



Android Lecture #6

Our app

The screenshot shows a mobile application interface with a dark blue header bar. The title "AcademyTlvMovies" is centered in white text. Below the header, there is a list of movie reviews, each consisting of a small thumbnail image on the left and a movie title with a brief description on the right.

- Jurassic World - Fallen Kingdom**
Three years after the demise of Jurassic World, a volcanic eruption threatens the remaining dinosaurs on the isla Nublar, so Claire Dearing, the former park manager, recruits Owen Grady ...
- The Meg**
A deep sea submersible pilot revisits his past fears in the Mariana Trench, and accidentally unleashes the seventy foot ancestor of the Great White Shark believed to be extinct
- The First Purge**
To push the crime rate below one percent for the rest of the year, the New Founding Fathers of America test a sociological theory that vents aggression for one night in one isolated c...
- Deadpool 2**
Wisecracking mercenary Deadpool battles the evil and powerful Cable and other bad guys to save a boy's life
- Black Panther**
King T'Challa returns home from America to the reclusive, technologically advanced African nation of Wakanda to serve as his country's new leader. However, T'Challa soon finds that he is c...
- Ocean's Eight**
Debbie Ocean, a criminal mastermind, gathers a crew of female thieves to pull off the heist of the century at New York's annual Met Gala
- Interstellar**
Interstellar chronicles the adventures of a group



Showing dynamic movies

Mission :

- DetailsFragment movie won't be hard-coded.
- We need to pass the Fragment a Movie to display.

DetailsFragment.java

```
public class DetailsFragment extends Fragment {  
  
    public DetailsFragment() {  
  
    }  
}
```

DetailsFragment.java

```
public class DetailsFragment extends Fragment {  
  
    public DetailsFragment(MovieModel movieModel) {  
  
    }  
}
```

DetailsFragment.java

```
public class DetailsFragment extends Fragment {  
  
    public DetailsFragment(MovieModel movieModel) {  
  
    }  
}
```



DetailsFragment.java

```
public class DetailsFragment extends Fragment {  
  
    public DetailsFragment(MovieModel movieModel) {  
  
    }  
}
```





Showing dynamic movies

Problem :

- Fragment must contain an empty constructor !



Showing dynamic movies

Solution :

Create a static factory method !

DetailsFragment.java

```
public class DetailsFragment extends Fragment {  
  
    public static DetailsFragment newInstance(MovieModel movieModel) {  
        DetailsFragment fragment = new DetailsFragment();  
  
        return fragment;  
    }  
}
```

DetailsFragment.java

```
public class DetailsFragment extends Fragment {  
  
    public static DetailsFragment newInstance(MovieModel movieModel) {  
        DetailsFragment fragment = new DetailsFragment();  
        Bundle args = new Bundle();  
  
        return fragment;  
    }  
}
```



Bundle

- A (key, value) limited data structure
- Supports only primitives and parcelable types
- Comes with pre built functions
 - getString
 - getInt
 - getBoolean
 - etc...

DetailsFragment.java

```
public class DetailsFragment extends Fragment {  
  
    public static DetailsFragment newInstance(MovieModel movieModel) {  
        DetailsFragment fragment = new DetailsFragment();  
        Bundle args = new Bundle();  
  
        return fragment;  
    }  
}
```

DetailsFragment.java

```
public class DetailsFragment extends Fragment {  
  
    public static DetailsFragment newInstance(MovieModel movieModel) {  
        DetailsFragment fragment = new DetailsFragment();  
        Bundle args = new Bundle();  
        args.putString("name", movieModel.name);  
  
        return fragment;  
    }  
}
```

DetailsFragment.java

```
public class DetailsFragment extends Fragment {  
  
    public static DetailsFragment newInstance(MovieModel movieModel) {  
        DetailsFragment fragment = new DetailsFragment();  
        Bundle args = new Bundle();  
        args.putString("name", movieModel.name);  
        args.putInt("imageRes", movieModel.imageRes)  
  
        return fragment;  
    }  
}
```

DetailsFragment.java

```
public class DetailsFragment extends Fragment {  
  
    public static DetailsFragment newInstance(MovieModel movieModel) {  
        DetailsFragment fragment = new DetailsFragment();  
        Bundle args = new Bundle();  
        args.putString("name", movieModel.name);  
        args.putInt("imageRes", movieModel.imageRes)  
        args.putString("overview", movieModel.overview)  
        fragment.setArguments(args);  
        return fragment;  
    }  
}
```



Bundle

- A (key, value) limited data structure
- Supports only primitives and **Parcelable types**
- Comes with pre built functions
 - `getString`
 - `getInt`
 - `getBoolean`
 - etc...



Parcelable

- Android implementation of the Java Serializable.
- Can be processed relatively fast, compared to the standard Java serialization.
- Can be created without knowing the data.
- You can read more about it [here](#)

MovieModel.java

```
class MovieModel {  
    String name;  
    int imageRes;  
    String overview;  
}
```

MovieModel.java

```
class MovieModel implements Parcelable {
    String name;
    int imageRes;
    String overview;

}
```

MovieModel.java

```
class MovieModel implements Parcelable {
    String name;
    int imageRes;
    String overview;

    @Override
    public int describeContents() {
        return 0;
    }

    @Override
    public void writeToParcel(Parcel dest, int flags) {
        dest.writeString(this.name);
        dest.writeInt(this.imageRes);
        dest.writeString(this.overview);
    }

    public MovieModel() {
    }
...
}
```

MovieModel.java

```
...  
protected MovieModel(Parcel in) {  
    this.name = in.readString();  
    this.imageRes = in.readInt();  
    this.overview = in.readString();  
}  
  
public static final Parcelable.Creator<MovieModel> CREATOR = new  
Parcelable.Creator<MovieModel>() {  
    @Override  
    public MovieModel createFromParcel(Parcel source) {  
        return new MovieModel(source);  
    }  
  
    @Override  
    public MovieModel[] newArray(int size) {  
        return new MovieModel[size];  
    }  
};  
}
```

Settings

Plugins Marketplace Installed Updates (2) ⚙

parcelable

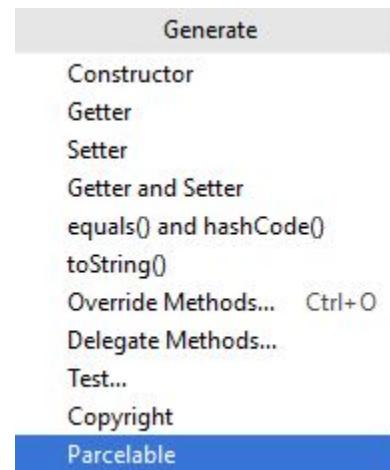
Plugin Name	Description	Last Update	Downloads	Rating	Action
Parcelable Code Generator(for...)	Parcelable Code Generator is a plugin which generates Android Parcelable boilerplate code for you.	2017,08 ינ' 2017,08 ינ'	52.1K	4.5	Install
Android Parcelable code gener...	Plugin which generates Android Parcelable boilerplate code for you.	2016,11 ינ' 2016,11 ינ'	332K	4.5	Installed
Auto Parcel	Adds a generator action to automatically add Parcelable support for Android model...	2013,14 ינ' 2013,14 ינ'	2.3K	—	Install
SerializableParcelable Generator	Plugin which generates Android SerializableParcelable boilerplate code for you. lib location at...	2015,22 ינ' 2015,22 ינ'	7.2K	—	Install
ParcelablePlease	Generates code for ParcelablePlease. See ParcelablePlease on github.	2016,15 ינ' 2016,15 ינ'	1.6K	—	Install
Parcelable Code Generator(for...)	Parcelable Code Generator is a plugin which generates Android Parcelable boilerplate code for...	2017,28 ינ' 2017,28 ינ'	2.5K	—	Install
AutoValue plugin	Provides context menu options, generate menu options and code intentions to generate and...	2017,22 ינ' 2017,22 ינ'	15.7K	4.5	Install
ActivityLauncher	Android debug activity launcher that you can launch any activity with params ActivityLauncher is...	2018,30 נס' 2018,30 נס'	1.8K	—	Install

OK Cancel Apply Help

Editor
General
Font
Color Scheme
Code Style
Inspections
File and Code Templates
File Encodings
Live Templates
File Types
Layout Editor
Copyright
Emmet
Images
Intentions
Language Injections
Spelling
TODO

Plugins
Version Control
Build, Execution, Deployment
Languages & Frameworks
Tools
Kotlin Compiler
Experimental

Alt + Insert



MovieModel.kt

```
@Parcelize
data class MovieModel(
    var name: String,
    @DrawableRes val imageRes: Int,
    var overview: String = ""
): Parcelable
```

DetailsFragment.java

```
public class DetailsFragment extends Fragment {  
  
    public static DetailsFragment newInstance(MovieModel movieModel) {  
        DetailsFragment fragment = new DetailsFragment();  
        Bundle args = new Bundle();  
        args.putString("name", movieModel.name);  
        args.putInt("imageRes", movieModel.imageRes)  
        args.putString("overview", movieModel.overview)  
        fragment.setArguments(args);  
        return fragment;  
    }  
}
```

