

LAPORAN PRAKTIKUM
PRAKTIKUM PEMROGRAMAN WEB
PERTEMUAN 5
RECYCLER VIEW



Disusun Oleh

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PROGRAM STUDI S-1 INFORMATIKA
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DAFTAR ISI

DAFTAR ISI	2
BAB I PRETEST	3
1.1 Pretest.....	3
BAB II LANGKAH PRAKTIKUM	4
2.1 Buat new project	4
2.2 Pilih Empty view activity.....	4
2.3 Masukkan nama file dan lokasinya.....	5
2.4 Buat struktur finalnya seperti ini.....	6
2.5 AppExecutor.kt.....	7
2.6 Barang.kt.....	7
2.7 BarangAdapter.kt	7
2.8 BarangDao	8
2.9 DatabaseBarang	9
2.10 DetailActivity.....	10
2.11 MainActivity	11
2.12 Activity_detail.xml.....	12
2.13 Activity_main.xml	13
2.14 Item_barang.xml	14
2.15 Link Github.....	14
2.16 Output	15
BAB III POST TEST	16
3.1 Halaman Utama	16
3.2 Tambah Post Baru	17
3.3 Hapus Post	20
3.4 Edit post	22
3.5 Link Github.....	22

BAB I PRETEST

1.1 Pretest

LEMBAR JAWABAN PRE-TEST PRAKTIKUM

Petemuan 5

Nama : M. Rafiq Chusani
NIM : 2300018109

Asisten:
Paraf Asisten:

Tanggal:
Nilai:

1. Perbedaan Recycle view vs list view

- ↳ Recycle view merupakan komponen android yang digunakan untuk menampilkan daftar item dengan lebih efisien daripada listview, mendukung animasi, item decoration, dan tampilan grid.
- ↳ list view lebih sederhana tapi kurang fleksibel, animasi dan pengaturan layout terbatas.

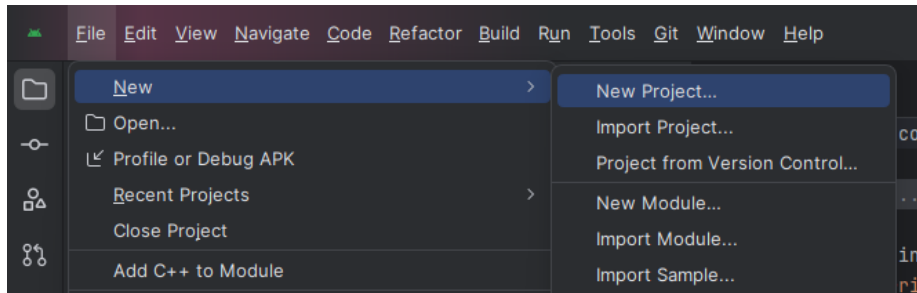
2. Yang harus disiapkan untuk pakai Recycle View

- tambahkan library RecyclerView di android
- Buat layout RecyclerView di gradle.
- Siapkan model data.
- Buat item layout untuk tiap baris.
- Buat adapter dan view Holder.
- atur layout Manager

