

## **[1]** Hello world app

XML file:

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Hello Android!" />
```

---

## **[2]** XML

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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"
    android:id="@+id/back_color"
    tools:context=".Change_bgcolor"
    android:orientation="horizontal">

    <Button
        android:id="@+id/btn_choose_color"
        android:layout_margin="20dp"
        android:text="CHOOSE COLOR"
        android:textSize="20dp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>
</LinearLayout>
```

## **Custom Color XML**

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="300dp"
    android:orientation="vertical"
```

```
android:background="#03A9F4"
```

```
android:layout_height="200dp">
```

```
<Button
```

```
    android:text="Purple"
```

```
    android:id="@+id/btn_purple"
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="wrap_content"/>
```

```
<Button
```

```
    android:text="Yellow"
```

```
    android:id="@+id/btn_yellow"
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="wrap_content"/>
```

```
<Button
```

```
    android:text="Green"
```

```
    android:id="@+id/btn_green"
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="wrap_content"/>
```

```
</LinearLayout>
```

## **KOTLIN**

```
package com.example.myfirstapplication
```

```
import android.annotation.SuppressLint
```

```
import android.app.Dialog
```

```
import android.graphics.Color
```

```
import androidx.appcompat.app.AppCompatActivity
```

```
import android.os.Bundle
```

```

import android.view.Window
import android.widget.Button
import android.widget.LinearLayout

class Change_bgcolor : AppCompatActivity() {
    @SuppressWarnings("MissingInflatedId")
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout. Change_bgcolor)

        var btncolor = findViewById<Button>(R.id.btn_choose_color)
        var layout = findViewById<LinearLayout>(R.id.back_color)

        btncolor.setOnClickListener {
            val dialog = Dialog(this@ Change_bgcolor)
            dialog.requestWindowFeature(Window.FEATURE_NO_TITLE)
            dialog.setContentView(R.layout.my_color)

            dialog.setCancelable(false)

            var btnred =dialog.findViewById<Button>(R.id.btn_purple)
            var btnblue =dialog.findViewById<Button>(R.id.btn_yellow)
            var btngreen =dialog.findViewById<Button>(R.id.btn_green)

            btnred.setOnClickListener {
                layout.setBackgroundColor(Color.Purple)
                dialog.dismiss()
            }

            btnblue.setOnClickListener {
                layout.setBackgroundColor(Color.Yellow)

```

```
        dialog.dismiss()
    }
}
```

```
        btnngreen.setOnClickListener {
            layout.setBackgroundColor(Color.Green)
            dialog.dismiss()
        }
        dialog.show()
    }
}
}
```

---

**[3] (Navigate)**

**LOGIN XML**

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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"
    android:background="@drawable/galaxy"
    tools:context=".Task_1_Login_Page">

    <TextView
        android:id="@+id/singin"
        android:layout_marginTop="50dp"
        android:textStyle="bold"
        android:padding="15dp"
        android:textSize="35dp"
        android:textColor="@color/white"
        android:gravity="center"
        android:text="Sing in"
```

```
android:layout_width="match_parent"
android:layout_height="wrap_content"/>
```

```
<EditText
```

```
    android:drawableLeft="@drawable/ic_baseline_person_24"
    android:drawablePadding="20dp"
    android:padding="20dp"
    android:textColor="@color/white"
    android:textColorHint="@color/white"
    android:id="@+id/username"
    android:hint="Username"
    android:background="#30ffffff"
    android:layout_margin="10dp"
    android:layout_below="@+id/singin"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"/>
```

```
<EditText
```

```
    android:drawableLeft="@drawable/ic_baseline_lock_24"
    android:drawablePadding="20dp"
    android:padding="20dp"
    android:textColor="@color/white"
    android:textColorHint="@color/white"
    android:id="@+id/password"
    android:hint="Password"
    android:background="#30ffffff"
    android:layout_margin="10dp"
    android:layout_below="@+id/username"
    android:inputType="textPassword"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"/>
```

```
<androidx.appcompat.widget.AppCompatButton
    android:layout_below="@id/password"
    android:id="@+id/loginbtn"
    android:text="LOGIN"
    android:layout_margin="20dp"
    android:background="#03A9F4"
    android:layout_centerHorizontal="true"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"/>
```

```
<Button
    android:id="@+id/btn_1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/loginbtn"
    android:layout_alignParentLeft="true"
    android:layout_centerInParent="true"
    android:layout_marginStart="10dp"
    android:layout_marginTop="10dp"
    android:layout_marginEnd="10dp"
    android:layout_marginBottom="10dp"
    android:background="@android:color/transparent"
    android:text="New User?" />
```

```
<Button
    android:background="@android:color/transparent"
    android:layout_alignParentRight="true"
    android:textAlignment="textEnd"
    android:layout_margin="10dp"
    android:text="Forgot Password?"
```

```
android:layout_toRightOf="@id/btn_1"
android:layout_below="@+id/loginbtn"
android:layout_width="wrap_content"
android:layout_height="wrap_content"/>
```

```
<TextView
```

```
    android:id="@+id/others"
    android:layout_centerHorizontal="true"
    android:layout_above="@id/socialicons"
    android:text="Or sign in with"
    android:textSize="15dp"
    android:textColor="@color/white"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"/>
```

```
<LinearLayout
```

```
    android:gravity="center"
    android:layout_alignParentBottom="true"
    android:id="@+id/socialicons"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal">
```

```
<ImageView
```

```
    android:layout_margin="20dp"
    android:src="@drawable/google"
    android:layout_width="48dp"
    android:layout_height="48dp"/>
```

```
<ImageView
```

```
    android:layout_margin="20dp"
```

```
    android:src="@drawable/facebook"
    android:layout_width="48dp"
    android:layout_height="48dp"/>
```

```
<ImageView
    android:layout_margin="20dp"
    android:src="@drawable/in"
    android:layout_width="48dp"
    android:layout_height="48dp"/>
```

```
</LinearLayout>
```

```
</RelativeLayout>
```