DetailsFragment.java

```
public class DetailsFragment extends Fragment {  
  
    public static DetailsFragment newInstance(MovieModel movieModel) {  
        DetailsFragment fragment = new DetailsFragment();  
        Bundle args = new Bundle();  
        args.putParcelable("movie", movieModel)  
        fragment.setArguments(args);  
        return fragment;  
    }  
}
```

DetailsFragment.java

```
public class DetailsFragment extends Fragment {  
  
    public static DetailsFragment newInstance(MovieModel movieModel) {  
        DetailsFragment fragment = new DetailsFragment();  
        Bundle args = new Bundle();  
        args.putParcelable("movie", movieModel)  
        fragment.setArguments(args);  
        return fragment;  
    }  
}
```

DetailsFragment.java

```
public class DetailsFragment extends Fragment {  
  
    private static final String MOVIE_BUNDLE_KEY = "unique_movie_key";  
  
    public static DetailsFragment newInstance(MovieModel movieModel) {  
        DetailsFragment fragment = new DetailsFragment();  
        Bundle args = new Bundle();  
        args.putParcelable("movie", movieModel)  
        fragment.setArguments(args);  
        return fragment;  
    }  
}
```

DetailsFragment.java

```
public class DetailsFragment extends Fragment {  
  
    private static final String MOVIE_BUNDLE_KEY = "unique_movie_key";  
  
    public static DetailsFragment newInstance(MovieModel movieModel) {  
        DetailsFragment fragment = new DetailsFragment();  
        Bundle args = new Bundle();  
        args.putParcelable(MOVIE_BUNDLE_KEY, movieModel)  
        fragment.setArguments(args);  
        return fragment;  
    }  
}
```

DetailsFragment.java

```
public class DetailsFragment extends Fragment {  
  
    private static final String MOVIE_BUNDLE_KEY = "unique_movie_key";  
  
    public static DetailsFragment newInstance(MovieModel movieModel) {  
        DetailsFragment fragment = new DetailsFragment();  
        Bundle args = new Bundle();  
        args.putParcelable(MOVIE_BUNDLE_KEY, movieModel);  
        fragment.setArguments(args);  
        return fragment;  
    }  
  
}
```

DetailsFragment.java

```
public class DetailsFragment extends Fragment {  
  
    private static final String MOVIE_BUNDLE_KEY = "unique_movie_key";  
  
    public static DetailsFragment newInstance(MovieModel movieModel) {  
        DetailsFragment fragment = new DetailsFragment();  
        Bundle args = new Bundle();  
        args.putParcelable(MOVIE_BUNDLE_KEY, movieModel);  
        fragment.setArguments(args);  
        return fragment;  
    }  
  
}
```

How to get data ?

```
public class DetailsFragment extends Fragment {  
    private static final String MOVIE_BUNDLE_KEY = "unique_movie_key";  
    private MovieModel movieModel;  
  
    ...  
  
    @Override  
    public void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
  
        movieModel = getArguments().getParcelable(MOVIE_BUNDLE_KEY);  
  
    }  
}
```

How to get data ?

```
public class DetailsFragment extends Fragment {  
    private static final String MOVIE_BUNDLE_KEY = "unique_movie_key";  
    private MovieModel movieModel;  
  
    ...  
  
    @Override  
    public void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
  
        movieModel = getArguments().getParcelable(MOVIE_BUNDLE_KEY);  
  
    }  
}
```

How to get data ?

```
public class DetailsFragment extends Fragment {  
    private static final String MOVIE_BUNDLE_KEY = "unique_movie_key";  
    private MovieModel movieModel;  
  
    ...  
  
    @Override  
    public void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        if (getArguments() != null) {  
            movieModel = getArguments().getParcelable(MOVIE_BUNDLE_KEY);  
        }  
    }  
}
```

How to get data ?

```
public class DetailsFragment extends Fragment {  
    private static final String MOVIE_BUNDLE_KEY = "unique_movie_key";  
    private MovieModel movieModel;  
  
    ...  
  
    @Override  
    public void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        if (getArguments() != null) {  
            movieModel = getArguments().getParcelable(MOVIE_BUNDLE_KEY);  
        }  
    }  
}
```

How to get data ?

```
public class DetailsFragment extends Fragment {  
    private static final String MOVIE_BUNDLE_KEY = "unique_movie_key";  
    private MovieModel movieModel;  
  
    ...  
  
    @Override  
    public void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        if (getArguments() != null) {  
            movieModel = getArguments().getParcelable(MOVIE_BUNDLE_KEY);  
        }  
    }  
}
```

How to get data ?

```
public class DetailsFragment extends Fragment {  
    private static final String MOVIE_BUNDLE_KEY = "unique_movie_key";  
    private MovieModel movieModel;  
  
    ...  
  
    @Override  
    public void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        if (getArguments() != null) {  
            movieModel = getArguments().getParcelable(MOVIE_BUNDLE_KEY);  
        }  
    }  
}
```

How to get data ?

```
public class DetailsFragment extends Fragment {  
    private MovieModel movieModel;  
  
    @Override  
    public View onCreateView(LayoutInflater inflater, ViewGroup container,  
                             Bundle savedInstanceState) {  
        View view = inflater.inflate(R.layout.fragment_details, container, false);  
  
        return view;  
    }  
}
```

How to get data ?

```
public class DetailsFragment extends Fragment {  
    private MovieModel movieModel;  
  
    @Override  
    public View onCreateView(LayoutInflater inflater, ViewGroup container,  
                             Bundle savedInstanceState) {  
        View view = inflater.inflate(R.layout.fragment_details, container, false);  
        initView(view);  
  
        return view;  
    }  
}
```

How to get data ?

```
public class DetailsFragment extends Fragment {  
    private MovieModel movieModel;  
  
    @Override  
    public View onCreateView(LayoutInflater inflater, ViewGroup container,  
                             Bundle savedInstanceState) {  
        View view = inflater.inflate(R.layout.fragment_details, container, false);  
        initView(view);  
        if (movieModel != null)  
            return view;  
    }  
}
```

How to get data ?

```
public class DetailsFragment extends Fragment {  
    private MovieModel movieModel;  
  
    @Override  
    public View onCreateView(LayoutInflater inflater, ViewGroup container,  
                             Bundle savedInstanceState) {  
        View view = inflater.inflate(R.layout.fragment_details, container, false);  
        initView(view);  
        if (movieModel != null)  
            loadMovie();  
  
        return view;  
    }  
}
```

DetailsFragment#loadMovie

```
private void loadMovie() {  
}  
}
```

DetailsFragment#loadMovie

```
private void loadMovie() {  
    movieTitle.setText(movieModel.name);  
}  
}
```

DetailsFragment#loadMovie

```
private void loadMovie() {  
    movieTitle.setText(movieModel.name);  
    overViewText.setText(movieModel.overview);  
}  
}
```

DetailsFragment#loadMovie

```
private void loadMovie() {  
    movieTitle.setText(movieModel.name);  
    overViewText.setText(movieModel.overview);  
    posterImage.setImageResource(movieModel.imageRes);  
}
```

MainActivity.java

```
public class MainActivity extends AppCompatActivity {  
    ...  
    @Override  
    void onMovieClicked(MovieModel movie) {  
        DetailsFragment detailsFragment = new DetailsFragment();  
        getSupportFragmentManager()  
            .beginTransaction()  
            .replace(R.id.activity_main_frame, detailsFragment)  
            .commit();  
    }  
}
```

MainActivity.java

```
public class MainActivity extends AppCompatActivity {  
    ...  
    @Override  
    void onMovieClicked(MovieModel movie) {  
        DetailsFragment detailsFragment = new DetailsFragment();  
        getSupportFragmentManager()  
            .beginTransaction()  
            .replace(R.id.activity_main_frame, detailsFragment)  
            .commit();  
    }  
}
```

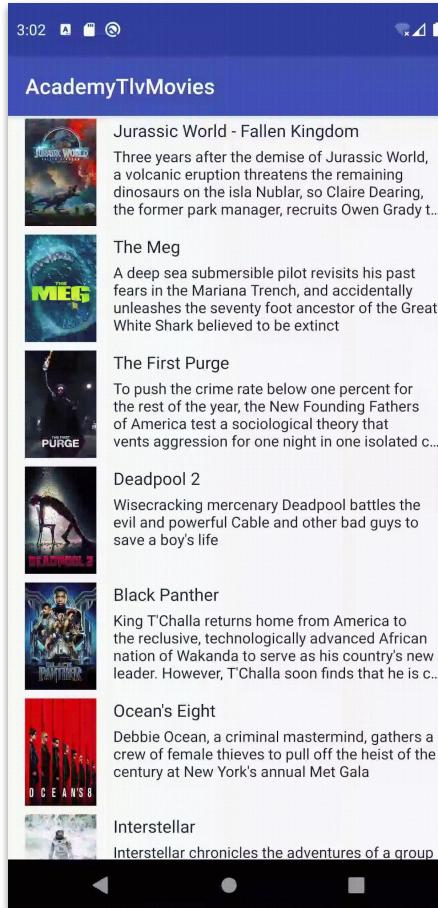
MainActivity.java

```
public class MainActivity extends AppCompatActivity {  
    ...  
    @Override  
    void onMovieClicked(MovieModel movie) {  
        DetailsFragment detailsFragment = DetailsFragment.newInstance();  
        getSupportFragmentManager()  
            .beginTransaction()  
            .replace(R.id.activity_main_frame, detailsFragment)  
            .commit();  
    }  
}
```

MainActivity.java

```
public class MainActivity extends AppCompatActivity {  
    ...  
    @Override  
    void onMovieClicked(MovieModel movie) {  
        DetailsFragment detailsFragment = DetailsFragment.newInstance( movie );  
        getSupportFragmentManager()  
            .beginTransaction()  
            .replace(R.id.activity_main_frame, detailsFragment)  
            .commit();  
    }  
}
```

Our app



≡ Any Questions?