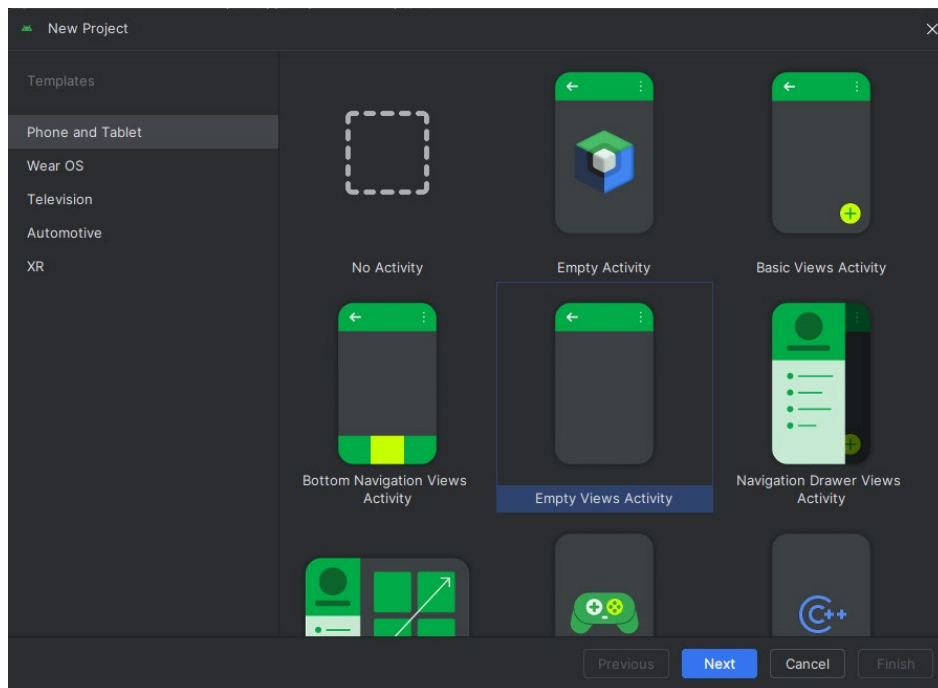
BAB II

LANGKAH PRAKTIKUM

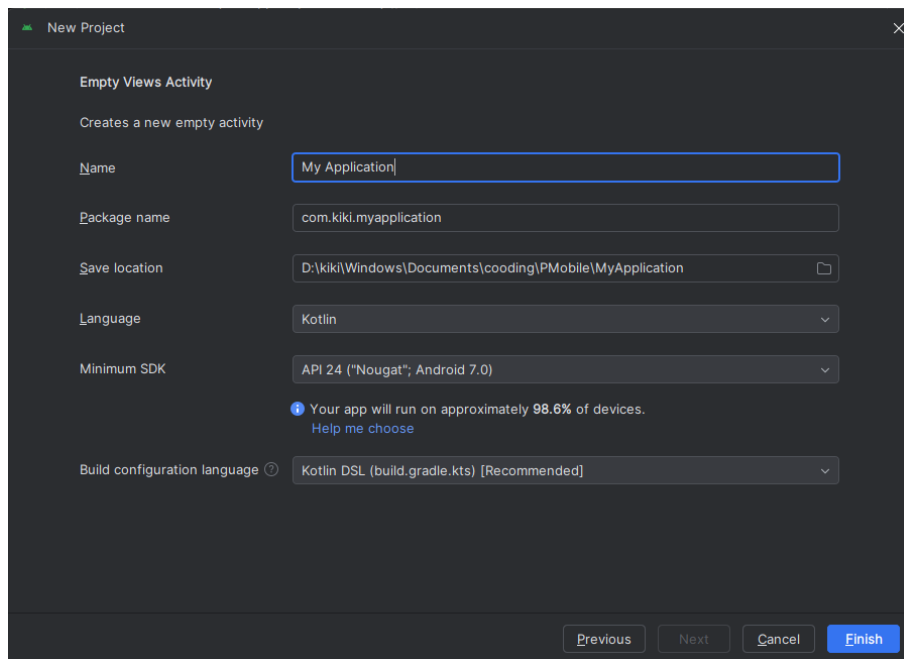
2.1 Buat new project



2.2 Pilih Empty view activity



2.3 Masukkan nama file dan lokasinya



New Project

Empty Views Activity

Creates a new empty activity


Name

Package name

Save location

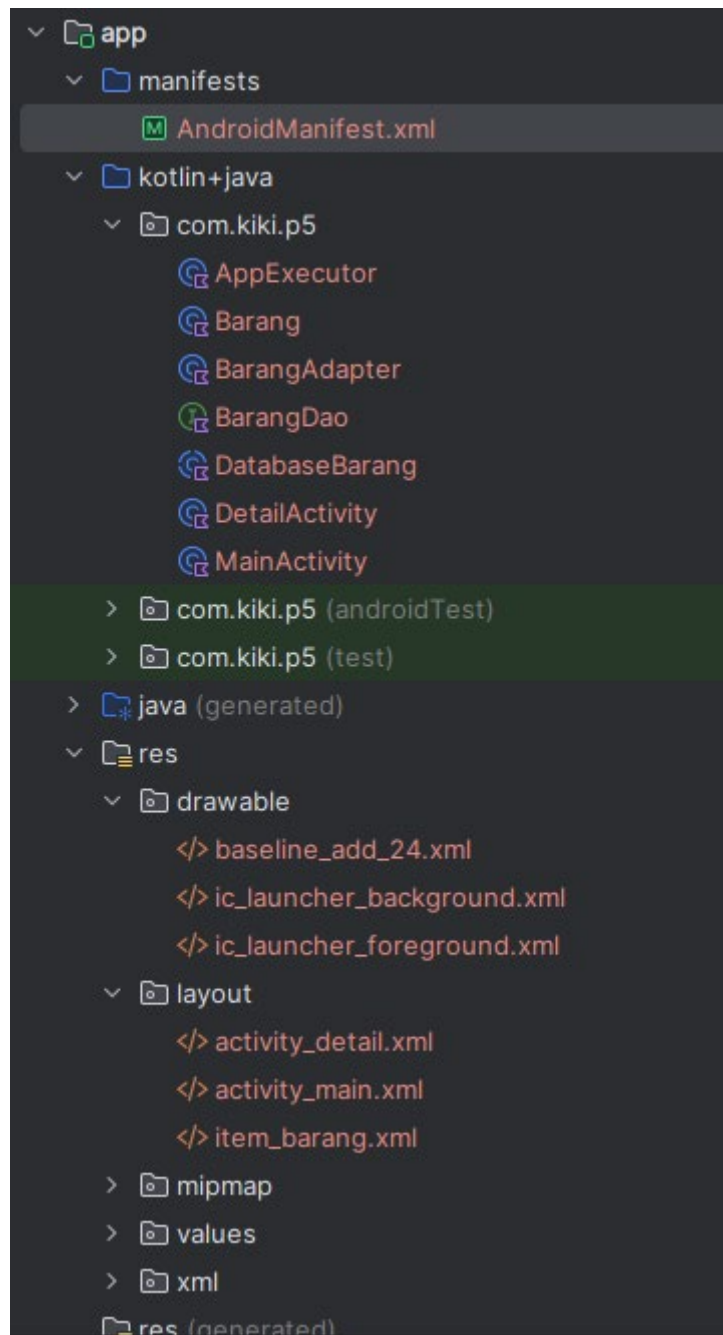
Language

Minimum SDK

 Your app will run on approximately **98.6%** of devices.
[Help me choose](#)

Build configuration language ⓘ

2.4 Buat struktur finalnya seperti ini



2.5 AppExecutor.kt

```
package com.kiki.p5

import java.util.concurrent.Executors

3 Usages
class AppExecutor {
    1 Usage
    val diskIO = Executors.newSingleThreadExecutor()
}
```

2.6 Barang.kt

```
package com.kiki.p5

import androidx.room.Entity
import androidx.room.PrimaryKey

5 Usages
@Entity(tableName = "barang")
data class Barang(
    @PrimaryKey(autoGenerate = true)
    val id: Int = 0,
    val nama: String,
    val jenis: String,
    val harga: Int
)
```

2.7 BarangAdapter.kt

```
package com.kiki.p5;

import android.content.Intent
import android.view.LayoutInflater
import android.view.ViewGroup
import androidx.recyclerview.widget.RecyclerView
import com.kiki.p5.databinding.ItemBarangBinding

class BarangAdapter(private val barangList: List<Barang>) :
    RecyclerView.Adapter<BarangAdapter.BarangViewHolder>() {

    override fun onCreateViewHolder(parent: ViewGroup, viewType: Int):
    BarangViewHolder {
        val binding = ItemBarangBinding.inflate(
            LayoutInflater.from(parent.context),
            parent,
            false
        )
        return BarangViewHolder(binding);
    }
}
```

```

    }

    override fun onBindViewHolder(holder: BarangViewHolder, position:
Int) {
        val namaBarang = barangList[position]
        holder.bind(namaBarang);
    }

    override fun getItemCount(): Int {
        return barangList.size
    }

    class BarangViewHolder(private val binding: ItemBarangBinding) :
        RecyclerView.ViewHolder(binding.root) {

        fun bind(namaBarang: Barang) {
            binding.apply {
                tvNama.text = namaBarang.nama.toString()
                tvJenis.text = namaBarang.jenis.toString()

                itemView.setOnClickListener {
                    val detailIntent = Intent(it.context,
DetailActivity::class.java)
                    detailIntent.putExtra("barang_id", namaBarang.id)
                    it.context.startActivity(detailIntent)
                }
            }
        }
    }
}

