Aplikasi Mobile

Oleh

Humayra Fahreri

2211533019

Dosen Pengampu

Nurfiah, S.ST, M.Kom

DEPARTEMEN INFORMATIKA

FAKULTAS TEKNOLOGI INFORMASI

UNIVERSITAS ANDALAS

2024

DataBase SQLite

A. Model

- Model Pelanggan

```java
package humayrafahreri.laundryapps.model;
public class ModelPelanggan { 21 usages new *
    String id, nama, email, hp;  2 usages

    public String getId() {  new *
        return id;
    }

    public void setId(String id) {  new *
        this.id = id;
    }

    public String getNama() {  5 usages  new *
        return nama;
    }

    public void setNama(String nama) {  3 usages  new *
        this.nama = nama;
    }

    public String getEmail() {  3 usages  new *
        return email;
    }

    public void setEmail(String email) {  3 usages  new *
        this.email = email;
    }

    public String getHp() {  4 usages  new *
        return hp;
    }

    public void setHp(String hp) {  3 usages  new *
        this.hp = hp;
    }
}
```

- Model Layanan

```java
package humayrafahreri.laundryapps.model;

public class ModelLayanan { 20 usages new *
    String id, namaLayanan, harga;  2 usages

    public String getId() {  new *
        return id;
    }

    public void setId(String id) {  new *
        this.id = id;
    }

    public String getNamaLayanan() {  5 usages  new *
        return namaLayanan;
    }

    public void setNamaLayanan(String namaLayanan) {  3 usages  new *
        this.namaLayanan = namaLayanan;

    }

    public String getHarga(){return harga;}  4 usages  new *

    public void setHarga(String harga) {  3 usages  new *
        this.harga = harga;
    }
}
```

B. SQLiteHelper

```java
package humayrafahreri.laundryapps.database;

import android.content.ContentValues;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;

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

import humayrafahreri.laundryapps.model.ModelLayanan;
import humayrafahreri.laundryapps.model.ModelPelanggan;

public class SQLiteHelper extends SQLiteOpenHelper {
    public static String DATABASE_NAME = "my_laundry.db";
    public static final int DATABASE_VERSION = 1;

    // Tabel Pelanggan
    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";

    // Tabel Layanan
    public static final String TABLE_LAYANAN = "layanan";
    public static final String KEY_LAYANAN_ID = "layanan_id"; //
Tambahkan ID layanan
    public static final String KEY_LAYANAN_NAMA = "nama_layanan";
    public static final String KEY_LAYANAN_HARGA = "harga";

    // Query untuk membuat tabel pelanggan
    private static final String CREATE_TABLE_PELANGGAN = "CREATE
TABLE " +
            TABLE_PELANGGAN + "("
            + KEY_PELANGGAN_ID + " TEXT PRIMARY KEY, "
            + KEY_PELANGGAN_NAMA + " TEXT, "
            + KEY_PELANGGAN_EMAIL + " TEXT, "
            + KEY_PELANGGAN_HP + " TEXT )";

    // Query untuk membuat tabel layanan
    private static final String CREATE_TABLE_LAYANAN = "CREATE TABLE
IF NOT EXISTS "
            + TABLE_LAYANAN + "("
            + "layanan_id TEXT PRIMARY KEY, "
            + KEY_LAYANAN_NAMA + " TEXT, "
            + KEY_LAYANAN_HARGA + " TEXT)";

    public SQLiteHelper(Context context){
        super(context, DATABASE_NAME, null, DATABASE_VERSION);
    }

    @Override
    public void onCreate(SQLiteDatabase db) {
        db.execSQL(CREATE_TABLE_PELANGGAN);
        db.execSQL(CREATE_TABLE_LAYANAN); // Buat tabel layanan
    }
```

```java
        @Override
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int
newVersion) {
        db.execSQL("DROP TABLE IF EXISTS " + TABLE_PELANGGAN);
        db.execSQL("DROP TABLE IF EXISTS " + TABLE_LAYANAN); // Hapus
tabel layanan jika ada pembaruan
        onCreate(db);
    }

    // Method untuk menambahkan pelanggan
    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();
        return id != -1;
    }

    // Method untuk menambahkan layanan
    public boolean insertLayanan(ModelLayanan layanan){
        SQLiteDatabase database = this.getWritableDatabase();
        ContentValues contentValues = new ContentValues();
        contentValues.put(KEY_LAYANAN_ID, layanan.getId()); //
Pastikan ada id layanan
        contentValues.put(KEY_LAYANAN_NAMA,
layanan.getNamaLayanan());
        contentValues.put(KEY_LAYANAN_HARGA, layanan.getHarga());
        long id = database.insert(TABLE_LAYANAN, null,
contentValues);
        database.close();
        return id != -1;
    }

    // Method untuk mengambil data pelanggan
    public List<ModelPelanggan> getPelanggan(){
        List<ModelPelanggan> pel = new ArrayList<>();
        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());
        }
        cursor.close();
        return pel;
    }

    // Method untuk mengambil data layanan
    public List<ModelLayanan> getLayanan(){
        List<ModelLayanan> layananList = new ArrayList<>();
```

```java
            String query = "SELECT * FROM " + TABLE_LAYANAN;
            SQLiteDatabase db = this.getWritableDatabase();
            Cursor cursor = db.rawQuery(query, null);
            if (cursor.moveToFirst()){
                do{
                    ModelLayanan l = new ModelLayanan();
                    l.setId(cursor.getString(0));
                    l.setNamaLayanan(cursor.getString(1));
                    l.setHarga(cursor.getString(2));
                    layananList.add(l);
                }while (cursor.moveToNext());
            }
            cursor.close();
            return layananList;
        }
    }
```

