



Mobile Programming

Android Programming

Chap 7. Thread

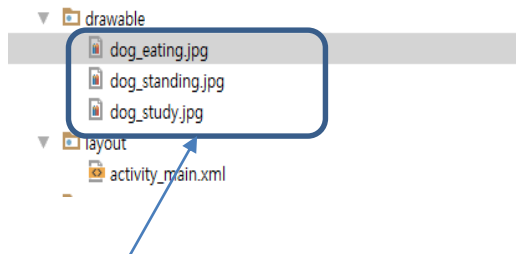
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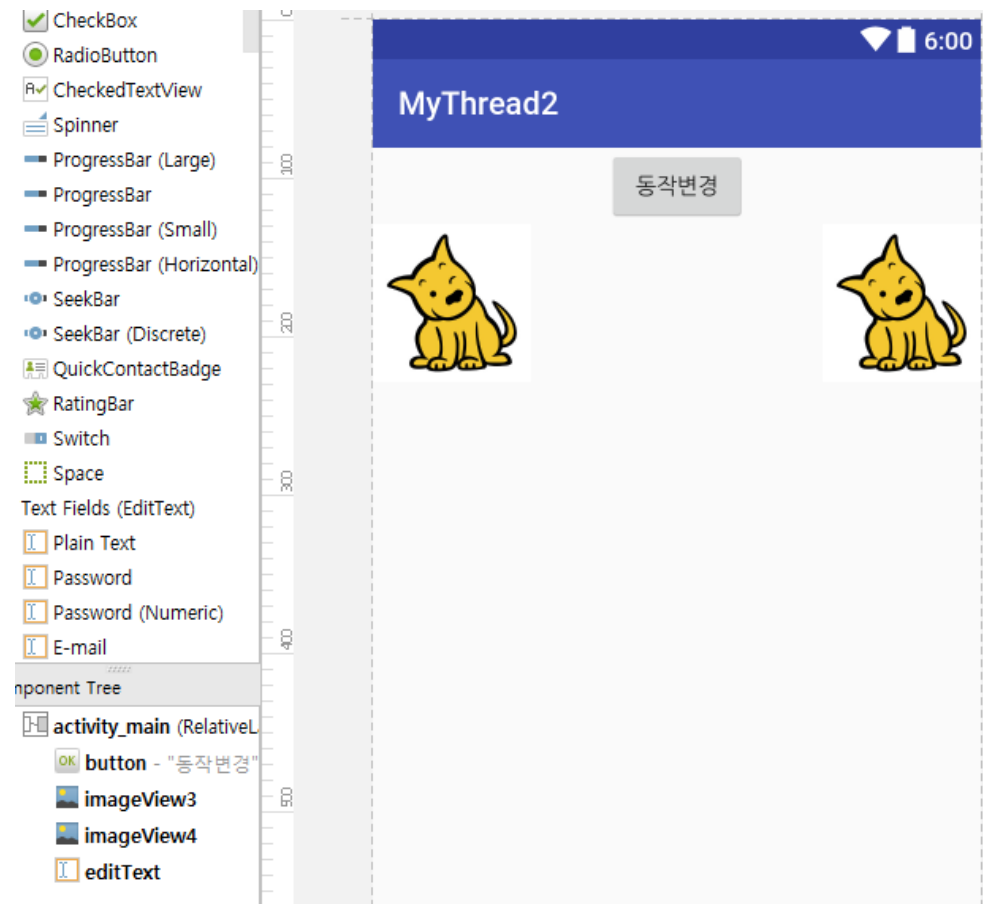
LAB V – Do it yourself!!



- Set Layout!



Add three images



LAB V – Do it yourself!!



- MainActivity.java

```
public class MainActivity extends AppCompatActivity {
    ImageView imageView1;
    ImageView imageView2;
    EditText editText;
    Button button;
    Handler handler = new Handler();

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

        imageView1 = (ImageView) findViewById(R.id.imageView1);
        imageView2 = (ImageView) findViewById(R.id.imageView2);
        editText = (EditText) findViewById(R.id.editText);
        button = (Button) findViewById(R.id.button);
        button.setOnClickListener(new View.OnClickListener(){
            @Override
            public void onClick(View v){
                DogThread thread1 = new DogThread(0);
                [redacted]

                DogThread thread2 = new DogThread(1);
                [redacted]
            }
        });
    }
}
```

```
package org.androidtown.listview.mythread2;
import android.os.Bundle;
import android.os.Handler;
import android.support.v7.app.AppCompatActivity;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.ImageView;
import java.util.ArrayList;
```

LAB V – Do it yourself!!



- MainActivity.java- Design DogThread

```
class DogThread extends Thread{  
    [redacted]  
  
    ArrayList<Integer> images = new ArrayList<Integer>();  
  
    public DogThread(int index){  
        [redacted]  
        images.add(R.drawable.dog_eating);  
        images.add(R.drawable.dog_standing);  
        images.add(R.drawable.dog_study);  
    }  
    ...  
}
```

Put run method! (Next Page)

LAB V – Do it yourself!!



- MainActivity.java - Run method in DogThread

```
public void run() {
    stateIndex = 0;
    for (int i = 0; i < 9; i++) {
        final String msg = "dog #" + dogIndex + " state: " + stateIndex;
        [redacted] {
            public void run() {
                editText.append(msg + "\n");

                if ([redacted]) {
                    imageView1.setImageResource(images.get(stateIndex));
                } else if ([redacted]) {
                    imageView2.setImageResource(images.get(stateIndex));
                }
            }
        });

        try {
            int sleepTime = getRandomTime(500, 3000);
            Thread.sleep(sleepTime);
        } catch (InterruptedException e) {
            e.printStackTrace();
        }

        stateIndex++;
        if (stateIndex >= images.size()) {
            stateIndex = 0;
        }
    }
}
```



LAB V – Do it yourself!!



- MainActivity.java – Add getRandomTime in DogThread

```
public int getRandomTime(int min, int max){  
    return min+(int)(Math.random() * (max-min));  
}  
}
```

■ RUN!!