```

2.8 BarangDao

```

package com.kiki.p5

import androidx.lifecycle.LiveData
import androidx.room.Dao
import androidx.room.Insert
import androidx.room.Query

@Dao
interface BarangDao {

    @Insert
    fun insert(barang: Barang)

    @Query("SELECT * FROM barang")
    fun getAllBarang(): LiveData<List<Barang>>

    @Query("SELECT * FROM barang WHERE id = :id LIMIT 1")
    fun getBarangById(id: Int): Barang?
}

```


2.9 DatabaseBarang

```
package com.kiki.p5

import android.content.Context
import androidx.room.Database
import androidx.room.Room
import androidx.room.RoomDatabase

@Database(entities = [Barang::class], version = 1, exportSchema = false)
abstract class DatabaseBarang : RoomDatabase() {

    abstract fun barangDao(): BarangDao

    companion object {
        @Volatile
        private var INSTANCE: DatabaseBarang? = null

        fun getDatabase(context: Context): DatabaseBarang {
            return INSTANCE ?: synchronized(this) {
                val instance = Room.databaseBuilder(
                    context.applicationContext,
                    DatabaseBarang::class.java,
                    "barang_db"
                ).build()
                INSTANCE = instance
                instance
            }
        }
    }
}
```

2.10 DetailActivity

```
package com.kiki.p5

import android.os.Bundle
import androidx.appcompat.app.AppCompatActivity
import com.kiki.p5.databinding.ActivityDetailBinding

class DetailActivity : AppCompatActivity() {

    private lateinit var binding: ActivityDetailBinding
    private lateinit var db: DatabaseBarang
    private lateinit var barangDao: BarangDao

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        binding = ActivityDetailBinding.inflate(layoutInflater)
        setContentView(binding.root)

        // Init database
        db = DatabaseBarang.getDatabase(this)
        barangDao = db.barangDao()

        // Ambil ID barang dari Intent
        val barangId = intent.getIntExtra("barang_id", -1)

        if (barangId == -1) {
            binding.tvDetailNama.text = "Data tidak ditemukan"
            return
        }

        // Ambil detail barang dari database (Room tidak bisa di main
        // thread → gunakan thread)
        Thread {
            val barang = barangDao.getBarangById(barangId)

            runOnUiThread {
                if (barang != null) {
                    binding.tvDetailId.text = "ID: ${barang.id}"
                    binding.tvDetailNama.text = "Nama: ${barang.nama}"
                    binding.tvDetailJenis.text = "Jenis: ${barang.jenis}"
                    binding.tvDetailHarga.text = "Harga: Rp
                    ${barang.harga}"
                } else {
                    binding.tvDetailNama.text = "Barang tidak ditemukan!"
                }
            }
        }.start()
    }
}
```

2.11 MainActivity

```
package com.kiki.p5
import com.kiki.p5.databinding.ActivityMainBinding
import com.kiki.p5.DatabaseBarang
import com.kiki.p5.BarangDao
import com.kiki.p5.Barang
import com.kiki.p5.AppExecutor

import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import androidx.lifecycle.LiveData
import androidx.lifecycle.Observer
import androidx.recyclerview.widget.LinearLayoutManager
import com.kiki.p5.databinding.ItemBarangBinding

class MainActivity : AppCompatActivity() {

    private lateinit var binding: ActivityMainBinding
    private lateinit var dbBarang: DatabaseBarang
    private lateinit var barangDao: BarangDao
    private lateinit var appExecutors: AppExecutor

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        binding = ActivityMainBinding.inflate(layoutInflater)
        setContentView(binding.root)

        appExecutors = AppExecutor()
        dbBarang = DatabaseBarang.getDatabase(applicationContext)
        barangDao = dbBarang.barangDao()

        binding.apply {
            fabAdd.setOnClickListener {
                appExecutors.diskIO.execute {
                    val barangTitles = listOf("Meja", "Semen", "Triplek",
"Pasir")
                    val jenisBarang = listOf("Perabotan", "Material",
"Material", "Material")
                    val hargaBarang = listOf(50000, 48000, 15000, 68000)

                    for (i in 1..4) {
                        val newBarang = Barang(
                            i,
                            barangTitles[i - 1],
                            jenisBarang[i - 1],
                            hargaBarang[i - 1]
                        )
                        barangDao.insert(newBarang)
                    }
                }
            }

            val barangList: LiveData<List<Barang>> =
barangDao.getAllBarang()

            barangList.observe(this@MainActivity, Observer { list ->
                val layoutManager =
LinearLayoutManager(this@MainActivity)
```

```

        rvRoomDb.layoutManager = layoutManager

        val adapter = BarangAdapter(list)
        rvRoomDb.adapter = adapter
    })
}
}
}

