3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/textView6"  
 android:layout\_alignParentStart="true"  
 android:layout\_marginStart="16dp"  
 android:padding="@dimen/xs"  
 android:text="Rp.4000/Kg"  
 android:textSize="14sp" />  
 </RelativeLayout>  
  
 </LinearLayout>  
  
</androidx.constraintlayout.widget.ConstraintLayout>

**Tampilan**

****

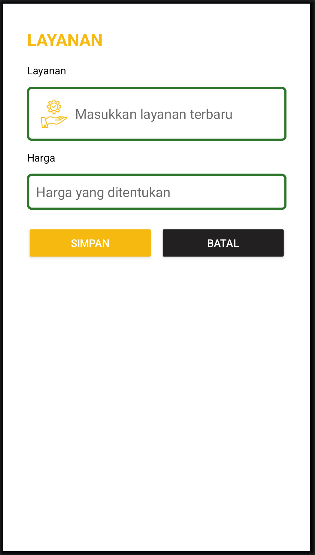
* Layanan add activity
* Java

package com.najwa.laundryapps;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
import android.widget.Toast;  
  
import androidx.activity.EdgeToEdge;  
import androidx.appcompat.app.AppCompatActivity;  
import androidx.core.graphics.Insets;  
import androidx.core.view.ViewCompat;  
import androidx.core.view.WindowInsetsCompat;  
  
import com.najwa.laundryapps.ModelLayanan;  
  
import java.util.UUID;  
  
public class LayananAddActivity extends AppCompatActivity {  
 EditText edTipe, edHarga;  
 Button btnLaySimpan, btnLayBatal;  
 SQLiteHelper db;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 EdgeToEdge.*enable*(this);  
 setContentView(R.layout.*activity\_layanan\_add*);  
 ViewCompat.*setOnApplyWindowInsetsListener*(findViewById(R.id.*main*), (v, insets) -> {  
 Insets systemBars = insets.getInsets(WindowInsetsCompat.Type.*systemBars*());  
 v.setPadding(systemBars.left, systemBars.top, systemBars.right, systemBars.bottom);  
 return insets;  
 });  
  
 edTipe = (EditText) findViewById(R.id.*edLayAddLayanan*);  
 edHarga = (EditText) findViewById(R.id.*edLayAddHarga*);  
 btnLaySimpan = (Button) findViewById(R.id.*btnLayAddSimpan*);  
 btnLayBatal = (Button) findViewById(R.id.*btnLayAddBatal*);  
  
 db = new SQLiteHelper(LayananAddActivity.this);  
 btnLaySimpan.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 ModelLayanan ml = new ModelLayanan();  
 String uniqueID = UUID.*randomUUID*().toString();  
 ml.setId(""+uniqueID);  
 ml.setTipe(edTipe.getText().toString());  
 ml.setHarga(edHarga.getText().toString());  
  
 Toast.*makeText*(LayananAddActivity.this, ""+ml.getId()+ml.getTipe()+ml.getHarga(), Toast.*LENGTH\_SHORT*).show();  
 boolean cek = db.insertLayanan(ml);  
 if(cek == true){  
 Toast.*makeText*(LayananAddActivity.this, "Data berhasil ditambahkan", Toast.*LENGTH\_SHORT*).show();  
 startActivity(new Intent(LayananAddActivity.this, LayananActivity.class));  
 finish();  
 }else {  
 Toast.*makeText*(LayananAddActivity.this, "Data gagal ditambahkan", Toast.*LENGTH\_SHORT*).show();  
 }  
 }  
 });  
 btnLayBatal.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 finish();  
 }  
 });  
 }  
}

* xml

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout 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:id="@+id/main"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"  
 android:padding="@dimen/lg"  
 android:background="@color/white"  
 tools:context=".LayananAddActivity">  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="vertical"  
 android:layout\_margin="16dp">  
 <TextView  
 android:textColor="@color/yellow"  
 android:textStyle="bold"  
 android:layout\_marginBottom="16dp"  
 android:textSize="23sp"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="LAYANAN"/>  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="vertical">  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Layanan"  
 android:textColor="@android:color/black"/>  
  
 <EditText  
 android:id="@+id/edLayAddLayanan"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="12dp"  
 android:background="@drawable/border"  
 android:drawableLeft="@mipmap/ic\_layanan"  
 android:drawablePadding="@dimen/xs"  
 android:padding="12dp"  
 android:hint="Masukkan layanan terbaru"/>  
 </LinearLayout>  
 <LinearLayout  
 android:layout\_marginTop="12dp"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="vertical">  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Harga"  
 android:textColor="@android:color/black"/>  
  
 <EditText  
 android:id="@+id/edLayAddHarga"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="12dp"  
 android:background="@drawable/border"  
 android:drawablePadding="8dp"  
 android:padding="12dp"  
 android:hint="Harga yang ditentukan"/>  
 </LinearLayout>  
  
 <LinearLayout  
 android:layout\_marginTop="20dp"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="horizontal"  
 android:weightSum="2">  
  
 <Button  
 android:id="@+id/btnLayAddSimpan"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginRight="4dp"  
 android:layout\_weight="1"  
 android:backgroundTint="@color/yellow"  
 android:text="Simpan"  
 android:textColor="@color/white" />  
 <Button  
 android:id="@+id/btnLayAddBatal"  
 android:layout\_marginLeft="4dp"  
 android:textColor="@color/white"  
 android:backgroundTint="@color/abu"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_weight="1"  
 android:text="Batal"/>  
 </LinearLayout>  
 </LinearLayout>  
</LinearLayout>

Tampilan



* item layanan
* xml

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 android:orientation="vertical"  
 android:layout\_marginTop="@dimen/xs"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 >  
 <androidx.cardview.widget.CardView  
 android:id="@+id/cvItemLay"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 app:cardCornerRadius="@dimen/xs"  
 >  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:padding="@dimen/lg"  
 android:orientation="vertical">  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:weightSum="2"  
 android:orientation="horizontal">  
 <LinearLayout  
 android:layout\_weight="1"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="vertical">  
 <TextView  
 android:id="@+id/tvLayanan"  
 android:textSize="15sp"  
 android:textStyle="bold"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Setrika"  
 android:textColor="@color/yellow"/>  
  
 <TextView  
 android:id="@+id/tvHarga"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="@dimen/xs"  
 android:text="4.000/kg"  
 android:textColor="@color/black"  
 android:textSize="12sp" />  
 </LinearLayout>  
 </LinearLayout>  
 </LinearLayout>  
 </androidx.cardview.widget.CardView>  
</LinearLayout>

tampilan

