**Program no:5**

**Aim** Implement validations on various UI controls

# XML Code:

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

<LinearLayout xmlns:android=["ht](http://schemas.android.com/apk/res/android)t[p://schemas.android.com/apk/res/android](http://schemas.android.com/apk/res/android)" xmlns:tools="<http://schemas.android.com/tools>" android:layout\_width="match\_parent" android:layout\_height="match\_parent" android:orientation="vertical"

tools:context=".MainActivity" tools:ignore="HardcodedText">

<EditText android:id="@+id/firstName" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:layout\_marginStart="16dp" android:layout\_marginTop="16dp" android:layout\_marginEnd="16dp" android:hint="First Name" android:inputType="text" />

<EditText

android:id="@+id/lastName" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:layout\_marginStart="16dp" android:layout\_marginTop="16dp" android:layout\_marginEnd="16dp" android:hint="Last Name" android:inputType="text" />

<EditText android:id="@+id/email"

android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:layout\_marginStart="16dp" android:layout\_marginTop="16dp" android:layout\_marginEnd="16dp" android:hint="Email" android:inputType="textEmailAddress" />

<EditText android:id="@+id/password"

android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:layout\_marginStart="16dp"

android:layout\_marginTop="16dp" android:layout\_marginEnd="16dp" android:hint="Password" android:inputType="textPassword" />

<LinearLayout android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:layout\_marginTop="8dp" android:gravity="end" android:orientation="horizontal">

<Button

android:id="@+id/cancelButton" style="@style/Widget.AppCompat.Button.Borderless" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_marginEnd="4dp" android:text="CANCEL" android:textColor="@color/white" />

<Button

android:id="@+id/proceedButton" android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content" android:layout\_marginEnd="16dp" android:backgroundTint="@color/black" android:text="PROCEED" android:textColor="@android:color/white" tools:ignore="ButtonStyle" />

</LinearLayout>

</LinearLayout>

# Java Code:

package com.example.myapplication;

import androidx.appcompat.app.AppCompatActivity;import android.content.Intent;

import android.os.Bundle; import android.view.View; import android.widget.Button; import android.widget.EditText;

public class MainActivity extends AppCompatActivity {

// two buttons

Button bCancel, bProceed;

// four text fields

EditText etFirstName, etLastName, etEmail, etPassword;

// one boolean variable to check whether all the text fields

// are filled by the user, properly or not. boolean isAllFieldsChecked = false;

@Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);

// register buttons with their proper IDs. bProceed = findViewById(R.id.proceedButton);bCancel = findViewById(R.id.cancelButton);

// register all the EditText fields with their IDs. etFirstName = findViewById(R.id.firstName); etLastName = findViewById(R.id.lastName); etEmail

= findViewById(R.id.email); etPassword = findViewById(R.id.password);

// handle the PROCEED button bProceed.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

// store the returned value of the dedicated function which checks

// whether the entered data is valid or if any fields are left blank. isAllFieldsChecked = CheckAllFields();

// the boolean variable turns to be true then

// only the user must be proceed to the activity2if (isAllFieldsChecked) {

Intent i = new Intent(MainActivity.this, MainActivity2.class); startActivity(i);

}

}

});

// if user presses the cancel button then close the

// application or the particular activity. bCancel.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) { MainActivity.this.finish(); System.exit(0);

}

});

}

// function which checks all the text fields

// are filled or not by the user.

// when user clicks on the PROCEED button

// this function is triggered.

private boolean CheckAllFields() {if (etFirstName.length() == 0) {

etFirstName.setError("This field is required");return false;

}

if (etLastName.length() == 0) { etLastName.setError("This field is required");return false;

}

if (etEmail.length() == 0) { etEmail.setError("Email is required");return false;

}

if (etPassword.length() == 0) { etPassword.setError("Password is required");

return false;

} else if (etPassword.length() < 8) { etPassword.setError("Password must be minimum 8 characters");return false;

}

// after all validation return true. return true;

}

}

# Output:

