

UI Elements

A **View** is an object that draws something on the screen that the user can interact with and a **ViewGroup** is an object that holds other View (and ViewGroup) objects in order to define the layout of the user interface.

You define your layout in an XML file which offers a human-readable structure for the layout, similar to HTML. For example, a simple vertical layout with a text view and a button looks like this −

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="fill\_parent"

android:layout\_height="fill\_parent"

android:orientation="vertical" >

<TextView android:id="@+id/text"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="I am a TextView" />

<Button android:id="@+id/button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="I am a Button" />

## Android UI Controls

There are number of UI controls provided by Android that allow you to build the graphical user interface for your app.

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| **Sr.No.** | **UI Control & Description** |
| 1 | [**TextView**](https://www.tutorialspoint.com/android/android_textview_control.htm)  This control is used to display text to the user. |
| 2 | [**EditText**](https://www.tutorialspoint.com/android/android_edittext_control.htm)  EditText is a predefined subclass of TextView that includes rich editing capabilities. |
| 3 | [**AutoCompleteTextView**](https://www.tutorialspoint.com/android/android_autocompletetextview_control.htm)  The AutoCompleteTextView is a view that is similar to EditText, except that it shows a list of completion suggestions automatically while the user is typing. |
| 4 | [**Button**](https://www.tutorialspoint.com/android/android_button_control.htm)  A push-button that can be pressed, or clicked, by the user to perform an action. |
| 5 | [**ImageButton**](https://www.tutorialspoint.com/android/android_imagebutton_control.htm)  An ImageButton is an AbsoluteLayout which enables you to specify the exact location of its children. This shows a button with an image (instead of text) that can be pressed or clicked by the user. |
| 6 | [**CheckBox**](https://www.tutorialspoint.com/android/android_checkbox_control.htm)  An on/off switch that can be toggled by the user. You should use check box when presenting users with a group of selectable options that are not mutually exclusive. |
| 7 | [**ToggleButton**](https://www.tutorialspoint.com/android/android_togglebutton_control.htm)  An on/off button with a light indicator. |
| 8 | [**RadioButton**](https://www.tutorialspoint.com/android/android_radiobutton_control.htm)  The RadioButton has two states: either checked or unchecked. |