```

2.12 Activity_detail.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:padding="20dp">

    <TextView
        android:id="@+id/tvDetailId"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="ID:"
        android:textSize="18sp"
        android:padding="4dp" />

    <TextView
        android:id="@+id/tvDetailNama"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Nama:"
        android:textSize="18sp"
        android:padding="4dp" />

    <TextView
        android:id="@+id/tvDetailJenis"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Jenis:"
        android:textSize="18sp"
        android:padding="4dp" />

    <TextView
        android:id="@+id/tvDetailHarga"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Harga:"
        android:textSize="18sp"
        android:padding="4dp" />

</LinearLayout>

```

2.13 Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    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/activity_main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp">

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

    <com.google.android.material.floatingactionbutton.FloatingActionButton
        android:id="@+id/fabAdd"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentBottom="true"
        android:layout_alignParentEnd="true"
        android:layout_marginEnd="16dp"
        android:layout_marginBottom="16dp"
        android:src="@drawable/baseline_add_24"
        app:fabSize="normal" />

</RelativeLayout>
```

2.14 Item_barang.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.cardview.widget.CardView
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:layout_width="match_parent"
    android:layout_height="80dp"
    android:layout_marginStart="12dp"
    android:layout_marginEnd="12dp"
    android:layout_marginTop="8dp"
    android:backgroundTint="@color/cardview_light_background"
    app:cardCornerRadius="20dp">

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

        <TextView
            android:id="@+id/tvNama"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginStart="16dp"
            android:layout_marginEnd="16dp"
            android:text="Nama barang"
            android:textColor="@color/black"
            android:textStyle="bold"
            android:textSize="18sp" />

        <TextView
            android:id="@+id/tvJenis"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginStart="16dp"
            android:layout_marginEnd="16dp"
            android:text="Jenis barang"
            android:textColor="@color/black"
            android:textSize="16sp" />

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

2.15 Link Github

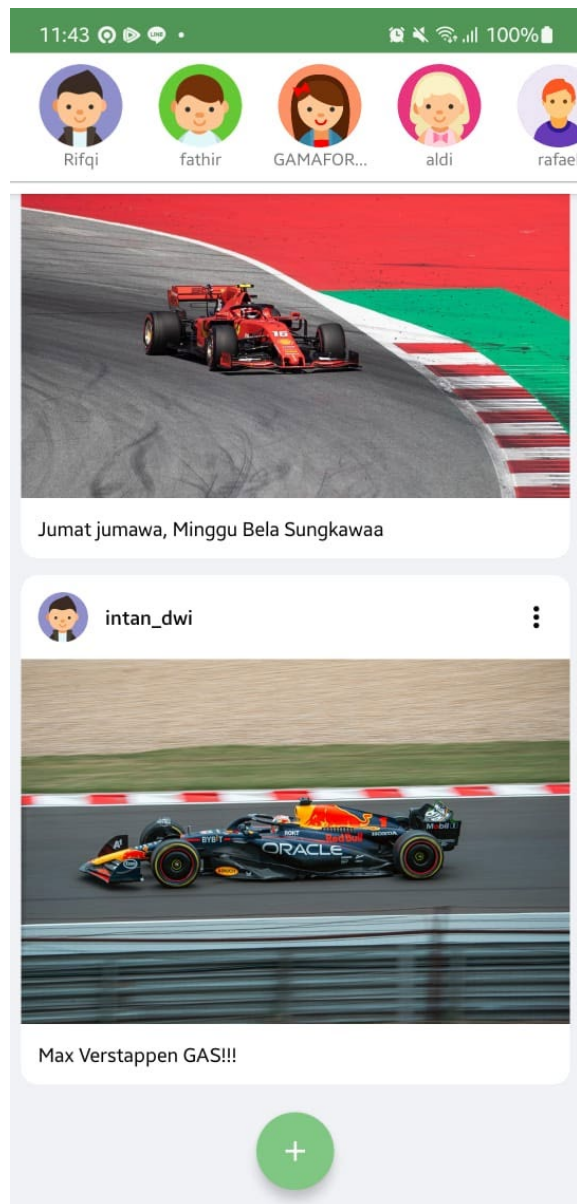
https://github.com/rifqichusaini/Praktikum-Pemrograman-Mobile/tree/main/P5-Recyclerview/Langkah_Prak