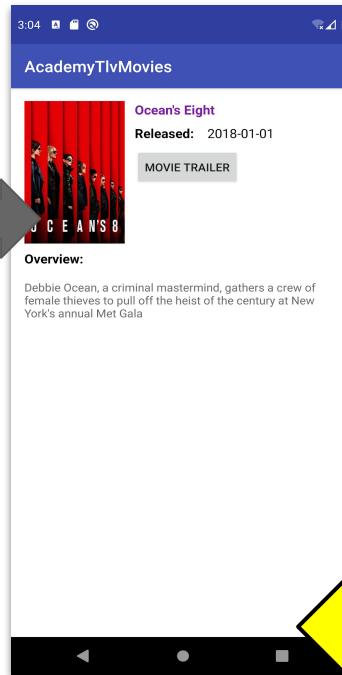
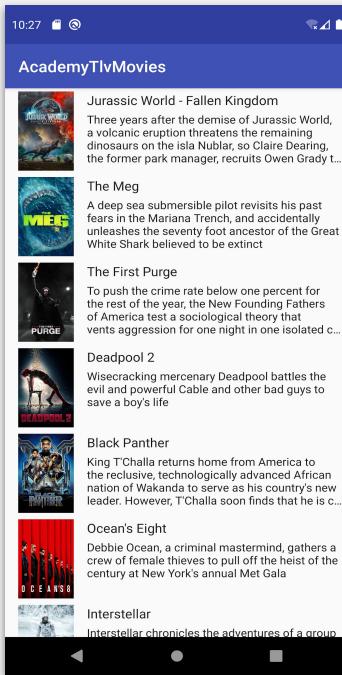


Fragments back stack



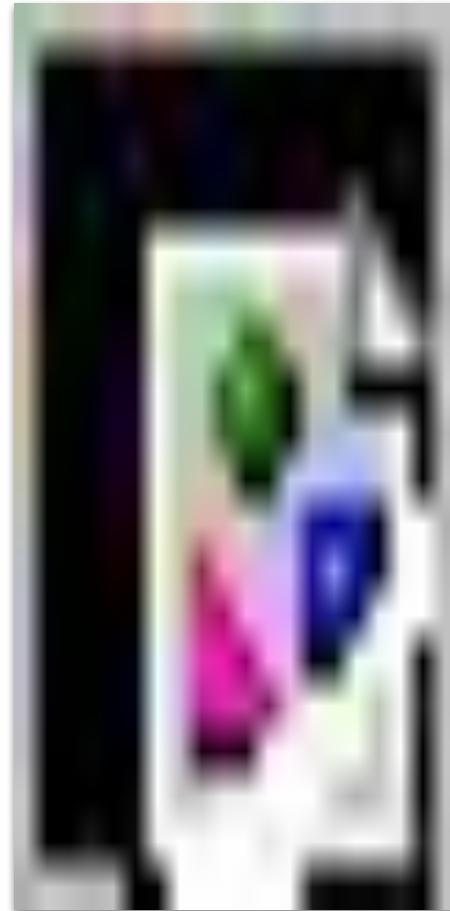
The back stack

MainActivity



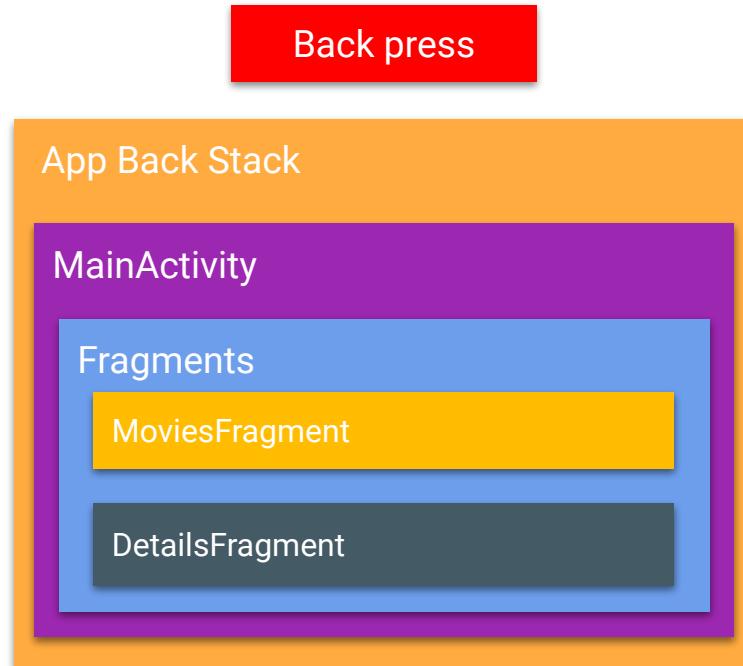
- Back button pressed
- MoviesFragment should be shown

Our app





Activity vs Fragment backstacks



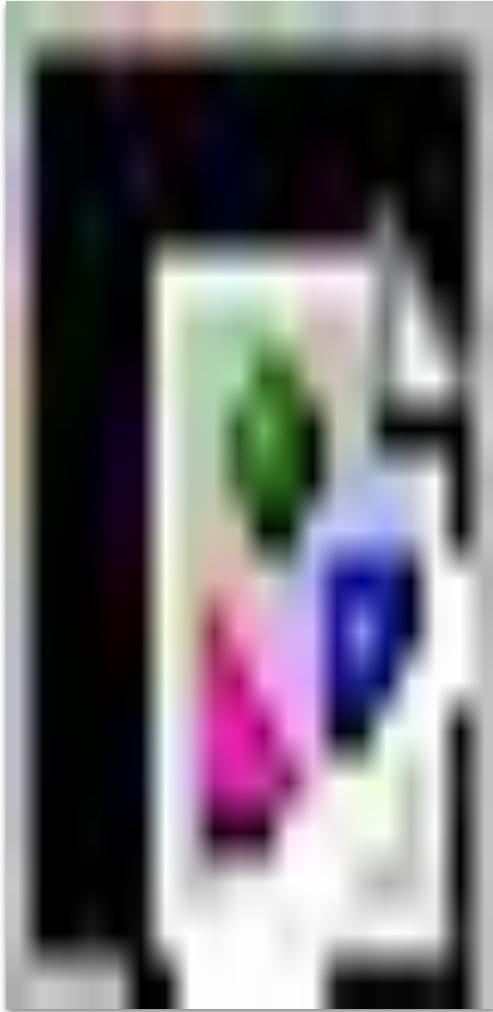
Fixing the back stack navigation

MainActivity.java

```
public class MainActivity extends AppCompatActivity {  
    ...  
    void onMovieClicked(MovieModel movie) {  
        DetailsFragment detailsFragment = DetailsFragment. newInstance(movie);  
        getSupportFragmentManager()  
            .beginTransaction()  
            .replace(R.id.activity_main_frame, detailsFragment)  
            .commit();  
    }  
}
```

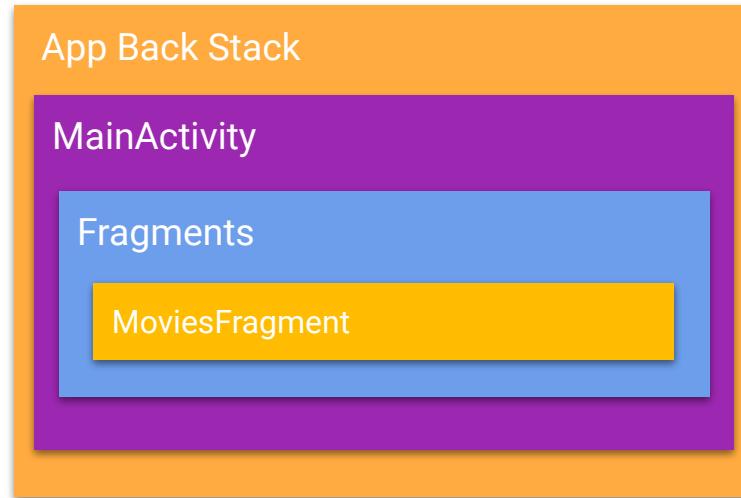
MainActivity.java

```
public class MainActivity extends AppCompatActivity {  
    ...  
    void onMovieClicked(MovieModel movie) {  
        DetailsFragment detailsFragment = DetailsFragment. newInstance(movie);  
        getSupportFragmentManager()  
            .beginTransaction()  
            .addToBackStack(null)  
            .replace(R.id.activity_main_frame, detailsFragment)  
            .commit();  
    }  
}
```



