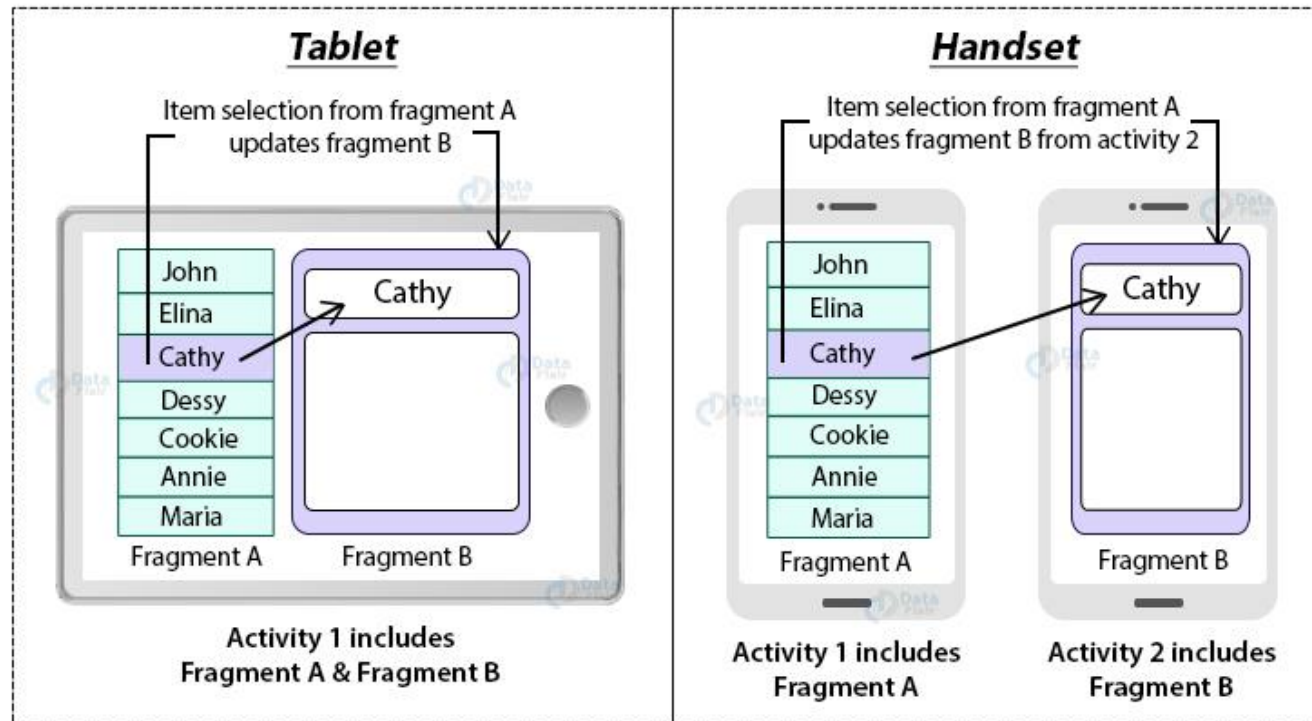# Fragments

How Fragment Interacts with Activity in Different Devices
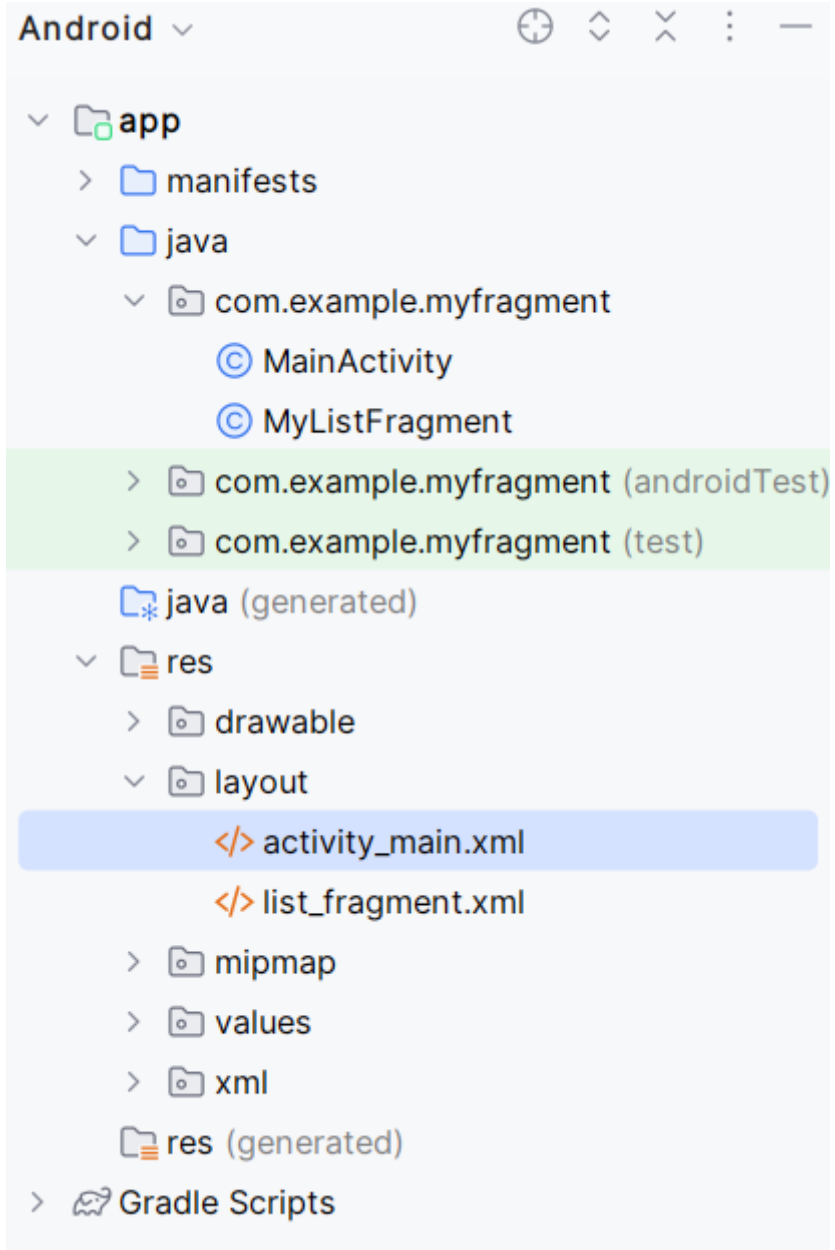
Android Fragment Lifecycle