D. Adapter

- Adapter Pelanggan

```java
package humayrafahreri.laundryapps.adapter;

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 java.util.List;

import humayrafahreri.laundryapps.R;
import humayrafahreri.laundryapps.model.ModelPelanggan;

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 humayrafahreri.laundryapps.adapter;

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 java.util.List;

import humayrafahreri.laundryapps.R;
import humayrafahreri.laundryapps.model.ModelLayanan;

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;
```

```java
    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_lay
anan, parent, false);
        return new ViewHolder(view);
    }

    @Override
    public void onBindViewHolder(ViewHolder holder, int position)
{
        ModelLayanan item = list.get(position);
        holder.tvNamaLayanan.setText(item.getNamaLayanan());
        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 tvNamaLayanan, tvHarga;

        public ViewHolder(View itemView) {
            super(itemView);
            tvNamaLayanan =
itemView.findViewById(R.id.tvNamaLayanan);
            tvHarga = itemView.findViewById(R.id.tvHarga);
            itemView.setTag(this);
            itemView.setOnClickListener(onItemClicked);
        }
    }
}
```

E. Pelanggan

- PelangganActivity

  - Java

```java
package humayrafahreri.laundryapps.Pelanggan;

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.Button;
import android.widget.Toast;

import androidx.activity.EdgeToEdge;
import androidx.activity.result.contract.ActivityResultContracts;
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 java.util.ArrayList;
import java.util.List;

import humayrafahreri.laundryapps.R;
import humayrafahreri.laundryapps.adapter.AdapterPelanggan;
import humayrafahreri.laundryapps.database.SQLiteHelper;
import humayrafahreri.laundryapps.model.ModelPelanggan;

public class PelangganActivity extends AppCompatActivity {
    SQLiteHelper db;
    Button 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);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_pelanggan);

        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;
                });
```

```java
            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);
                    Toast.makeText(PelangganActivity.this,
"" +mp.getNama(),
                            Toast.LENGTH_SHORT).show();
                }
            };
    private void getData() {
        list.clear();
        showMsg();
        progressDialog.dismiss();
        try {
            List<ModelPelanggan> p = db.getPelanggan();
            if (p.size() > 0){
                for (ModelPelanggan pel : p){
                    ModelPelanggan mp = new
ModelPelanggan();
                    mp.setId(pel.getId());
                    mp.setNama(pel.getNama());
                    mp.setEmail(pel.getEmail());
                    mp.setHp(pel.getHp());
                    list.add(mp);
                }
                adapterPelanggan = new
AdapterPelanggan(this, list);
                adapterPelanggan.notifyDataSetChanged();
                rvPelanggan.setAdapter(adapterPelanggan);

adapterPelanggan.setOnItemClickListener(onClickListener);
            }else{
                Toast.makeText(this, "Data tidak ditemukan",
                        Toast.LENGTH_SHORT).show();
            }
        }catch (Exception e){
        }
    }
    private void eventHandling() {
        btnPelAdd.setOnClickListener(new
View.OnClickListener() {
            @Override
            public void onClick(View v) {
                startActivity(new
Intent(PelangganActivity.this,
                        PelangganAddActivity.class));
            }
        });
    }
    private void setView() {
```

```java
            db = new SQLiteHelper(this);
            progressDialog = new ProgressDialog(this);
            btnPelAdd = (Button) findViewById(R.id.btnPelAdd);
            rvPelanggan = (RecyclerView)
    findViewById(R.id.rvPelanggan);
            list = new ArrayList<>();
            LinearLayoutManager llm = new
    LinearLayoutManager(this);
            llm.setOrientation(LinearLayoutManager.VERTICAL);
            rvPelanggan.setHasFixedSize(true);
            rvPelanggan.setLayoutManager(llm);
        }
        private void showMsg() {
            progressDialog.setTitle("Informasi");
            progressDialog.setMessage("Loading Data..");
            progressDialog.setCancelable(false);
            progressDialog.show();
        }
    }
```

