

모바일 프로그래밍 (MOBILE PROGRAMMING)

(실습 5 – Dictionary)

실습 개요

- 개발 내용

- 영어 사전 앱

- 실습 목표

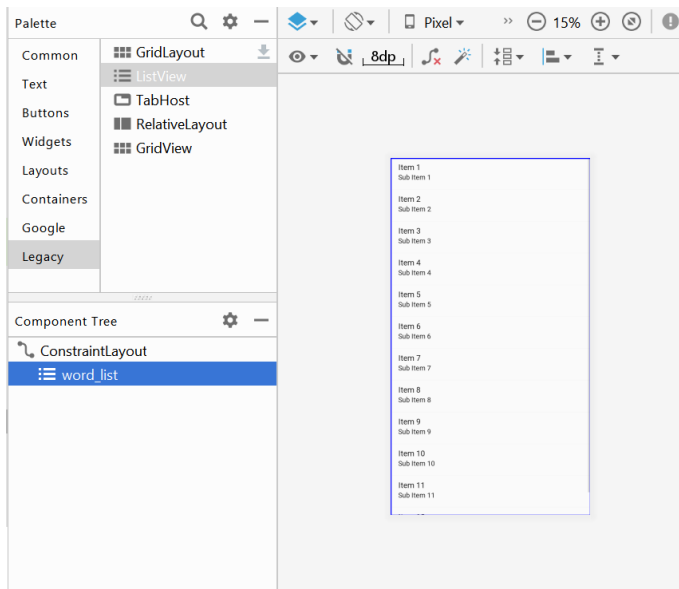
- ListView와 Fragment를 이용하여 영어 사전 앱을 만들어 보자.