## REGISTRATION XML

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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"
    android:orientation="vertical"
    android:padding="20dp"
    android:background="@drawable/galaxy"
    tools:context=".Task_1_Registration_Page">

    <EditText
        android:drawableLeft="@drawable/ic_baseline_person_24"
        android:drawablePadding="20dp"
        android:padding="15dp"
```



```
android:layout_marginTop="10dp"
android:textSize="20dp"
android:textStyle="bold"
android:text="First Name"
android:textColor="@color/white"
android:layout_width="match_parent"
android:layout_height="wrap_content"/>
```

<EditText

```
android:drawableLeft="@drawable/ic_baseline_person_24"
android:drawablePadding="20dp"
android:padding="15dp"
android:layout_marginTop="10dp"
android:textSize="20dp"
android:textStyle="bold"
android:text="Last Name"
android:textColor="@color/white"
android:layout_width="match_parent"
android:layout_height="wrap_content"/>
```

<EditText

```
android:drawableLeft="@drawable/ic_baseline_person_24"
android:drawablePadding="20dp"
android:padding="15dp"
android:layout_marginTop="10dp"
android:textSize="20dp"
android:textStyle="bold"
android:text="Username"
android:textColor="@color/white"
android:layout_width="match_parent"
android:layout_height="wrap_content"/>
```

```
<EditText
    android:drawableLeft="@drawable/ic_baseline_lock_24"
    android:drawablePadding="20dp"
    android:padding="15dp"
    android:layout_marginTop="10dp"
    android:textSize="20dp"
    android:textStyle="bold"
    android:text="Password"
    android:textColor="@color/white"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"/>
```

```
<EditText
    android:drawableLeft="@drawable/ic_baseline_lock_24"
    android:drawablePadding="20dp"
    android:padding="15dp"
    android:layout_marginTop="10dp"
    android:textSize="20dp"
    android:textStyle="bold"
    android:text="Confirm Password"
    android:textColor="@color/white"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"/>
```

```
<EditText
    android:drawableLeft="@drawable/ic_baseline_email_24"
    android:drawablePadding="20dp"
    android:padding="15dp"
    android:layout_marginTop="10dp"
    android:textSize="20dp"
    android:textStyle="bold"
```

```
android:text="E-mail"
android:textColor="@color/white"
android:layout_width="match_parent"
android:layout_height="wrap_content"/>
```

```
<EditText
    android:drawableLeft="@drawable/ic_baseline_phone_24"
    android:drawablePadding="20dp"
    android:padding="15dp"
    android:layout_marginTop="10dp"
    android:textSize="20dp"
    android:textStyle="bold"
    android:text="Mobile No."
    android:textColor="@color/white"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"/>
```