- XML

```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/secondaryColor"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        tools:context=".Pelanggan.PelangganActivity">

        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginTop="4dp"
            android:orientation="vertical"
            android:padding="@dimen/lg"
            app:layout_constraintTop_toTopOf="parent"
            tools:layout_editor_absoluteX="0dp">

            <Button
                android:id="@+id/btnPelAdd"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:background="@color/primaryColor"
                android:padding="@dimen/sm"
                android:text="TAMBAH PELANGGAN"
                android:textColor="#FFFFFF"
                android:layout_marginBottom="16dp"
                android:textSize="@dimen/xlg"
                android:textStyle="bold" />

            <androidx.recyclerview.widget.RecyclerView
                android:id="@+id/rvPelanggan"
                android:layout_width="match_parent"
                android:layout_height="match_parent" />
```

```
        </LinearLayout>

    </androidx.constraintlayout.widget.ConstraintLayout>
```

- Tampilan
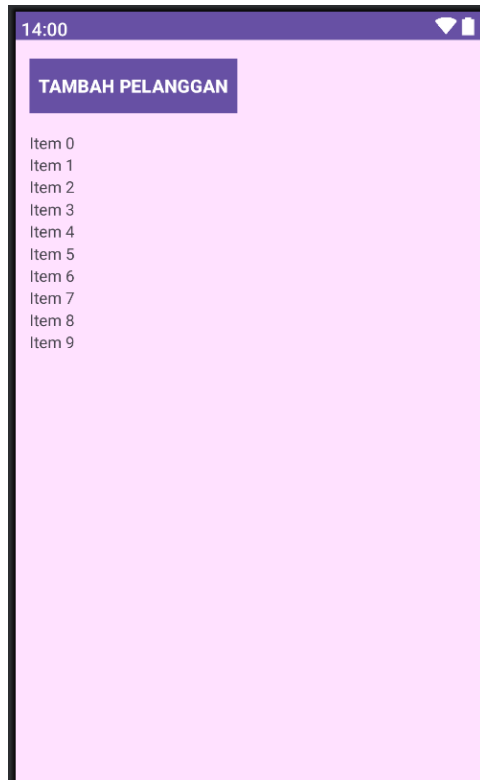
- PelangganAddActivity

  - Java

```
- package humayrafahreri.laundryapps.Pelanggan;

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 humayrafahreri.laundryapps.R;
import humayrafahreri.laundryapps.database.SQLiteHelper;
import humayrafahreri.laundryapps.model.ModelPelanggan;
```

```java
import java.util.UUID;

public class PelangganAddActivity 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_addpelanggan);


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(PelangganAddActivity.this);

        btnSimpan.setOnClickListener(new
View.OnClickListener(){
            @Override
            public void onClick (View v){
                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(PelangganAddActivity.this, ""
+ mp.getId() + mp.getNama() + mp.getEmail() + mp.getHp(),
Toast.LENGTH_SHORT).show();

                boolean cek = db.insertPelanggan(mp);
                if (cek == true){

Toast.makeText(PelangganAddActivity.this,"Data berhasil
disimpan" , Toast.LENGTH_SHORT).show();
                    startActivity(new
Intent(PelangganAddActivity.this ,
PelangganActivity.class));
                    finish();
                }else {
```

```java
            Toast.makeText(PelangganAddActivity.this, "Data Gagal
        Disimpan", Toast.LENGTH_SHORT).show();
                        }

                    }
                });

                btnBatal.setOnClickListener(new
        View.OnClickListener() {
                    @Override
                    public void onClick(View view) {
                        finish();
                    }
                });

            }


        }
```

- XML

```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:background="@color/white"
    android:orientation="vertical"
