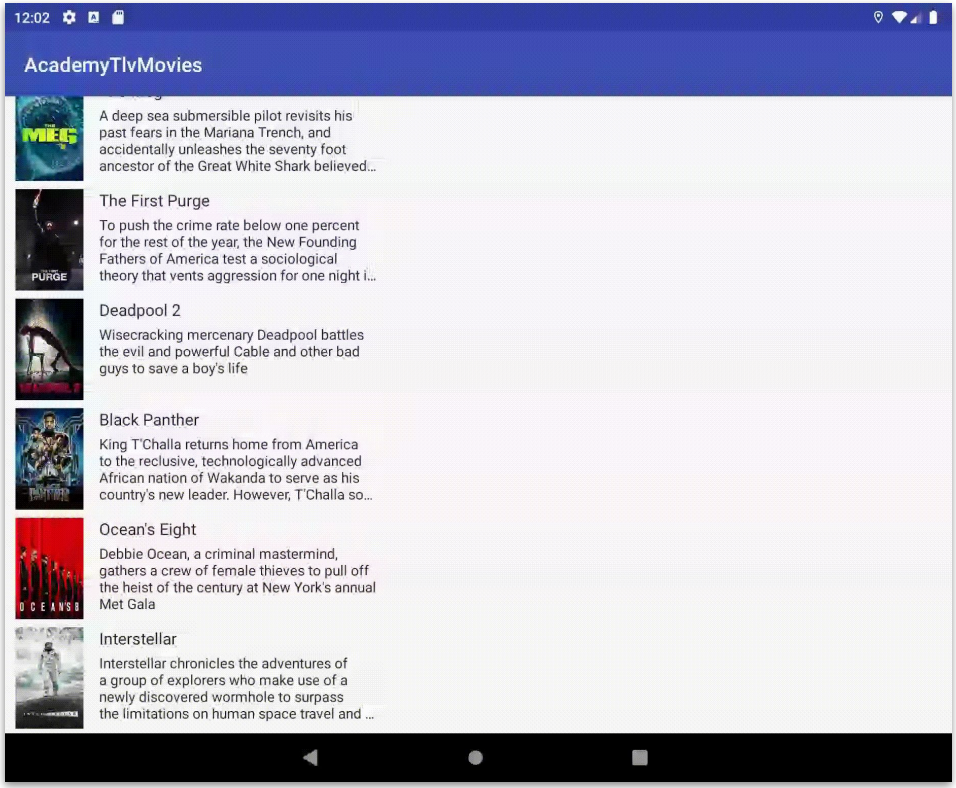
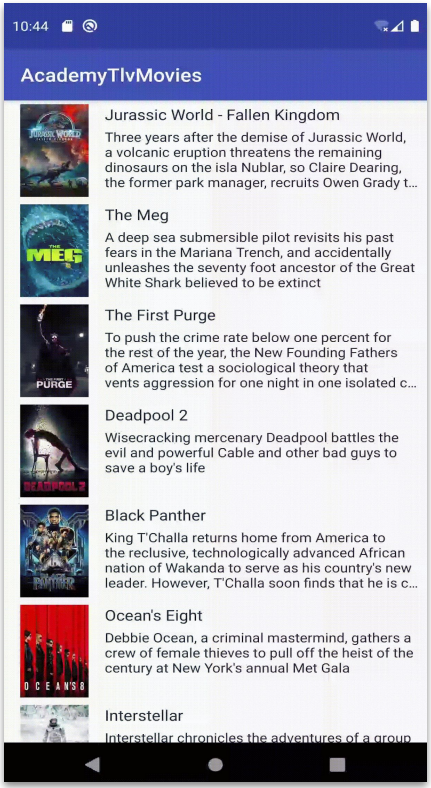
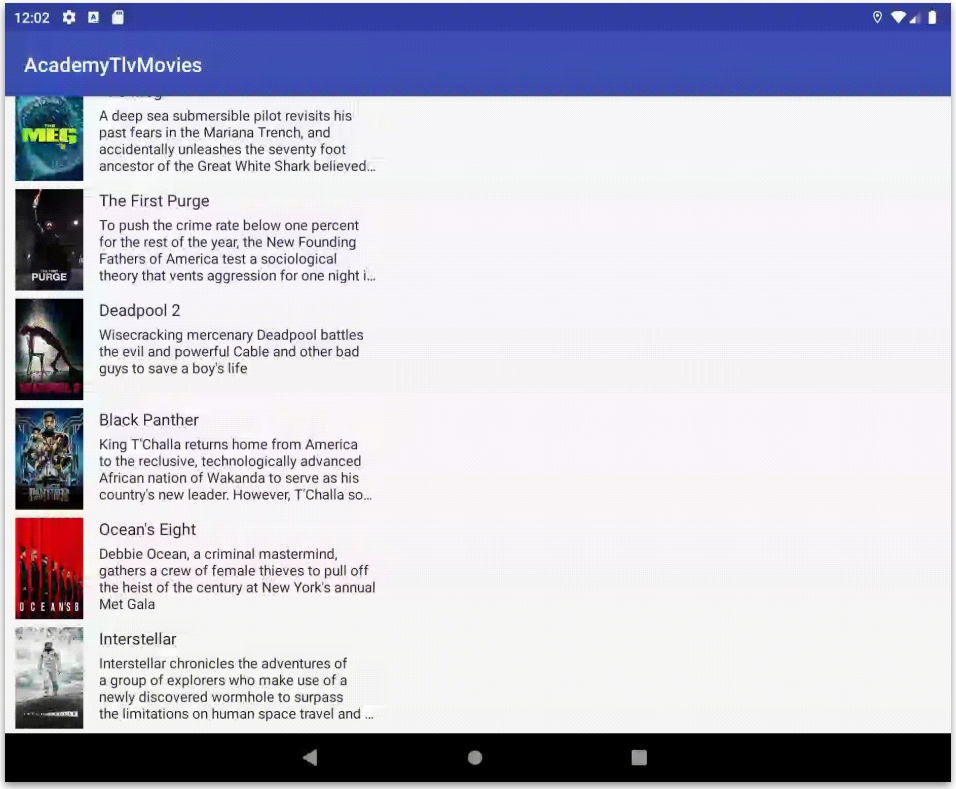
Android Lecture #7