2.16 Output

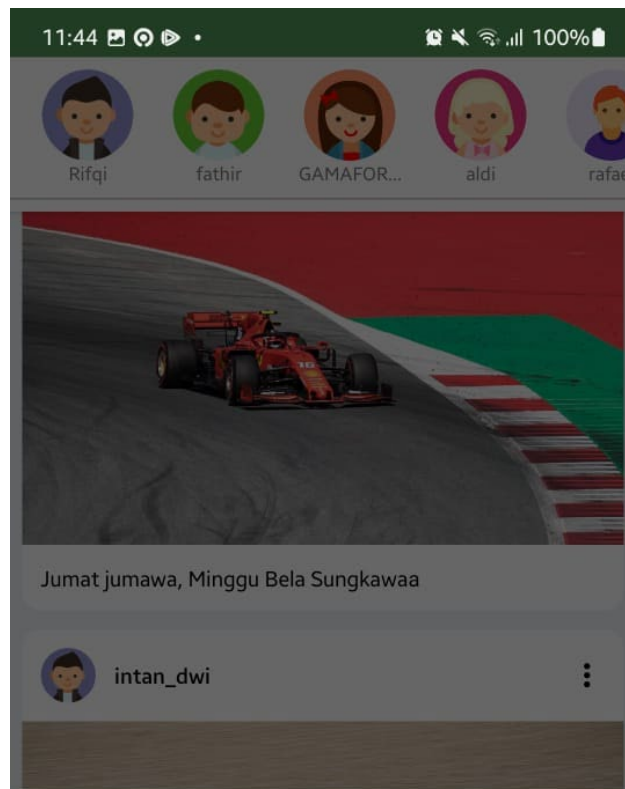


BAB III POST TEST

3.1 Halaman Utama



3.2 Tambah Post Baru



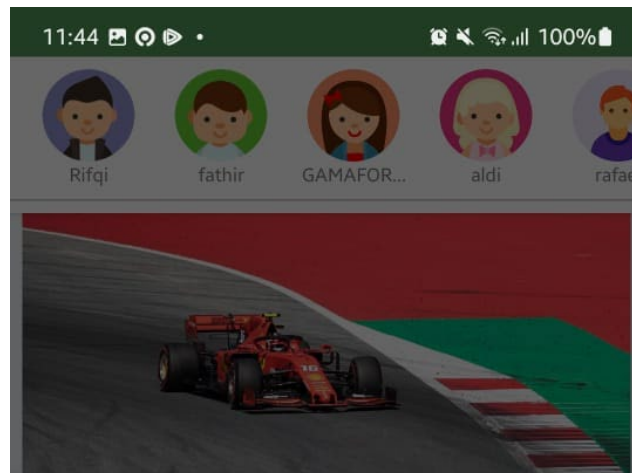
Tambah Post Baru

Buat Post Baru



TAMBAH GAMBAR

SIMPAN



Tambah Post Baru

Buat Post Baru

wkwkw

yoaimo



TAMBAH GAMBAR



SIMPAN

11:44

100%



Rifqi



fathir



GAMA FOR...