    android:padding="@dimen/lg">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="@dimen/lg"
        android:orientation="vertical">

        <TextView
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginBottom="@dimen/lg"
            android:text="PELANGGAN"
            android:textColor="@color/primaryColor"
            android:textSize="23sp"
            android:textStyle="bold" />

        <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"
```

```xml
            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="@dimen/sm"
            android:background="@drawable/border_radius"
            android:drawableLeft="@drawable/ic_username"
            android:drawablePadding="@dimen/sm"
            android:padding="@dimen/md" />

    </LinearLayout>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="@dimen/md"
        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="8dp"
            android:background="@drawable/border_radius"
            android:drawableLeft="@drawable/ic_email"
            android:inputType="textEmailAddress"
            android:padding="@dimen/md" />
    </LinearLayout>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="@dimen/md"
        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="@dimen/sm"
            android:background="@drawable/border_radius"
            android:drawableLeft="@drawable/ic_phone"
            android:drawablePadding="@dimen/sm"
            android:inputType="number"
            android:padding="@dimen/md" />
    </LinearLayout>
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginTop="@dimen/xlg"
    android:orientation="horizontal"
    android:weightSum="2">

    <Button
        android:id="@+id/btnPelAddSimpan"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginRight="@dimen/xs"
        android:layout_weight="1"
        android:background="@color/primaryColor"
        android:text="Simpan" />

    <Button
        android:id="@+id/btnPelAddBatal"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginLeft="@dimen/xs"
        android:layout_weight="1"
        android:background="@color/black"
        android:text="Batal"
        android:textColor="@color/white" />
    </LinearLayout>
    </LinearLayout>
</LinearLayout>
```

- Tampilan

- Item_Pelanggan
 - XML

```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/sm"
    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/secondaryColor"/>

                    <TextView
                        android:id="@+id/tvItemPelHp"
                        android:layout_width="wrap_content"
                        android:layout_height="wrap_content"
                        android:layout_marginTop="@dimen/xs"
                        android:text="0853xxxx"
                        android:textColor="@color/black"
                        android:textSize="12sp" />
                </LinearLayout>
            </LinearLayout>
        </LinearLayout>
    </androidx.cardview.widget.CardView>
</LinearLayout>
```

