

TUGAS 4

PEMROGRAMAN MOBILE



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D4 TEKNIK INFORMATIKA

TEKNOLOGI INFORMASI

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Praktikum 1

Class SuperHero

```
package polinema.ac.id.RafliAlfian.models;

public class SuperHero {
    public String heroName;

    public SuperHero(String heroName) {
        this.heroName = heroName;
    }

    public String getHeroName() {
        return heroName;
    }

    public void setHeroName(String heroName) {
        this.heroName = heroName;
    }
}
```

Class SuperHeroAdapter

```
package polinema.ac.id.RafliAlfian.adapters;

import android.content.Context;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.TextView;

import androidx.annotation.NonNull;
import androidx.recyclerview.widget.RecyclerView;

import java.util.List;

import polinema.ac.id.RafliAlfian.R;
import polinema.ac.id.RafliAlfian.models.SuperHero;

public class SuperHeroAdapter extends
RecyclerView.Adapter<SuperHeroAdapter.MyViewHolder>{
    List<SuperHero> heroList;

    public SuperHeroAdapter(List<SuperHero> heroList) {
        this.heroList = heroList;
    }

    @NonNull
    @Override
    public SuperHeroAdapter.MyViewHolder onCreateViewHolder(@NonNull
ViewGroup parent, int viewType) {
        //object context diambil dari parent
        Context context = parent.getContext();
        //object context digunakan untuk membuat object inflater
        LayoutInflater inflater = LayoutInflater.from(context);
        //object inflater digunakan untuk membuat object view yang
        //merupakan hasil inflate layout (mengubungkan adapter dengan layout)
        View superHeroView =
        inflater.inflate(R.layout.item_super_hero, parent, false);
    }
}
```

```

        //object superHeroView digunakan untuk membuat object viewHolder
        MyViewHolder viewHolder = new MyViewHolder(superHeroView);
        return viewHolder;
    }

    @Override
    public void onBindViewHolder(@NonNull SuperHeroAdapter.MyViewHolder
holder, int position) {
        //ambil satu item hero
        SuperHero hero = heroList.get(position);
        //set text heroName berdasarkan data dari model hero
        holder.heroName.setText(hero.getHeroName());
    }

    @Override
    public int getItemCount() {
        return heroList.size();
    }

    public class MyViewHolder extends RecyclerView.ViewHolder {
        public TextView heroName;
        public MyViewHolder(@NonNull View itemView) {
            super(itemView);
            //variabel disesuaikan dengan layout, karena pada layout
item_super_hero terdapat satu
            //TextView maka pada kode program ini dibuat satu TextView yang
melakukan findViewById ke id layout yang bersesuaian
            heroName = itemView.findViewById(R.id.heroName);
        }
    }
}

```

Class MainActivity

```

package polinema.ac.id.RafliAlfian;

import androidx.appcompat.app.AppCompatActivity;
import androidx.recyclerview.widget.LinearLayoutManager;
import androidx.recyclerview.widget.RecyclerView;

import android.annotation.SuppressLint;
import android.os.Bundle;

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

import polinema.ac.id.RafliAlfian.adapters.SuperHeroAdapter;
import polinema.ac.id.RafliAlfian.models.SuperHero;

public class MainActivity extends AppCompatActivity {
    //instansiasi RecyclerView
    RecyclerView rvSuperHero;
    //instansiasi list superhero
    List<SuperHero> listSuperHero = new ArrayList<>();
    @SuppressLint("WrongViewCast")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        //menyambungkan rvSuperHero ke layout
    }
}

```

```

        rvSuperHero = findViewById(R.id.rvSuperHero);
        //Membuat object hero
        SuperHero hero = new SuperHero("Petruk");
        //menambahkan hero ke listSuperHero
        listSuperHero.add(hero);
        //membuat object hero baru
        hero = new SuperHero("Gareng");
        //menambahkan hero baru ke listSuperhero
        listSuperHero.add(hero);
        //Instansiasi Adapter
        SuperHeroAdapter superHeroAdapter = new
SuperHeroAdapter(listSuperHero);
        //set adapter dan layoutManager
        rvSuperHero.setAdapter(superHeroAdapter);
        rvSuperHero.setLayoutManager(new LinearLayoutManager(this));
    }
}

```

Class Activity_main_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:layout_width="match_parent"
android:layout_height="match_parent"
tools:context=".MainActivity">

    <androidx.recyclerview.widget.RecyclerView
        android:id="@+id/rvSuperHero"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintBottom_toBottomOf="parent"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        tools:layout_editor_absoluteX="8dp"
        tools:layout_editor_absoluteY="8dp" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

