

PROGRAM NO :4

AIM: Implement validations on various UI controls

PROGRAM CODE:

Mainactivity.java	<pre>package com.example.validation; import androidx.appcompat.app.AppCompatActivity; import android.os.Bundle; import android.provider.MediaStore; import android.view.View; import android.view.View.OnClickListener; import android.widget.Button; import android.widget.EditText; import android.widget.RadioButton; import android.widget.RadioGroup; import android.widget.Toast; public class MainActivity extends AppCompatActivity { EditText e1,e2,e3,e4,e5; Button b1; RadioButton r1,r2; RadioGroup r; @Override protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity_main); e1=(EditText)findViewById(R.id.name); e2=(EditText)findViewById(R.id.address); e3=(EditText)findViewById(R.id.email); e4=(EditText)findViewById(R.id.password); e5=(EditText)findViewById(R.id.phno); b1=(Button)findViewById(R.id.validate1); r=(RadioGroup)findViewById(R.id.gender); r1=(RadioButton)findViewById(R.id.male); r2=(RadioButton)findViewById(R.id.female); b1.setOnClickListener(new View.OnClickListener(){ @Override public void onClick(View v) { validate(); } }); } public void validate()</pre>
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{
    String name=e1.getText().toString();
    String email=e3.getText().toString().trim();
    String address=e2.getText().toString();
    String password=e4.getText().toString();
    String namePattern="[0-9!@#$$%^&*]";
    String emailPattern="[a-zA-Z0-9._-]+@[a-z]+\\.[a-z]+";
    String pno=e5.getText().toString();
    int valid=1;

    if(name.length()==0)
    {
        e1.getText().clear();
        e1.requestFocus();
        e1.setError("No valid name written");
        Toast.makeText(getApplicationContext(), "Enter valid name",
Toast.LENGTH_SHORT).show();
        valid++;
    }
    if(name.matches(namePattern))
    {
        e1.getText().clear();
        e1.requestFocus();
        e1.setError("Name contains illegal characters");
        Toast.makeText(getApplicationContext(), "Enter valid name",
Toast.LENGTH_SHORT).show();
        valid++;
    }
    if(address.length()==0)
    {
        e2.getText().clear();
        e2.requestFocus();
        e2.setError("No valid address written");
        Toast.makeText(getApplicationContext(), "Enter valid address",
Toast.LENGTH_SHORT).show();
        valid++;
    }
    if(email.length()==0)
    {
        e3.getText().clear();
        e3.requestFocus();
        e3.setError("No valid email written");
        Toast.makeText(getApplicationContext(), "Enter valid email",
Toast.LENGTH_SHORT).show();
        valid++;
    }
    if(!email.matches(emailPattern))
    {
        e3.getText().clear();
        e3.requestFocus();
        e3.setError("Invalid email pattern");
        Toast.makeText(getApplicationContext(), "Enter valid email ",
Toast.LENGTH_SHORT).show();
        valid++;
    }
}

```

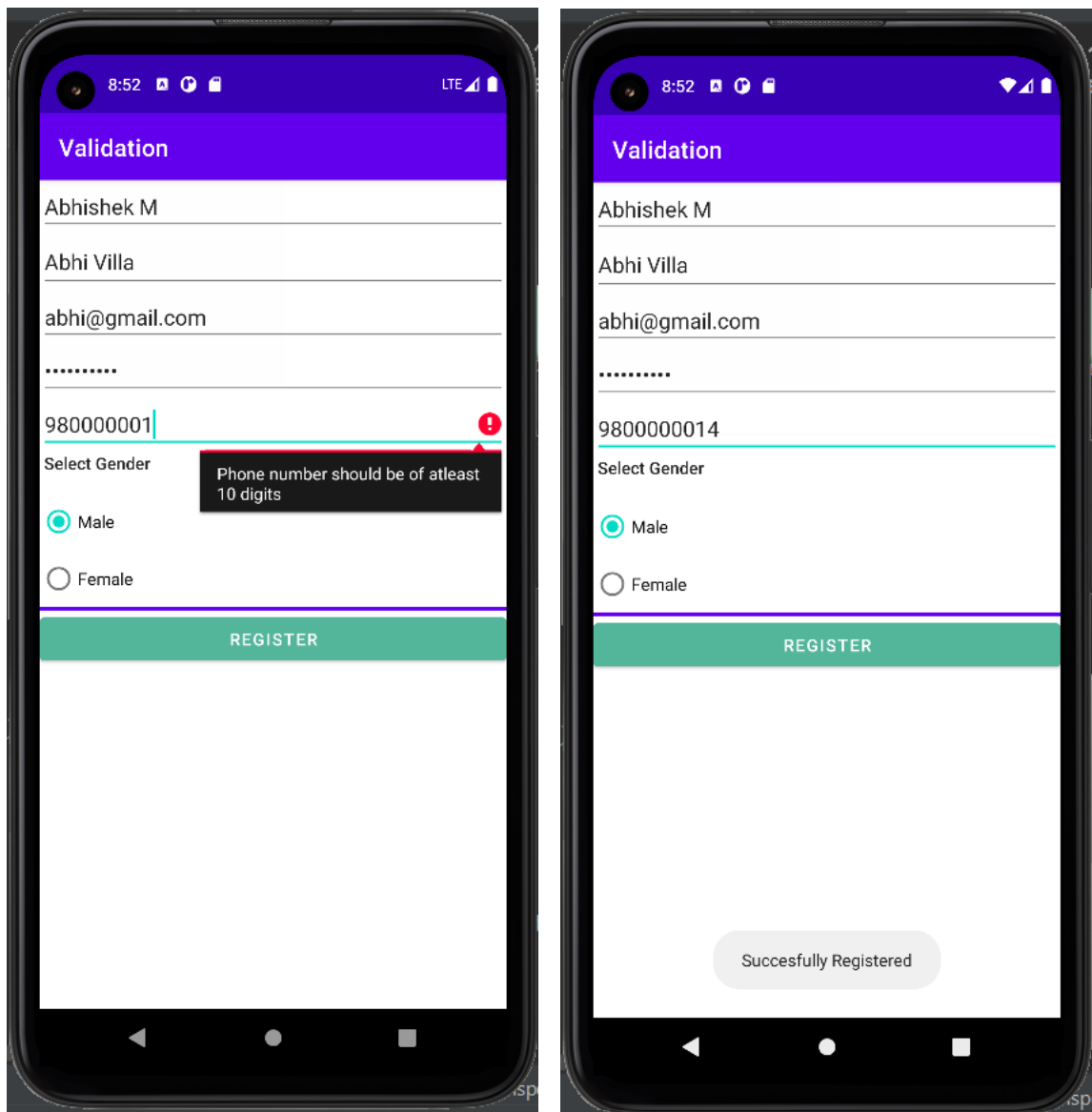
```