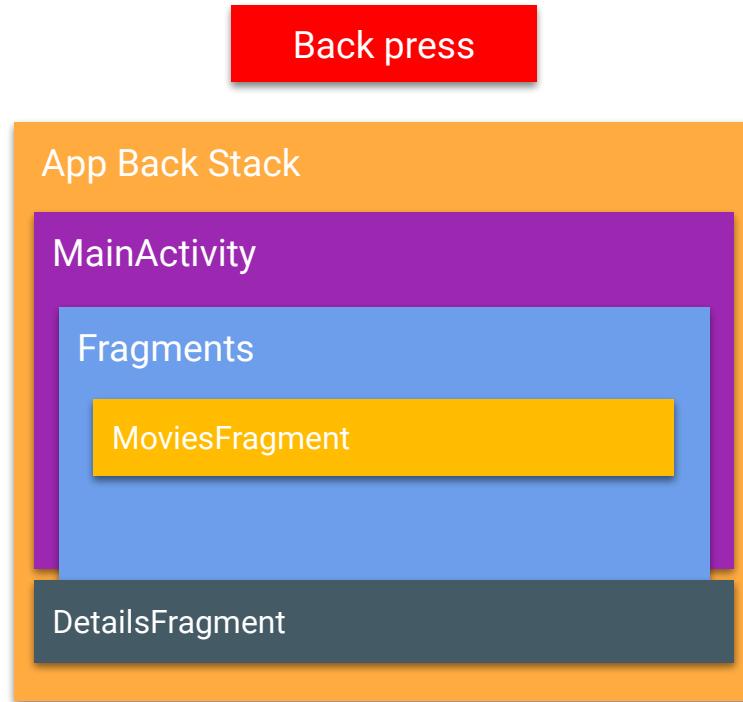


Activity vs Fragment backstacks



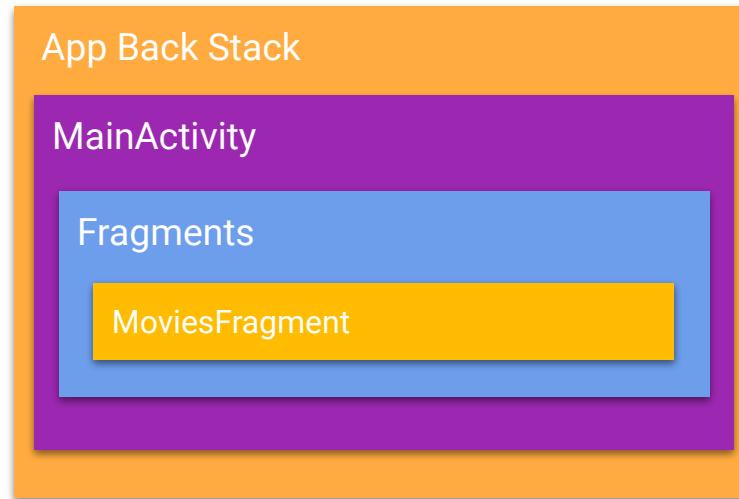


Activity vs Fragment backstacks





Activity vs Fragment backstacks



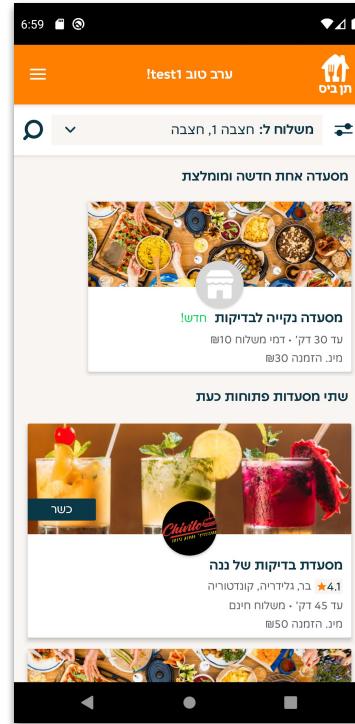
MainActivity.java

```
public class MainActivity extends AppCompatActivity {  
    ...  
    void onMovieClicked(MovieModel movie) {  
        DetailsFragment detailsFragment = DetailsFragment. newInstance(movie);  
        getSupportFragmentManager()  
            .beginTransaction()  
            .addToBackStack( null )  
            .replace(R.id. activity_main_frame, detailsFragment)  
            .commit();  
    }  
}
```



Activity vs Fragment backstacks

Home



App Back Stack

MainActivity

Fragments

Home

MainActivity.java

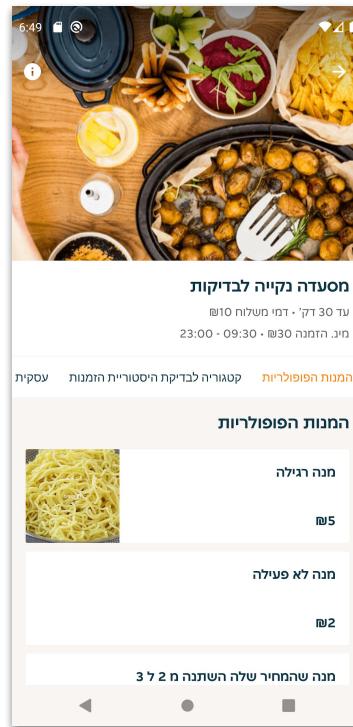
```
void onRestaurantClicked() {  
    DetailsFragment detailsFragment = DetailsFragment. newInstance(movie);  
    getSupportFragmentManager()  
        .beginTransaction()  
        .addToBackStack( "HomeFragment" )  
        .replace(R.id. activity_main_frame, restaurantFragment)  
        .commit();  
}
```



Activity vs Fragment backstacks

Home

Menu



App Back Stack

MainActivity

Fragments

Home

Menu

MainActivity.java

```
void onContinueToCheckoutClicked () {  
    DetailsFragment detailsFragment = DetailsFragment. newInstance(movie);  
    getSupportFragmentManager()  
        .beginTransaction()  
        .addToBackStack( "RestaurantFragment" )  
        .replace(R.id. activity_main_frame, restaurantFragment)  
        .commit();  
}
```

MainActivity.java

```
void onContinueToCheckoutClicked() {  
    DetailsFragment detailsFragment = DetailsFragment. newInstance(movie);  
    getSupportFragmentManager()  
        .beginTransaction()  
        .addToBackStack( "RestaurantFragment" )  
        .replace(R.id. activity_main_frame, restaurantFragment)  
        .commit();  
}
```

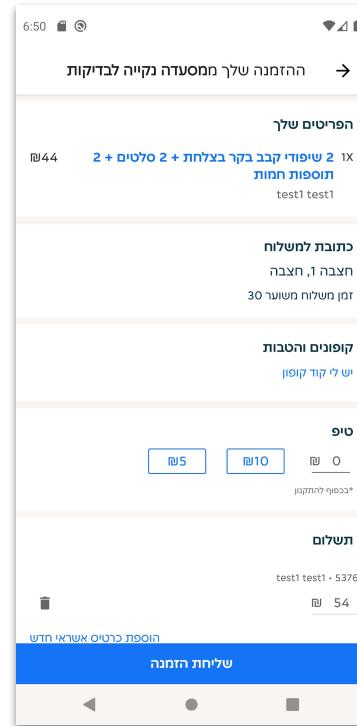


Activity vs Fragment backstacks

Home

Menu

Checkout



App Back Stack

MainActivity

Fragments

Home

Menu

Checkout

MainActivity.java

```
void submitOrder () {  
    DetailsFragment detailsFragment = DetailsFragment. newInstance(movie);  
    getSupportFragmentManager()  
        .beginTransaction()  
        .addToBackStack( "CheckoutFragment" )  
        .replace(R.id. activity_main_frame, restaurantFragment)  
        .commit();  
}
```

MainActivity.java

```
void submitOrder() {  
    DetailsFragment detailsFragment = DetailsFragment. newInstance(movie);  
    getSupportFragmentManager()  
        .beginTransaction()  
        .addToBackStack( "CheckoutFragment" )  
        .replace(R.id. activity_main_frame, restaurantFragment)  
        .commit();  
}
```