Our tablet supported app





Rotation bug



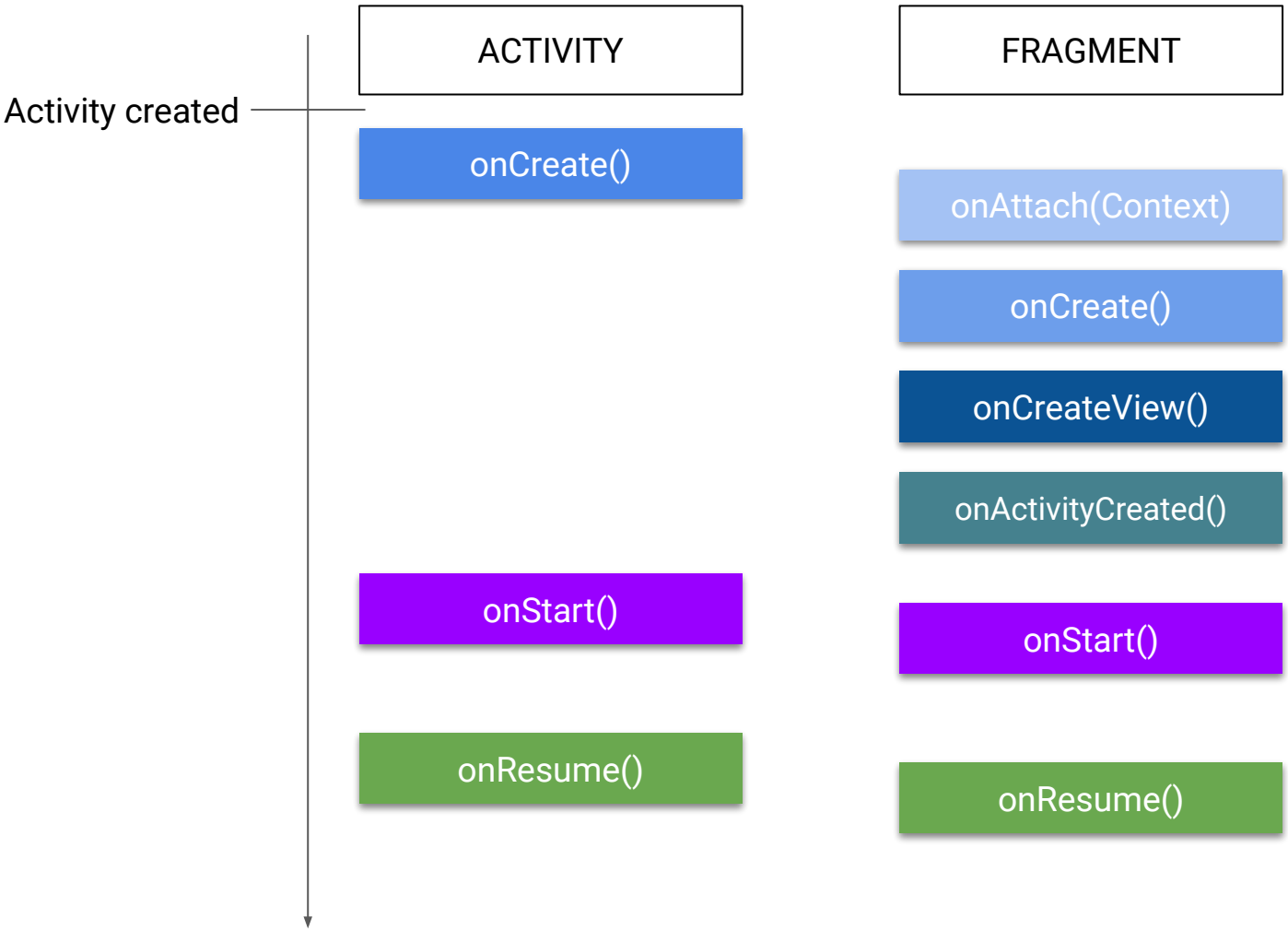
Rotation bug

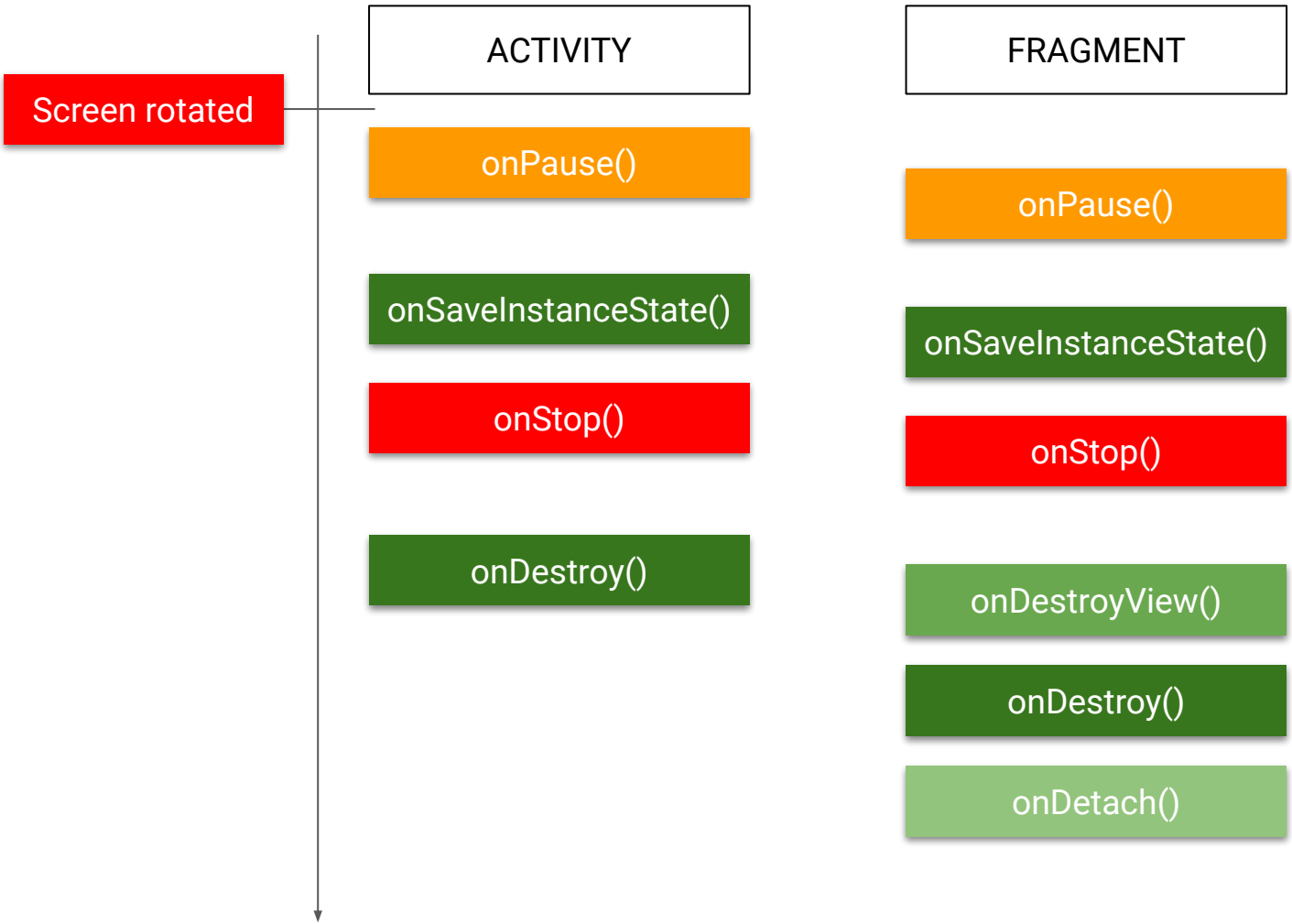
Fragment and Activity recreation

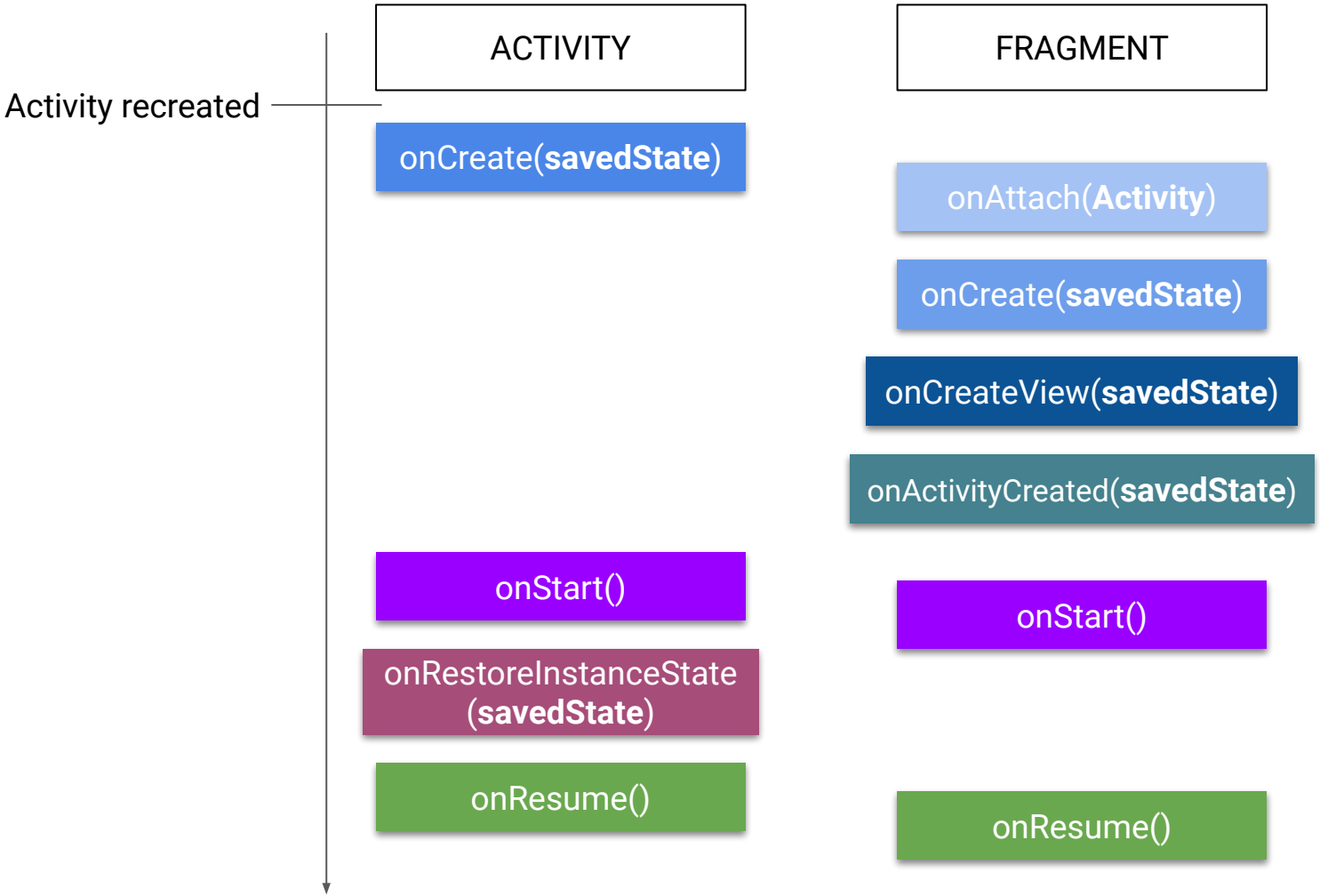
Activity recreation

Upon Activity re-creation the system will :

- Re-instantiating all Fragments
- Re-add the Fragments to the Activity
- Rebuild the Fragments back stack


ACTIVITY
FRAGMENT
Activity created
onCreate()
onAttach(Context)
onCreate()
onCreateView()
onActivityCreated()
onStart()
onStart()
onResume()
onResume()