Class item_super_hero.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:tools="http://schemas.android.com/tools"
android:orientation="vertical" android:layout_width="match_parent"
android:layout_height="50dp">
    <TextView
        android:gravity="center"
        android:id="@+id/heroName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Hero Name"
        android:textSize="20sp"
        tools:ignore="InvalidId" />
</LinearLayout>

```

Hasil demo Recycleview Sangat Sederhana



Praktikum 2

Class Contact

```
package id.primadev.RafliAlfian.Models;

public class Contact {

    private String name;
    private String phone;
    private String imageUrl;

    public Contact(String name, String phone, String imageUrl) {
        this.name = name;
        this.phone = phone;
        this.imageUrl = imageUrl;
    }

    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }

    public String getPhone() {
        return phone;
    }

    public void setPhone(String phone) {
        this.phone = phone;
    }

    public String getImageUrl() {
        return imageUrl;
    }

    public void setImageUrl(String imageUrl) {
        this.imageUrl = imageUrl;
    }
}
```

Class ContactAdaptor

```
package id.primadev.RafliAlfian;

import android.support.annotation.NonNull;
import android.support.v7.widget.RecyclerView;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ImageView;
import android.widget.TextView;

import com.squareup.picasso.Picasso;

import java.util.ArrayList;
import java.util.List;
import id.primadev.RafliAlfian.Models.Contact;
```

```

public class ContactAdapter extends
RecyclerView.Adapter<ContactAdapter.ContactViewHolder>{

    private List<Contact> listContact = new ArrayList<>();

    public ContactAdapter(List<Contact> listContact) {
        this.listContact = listContact;
    }
    //
    private OnContactClickListener listener;

    public interface OnContactClickListener {
        public void onClick(View view, int position);
    }

    public void setListener(OnContactClickListener listener) {
        this.listener = listener;
    }
    //
    @NonNull
    @Override
    public ContactViewHolder onCreateViewHolder(@NonNull ViewGroup
viewGroup, int i) {
        View vh = LayoutInflater.
            from(viewGroup.getContext()).
                inflate(R.layout.item_contact,viewGroup,false);
        ContactViewHolder viewHolder = new ContactViewHolder(vh);
        return viewHolder;
    }
    //
    @Override
    public void onBindViewHolder(@NonNull ContactViewHolder
contactViewHolder, int i) {

        Contact item = listContact.get(i);
        contactViewHolder.txtPhone.setText(item.getPhone());
        contactViewHolder.txtName.setText(item.getName());
        Picasso.get().load(item.getImageUrl())
            .placeholder(R.drawable.ic_launcher_background)
            .into(contactViewHolder.imageContact);
    }
    @Override
    public int getItemCount() {
        return listContact.size();
    }
    //
    public class ContactViewHolder extends RecyclerView.ViewHolder {
        public ImageView imageContact;
        public TextView txtName,txtPhone;

        public ContactViewHolder(@NonNull View itemView) {
            super(itemView);
            imageContact = itemView.findViewById(R.id.imageContact);
            txtName = itemView.findViewById(R.id.txtName);
            txtPhone = itemView.findViewById(R.id.txtPhone);
            itemView.setOnClickListener(new View.OnClickListener() {
                @Override
                public void onClick(View v) {
                    listener.onClick(v, getAdapterPosition());
                }
            }

```

```

        });
    }
}
}

```

Class MainActivity

```

package id.primadev.RafliAlfian;

import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.support.v7.widget.LinearLayoutManager;
import android.support.v7.widget.RecyclerView;
import android.view.View;
import android.widget.Toast;

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

import id.primadev.RafliAlfian.Models.Contact;

public class MainActivity extends AppCompatActivity implements
ContactAdapter.OnContactClickListener {

    public RecyclerView rv;
    public ContactAdapter contactAdapter;
    public RecyclerView.LayoutManager layoutManager;
    public List<Contact> listContact = new ArrayList<>();

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        rv = findViewById(R.id.rvContact);
        //List kontak yang akan di tampilkan (nama, telepon, url gambar

        listContact.add(new Contact("Iron Man",
            "102018308",
            "https://cdn4.iconfinder.com/data/icons/famous-characters-
add-on-vol-1-flat/48/Famous_Character_-_Add_On_1-14-512.png"));

        listContact.add(new Contact("Bat Man",
            "102018309",
            "https://cdn4.iconfinder.com/data/icons/famous-characters-
add-on-vol-1-flat/48/Famous_Character_-_Add_On_1-22-512.png"));

        listContact.add(new Contact("Groot",
            "102018307",
            "https://cdn4.iconfinder.com/data/icons/famous-characters-
add-on-vol-1-flat/48/Famous_Character_-_Add_On_1-21-512.png"));

        listContact.add(new Contact("Sonic",
            "102018301",
            "https://cdn4.iconfinder.com/data/icons/famous-characters-
add-on-vol-1-flat/48/Famous_Character_-_Add_On_1-26-512.png"));

        contactAdapter = new ContactAdapter(listContact);
        contactAdapter.setListener(this);
        layoutManager = new LinearLayoutManager(getApplicationContext());
    }
}

```