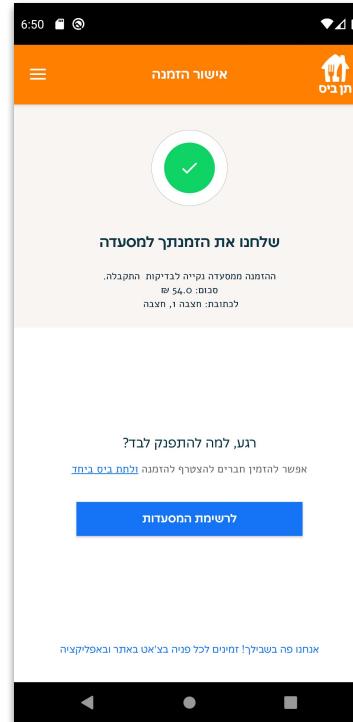
Activity vs Fragment backstacks

Home

Menu

Checkout

OrderCompleted



App Back Stack

MainActivity

Fragments

Home

Menu

Checkout

OrderCompleted



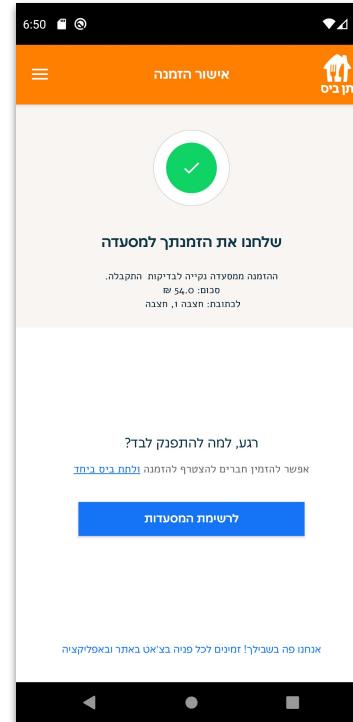
Activity vs Fragment backstacks

Home

Menu

Checkout

OrderCompleted



App Back Stack

MainActivity

Fragments

Home

Menu

Checkout

OrderCompleted



FragmentManager

- `popBackStack(String name, int flags)`





FragmentManager

- popBackStack(String name, int flags)



MainActivity.java

```
@Override  
public void onBackPressed() {  
    super.onBackPressed();  
}
```

MainActivity.java

```
@Override  
public void onBackPressed() {  
}
```

MainActivity.java

```
@Override  
public void onBackPressed() {  
    getSupportFragmentManager()  
}
```

MainActivity.java

```
@Override  
public void onBackPressed() {  
    getSupportFragmentManager().popBackStack( "HomeFragment" , 0 );  
}
```

MainActivity.java

```
@Override  
public void onBackPressed() {  
    getSupportFragmentManager().popBackStack( "HomeFragment" , 0 );  
}
```



pop exclusive

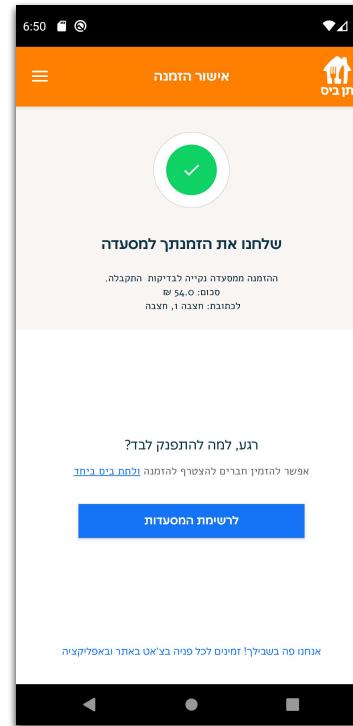
☰ Flag = 0

Home

Menu

Checkout

OrderCompleted



App Back Stack

MainActivity

Fragments

Home

Menu

Checkout

OrderCompleted

MainActivity.java

```
@Override  
public void onBackPressed() {  
  
    getSupportFragmentManager().popBackStack( "HomeFragment" , POP_BACK_STACK_INCLUSIVE )  
;  
}
```

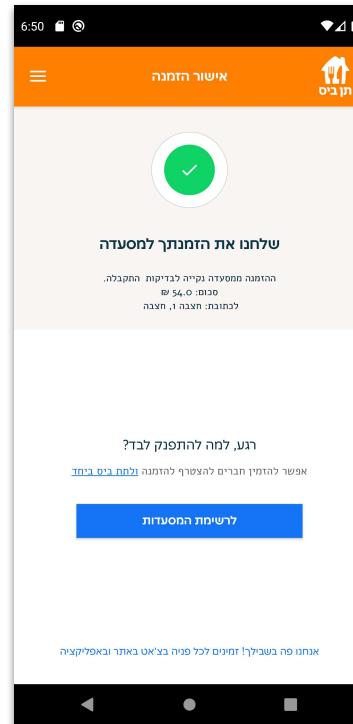
☰ Flag = POP_BACK_STACK_INCLUSIVE

Home

Menu

Checkout

OrderCompleted



App Back Stack

MainActivity

Fragments

Home

Menu

Checkout

OrderCompleted



Any Questions?