Electronics

Grocery & Essentials

Home

Toy shop

Fashion

Grocery & Essentials

Android ∨

- ∨ 🗀 **app**
  - › 🗁 manifests
  - ∨ 🗁 java
    - ∨ 🗀 com.example.myfragment
      - © MainActivity
      - © MyListFragment
    - › 🗀 com.example.myfragment (androidTest)
    - › 🗀 com.example.myfragment (test)
  - 🗀 java (generated)
  - ∨ 🗀 res
    - › 🗀 drawable
    - ∨ 🗀 layout
      - </> activity_main.xml
      - </> list_fragment.xml
    - › 🗀 mipmap
    - › 🗀 values
    - › 🗀 xml
  - 🗀 res (generated)
- › 🐘 Gradle Scripts
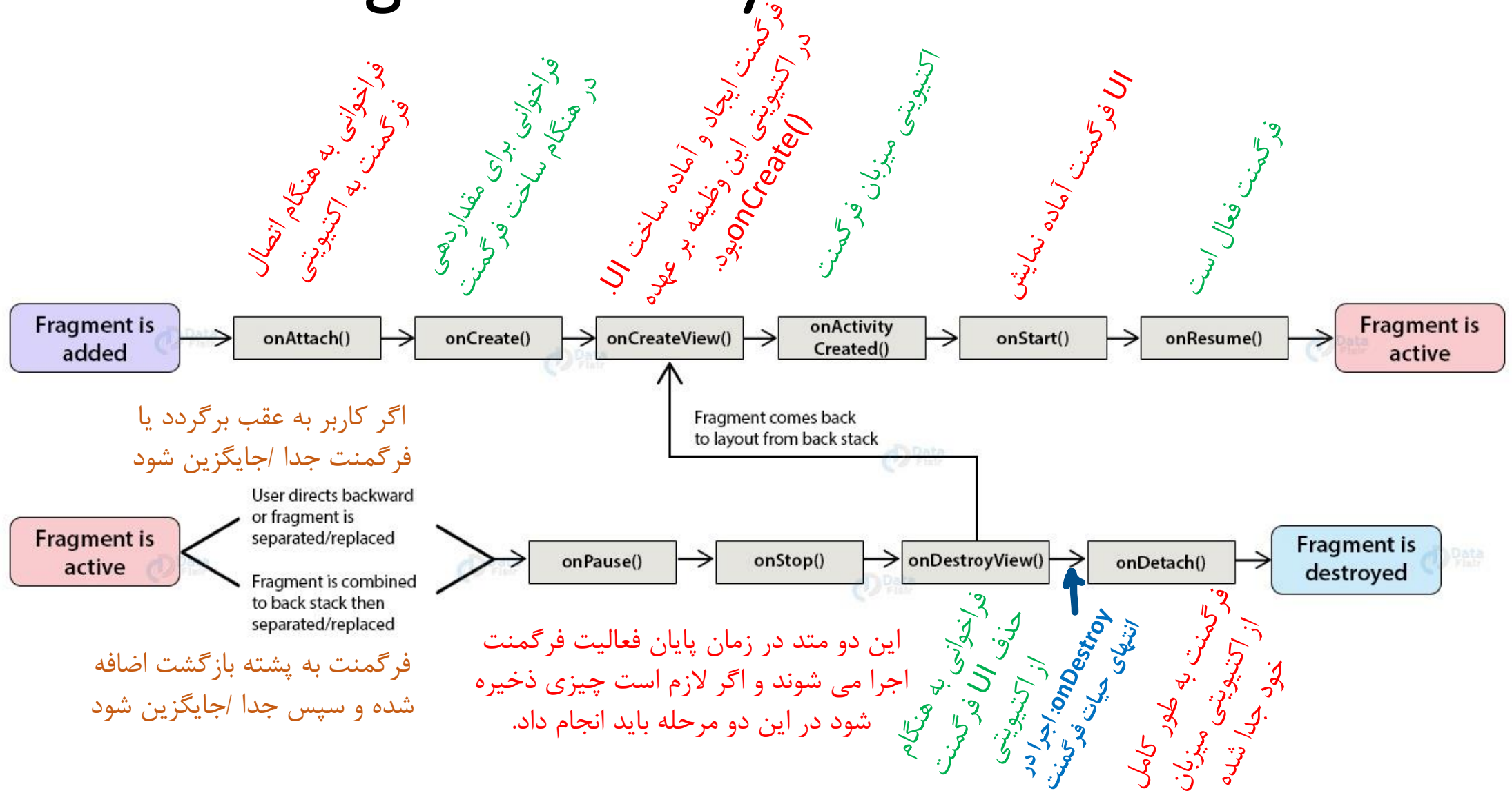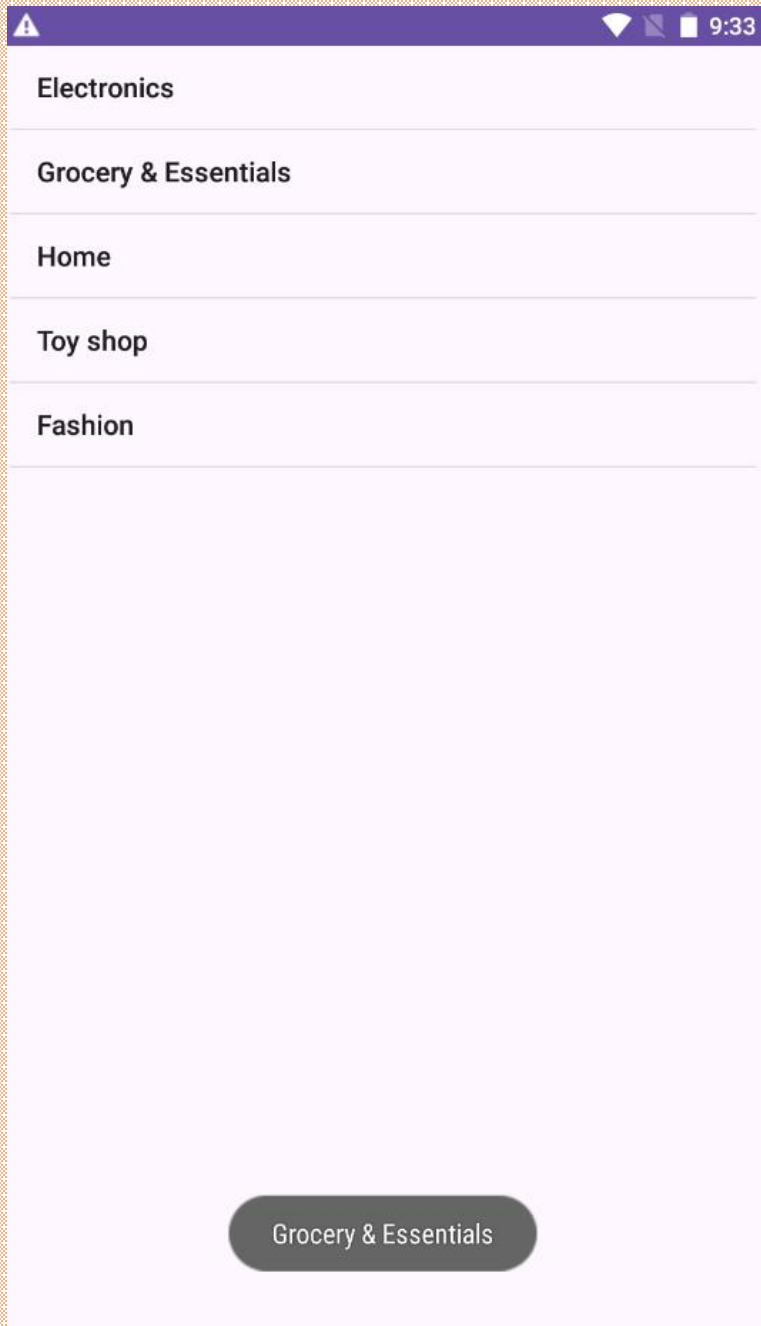