```

        rv.setAdapter(contactAdapter);
        rv.setLayoutManager(layoutManager);
    }

    @Override
    public void onClick(View view, int position) {
        Contact contact = listContact.get(position);
        Toast.makeText(this, contact.getName(), Toast.LENGTH_LONG)
            .show();
    }
}

```

Class Activity_main_xml

```

<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.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:layout_width="match_parent"
android:layout_height="match_parent"
tools:context="id.primadev.RafliAlfian.MainActivity">

    <android.support.v7.widget.RecyclerView
        android:id="@+id/rvContact"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_marginBottom="8dp"
        android:layout_marginEnd="8dp"
        android:layout_marginStart="8dp"
        android:layout_marginTop="8dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"></android.support.v7.widget.RecyclerView>

</android.support.constraint.ConstraintLayout>

```

Class Item_contact_xml

```

<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.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:layout_width="match_parent"
android:layout_height="wrap_content">

    //Image view untuk url gambar kontak
    <ImageView
        android:id="@+id/imageContact"
        android:layout_width="75dp"
        android:layout_height="74dp"
        android:layout_marginStart="8dp"
        android:layout_marginLeft="8dp"
        android:layout_marginTop="16dp"
        android:layout_marginBottom="8dp"

```

```

        android:src="@mipmap/ic_launcher"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

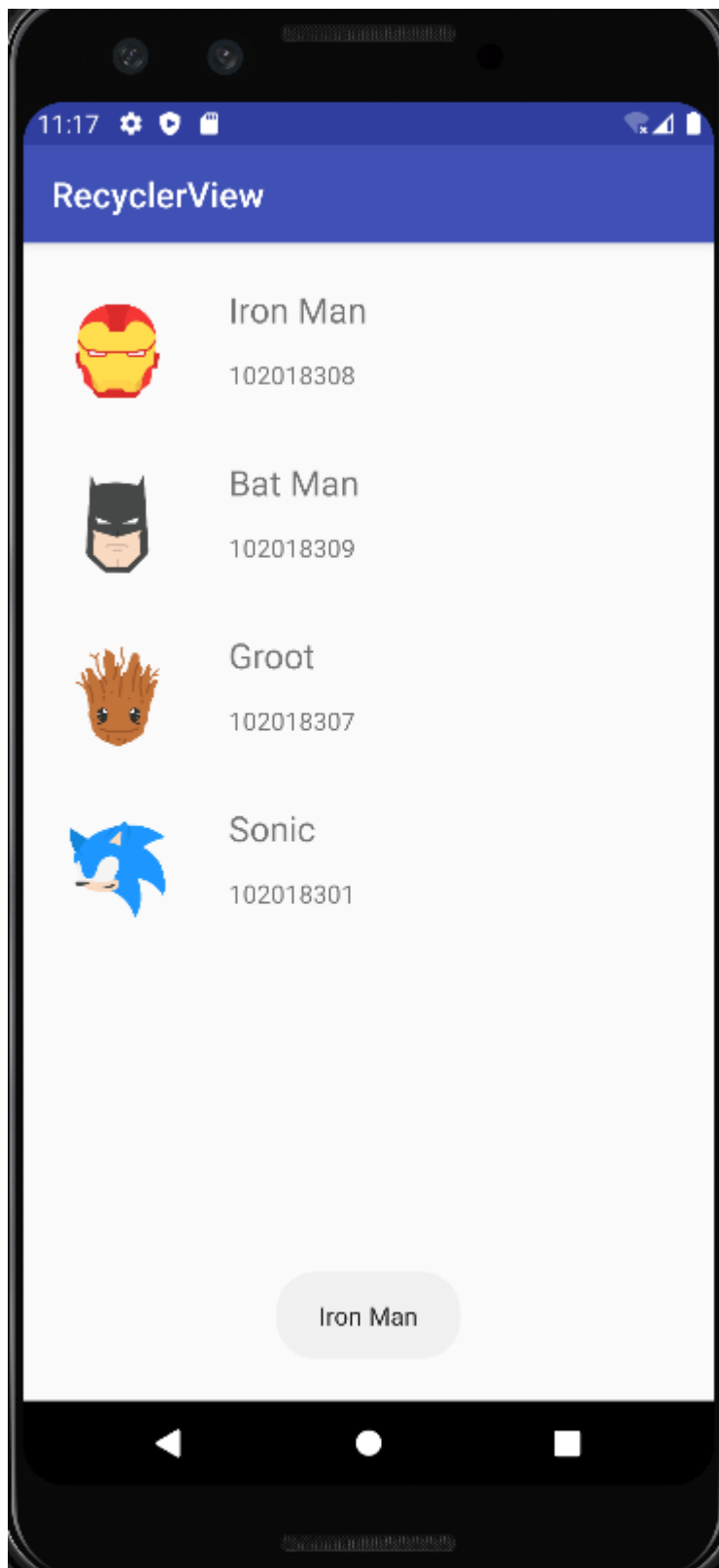
//text view nama kontak
<TextView
    android:id="@+id/txtName"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:layout_marginStart="8dp"
    android:layout_marginTop="16dp"
    android:layout_marginEnd="8dp"
    android:text="Nama"
    android:textSize="20dp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="@+id/guideline3"
    app:layout_constraintTop_toTopOf="parent" />