```
<androidx.appcompat.widget.AppCompatButton
    android:id="@+id/loginbtn"
    android:text="SUBMIT"
    android:layout_margin="20dp"
    android:background="#03A9F4"
    android:layout_gravity="center"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"/>
```

```
</LinearLayout>
```

**LOGIN Kt**

```
package com.example.myfirstapplication
```

```
import android.content.Intent
```

```
import androidx.appcompat.app.AppCompatActivity
```

```
import android.os.Bundle
```

```
import android.widget.Button
```

```
import android.widget.EditText
```

```
import android.widget.TextView
```

```
class Task_1_Login_Page : AppCompatActivity() {
```

```
    override fun onCreate(savedInstanceState: Bundle?) {
```

```
        super.onCreate(savedInstanceState)
```

```
        setContentView(R.layout.activity_task1_login_page)
```

```
        var singin = findViewById<TextView>(R.id.singin)
```

```
        var username = findViewById<EditText>(R.id.username)
```

```
        var password = findViewById<EditText>(R.id.password)
```

```
        var btn = findViewById<Button>(R.id.btn_1)
```

```
        btn.setOnClickListener {
```

```
            var i = Intent(this@Task_1_Login_Page,Task_1_Registration_Page::class.java)
```

```
            startActivity(i)
```

```
        }
```

```
    }
```

```
}
```

**REGISTRATION Kt**

```
package com.example.myfirstapplication
```

```
import androidx.appcompat.app.AppCompatActivity
```

```
import android.os.Bundle
```

```
class Task_1_Registration_Page : AppCompatActivity() {  
    override fun onCreate(savedInstanceState: Bundle?) {  
        super.onCreate(savedInstanceState)  
        setContentView(R.layout.activity_task1_registration_page)  
    }  
}
```

---

## **[5] Login**

### **XML**

```
<?xml version="1.0" encoding="utf-8"?>  
  
<LinearLayout 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"  
    android:background="#3F51B5"  
    android:orientation="vertical"  
    tools:context=".LoginPage">  
  
    <TextView  
        android:text="login"  
        android:textSize="56dp"  
        android:textStyle="bold"  
        android:textAlignment="center"  
        android:layout_marginTop="25dp"  
        android:textColor="#FDF6F6"
```

```
android:fontFamily="cursive"
android:layout_width="match_parent"
android:layout_height="wrap_content"/>
```

```
<EditText
```

```
    android:layout_margin="26dp"
    android:padding="26dp"
    android:textColorHint="#000"
    android:drawableLeft="@drawable/ic_baseline_email_24"
    android:drawablePadding="20dp"
    android:textStyle="bold"
    android:textColor="#CDC5C5"
    android:text="Enter email"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"/>
```

```
<EditText
```

```
    android:layout_margin="26dp"
    android:padding="26dp"
    android:textColorHint="#000"
    android:drawableLeft="@drawable/ic_baseline_lock_24"
    android:drawablePadding="20dp"
    android:textStyle="bold"
    android:textColor="#CDC5C5"
    android:text="Enter password"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"/>
```

```
<androidx.appcompat.widget.AppCompatButton
```

```
    android:layout_margin="26dp"
    android:text="SIGN IN"
```

```
android:background="#2196F3"
android:layout_width="match_parent"
android:layout_height="wrap_content"/>
```

```
<LinearLayout
    android:orientation="horizontal"
    android:layout_width="match_parent"
    android:layout_height="wrap_content">
```

```
<Button
    android:id="@+id/btn_user"
    android:textColor="#000"
    android:textAlignment="center"
    android:text="New User"
    android:background="@android:color/transparent"
    android:layout_weight="1"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"/>
```

```
<View
    android:background="#F44336"
    android:layout_width="5dp"
    android:layout_height="match_parent"
/>
```

```
<Button
    android:textColor="#000"
    android:textAlignment="center"
    android:text="Forgot Password"
    android:background="@android:color/transparent"
    android:layout_weight="1"
```