```xml
<?xml version="1.0" encoding="utf-8"?>
<FrameLayout xmlns:android="http://schemas.android.com/apk/res/a
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/container"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity" />
```
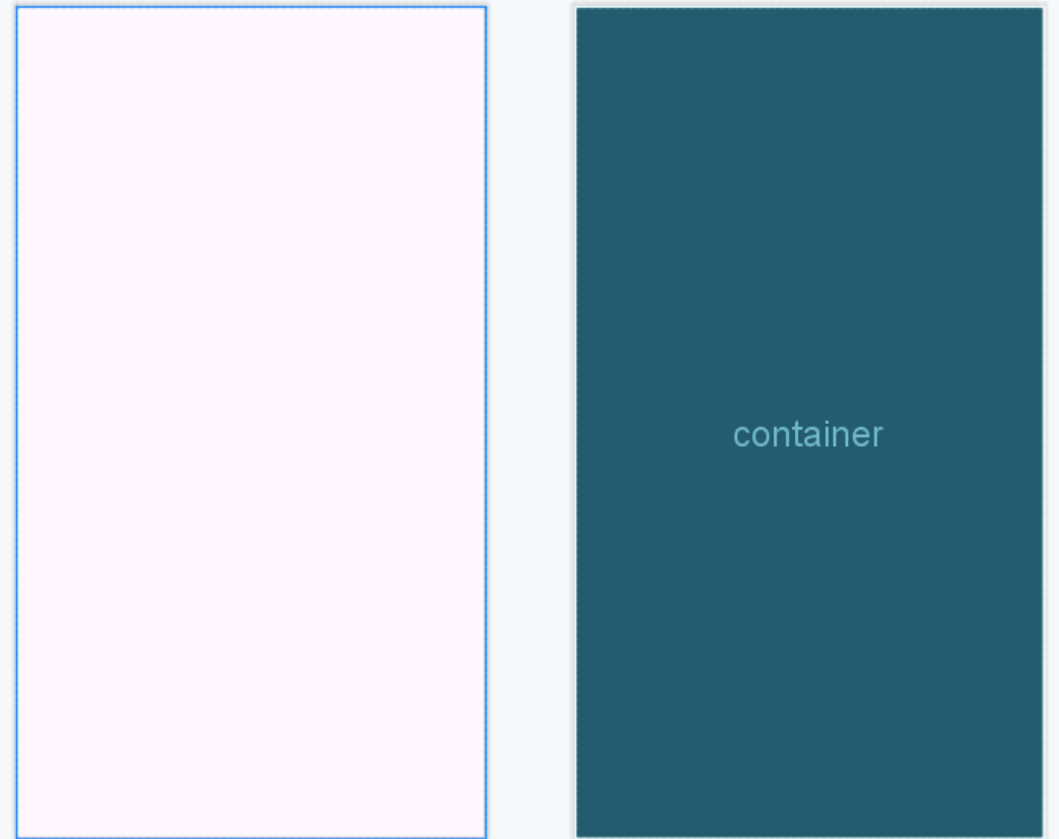
container

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

    <ListView
        android:id="@id/android:list"
        android:layout_width="match_parent"
        android:layout_height="0dp"
        android:layout_weight="1"
        android:drawSelectorOnTop="false" />

    <TextView
        android:id="@id/android:empty"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:text="At the moment it is empty" />

</LinearLayout>
```

```java
public class MyListFragment extends ListFragment {
    2 usages
    private String dataArray[];

    public MyListFragment() {
        dataArray=new String[] {"Electronics", "Grocery & Essentials", "Home", "Toy shop", "Fashion"};
    }

    @Override
    public void onCreate(@Nullable Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        ListAdapter listAdapter = new ArrayAdapter<String>(getActivity(),android.R.layout.simple_list_item_1,dataArray);
        setListAdapter(listAdapter);
    }//onCreate

    @Nullable
    @Override
    public View onCreateView(@NonNull LayoutInflater inflater, @Nullable ViewGroup container, @Nullable Bundle savedInstanceState) {
        return inflater.inflate(R.layout.list_fragment,container, attachToRoot: false);
    }//onCreateView

    1 usage
    @Override
    public void onListItemClick(@NonNull ListView l, @NonNull View v, int position, long id) {
        Toast.makeText(getActivity(),getListView().getItemAtPosition(position).toString(),Toast.LENGTH_LONG).show();
    }//onListItemClick

}//MyListFragment
```

MainActivity.java ✕

```java
1    package com.example.myfragment;
2
3  > import ...
10
11   public class MainActivity extends AppCompatActivity {
12
13       @Override
14       protected void onCreate(Bundle savedInstanceState) {
15           super.onCreate(savedInstanceState);
16           setContentView(R.layout.activity_main);
17
18           MyListFragment myListFragment= new MyListFragment();
19           getSupportFragmentManager().beginTransaction().replace(R.id.container,myListFragment).commit();
20       }//onCreate
21
22   }//MainActivity
```