



Introduzione ad Android

Lezione 6
Android programming – Esercizi

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A.A. 2024/2025

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Hello World (1/5)

- Abbiamo sfruttato l'IDE per creare un'activity HelloWorld per noi
- Proviamo a crearla da "zero"
 - Creiamo un nuovo progetto vuoto
 - Creiamo una nuova "basic activity"

Hello World (2/5)

```
package com.example.angel.helloworld2;

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

public class MainActivity extends Activity {
    /**
     * Called when the activity is first created.
     */
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);

        TextView text = new TextView(this);
        text.setText("Hello World, Android");
        setContentView(text);
    }
}
```

Hello World (3/5)

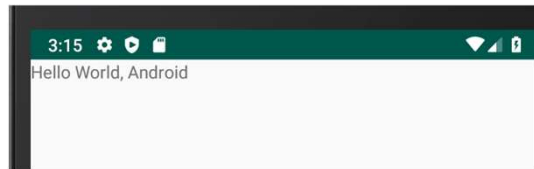
- Dobbiamo modificare il manifest per collegarlo all'attività che abbiamo creato
 - AndroidManifest.xml

Hello World (4/5)

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.angel.helloworld2">

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/AppTheme">
        <activity android:name="com.example.angel.helloworld2.MainActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>
</manifest>
```

Hello World (5/5)

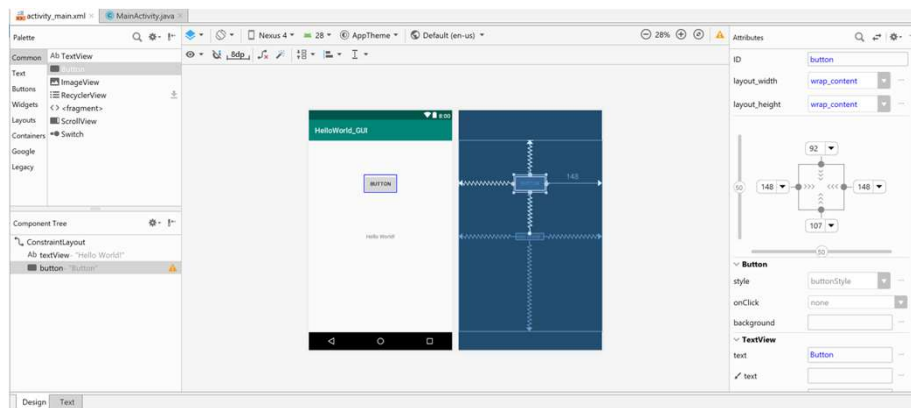


Hello World GUI (1/9)

- Introduciamo alcuni elementi dell'interfaccia grafica
- Possiamo usare la GUI dell'IDE per aggiungere un bottone cliccabile

Hello World GUI (2/9)

- activity_main: vista grafica (design)



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Hello World GUI (3/9)

- activity_main: vista testuale (text)

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <android.support.constraint.ConstraintLayout xmlns:android="http
3   xmlns:app="http://schemas.android.com/apk/res-auto"
4   xmlns:tools="http://schemas.android.com/tools"
5   android:layout_width="match_parent"
6   android:layout_height="match_parent"
7   tools:context=".MainActivity">
8
9   <TextView
10     android:id="@+id/textView"
11     android:layout_width="wrap_content"
12     android:layout_height="wrap_content"
13     android:text="Hello World!"
14     app:layout_constraintBottom_toBottomOf="parent"
15     app:layout_constraintLeft_toLeftOf="parent"
16     app:layout_constraintRight_toRightOf="parent"
17     app:layout_constraintTop_toTopOf="parent" />
18
19   <Button
20     android:id="@+id/button"
21     android:layout_width="wrap_content"
22     android:layout_height="wrap_content"
23     android:layout_marginStart="148dp"
24     android:layout_marginLeft="148dp"
25     android:layout_marginTop="92dp"
26     android:layout_marginEnd="148dp"
27     android:layout_marginRight="148dp"
```

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Hello World GUI (4/9)

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</android.support.constraint.ConstraintLayout>
```

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Hello World GUI (5/9)

```
<Button
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="148dp"
    android:layout_marginLeft="148dp"
    android:layout_marginTop="92dp"
    android:layout_marginEnd="148dp"
    android:layout_marginRight="148dp"
    android:layout_marginBottom="107dp"
    android:text="Button"
    app:layout_constraintBottom_toTopOf="@+id/textView"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

</android.support.constraint.ConstraintLayout>
```

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Hello World GUI (6/9)

- Aggiorniamo il codice dell'attività per associare un'azione alla premuta di un bottone

Hello World GUI (7/9)

```
package com.example.angel.helloworld_gui;

import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
```

Hello World GUI (8/9)

```
public class MainActivity extends AppCompatActivity {

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

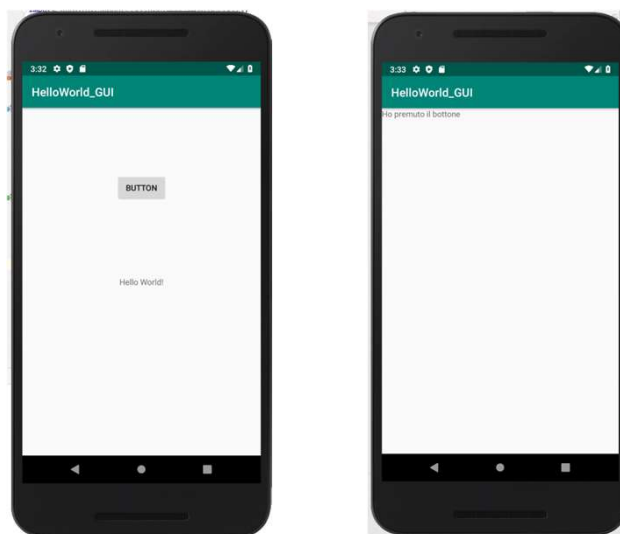
        final TextView text = new TextView(this);

        final Button button = findViewById(R.id.button);
        button.setOnClickListener(new View.OnClickListener() {
            public void onClick(View v) {
                // Code here executes on main thread after user presses button
                text.setText("Ho premuto il bottone");
                setContentView(text);
            }
        });
    }
}
```

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Hello World GUI (9/9)



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