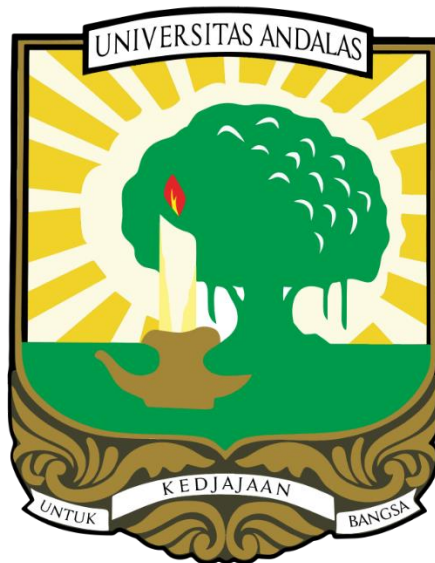


# LAPORAN PRAKTIKUM 3 APLIKASI MOBILE



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## DATABASE SQLite (Create dan Read Data)

### 1. Membuat ModelPelanggan

Membuat package baru dengan nama “model” dan menambahkan class baru dengan nama “ModelPelanggan.java”

```
package model;

public class ModelPelanggan {
    String id, nama, email, hp;

    public String getId() {
        return id;
    }

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

    public String getName() {
        return nama;
    }

    public void setName(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;
    }
}
```

### 2. Membuat Class database Helper

Membuat package baru dengan nama “database” dan menambahkan class baru dengan nama “SQLiteHelper.java”.

```
package 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 model.ModelPelanggan;

public class SQLiteHelper extends SQLiteOpenHelper {
    public static String DATABASE_NAME = "my_laundry.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();
        return id != -1;
    }

    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;
    }
}

```

### 3. Membuat Activity create data pelanggan

Membuat activity untuk create data pelanggan dengan nama “activity\_pelanggan\_add.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="20dp"
    android:background="@color/white"
    tools:context="pelanggan.PelangganAddActivity">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical"
        android:layout_margin="5dp">

        <TextView
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginBottom="20dp"
            android:text="PELANGGAN"
            android:textColor="@color/orentombol"
            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="Nama"
                android:textColor="@android:color/black"/>

            <EditText
                android:id="@+id/edPelAddNama"
                android:layout_width="match_parent"
                android:layout_height="40dp"
                android:layout_marginTop="10dp"
                android:drawablePadding="40dp"
                android:padding="10dp" />

        </LinearLayout>

    <LinearLayout

```

```

        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_marginTop="10dp"
        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="40dp"
            android:layout_marginTop="10dp"
            android:drawablePadding="10dp"
            android:inputType="textEmailAddress"
            android:padding="10dp" />
    </LinearLayout>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_marginTop="10dp"
        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="40dp"
            android:layout_marginTop="10dp"
            android:drawablePadding="40dp"
            android:inputType="number"
            android:padding="10dp" />
    </LinearLayout>

    <LinearLayout
        android:layout_marginTop="40dp"
        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="20dp"
            android:layout_weight="1"
            android:background="@color/green"
            android:text="Simpan" />

        <Button
            android:id="@+id/btnPelAddBatal"

```

```

        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginLeft="20dp"
        android:layout_weight="1"
        android:background="@color/black"
        android:text="Batal"
        android:textColor="@color/white" />
    </LinearLayout>

</LinearLayout>
</LinearLayout>

```

#### 4. Membuat package pelanggan

Buat class baru di dalam package pelanggan dengan nama “PelangganAddActivity.java” dan inisialisasikan “activity\_pelanggan\_add.xml” ke dalam class activity tersebut.

```

package 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 com.spin.laundry.R;

import java.util.UUID;

import database.SQLiteHelper;
import model.ModelPelanggan;

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_pelanggan_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;
        });
    }
}

```

```

    });

    db = new SQLiteHelper(PelangganAddActivity.this);

    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);

    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(PelangganAddActivity.this,
            ""+mp.getId()+mp.getNama()+mp.getEmail()+mp.getHp(),
            Toast.LENGTH_SHORT).show();

            boolean cek = db.insertPelanggan(mp);

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

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

```

## 5. Menampilkan data Pelanggan Menggunakan RecyclerView

Buat activity baru dengan nama “PelangganActivity” dan tampilkan data pelanggan menggunakan RecyclerView.

```

<?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:layout_width="match_parent"
android:layout_height="match_parent"
tools:context="pelanggan.PelangganActivity">

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical">

    <Button
        android:id="@+id/btnPelAdd"
        android:layout_width="174dp"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:backgroundTint="@color/orenteks"
        android:text="Tambah Pelanggan" />

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:orientation="vertical"
        android:padding="20dp">

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

    </LinearLayout>

</LinearLayout>

</androidx.constraintlayout.widget.ConstraintLayout>

```

Buat activity baru dengan nama “activity\_item\_pelanggan.xml” untuk menampilkan item pelanggan yang dibuat ke dalam RecyclerView.

```

<?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/orenteks"/>
            <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>

```

## 6. Membuat Package dengan nama “Adapter”

Membuat package baru dengan nama “Adapter” dan buat class baru dengan nama “AdapterPelanggan”.

```

package AdapterPelanggan;

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.spin.laundry.R;
import java.util.List;
import 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 onItemClick;
    public void setOnItemClickListener(View.OnClickListener
                                     itemClickListener) {
        onItemClick = itemClickListener;
    }
    public AdapterPelanggan(Context context, List<ModelPelanggan> list) {
        this.context = context;
        this.list = list;
    }
}

```

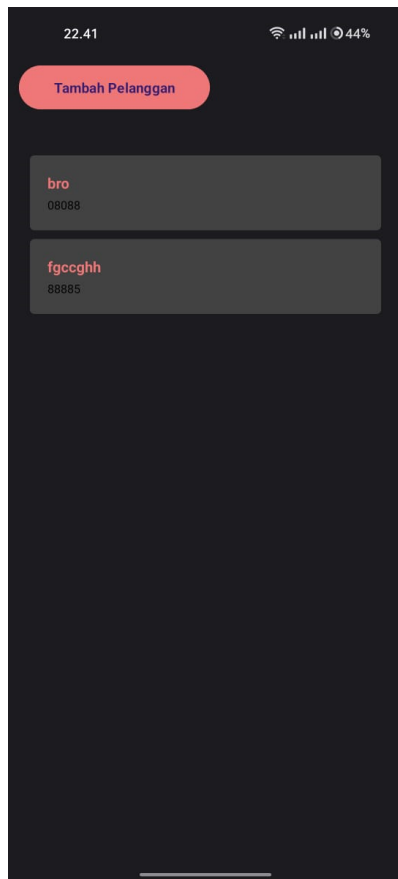
```

    }
    @Override
    public ViewHolder onCreateViewHolder(ViewGroup parent, int viewType) {
        View view =
LayoutInflater.from(parent.getContext()).inflate(R.layout.activity_item_pel
anggan,
                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);
        }
    }
}

```

## 7. Hasil

### a. Tampilan recycler data pelanggan



b. Tampilan input data pelanggan

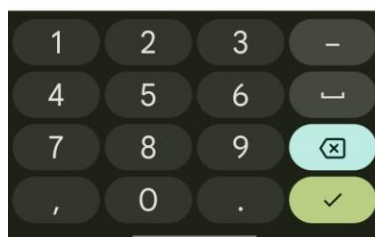
**PELANGGAN**

Nama  
zhafa

Email  
zafa@gmail.com

HP  
0784943183381

Simpan Batal



c. Tampilan data pelanggan setelah ditambahkan

