

Google Android 심화 프로그래밍 #3

Dae-Ki Kang

차례

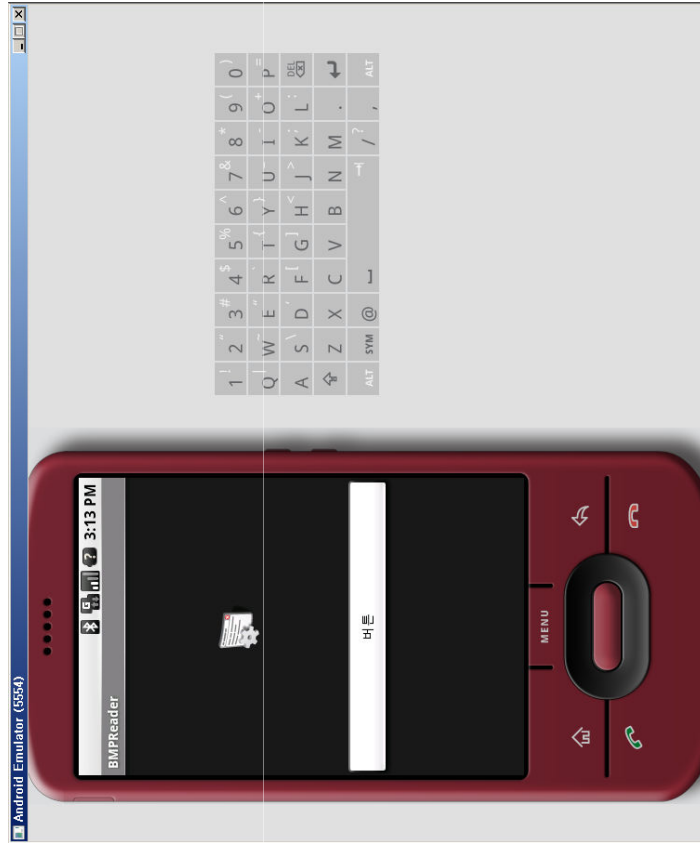
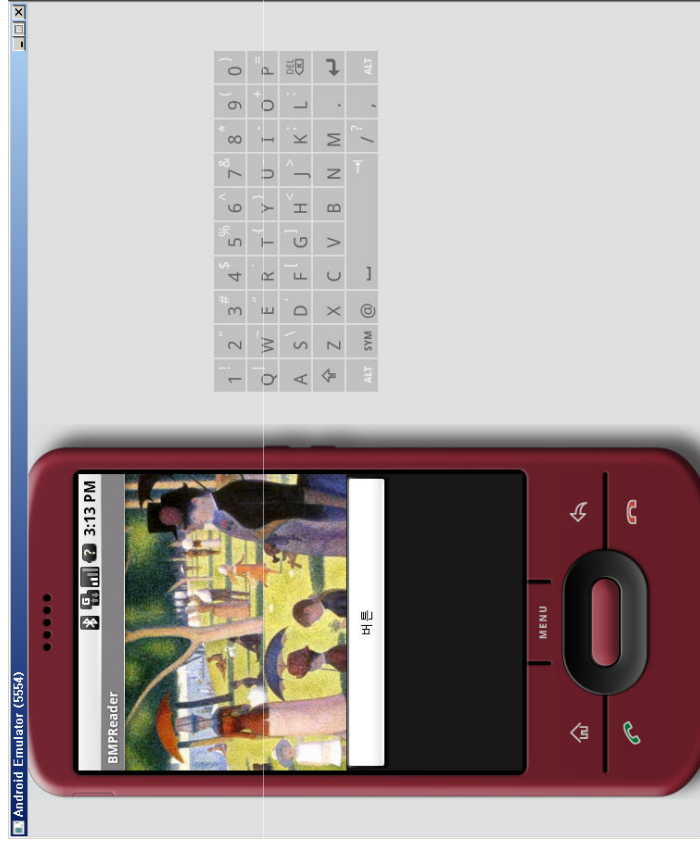
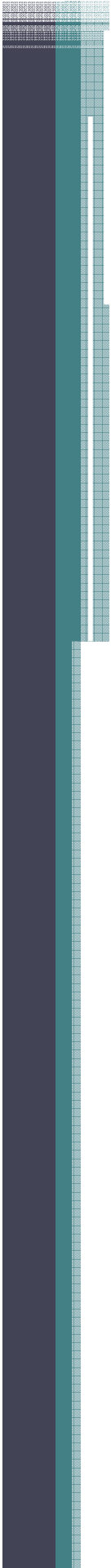
- 어플리케이션에 테마 적용
- BMP 파일 읽어들이어 표시하기
- 토스트
- 메뉴 추가 (일반 메뉴와 컨텍스트 메뉴)
- 버튼을 누르면 이미지 바꾸기
- 오디오 재생하기
- 비디오 재생하기
- SD 카드 액세스 하기
- WebView

