**View.OnTouchListener**

android.view.View.OnTouchListener

* Android supports multiple pointers, e.g. fingers which are interacting with the screen.
* The base class for touch support is the MotionEvent class which is passed to Views via the onTouchEvent() method.
* you override the onTouchEvent() method.
* onClickListener is used whenever a click event for any view is raised, say for example: click event for Button, ImageButton.
* onTouchListener is used whenever you want to implement Touch kind of functionality, say for example if you want to get co-ordinates of screen where you touch exactly

**public abstract boolean onTouch (View v, MotionEvent event)**

Parameters

View: The view the touch event has been dispatched to event.

MotionEvent: The MotionEvent object containing full information about the event.

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| package com.example.tyit\_wilson;  import androidx.appcompat.app.AppCompatActivity;  import android.os.Bundle;  import android.util.Log;  import android.view.MotionEvent;  import android.view.View;  import android.widget.RelativeLayout;  public class OnTouchActivity extends AppCompatActivity {  **RelativeLayout relativeLayout;**  @Override  protected void onCreate(Bundle savedInstanceState) {  super.onCreate(savedInstanceState);  setContentView(R.layout.activity\_on\_touch);  **relativeLayout = findViewById(R.id.rl);**  **relativeLayout.setOnTouchListener(new View.OnTouchListener() {**  **@Override**  **public boolean onTouch(View view, MotionEvent motionEvent)**  **{**  **int x = (int) motionEvent.getX();**  **int y = (int) motionEvent.getY();**  **switch (motionEvent.getAction())**  **{**  **case MotionEvent.ACTION\_MOVE:**  **Log.i("TAG", "moving: (" + x + ", " + y + ")");**  **break;**  **}**  **return true;**  **}**  **});**  }  }  package com.example.sycs\_android\_2023;  import androidx.appcompat.app.AppCompatActivity;  import android.graphics.Color;  import android.os.Bundle;  import android.text.TextUtils;  import android.util.Log;  import android.view.MotionEvent;  import android.view.View;  import android.widget.Button;  import android.widget.EditText;  import android.widget.GridView;  import android.widget.RelativeLayout;  import android.widget.Toast;  public class MainActivity2 extends AppCompatActivity {  RelativeLayout relativeLayout;  @Override  protected void onCreate(Bundle savedInstanceState) {  super.onCreate(savedInstanceState);  setContentView(R.layout.activity\_main2);  relativeLayout = findViewById(R.id.rl);  relativeLayout.setOnTouchListener(new View.OnTouchListener() {  @Override  public boolean onTouch(View view, MotionEvent motionEvent)  {  int r = (int) (Math.random() \* 255);  int g = (int) (Math.random() \* 255);  int b = (int) (Math.random() \* 255);  int c = Color.rgb(r,g,b);  switch (motionEvent.getAction())  {  case MotionEvent.ACTION\_MOVE:  relativeLayout.setBackgroundColor(c);  break;  }  return true;  }  });  }  } |

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