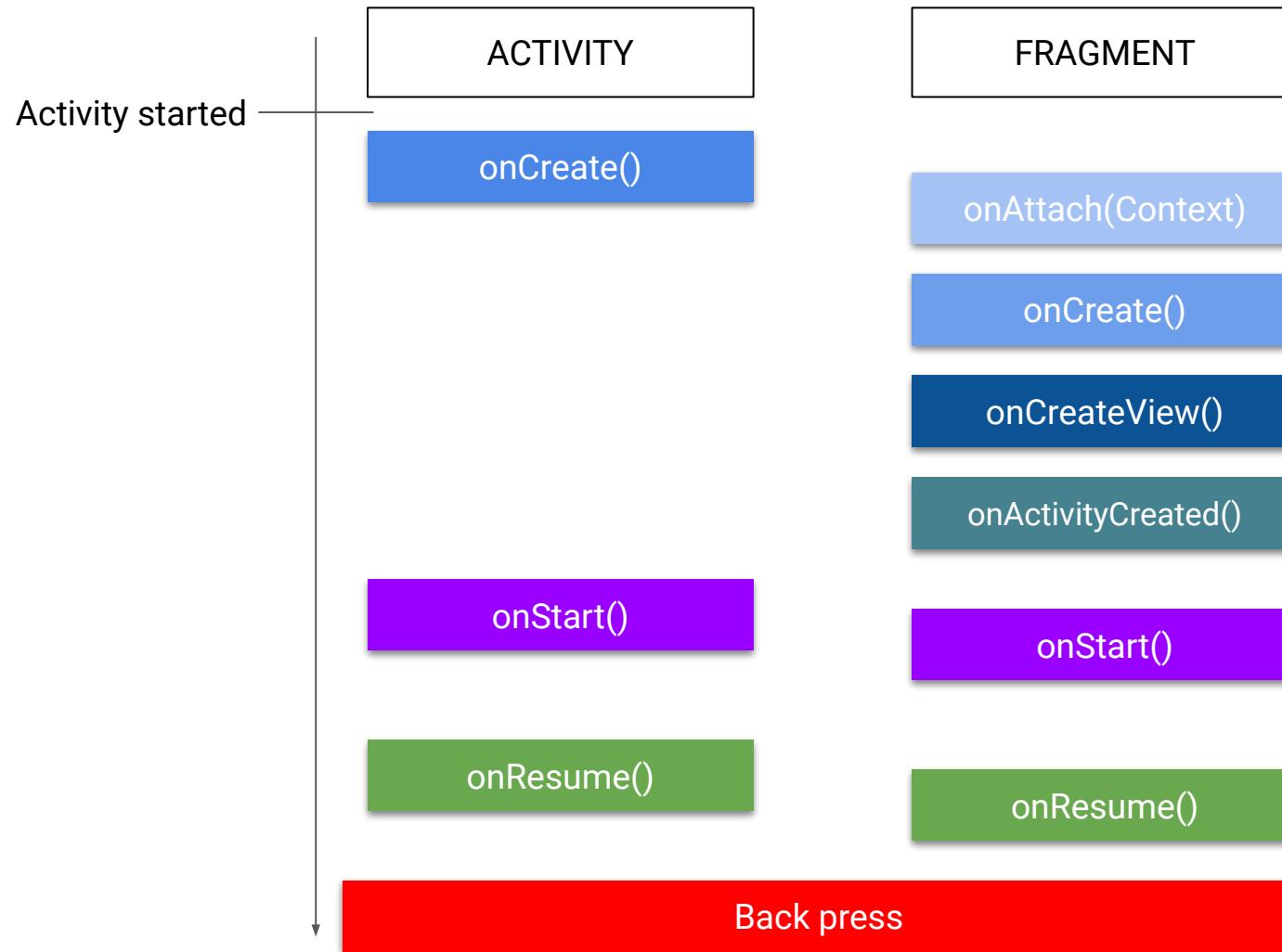


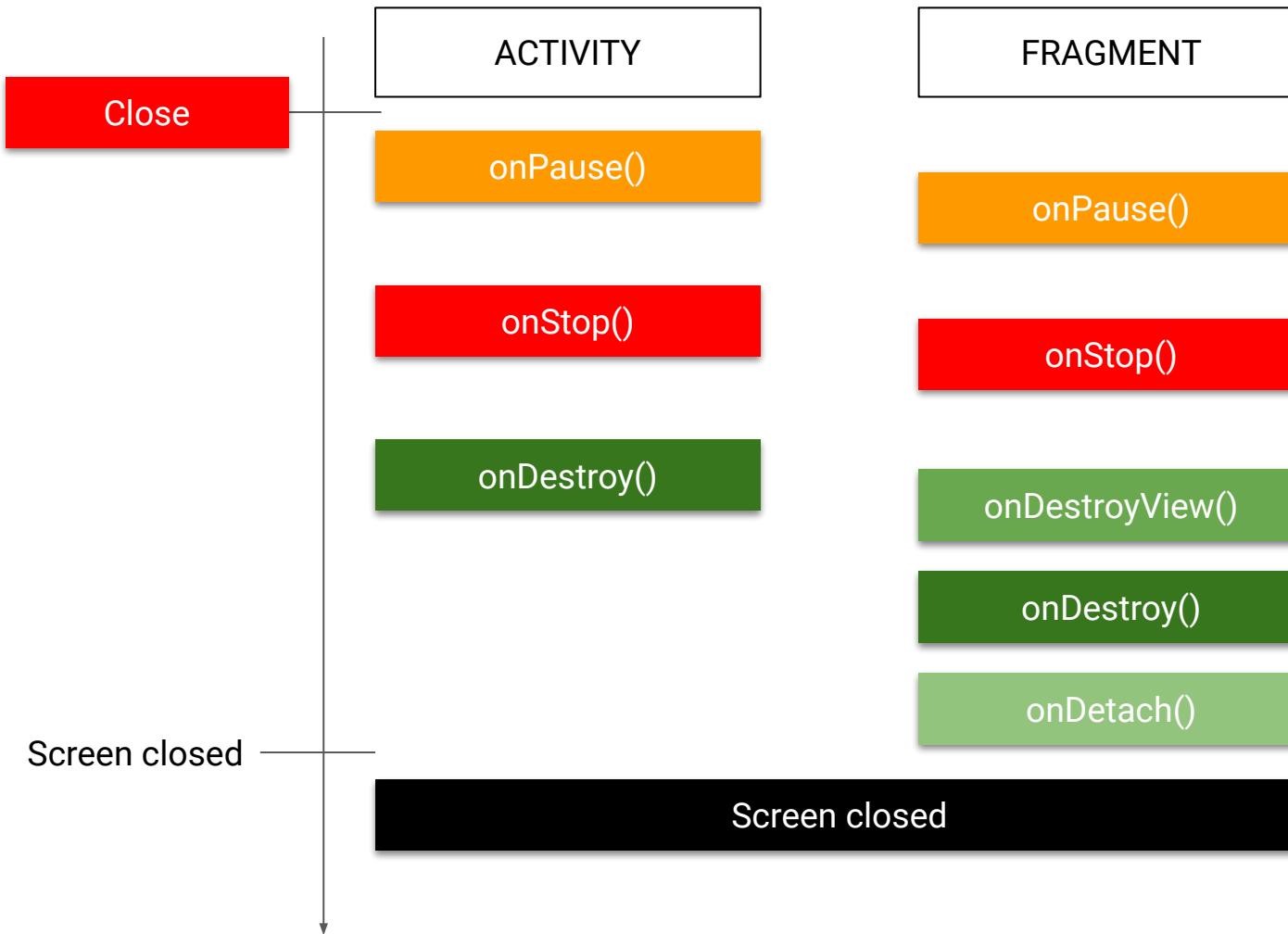
Fragment Lifecycle



Fragment lifecycle

The Fragment lifecycle is directly affected
by the **hosting Activity**





Tablets?

10:26  

AcademyTlMovies

 Jurassic World - Fallen Kingdom
Three years after the demise of Jurassic World, a volcanic eruption threatens the remaining dinosaurs on the isla Nublar, so Claire Dearing, the former park manager, recruits Owen Grady to help prevent the extinction of the dinosaurs once again

 The Meg
A deep sea submersible pilot revisits his past fears in the Mariana Trench, and accidentally unleashes the seventy foot ancestor of the Great White Shark believed to be extinct

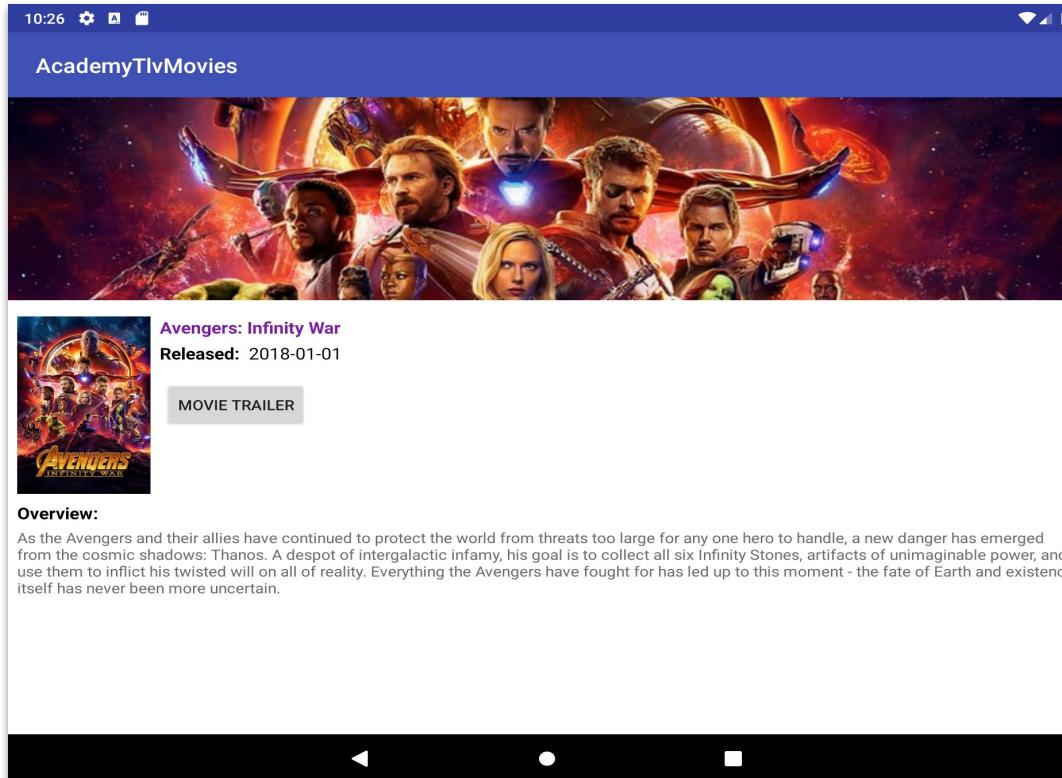
 The First Purge
To push the crime rate below one percent for the rest of the year, the New Founding Fathers of America test a sociological theory that vents aggression for one night in one isolated community. But when the violence of oppressors meets the rage of the others, the contagion will explode from the trial-city borders and spread across the nation

 Deadpool 2
Wisecracking mercenary Deadpool battles the evil and powerful Cable and other bad guys to save a boy's life

 Black Panther
King T'Challa returns home from America to the reclusive, technologically advanced African nation of Wakanda to serve as his country's new leader. However, T'Challa soon finds that he is challenged for the throne by factions within his own country as well as without. Using powers reserved to Wakandan kings, T'Challa assumes the Black Panther mantle to join with girlfriend Nakia, the queen-mother, his princess-kid sister, members of the Dora Milaje (the Wakandan 'special forces') and an American secret agent, to prevent Wakanda from being dragged into a world war

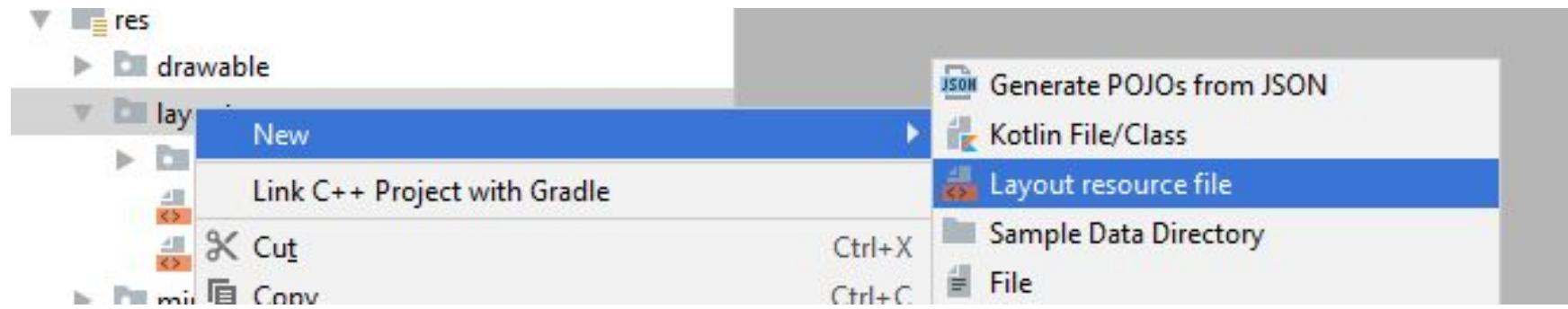
 Ocean's Eight
Debbie Ocean, a criminal mastermind, gathers a crew of female thieves to pull off the heist of the century at New York's annual Met Gala

Tablet



Tablet layout!!