어플리케이션에 테마 적용

- android.R.style.Theme
- android.R.style.Theme_Black
- android.R.style.Theme_Light
 - android:theme="@android:style/Theme.Light"
- android.R.style.Theme_Black_NoTitleBar
 - android:theme="@android:style/Theme.Black.NoTitleBar"
- (이하 접두 부분 생략)
- Theme_Black_NoTitleBar_Fullscreen
- **Theme_Dialog**
- Theme_InputDialog
 - input method에 대한 디폴트 테마
- **Theme_Light**
- Theme_Light_NoTitleBar
- Theme_Light_NoTitleBar_Fullscreen
- Theme_Light_Panel
- Theme_NoDisplay
- Theme_NoTitleBar
- Theme_NoTitleBar_Fullscreen
- Theme_Panel
- Theme_Translucent
- Theme_Translucent_NoTitleBar
- Theme_Translucent_NoTitleBar_Fullscreen

BMP 파일 읽어들이며 표시하기 및 버튼을 누르면 이미지 바꾸기

```
@Override
public void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.main);
    // You have to call findViewById() **after** setContentView().
    // Otherwise, the view you're looking for does not exist.
    Button button = (Button)findViewById(R.id.button);
    button.setOnClickListener(
        new View.OnClickListener() {
            public void onClick(View v)
            {
                ImageView img = (ImageView) findViewById(R.id.image);
                Bitmap bm = BitmapFactory.decodeResource(getResources(),
                    R.drawable.sunday);
                img.setImageBitmap(bm);
            }
        }
    );
}
```



화면에 잠깐 출력하게 하는 토스트

- `Toast.makeText(this, "Jump up in the air!", Toast.LENGTH_SHORT).show();`
- `Toast.makeText(this, R.string.hello, Toast.LENGTH_SHORT).show();`

Menu (menu.xml)

```
<?xml version="1.0" encoding="utf-8"?>
<menu
  xmlns:android="http://schemas.android.com/a
pk/res/android">
  <item android:id="@+id/settings"
    android:title="@string/settings_label"
    android:alphabeticShortcut="@string/settings_
shortcut" />
</menu>
```

Menu (strings.xml)

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
  <string name="hello">Hello World,
  Main</string>
  <string
  name="app_name">BMPReader</string>
<string
  name="settings_label">Settings...</string>
<string name="settings_title">BMPReader
  settings</string>
<string name="settings_shortcut">s</string>
</resources>
```


Menu (소스)

```
@Override  
public boolean  
  onCreateOptionsMenu(Menu menu) {  
  // TODO Auto-generated method stub  
  boolean ret =  
    super.onCreateOptionsMenu(menu);  
  MenuInflater inflater = getMenuInflater();  
  inflater.inflate(R.menu.menu, menu);  
  return ret;  
}
```

오디오 재생하기