```
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>
```

```
</LinearLayout>
```

```
</LinearLayout>
```

## **Kt**

```
package com.example.myfirstapplication
```

```
import android.content.Intent
```

```
import androidx.appcompat.app.AppCompatActivity
```

```
import android.os.Bundle
```

```
import android.widget.Button
```

```
class LoginPage : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_login_page)

        var btn = findViewById<Button>(R.id.btn_user)

        btn.setOnClickListener {
            var i = Intent (this,Registration::class.java)
            startActivity(i)
        }
    }
}
```

## **Registration**

### **XML**



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

<LinearLayout 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"
    android:orientation="vertical"
    android:background="#9284AC"
    tools:context=".Registration">
```

```
<TextView
    android:layout_marginTop="25dp"
    android:hint="User Registration"
    android:textAlignment="center"
    android:textColor="#0C0C0C"
    android:textSize="30dp"
    android:textStyle="bold"
    android:padding="10dp"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"/>
```

```
<EditText
    android:padding="15dp"
    android:layout_marginTop="10dp"
    android:textSize="20dp"
    android:textStyle="bold"
    android:text="First Name"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"/>
```

```
<EditText
```

```
android:padding="15dp"
android:layout_marginTop="10dp"
android:textSize="20dp"
android:textStyle="bold"
android:text="Last Name"
android:layout_width="match_parent"
android:layout_height="wrap_content"/>
```

<EditText

```
android:padding="15dp"
android:layout_marginTop="10dp"
android:textSize="20dp"
android:textStyle="bold"
android:text="E-mail"
android:layout_width="match_parent"
android:layout_height="wrap_content"/>
```

<EditText

```
android:padding="15dp"
android:layout_marginTop="10dp"
android:textSize="20dp"
android:textStyle="bold"
android:text="Confirm E-mail"
android:layout_width="match_parent"
android:layout_height="wrap_content"/>
```

<EditText

```
android:padding="15dp"
android:layout_marginTop="10dp"
android:textSize="20dp"
android:textStyle="bold"
```

```
    android:text="Password"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"/>
```

```
<EditText
    android:padding="15dp"
    android:layout_marginTop="10dp"
    android:textSize="20dp"
    android:textStyle="bold"
    android:text="Confirm Password"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"/>
```

```
<androidx.appcompat.widget.AppCompatButton
    android:background="#03A9F4"
    android:text="REGISTER"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"/>
```

```
</LinearLayout>
```

## **KOTLIN**

```
package com.example.myfirstapplication
```

```
import androidx.appcompat.app.AppCompatActivity
```

```
import android.os.Bundle
```

```
class Registration : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
```

```
        setContentView(R.layout.activity_registration)
    }
}
```

---

#### **[6]** R.java

It is an auto generated file

Which contain all the resource entries like....

Layouts, colors , strings, theme etc...

---

#### **[7]** Activity:

An activity provides the window in which the app draws its UI. This window typically fills the screen, but may be smaller than the screen and float on top of other windows. Generally, one activity implements one screen in an app.

**Android Activity Lifecycle** is controlled by 7 methods of android .

Method	Description
onCreate()	called when activity is first created.
onStart()	called when activity is becoming visible to the user.
onResume()	called when activity will start interacting with the user.
onPause()	called when activity is not visible to the user.
onStop()	called when activity is no longer visible to the user.
onRestart()	called after your activity is stopped, prior to start.
onDestroy()	called before the activity is destroyed.

---

## **[8]**      Fragment:

Android Fragment is the part of activity, it is also known as sub-activity. There can be more than one fragment in an activity. Fragments represent multiple screen inside one activity.

Fragment lifecycle:

No.	Method	Description
1)	onAttach(Activity)	it is called only once when it is attached with activity.
2)	onCreate(Bundle)	It is used to initialize the fragment.
3)	onCreateView(LayoutInflater, ViewGroup, Bundle)	creates and returns view hierarchy.
4)	onActivityCreated(Bundle)	It is invoked after the completion of onCreate() method.
5)	onViewStateRestored(Bundle)	It provides information to the fragment that all the saved state of fragment view hierarchy has been restored.
6)	onStart()	makes the fragment visible.
7)	onResume()	makes the fragment interactive.
8)	onPause()	is called when fragment is no longer interactive.
9)	onStop()	is called when fragment is no longer visible.
10)	onDestroyView()	allows the fragment to clean up resources.
11)	onDestroy()	allows the fragment to do final clean up of fragment state.
12)	onDetach()	It is called immediately prior to the fragment no longer being associated with its activity.

---