        if(password.length()==0)
        {
            e4.requestFocus();
            e4.setError("Enter valid password");
            valid++;
        }
        if(password.length()<5)
        {
            e4.requestFocus();
            e4.setError("Enter an 8 digit password");
            valid++;
        }
        if(!password.equals("admin"))
        {
            Toast.makeText(getApplicationContext(), "Incorrect password",
Toast.LENGTH_SHORT).show();
        }
        if (r.getCheckedRadioButtonId() == -1)
        {
            Toast.makeText(getApplicationContext(), "Please select any gender",
Toast.LENGTH_SHORT).show();
            valid++;
        }
        else
        {
            if(r1.isChecked())
            {
                Toast.makeText(getApplicationContext(), "Welcome Mr."+name,
Toast.LENGTH_SHORT).show();
            }
            if(r2.isChecked())
            {
                Toast.makeText(getApplicationContext(), "Welcome Ms."+name,
Toast.LENGTH_SHORT).show();
            }
        }
        if(pno.length()<10)
        {
            e5.setError("Phone number should be of atleast 10 digits");
            valid++;
        }
        if(valid==1)
        {
            Toast.makeText(getApplicationContext(), "Succesfully Registered",
Toast.LENGTH_SHORT).show();
        }
    }
}

```

activity_main.xml	<pre> <?xml version="1.0" encoding="utf-8"?> <androidx.constraintlayout.widget.ConstraintLayout 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" tools:context=".MainActivity"> <TextView android:layout_width="222dp" android:layout_height="50dp" android:layout_marginStart="92dp" android:text="Email ID" android:textSize="36sp" app:layout_constraintBottom_toBottomOf="parent" app:layout_constraintLeft_toLeftOf="parent" app:layout_constraintRight_toRightOf="parent" app:layout_constraintStart_toStartOf="parent" app:layout_constraintTop_toTopOf="parent" app:layout_constraintVertical_bias="0.327" /> <EditText android:id="@+id/editText" android:layout_width="256dp" android:layout_height="55dp" android:ems="10" android:inputType="textEmailAddress" app:layout_constraintBottom_toBottomOf="parent" app:layout_constraintEnd_toEndOf="parent" app:layout_constraintHorizontal_bias="0.593" app:layout_constraintStart_toStartOf="parent" app:layout_constraintTop_toTopOf="parent" app:layout_constraintVertical_bias="0.44" /> </androidx.constraintlayout.widget.ConstraintLayout> </pre>
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OUTPUT:



RESULT

Program Has Been Succesfully Executed And Output Is Obtained.