```
private static MediaPlayer m1;
private static MediaPlayer m2;
private static boolean isM1Playing;
private static boolean isM2Playing;
/** Called when the activity is first created. */
@Override
public void onCreate(Bundle savedInstanceState) {
    ...
    m1 = MediaPlayer.create(this, R.raw.one);
    m2 = MediaPlayer.create(this, R.raw.y);
    this.isM1Playing = false;
    this.isM2Playing = false;
    Button button1 = (Button)findViewById(R.id.button1);
    button1.setOnClickListener(
        new View.OnClickListener() {
            public void onClick(View v) {
                MediaPlayer m = Main.m1;
                if (Main.isM1Playing) {
                    Main.isM1Playing=false; m.stop(); Main.m1 = MediaPlayer.create(Main.this, R.raw.one);
                }
                else {
                    Main.isM1Playing=true; m.seekTo(0); m.start();
                }
            }
        }
    );
    Button button2 = (Button)findViewById(R.id.button2);
    button2.setOnClickListener(
        new View.OnClickListener() {
            public void onClick(View v) {
                MediaPlayer m = Main.m2;
                if (Main.isM2Playing) {
                    Main.isM2Playing=false; m.stop(); Main.m2 = MediaPlayer.create(Main.this, R.raw.y);
                }
                else {
                    Main.isM2Playing=true; m.seekTo(0); m.start();
                }
            }
        }
    );
}
```


비디오 재생하기

- 지원되는 형식
 - MP4 (MPEG-4)
 - H.263
 - H.264 (AVC)

비디오 재생하기 (소스 코드)

```
package dsu.android;

import android.app.Activity;
import android.os.Bundle;
import android.widget.VideoView;

public class Main extends Activity {
    /** Called when the activity is first created. */
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.main);
        VideoView video = (VideoView) findViewById(R.id.video);
        video.setVideoPath("/data/samplevideo.mp4");
    }
}
```

비디오 재생하기 (XML 설정)

```
<?xml version="1.0" encoding="utf-8"?>
<FrameLayout
  xmlns:android="http://schemas.android.com/apk/
  res/android"
  android:layout_width="fill_parent"
  android:layout_height="fill_parent"
  >
  <VideoView
    android:id="@+id/video"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_gravity="center"
  />
</FrameLayout>
```

비디오 재생하기 (비디오 업로드)

```
C:\>start emulator
```

```
C:\>adb push samplevideo.mp4 /data/samplevideo.mp4
```



SD 카드 액세스 하기

```
C:\> mksdcard 256M c:\temp\sd.img
```

- 실행할 때, 이클립스 target 옵션 창에 다음을 넣음
 - 또는 에뮬레이터 옵션으로 넣음
- ```
-sdcard c:\temp\sd.img
```

```
C:\> adb push samplevideo.mp4
/sdcard/samplevideo.mp4
```

```
video.setVideoPath("/sdcard/samplevideo.mp4");
```



# WebView 소스 코드

```
private EditText urlText;
private Button goButton;
private WebView webView;

@Override
public void onCreate(Bundle savedInstanceState) {
 super.onCreate(savedInstanceState);
 setContentView(R.layout.main);
 // Get a handle to all user interface elements
 urlText = (EditText) findViewById(R.id.url_field);
 goButton = (Button) findViewById(R.id.go_button);
 webView = (WebView) findViewById(R.id.web_view);
 // Setup event handlers
 goButton.setOnClickListener(new OnClickListener() {
 public void onClick(View view) {
 openBrowser();
 }
 });
 urlText.setOnKeyListener(new OnKeyListener() {
 public boolean onKey(View view, int keyCode, KeyEvent event) {
 if (keyCode == KeyEvent.KEYCODE_ENTER) {
 openBrowser();
 return true;
 }
 return false;
 }
 });
}

/** Open a browser on the URL specified in the text box */
private void openBrowser() {
 webView.loadUrl(urlText.getText().toString());
 webView.requestFocus();
}
```

# WebView XML

```
<LinearLayout
 xmlns:android="http://schemas.android.com/apk/res/android"
 android:orientation="vertical"
 android:layout_width="fill_parent"
 android:layout_height="fill_parent">
<LinearLayout
 android:orientation="horizontal"
 android:layout_width="fill_parent"
 android:layout_height="wrap_content">
<EditText
 android:id="@+id/url_field"
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:layout_weight="1.0"
 android:lines="1" />
<Button
 android:id="@+id/go_button"
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:text="@string/go_button" />
</LinearLayout>
<WebView
 android:id="@+id/web_view"
 android:layout_width="fill_parent"
 android:layout_height="wrap_content"
 android:layout_weight="1.0" />
</LinearLayout>
```

# WebView