- Tampilan
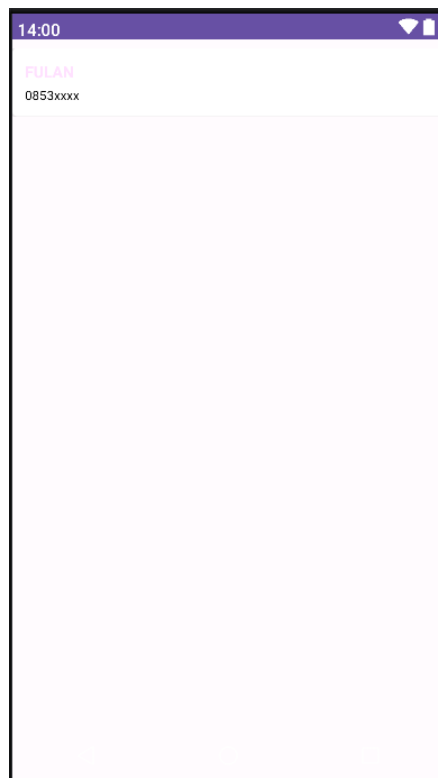
F. Layanan

- LayananActivity

  - Java

```
-  package humayrafahreri.laundryapps.Layanan;

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

   import humayrafahreri.laundryapps.R;
   import humayrafahreri.laundryapps.adapter.AdapterLayanan;
   import humayrafahreri.laundryapps.database.SQLiteHelper;
```

```java
import humayrafahreri.laundryapps.model.ModelLayanan;

public class LayananActivity extends AppCompatActivity {
    SQLiteHelper db;
    Button btnLayAdd;
    RecyclerView rvLayanan;
    AdapterLayanan adapterLayanan;
    ArrayList<ModelLayanan> list;
    ProgressDialog progressDialog;
    AlphaAnimation btnAnimasi = new AlphaAnimation(1F,
0.5F);

    @SuppressLint("MissingInflatedId")
    @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 v) {
            v.startAnimation(btnAnimasi);
            RecyclerView.ViewHolder viewHolder =
(RecyclerView.ViewHolder) v.getTag();
            int position =
viewHolder.getAdapterPosition();
            ModelLayanan ml = list.get(position);
            Toast.makeText(LayananActivity.this, "Nama
Layanan: " + ml.getNamaLayanan(),
                    Toast.LENGTH_SHORT).show();
        }
    };

    private void getData() {
        list.clear();
        showMsg();
        progressDialog.dismiss();
        try {
            List<ModelLayanan> layananList =
db.getLayanan();
            if (layananList.size() > 0) {
                for (ModelLayanan layanan : layananList)
{
                    ModelLayanan ml = new ModelLayanan();
                    ml.setId(layanan.getId());
```

```java
                ml.setNamaLayanan(layanan.getNamaLayanan());
                        ml.setHarga(layanan.getHarga());
                        list.add(ml);
                    }
                    adapterLayanan = new AdapterLayanan(this,
list);
                    adapterLayanan.notifyDataSetChanged();
                    rvLayanan.setAdapter(adapterLayanan);

adapterLayanan.setOnItemClickListener(onClickListener);
                } else {
                    Toast.makeText(this, "Data layanan tidak
ditemukan", Toast.LENGTH_SHORT).show();
                }
            } catch (Exception e) {
                e.printStackTrace();
            }
        }

    private void eventHandling() {
        btnLayAdd.setOnClickListener(new
View.OnClickListener() {
            @Override
            public void onClick(View v) {
                startActivity(new
Intent(LayananActivity.this, LayananAddActivity.class));
            }
        });
    }

    private void setView() {
        db = new SQLiteHelper(this);
        progressDialog = new ProgressDialog(this);
        btnLayAdd = (Button)
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();
    }
}
```

- XML

```xml
<?xml version="1.0" encoding="utf-8"?>
<?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/secondaryColor"
    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">

    <Button
        android:id="@+id/btnLayAdd"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:background="@color/primaryColor"
        android:padding="@dimen/sm"
        android:text="TAMBAH LAYANAN"
        android:layout_marginTop="16dp"
        android:textColor="#FFFFFF"
        android:textStyle="bold"
        android:textSize="16sp"/>

        <androidx.recyclerview.widget.RecyclerView
            android:id="@+id/rvlayanan"
            android:layout_width="match_parent"
            android:layout_height="match_parent" />

    </LinearLayout>

</androidx.constraintlayout.widget.ConstraintLayout>
```