Tablet



Tablet

New Resource File

X

File name:	activity_main
Root element:	LinearLayout
Source set:	main
Directory name:	layout

Available qualifiers:

- Country Code
- Network Code
- Locale
- Layout Direction
- Smallest Screen Width**
- Screen Width
- Screen Height
- Size
- Ratio
- Orientation
- UI Mode
- Night Mode

>>

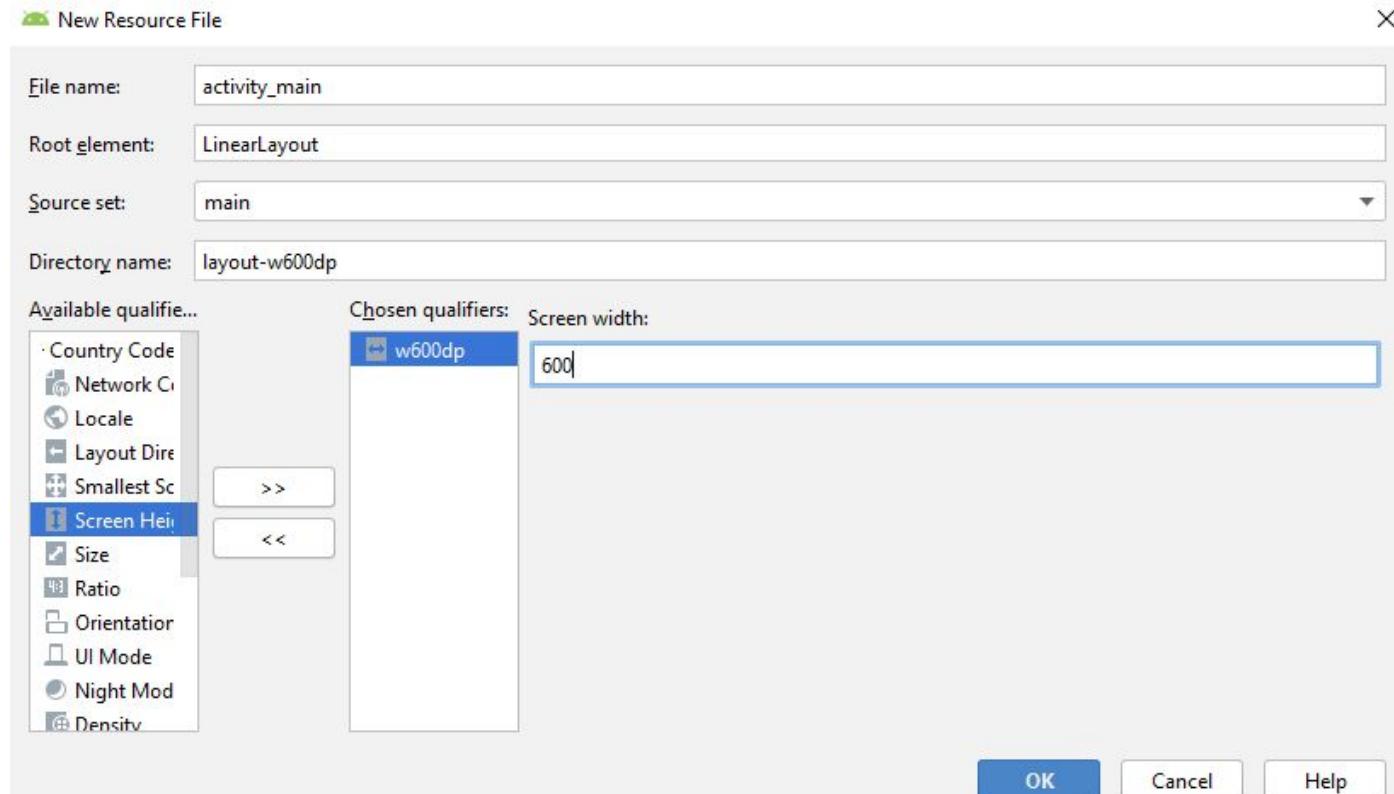
<<

Chosen qualifiers:

Nothing to show

OK Cancel Help

Tablet



☰ Tablet

```
▼ layout
  ▼ activity_main (3)
    activity_main.xml
    activity_main.xml (land)
    activity_main.xml (w600dp)
```

activity_main(w600dp)

```
<androidx.constraintlayout.widget.ConstraintLayout  
    android:layout_width="match_parent"  
    android:layout_height="match_parent">  
  
</androidx.constraintlayout.widget.ConstraintLayout>
```

activity_main(w600dp)

```
<androidx.constraintlayout.widget.ConstraintLayout  
    android:layout_width="match_parent"  
    android:layout_height="match_parent">  
  
    <FrameLayout  
        android:id="@+id/activity_main_frame"  
        android:layout_width="0dp"  
        android:layout_height="match_parent"  
        app:layout_constraintStart_toStartOf="parent"  
        app:layout_constraintWidth_percent="0.4" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>
```

activity_main(w600dp)

```
<androidx.constraintlayout.widget.ConstraintLayout  
    android:layout_width="match_parent"  
    android:layout_height="match_parent">  
  
    <FrameLayout  
        android:id="@+id/activity_main_frame"  
        android:layout_width="0dp"  
        android:layout_height="match_parent"  
        app:layout_constraintStart_toStartOf="parent"  
        app:layout_constraintWidth_percent="0.4" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>
```

activity_main(w600dp)

```
<androidx.constraintlayout.widget.ConstraintLayout  
    android:layout_width="match_parent"  
    android:layout_height="match_parent">  
  
<FrameLayout  
    android:id="@+id/activity_main_frame"  
    android:layout_width="0dp"  
    android:layout_height="match_parent"  
    app:layout_constraintStart_toStartOf="parent"  
    app:layout_constraintWidth_percent="0.4" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>
```

MatchConstraints

activity_main(w600dp)

```
<androidx.constraintlayout.widget.ConstraintLayout  
    android:layout_width="match_parent"  
    android:layout_height="match_parent">  
  
    <FrameLayout  
        android:id="@+id/activity_main_frame"  
        android:layout_width="0dp"  
        android:layout_height="match_parent"  
        app:layout_constraintStart_toStartOf="parent"  
        app:layout_constraintWidth_percent="0.4" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>
```

activity_main(w600dp)

```
<androidx.constraintlayout.widget.ConstraintLayout  
    android:layout_width="match_parent"  
    android:layout_height="match_parent">  
  
    <FrameLayout  
        android:id="@+id/activity_main_frame"  
        android:layout_width="0dp"  
        android:layout_height="match_parent"  
        app:layout_constraintStart_toStartOf="parent"  
        app:layout_constraintWidth_percent="0.4" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>
```

40%

activity_main(w600dp)

```
<androidx.constraintlayout.widget.ConstraintLayout  
    android:layout_width="match_parent"  
    android:layout_height="match_parent">  
  
    <!--activity_main_frame code-->  
  
</androidx.constraintlayout.widget.ConstraintLayout>
```

activity_main(w600dp)

```
<androidx.constraintlayout.widget.ConstraintLayout
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <!--activity_main_frame code-->

    <FrameLayout
        android:id="@+id/activity_main_tablet_frame"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        app:layout_constraintStart_toEndOf="@+id/activity_main_frame"
        app:layout_constraintEnd_toEndOf="parent"/>

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

activity_main(w600dp)

```
<androidx.constraintlayout.widget.ConstraintLayout
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <!--activity_main_frame code-->

    <FrameLayout
        android:id="@+id/activity_main_tablet_frame"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        app:layout_constraintStart_toEndOf="@+id/activity_main_frame"
        app:layout_constraintEnd_toEndOf="parent" />

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

activity_main(w600dp)

```
<androidx.constraintlayout.widget.ConstraintLayout  
    android:layout_width="match_parent"  
    android:layout_height="match_parent">  
  
    <!--activity_main_frame code-->  
  
    <FrameLayout  
        android:id="@+id/activity_main_tablet_frame"  
        android:layout_width="0dp"                                ← MatchConstraints  
        android:layout_height="match_parent"  
        app:layout_constraintStart_toEndOf="@+id/activity_main_frame"  
        app:layout_constraintEnd_toEndOf="parent" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>
```

activity_main(w600dp)

```
<androidx.constraintlayout.widget.ConstraintLayout
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <!--activity_main_frame code-->

    <FrameLayout
        android:id="@+id/activity_main_tablet_frame"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        app:layout_constraintStart_toEndOf="@+id/activity_main_frame"
        app:layout_constraintEnd_toEndOf="parent"/>

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

activity_main(w600dp)

```
<androidx.constraintlayout.widget.ConstraintLayout  
    android:layout_width="match_parent"  
    android:layout_height="match_parent">  
  
    <!--activity_main_frame code-->  
  
    <FrameLayout  
        android:id="@+id/activity_main_tablet_frame"  
        android:layout_width="0dp"  
        android:layout_height="match_parent"  
        app:layout_constraintStart_toEndOf="@+id/activity_main_frame"  
        app:layout_constraintEnd_toEndOf="parent"/>  
  