Screen rotated
ACTIVITY
FRAGMENT
onPause()
onPause()
onSaveInstanceState()
onSaveInstanceState()
onStop()
onStop()
onDestroy()
onDestroyView()
onDestroy()
onDetach()


ACTIVITY
FRAGMENT
Activity recreated
onCreate(savedState)
onAttach(Activity)
onCreate(savedState)
onCreateView(savedState)
onActivityCreated(savedState)
onStart()
onStart()
onRestoreInstanceState (savedState)
onResume()
onResume()

MainActivity.kt

```
public class MainActivity extends AppCompatActivity {

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


            MoviesFragment moviesFragment = new MoviesFragment();
            getSupportFragmentManager().beginTransaction()
                    .add(R.id.activity_main_frame, moviesFragment)
                    .commit();

    }

}
```

MainActivity.kt

```
public class MainActivity extends AppCompatActivity {

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


            MoviesFragment moviesFragment = new MoviesFragment();
            getSupportFragmentManager().beginTransaction()
                    .add(R.id.activity_main_frame, moviesFragment)
                    .commit();

    }

}
```

MainActivity.kt

```
public class MainActivity extends AppCompatActivity {

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

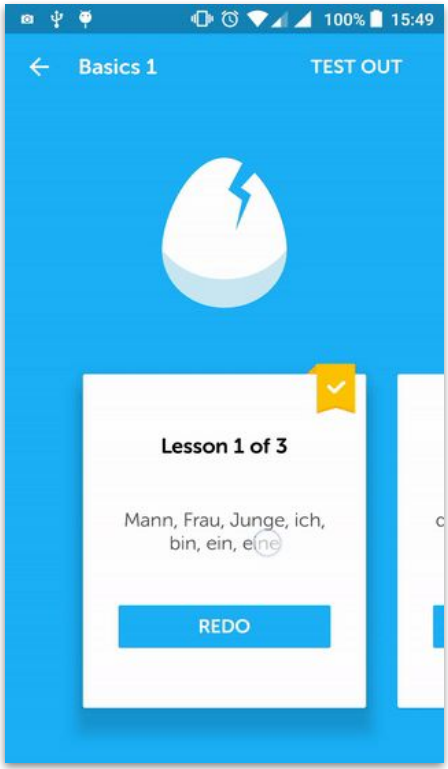
        if (savedInstanceState == null) {
            MoviesFragment moviesFragment = new MoviesFragment();
            getSupportFragmentManager().beginTransaction()
                    .add(R.id.activity_main_frame, moviesFragment)
                    .commit();
        }
    }

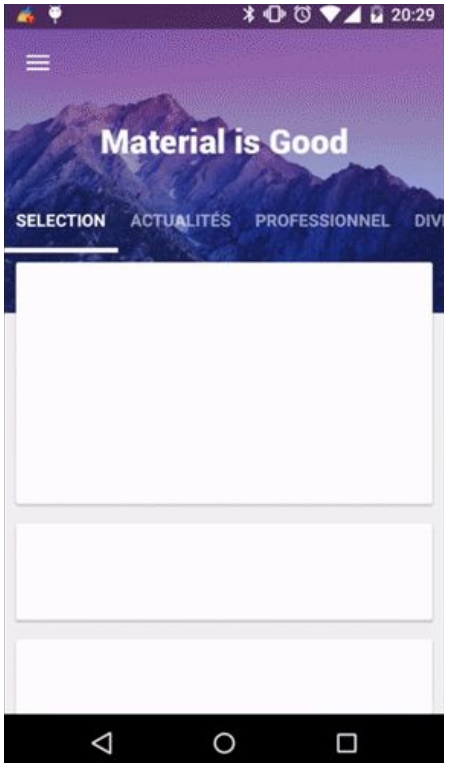
}
```