- Tampilan
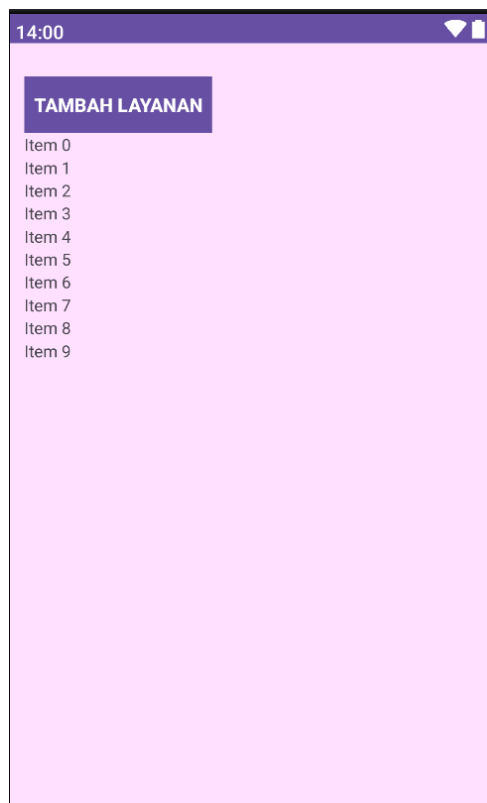
- LayananAddActivity

  - Java

```
-   package humayrafahreri.laundryapps.Layanan;

    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;

    import
    humayrafahreri.laundryapps.Pelanggan.PelangganActivity;
    import humayrafahreri.laundryapps.R;
    import humayrafahreri.laundryapps.database.SQLiteHelper;
    import humayrafahreri.laundryapps.model.ModelLayanan;
    import humayrafahreri.laundryapps.model.ModelPelanggan;

    public class LayananAddActivity extends AppCompatActivity
    {
```

```java
        EditText layanan, harga;
        Button btnSimpan, btnBatal;

        SQLiteHelper db;

        @Override
        protected void onCreate(Bundle savedInstanceState) {
            super.onCreate(savedInstanceState);
            EdgeToEdge.enable(this);
            setContentView(R.layout.activity_addlayanan);

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;
            });

            layanan = (EditText)
findViewById(R.id.edLayAddLayanan);
            harga = (EditText)
findViewById(R.id.edLayAddHarga);
            btnSimpan = (Button)
findViewById(R.id.btnLayAddSimpan);
            btnBatal = (Button)
findViewById(R.id.btnLayAddBatal);

            db = new
SQLiteHelper(humayrafahreri.laundryapps.Layanan.LayananAd
dActivity.this);

            btnSimpan.setOnClickListener(new
View.OnClickListener(){
                @Override
                public void onClick(View v) {
                    ModelLayanan layananModel = new
ModelLayanan();
                    String uniqueID =
UUID.randomUUID().toString();
                    layananModel.setId("" + uniqueID);

layananModel.setNamaLayanan(layanan.getText().toString())
;

layananModel.setHarga(harga.getText().toString());


Toast.makeText(humayrafahreri.laundryapps.Layanan.Layanan
AddActivity.this,
                            "ID: " + layananModel.getId() +
                                " Nama Layanan: " +
layananModel.getNamaLayanan() +
                                " Harga = Rp. " +
layananModel.getHarga(),
                            Toast.LENGTH_SHORT).show();

                    boolean cek =
db.insertLayanan(layananModel);
```

```java
                if (cek) {

Toast.makeText(humayrafahreri.laundryapps.Layanan.Layanan
AddActivity.this, "Data berhasil disimpan",
Toast.LENGTH_SHORT).show();
                    startActivity(new
Intent(humayrafahreri.laundryapps.Layanan.LayananAddActiv
ity.this, LayananActivity.class));
                    finish();
                } else {

Toast.makeText(humayrafahreri.laundryapps.Layanan.Layanan
AddActivity.this, "Data gagal disimpan",
Toast.LENGTH_SHORT).show();
                }
            }
        });

        btnBatal.setOnClickListener(new
View.OnClickListener() {
            @Override
            public void onClick(View view) {
                finish();
            }
        });
    }
}
```