</androidx.constraintlayout.widget.ConstraintLayout>
```

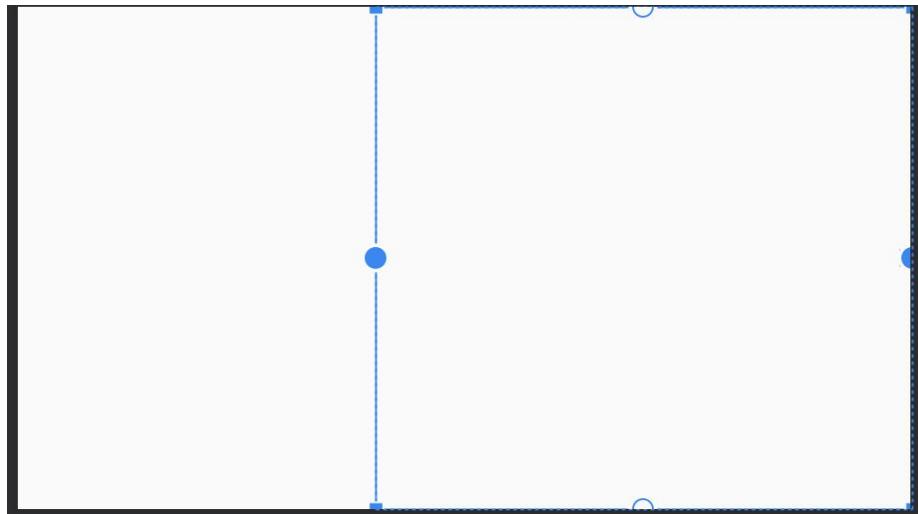
activity_main(w600dp)

```
<androidx.constraintlayout.widget.ConstraintLayout  
    android:layout_width="match_parent"  
    android:layout_height="match_parent">  
  
    <!--activity_main_frame code-->  
  
    <FrameLayout  
        android:id="@+id/activity_main_tablet_frame"  
        android:layout_width="0dp"  
        android:layout_height="match_parent"  
        app:layout_constraintStart_toEndOf="@id/activity_main_frame"  
        app:layout_constraintEnd_toEndOf="parent"/>  
  
</androidx.constraintlayout.widget.ConstraintLayout>
```

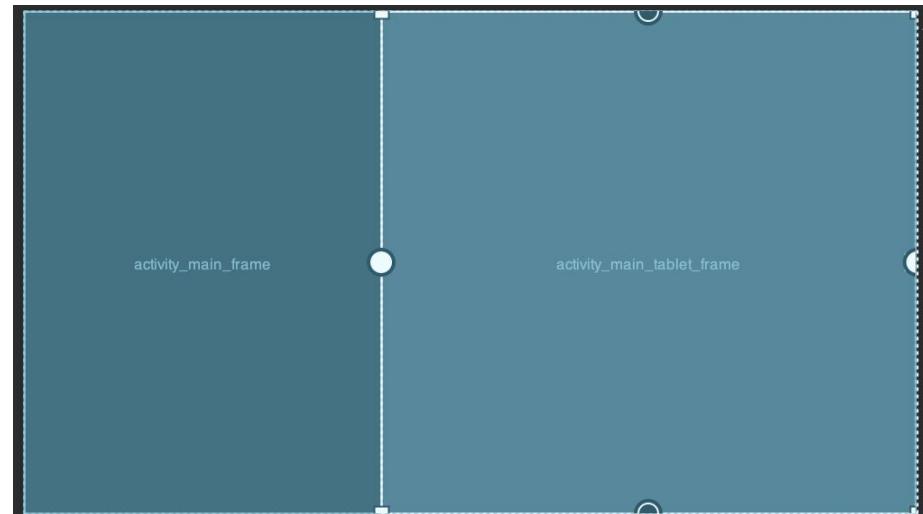


Layout

Design



Blueprint



MainActivity.java

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

MainActivity.java

```
private FrameLayout tabletFragmentContainer = null;

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

MainActivity.java

```
private FrameLayout tabletFragmentContainer = null;  
  
{@Override  
  
protected void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
  
    setContentView(R.layout.activity_main);  
  
}  
}
```

MainActivity.java

```
private FrameLayout tabletFragmentContainer = null;

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    tabletFragmentContainer = findViewById(R.id.activity_main_tablet_frame);
}
```

MainActivity.java

```
void onMovieClicked(MovieModel movie) {  
    DetailsFragment detailsFragment = DetailsFragment. newInstance(movie);  
  
    getSupportFragmentManager()  
        .beginTransaction()  
        .addToBackStack( null )  
        .replace(R.id. activity_main_frame, detailsFragment)  
        .commit();  
}
```

MainActivity.java

```
void onMovieClicked(MovieModel movie) {  
    DetailsFragment detailsFragment = DetailsFragment. newInstance(movie);  
  
    if (tabletFragmentContainer == null)  
        getSupportFragmentManager()  
            .beginTransaction()  
            .addToBackStack( null )  
            .replace(R.id. activity_main_frame, detailsFragment)  
            .commit();  
}
```

MainActivity.java

```
void onMovieClicked(MovieModel movie) {  
    DetailsFragment detailsFragment = DetailsFragment. newInstance(movie);  
  
    if (tabletFragmentContainer == null)  
        getSupportFragmentManager()  
            .beginTransaction()  
            .addToBackStack( null )  
            .replace(R.id. activity_main_frame, detailsFragment)  
            .commit();  
  
    else  
  
}
```

MainActivity.java

```
void onMovieClicked(MovieModel movie) {  
    DetailsFragment detailsFragment = DetailsFragment. newInstance(movie);  
  
    if (tabletFragmentContainer == null)  
        getSupportFragmentManager()  
            .beginTransaction()  
            .addToBackStack( null )  
            .replace(R.id. activity_main_frame, detailsFragment)  
            .commit();  
  
    else  
        getSupportFragmentManager()  
            .beginTransaction()  
            .replace(R.id. activity_main_tablet_frame, detailsFragment)  
            .commit();  
}
```

MainActivity.java

```
void onMovieClicked(MovieModel movie) {  
  
    DetailsFragment detailsFragment = DetailsFragment. newInstance(movie);  
  
    if (tabletFragmentContainer == null)  
        getSupportFragmentManager()  
            .beginTransaction() //Phone mode  
            .addToBackStack( null )  
            .replace(R.id. activity_main_frame, detailsFragment)  
            .commit();  
  
    else  
        getSupportFragmentManager() //Tablet mode  
            .beginTransaction()  
            .replace(R.id. activity_main_tablet_frame, detailsFragment)  
            .commit();  
}
```

MainActivity#onMovieClicked

```
override fun onMovieClicked(movie: MovieModel) {
    val detailsFragment = DetailsFragment.newInstance(movie)

    supportFragmentManager.beginTransaction().apply {
        if (tabletFragmentContainer == null) {
            //Phone mode
            addToBackStack(null)
            replace(R.id.activity_main_frame, detailsFragment)
        } else {
            //Tablet mode
            replace(R.id.activity_main_tablet_frame, detailsFragment)
        }
    }.commit()
}
```



Our tablet supported app

12:02

AcademyTlvMovies

A deep sea submersible pilot revisits his past fears in the Mariana Trench, and accidentally unleashes the seventy foot ancestor of the Great White Shark believed...

The First Purge
To push the crime rate below one percent for the rest of the year, the New Founding Fathers of America test a sociological theory that vents aggression for one night i...

Deadpool 2
Wisecracking mercenary Deadpool battles the evil and powerful Cable and other bad guys to save a boy's life

Black Panther
King T'Challa returns home from America to the reclusive, technologically advanced African nation of Wakanda to serve as his country's new leader. However, T'Challa so...

Ocean's Eight
Debbie Ocean, a criminal mastermind, gathers a crew of female thieves to pull off the heist of the century at New York's annual Met Gala

Interstellar
Interstellar chronicles the adventures of a group of explorers who make use of a newly discovered wormhole to surpass the limitations on human space travel and ...

10:44

AcademyTlvMovies

Jurassic World - Fallen Kingdom
Three years after the demise of Jurassic World, a volcanic eruption threatens the remaining dinosaurs on the isla Nublar, so Claire Dearing, the former park manager, recruits Owen Grady t...

The Meg
A deep sea submersible pilot revisits his past fears in the Mariana Trench, and accidentally unleashes the seventy foot ancestor of the Great White Shark believed to be extinct

The First Purge
To push the crime rate below one percent for the rest of the year, the New Founding Fathers of America test a sociological theory that vents aggression for one night in one isolated c...

Deadpool 2
Wisecracking mercenary Deadpool battles the evil and powerful Cable and other bad guys to save a boy's life

Black Panther
King T'Challa returns home from America to the reclusive, technologically advanced African nation of Wakanda to serve as his country's new leader. However, T'Challa soon finds that he is...

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Debbie Ocean, a criminal mastermind, gathers a crew of female thieves to pull off the heist of the century at New York's annual Met Gala

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Interstellar chronicles the adventures of a group...