**Q.1) Write a program to showcase different views in android.**

**Code:**

**MainActivity.java**

package com.example.views;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.CheckBox;

import android.widget.EditText;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

private EditText editText;

private CheckBox checkBox;

private Button button;

private TextView resultTextView;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

editText = findViewById(R.id.editText);

checkBox = findViewById(R.id.checkBox);

button = findViewById(R.id.button);

resultTextView = findViewById(R.id.resultTextView);

button.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

String name = editText.getText().toString();

// Check if the CheckBox is checked

boolean isSubscribed = checkBox.isChecked();

if (name.isEmpty()) {

resultTextView.setText("Please enter your name.");

} else {

String result = "Hello, " + name + "!";

if (isSubscribed) {

result += "\nThank you for subscribing to our newsletter!";

}

resultTextView.setText(result);

}

}

});

}

}

**activity\_main.xml**

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

android:padding="16dp"

android:gravity="center\_horizontal">

<TextView

android:id="@+id/textView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Enter your name:"

android:textSize="18sp" />

<EditText

android:id="@+id/editText"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:hint="Your Name" />

<CheckBox

android:id="@+id/checkBox"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Subscribe to newsletter" />

<Button

android:id="@+id/button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Submit"

android:layout\_marginTop="20dp" />

<TextView

android:id="@+id/resultTextView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text=""

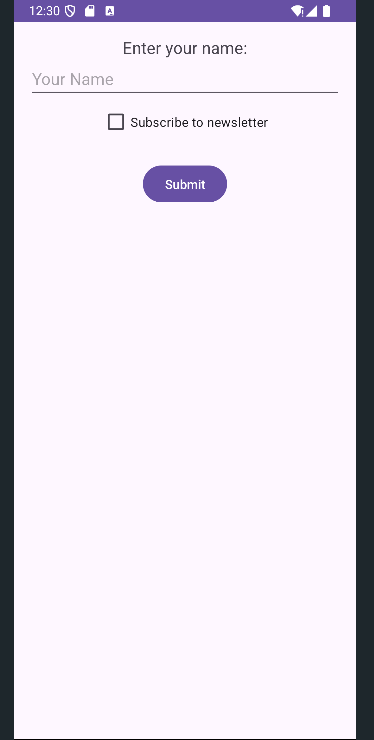
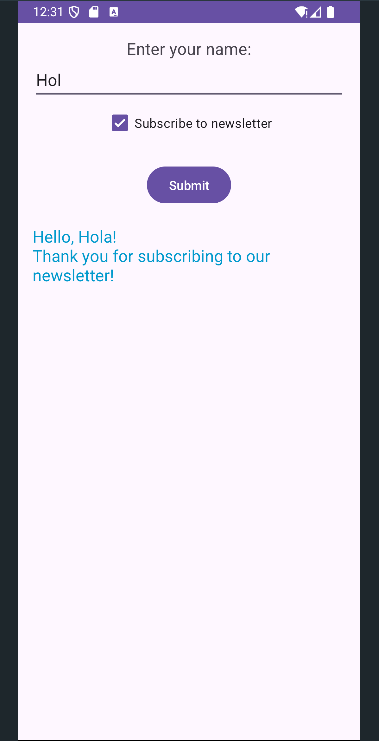
android:textSize="18sp"

android:layout\_marginTop="20dp"

android:textColor="@android:color/holo\_blue\_dark" />

</LinearLayout>

**Output:**

** **