//text view no telepon
<TextView
    android:id="@+id/txtPhone"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:layout_marginBottom="8dp"
    android:layout_marginEnd="8dp"
    android:layout_marginStart="8dp"
    android:text="Nomor Telepon"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="@+id/guideline3"
    app:layout_constraintTop_toBottomOf="@+id/txtName" />

<android.support.constraint.Guideline
    android:id="@+id/guideline3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:orientation="vertical"
    app:layout_constraintGuide_begin="101dp" />
</android.support.constraint.ConstraintLayout>

```

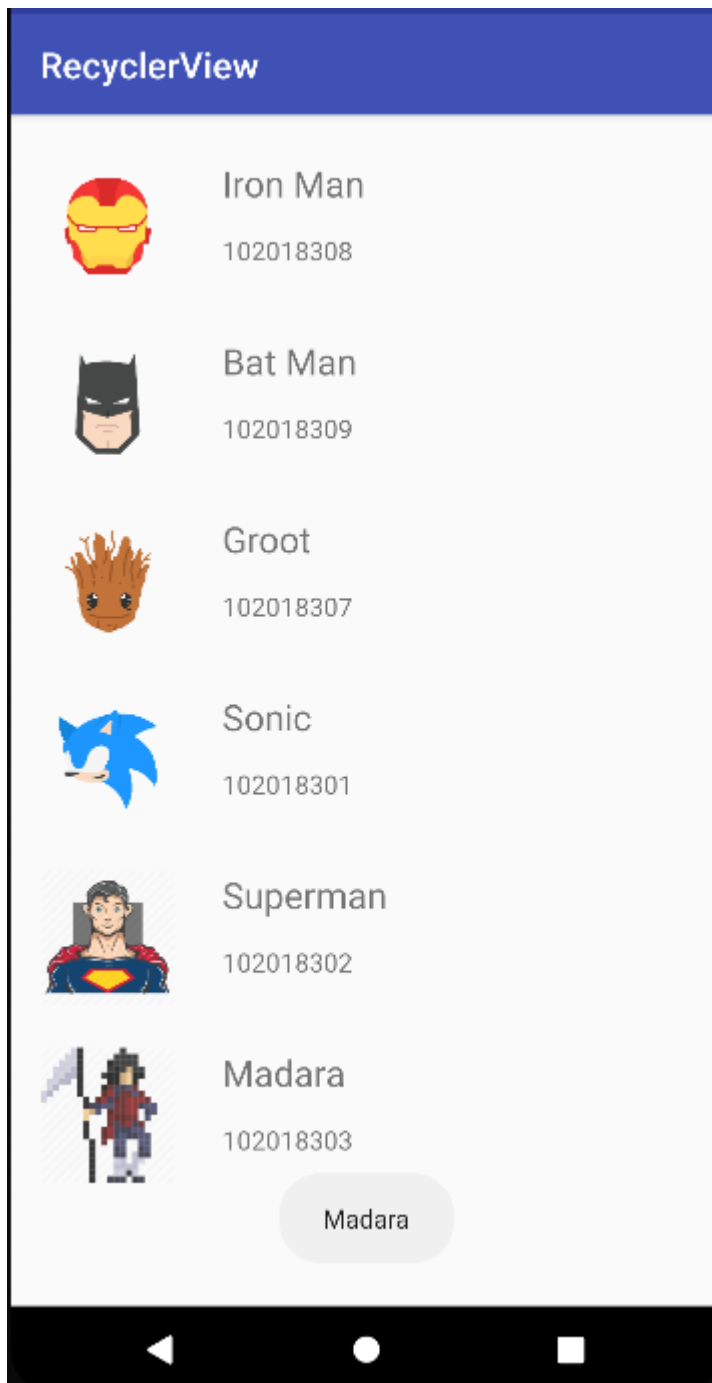
Hasil demo Recycleview Sederhana



Tugas

Method onclick

```
public void onClick(View view, int position) {  
    Contact contact = listContact.get(position);  
    Toast.makeText(this, contact.getName(), Toast.LENGTH_LONG)  
        .show();  
}
```



Jadi method onclick berfungsi jika kita menekan salah satu icon maka akan muncul nama dari icon tersebut