aldi



rafael



wkwkw



yoaimo



rubi_community



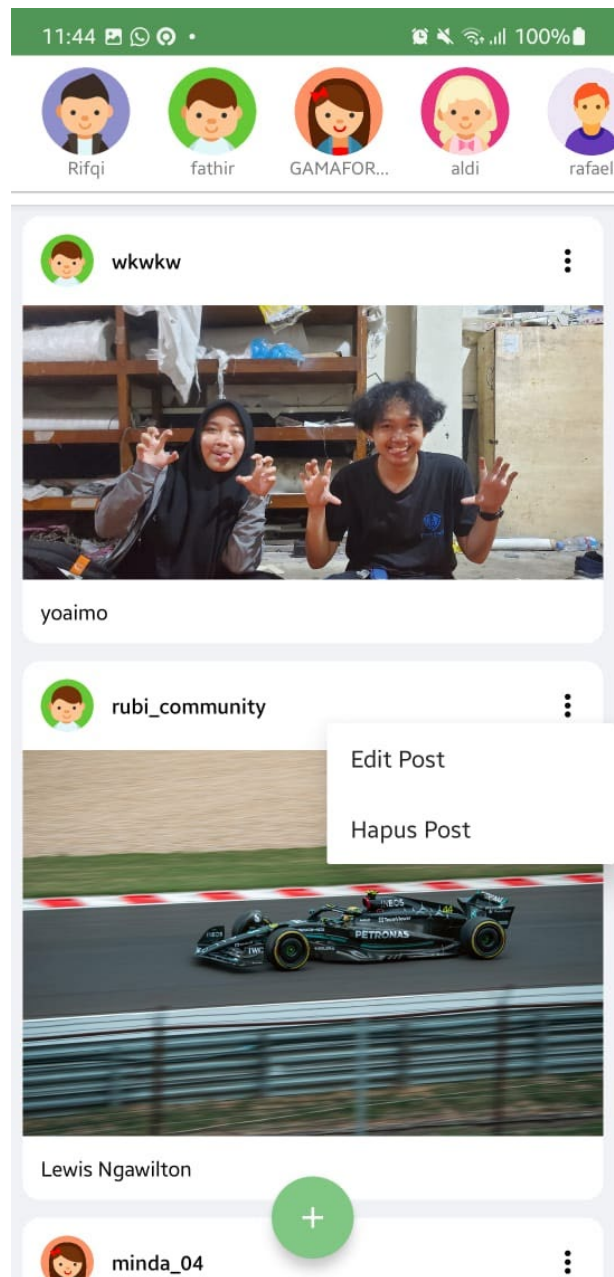
Lewis Ngawilton



minda_04



3.3 Hapus Post



11:44

100%



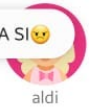
Rifqi



fathir



GAMA FOR...



aldi



rafael



wkwkw



yoaimo



minda_04



Jumat jumawa,

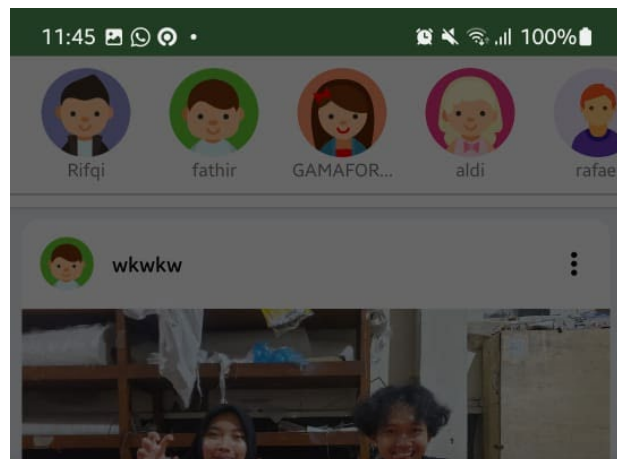
Berhasil dihapus



intan_dwi



3.4 Edit post



Edit Post

Buat Post Baru

kiko

yoaimo



TAMBAH GAMBAR



PERBARUI

3.5 Link Github

<https://github.com/rifqichusaini/Praktikum-Pemrograman-Mobile/tree/main/P5-Recyclerview/Post>