- 실습 준비물

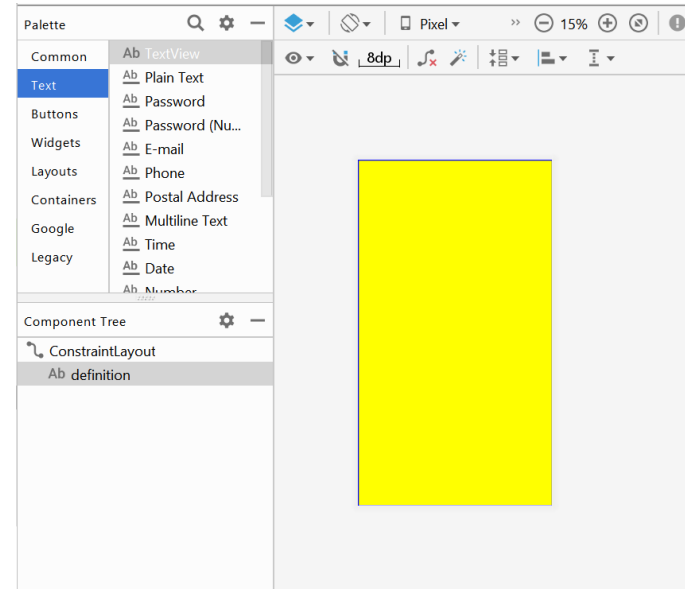
- 없음

단계별 실습과정

Fragment Layouts

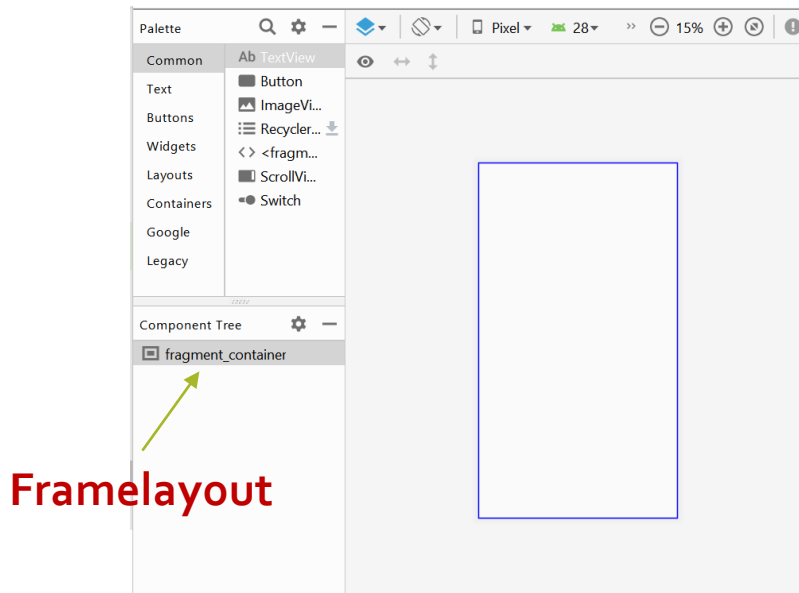


fragment_word.xml

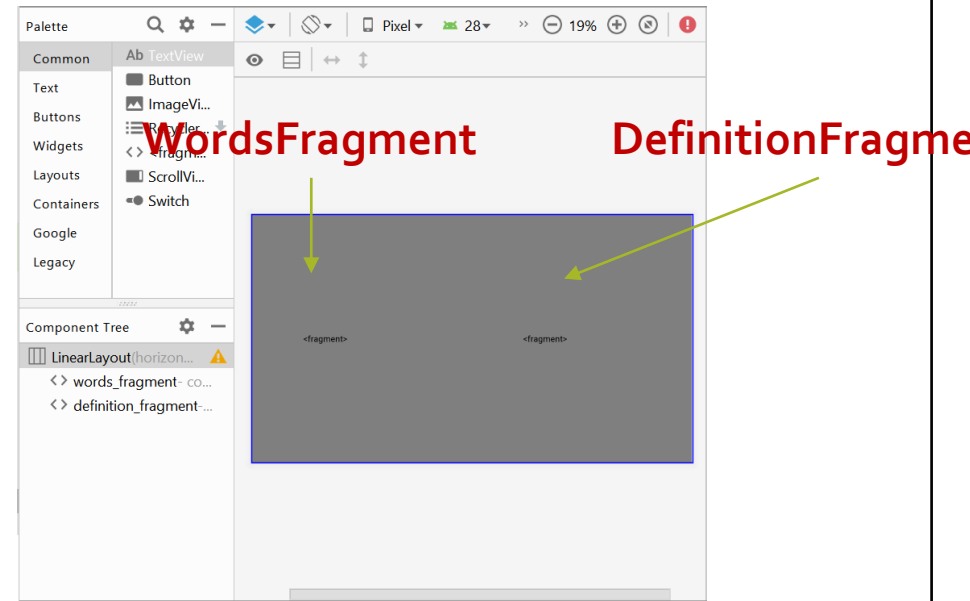


fragment_def.xml

Two Activity Layouts for Portrait and Landscape Modes



layout/activity_main.xml



layout-land/activity_main.xml

* "layout-land" resource directory 생성 필요

layout-land/activity_main.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="horizontal" >

    <fragment
        android:id="@+id/words_fragment"
        android:name="com.example.practice06.WordsFragment"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight="1" />

    <fragment
        android:id="@+id/definition_fragment"
        android:name="com.example.practice06.DefinitionFragment"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight="2" />

</LinearLayout>
```

WordsFragment.java

```
public class WordsFragment extends Fragment {  
  
    public interface OnWordSelectedListener {  
        public void onWordSelected(int position);  
    }  
  
    OnWordSelectedListener mWordSelListener;  
  
    @Override  
    public View onCreateView(LayoutInflater inflater, ViewGroup container, Bundle savedInstanceState) {
```

1. inflater를 이용하여 R.layout.fragment_word에 정의된 뷰를 생성
2. R.id.word_list(ListView) 객체에 대하여 다음과 같이 설정
 - a. Data.words에서 단어를 읽어오는 ArrayAdapter 생성
 - b. ArrayAdapter를 word_list에 설정
 - c. word_list의 OnItemClickListener 설정. 이 listener에서는 mWordSelListener.onWordSelected(position) 호출

```
        mWordSelListener = (OnWordSelectedListener) getActivity();  
  
        return view;  
    }  
}
```

DefinitionFragment.java

```
public class DefinitionFragment extends Fragment {  
    final static String ARG_POSITION = "position";  
  
    @Override  
    public View onCreateView(LayoutInflater inflater, ViewGroup container,  
        Bundle savedInstanceState) {  
        * inflater를 이용하여 R.layout.fragment_def에 정의된 뷰를 생성  
    }  
  
    @Override  
    public void onStart() {  
        super.onStart();  
  