- XML

```xml
<?xml version="1.0" encoding="utf-8"?>
<?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:background="@color/white"
    android:orientation="vertical"
    android:padding="@dimen/lg">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="@dimen/lg"
        android:orientation="vertical">
```

```xml
        <TextView
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginBottom="@dimen/lg"
            android:text="Tambah Layanan"
            android:textColor="@color/primaryColor"
            android:textSize="23sp"
            android:textStyle="bold" />

        <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="Jenis"
                android:textColor="@android:color/black"
/>

            <EditText
                android:id="@+id/edLayAddLayanan"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:layout_marginTop="@dimen/sm"

android:background="@drawable/border_radius"
                android:drawablePadding="@dimen/sm"
                android:padding="@dimen/md" />

        </LinearLayout>

        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginTop="@dimen/md"
            android:orientation="vertical">

            <TextView
```

```xml
                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="8dp"

android:background="@drawable/border_radius"
                android:inputType="text"
                android:padding="@dimen/md" />
        </LinearLayout>

        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginTop="@dimen/md"
            android:orientation="vertical">

        </LinearLayout>

        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginTop="@dimen/xlg"
            android:orientation="horizontal"
            android:weightSum="2">

            <Button
                android:id="@+id/btnLayAddSimpan"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:layout_marginRight="@dimen/xs"
                android:layout_weight="1"
                android:background="@color/primaryColor"
                android:text="Simpan" />
```
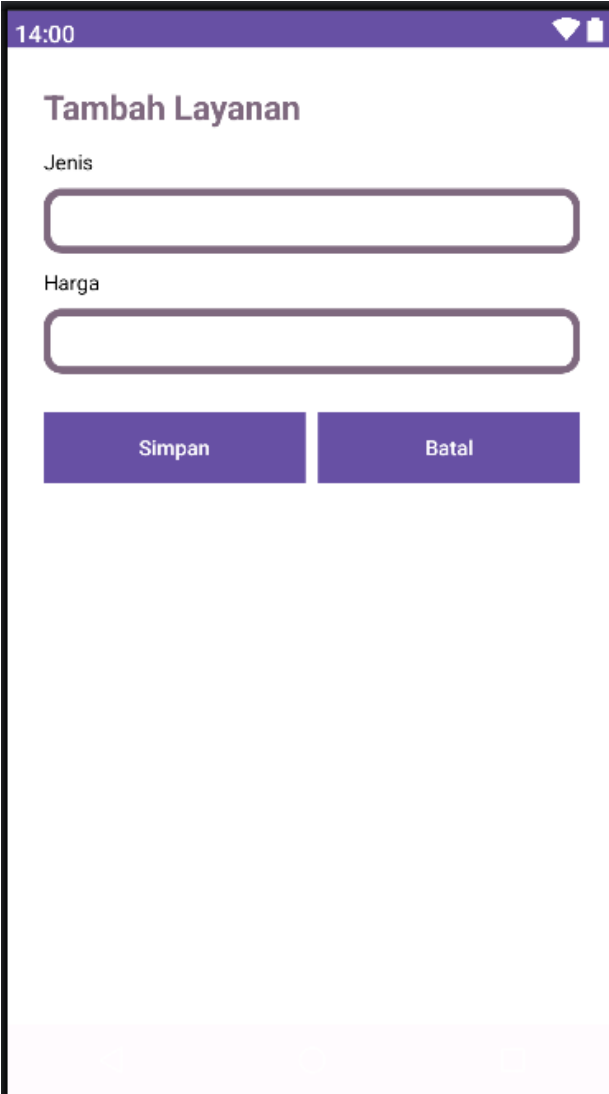
```
            <Button
                android:id="@+id/btnLayAddBatal"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:layout_marginLeft="@dimen/xs"
                android:layout_weight="1"
                android:background="@color/black"
                android:text="Batal"
                android:textColor="@color/white" />
        </LinearLayout>
    </LinearLayout>
</LinearLayout>
```

- Tampilan

- Item_layanan
  - XML

```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/sm"
    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/tvNamaLayanan"
                        android:textSize="15sp"
                        android:textStyle="bold"

android:layout_width="wrap_content"

android:layout_height="wrap_content"
                        android:text="FULAN"

android:textColor="@color/secondaryColor"/>

                    <TextView
                        android:id="@+id/tvHarga"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:layout_marginTop="@dimen/xs"
                        android:text="0853xxxx"
                        android:textColor="@color/black"
                        android:textSize="12sp" />
                </LinearLayout>
            </LinearLayout>
        </LinearLayout>
```

```
            </androidx.cardview.widget.CardView>
        </LinearLayout>
```

- Tampilan

G. Manifest

```
H. <uses-permission
        android:name="android.permission.READ_EXTERNAL_STORAGE" />
```

File AndroidManifest .xml memberikan izin kepada aplikasi Android untuk membaca
data dari penyimpanan eksternal perangkat (misalnya, kartu SD atau penyimpanan
yang dapat diakses pengguna)