

Q.1] Java android program to demonstrate Registration form with validation.

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

xmlns: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"
    tools:context=".MainActivity2"
    tools:ignore="HardcodedText">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerInParent="true"
        android:text="Registration Successful"
        android:textSize="18sp" />

</RelativeLayout>
```

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

xmlns: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"
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        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/colorPrimary" />

    <Button
        android:id="@+id/proceedButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginEnd="16dp"

android:backgroundTint="@color/colorPrimary"
        android:text="PROCEED"
        android:textColor="@android:color/white"
        tools:ignore="ButtonStyle" />

```

```

        </LinearLayout>
</LinearLayout>
package com.example.registrationformapp;

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);

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        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 activity2
                if (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;
}
}
```