        Bundle args = getArguments();  
        if (args != null) {  
            int pos = args.getInt(ARG_POSITION);  
            updateDefinitionView(pos);  
        }  
    }  
  
    public void updateDefinitionView(int position) {  
        * R.id.definition 객체에 Data.definitions[position]을 text로 설정.  
    }  
}
```


MainActivity.java

```
public class MainActivity extends AppCompatActivity implements  
    WordsFragment.OnWordSelectedListener {
```

```
    @Override
```

```
    public void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.main);
```

```
        if (findViewById(R.id.fragment_container) != null) {  
            if (savedInstanceState != null) {  
                return;  
            }  
        }
```

* WordsFragment 객체를 생성하여 R.id.fragment_container에 추가

```
    }  
}
```

```
public void onWordSelected(int position) {  
    if (findViewById(R.id.fragment_container) == null) {
```

* Landscape 모드에서는 레이아웃에 존재하는 DefinitionFragment를 가져와
updateDefinitionView()를 호출

```
    } else {  
        DefinitionFragment newFragment = new DefinitionFragment();  
        Bundle args = new Bundle();  
        args.putInt(DefinitionFragment.ARG_POSITION, position);  
        newFragment.setArguments(args);
```

* DefinitionFragment 객체가 R.id.fragment_container의 현재 fragment를 대체

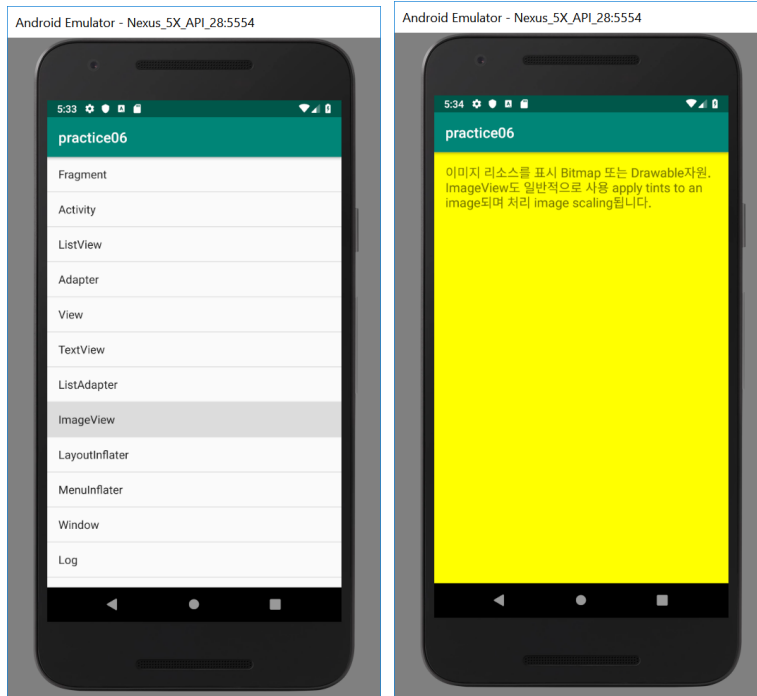
```
    }  
}
```

Fragment 객체 가져오기

- Fragment 객체를 가져오는 방법

```
FragmentManager fm = getSupportFragmentManager();  
Fragment fm = fm.findFragmentById(fragment_id);
```

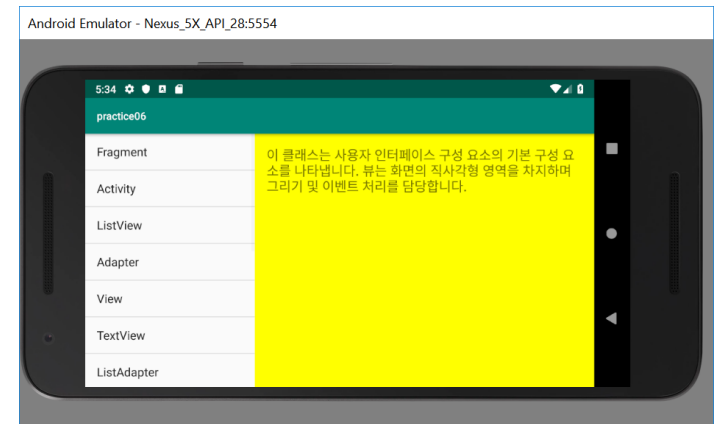
실행 결과



Portrait Mode



회전



Landscape Mode
(과제 4로 제출)