Any Questions?

ViewPager

ViewPager


100% 15:49
Basics 1
TEST OUT
Lesson 1 of 3
Mann, Frau, Junge, ich,
bin, ein, eine
REDO

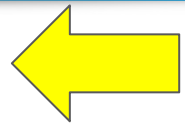

20:29
Material is Good
SELECTION
ACTUALITÉS
PROFESSIONNEL

08:42
Bezpieczeństwo
Pliki na Dysku są bezpieczne, więc
masz pewność, że ich nie stracisz.
POMIŃ

Building a ViewPager

1. Adding the ViewPager to our Activity xml
2. Building our adapter
3. Attaching our ViewPager with the adapter

Building a ViewPager

1. Adding the ViewPager to our Activity xml 
2. Building our adapter
3. Attaching our ViewPager with the adapter

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)

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

activity_main(w600dp)

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

    <androidx.viewpager.widget.ViewPager
        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)

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        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)

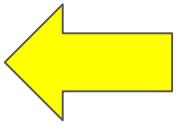
```
<androidx.constraintlayout.widget.ConstraintLayout
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <!--activity_main_frame code->

    <androidx.viewpager.widget.ViewPager
        android:id="@+id/main_activity_pager"
        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>
```

Building a ViewPager

1. Adding the ViewPager to our Activity xml
2. Building our adapter 
3. Attaching our ViewPager with the adapter

SimplePagerAdapter.java

```
private class SimplePagerAdapter {

}
```

SimplePagerAdapter.java

```
private class SimplePagerAdapter extends FragmentStatePagerAdapter {

}
```

SimplePagerAdapter.java

```
private class SimplePagerAdapter extends FragmentStatePagerAdapter {

    public SimplePagerAdapter() {

    }

}
```

SimplePagerAdapter.java

```
private class SimplePagerAdapter extends FragmentStatePagerAdapter {

    public SimplePagerAdapter(FragmentManager fm) {
        super(fm);

    }
}
```

SimplePagerAdapter.java

```
private class SimplePagerAdapter extends FragmentStatePagerAdapter {

    public SimplePagerAdapter(FragmentManager fm, List<Fragment> fragment) {
        super(fm);
    }


}
```

SimplePagerAdapter.java

```
private class SimplePagerAdapter extends FragmentStatePagerAdapter {
    List<Fragment> mFragments;

    public SimplePagerAdapter(FragmentManager fm, List<Fragment> fragment) {
        super(fm);
        mFragments = fragment;
    }
}
```

SimplePagerAdapter.java

```
private class SimplePagerAdapter extends FragmentStatePagerAdapter {
    List<Fragment> mFragments;

    public SimplePagerAdapter(FragmentManager fm, List<Fragment> fragment) {
        super(fm);
        mFragments = fragment;
    }

    @Override
    public Fragment getItem(int position) {
        ...
    }
}
```

SimplePagerAdapter.java

```
private class SimplePagerAdapter extends FragmentStatePagerAdapter {
    List<Fragment> mFragments;

    public SimplePagerAdapter(FragmentManager fm, List<Fragment> fragment) {
        super(fm);
        mFragments = fragment;
    }

    @Override
    public Fragment getItem(int position) {
        return mFragments.get(position);
    }


}
```

SimplePagerAdapter.java

```
private class SimplePagerAdapter extends FragmentStatePagerAdapter {
    List<Fragment> mFragments;

    public SimplePagerAdapter(FragmentManager fm, List<Fragment> fragment) {
        super(fm);
        mFragments = fragment;
    }

    @Override
    public Fragment getItem(int position) {
        return mFragments.get(position);
    }

    @Override
    public int getCount() {
        ...
    }
}
```

SimplePagerAdapter.java

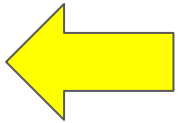
```
private class SimplePagerAdapter extends FragmentStatePagerAdapter {
    List<Fragment> mFragments;

    public SimplePagerAdapter(FragmentManager fm, List<Fragment> fragment) {
        super(fm);
        mFragments = fragment;
    }

    @Override
    public Fragment getItem(int position) {
        return mFragments.get(position);
    }

    @Override
    public int getCount() {
        return mFragments.size();
    }
}
```

Building a ViewPager

1. Adding the ViewPager to our Activity xml
2. Building our adapter
3. Attaching our ViewPager with the adapter 

MainActivity.java

```
public class MainActivity extends AppCompatActivity {

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

    }
}
```

MainActivity.java

```
public class MainActivity extends AppCompatActivity {

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

        ViewPager pager = findViewById(R.id.main_activity_pager);

    }
}
```

MainActivity.java

```
public class MainActivity extends AppCompatActivity {

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

        ViewPager pager = findViewById(R.id.main_activity_pager);
        PagerAdapter pagerAdapter = new SimplePagerAdapter(getSupportFragmentManager(),LoadFragme();

    }
}
```

MainActivity.java

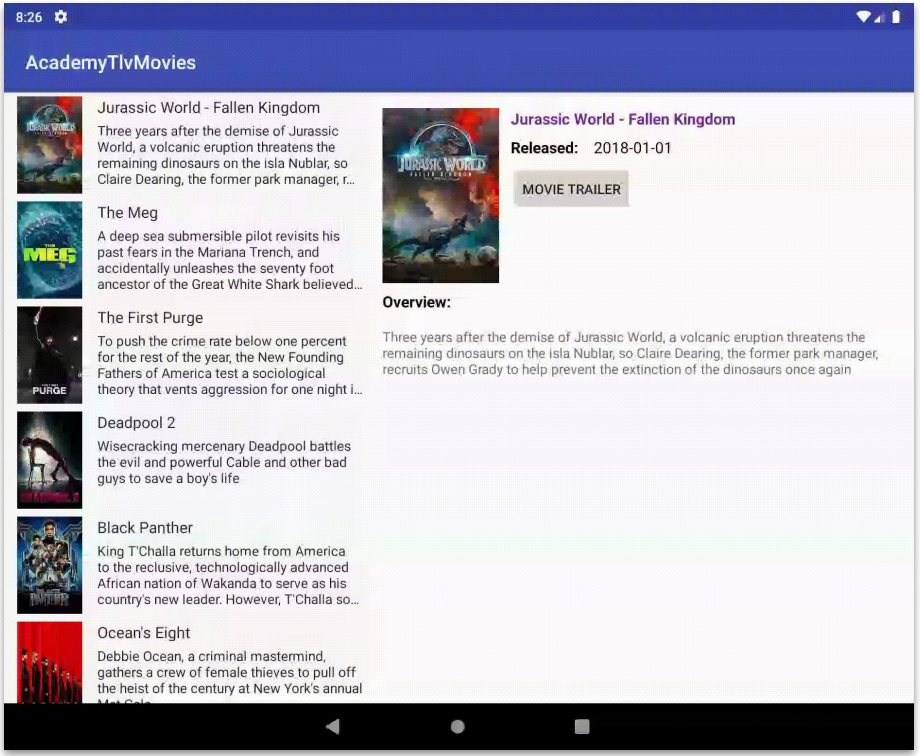
```
public class MainActivity extends AppCompatActivity {

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

        ViewPager pager = findViewById(R.id.main_activity_pager);
        PagerAdapter pagerAdapter = new SimplePagerAdapter(getSupportFragmentManager(),LoadFragme();
        pager.setAdapter(pagerAdapter);

    }
}
```

ViewPager


8:26
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, r...
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...
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
Jurassic World - Fallen Kingdom
Released: 2018-01-01
MOVIE TRAILER
Overview:
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

ViewPager

Any Questions?

Homework

Fragments - Exercise

Homework

Thank you