

1. Develop App Using GUI, Fonts & Colours With Profile DP

Aim:

Develop a GUI based Mobile application which uses GUI Components colours & Fonts with Profile DP

XML Design:

Activitymain.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.coordinatorlayout.widget.CoordinatorLayout
    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:fitsSystemWindows="true"
    tools:context="com.ceg.sharandeveloper.ceg.profile"
    android:background="@color/profileBackground">

    <com.google.android.material.appbar.AppBarLayout
        android:id="@+id/app_bar"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:fitsSystemWindows="true"
        android:theme="@style/AppTheme.AppBarOverlay">

        <com.google.android.material.appbar.CollapsingToolbarLayout
            android:id="@+id/toolbar_layout"
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:fitsSystemWindows="true"
            app:contentScrim="@color/colorPrimary"
            app:layout_scrollFlags="scroll|exitUntilCollapsed"
            app:toolbarId="@+id/toolbar"
            app:expandedTitleMarginEnd="64dp"
            app:expandedTitleMarginStart="48dp"
            app:expandedTitleTextAppearance="@style/TransparentText">

            <LinearLayout
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:layout_centerInParent="true"
                android:gravity="center_horizontal"
                android:orientation="vertical"
                android:id="@+id/linearLayout"
                android:background="@drawable/profile_bk">

                <de.hdodenhof.circleimageview.CircleImageView
                    android:layout_width="100dp"
                    android:layout_marginTop="20dp"
                    android:src="@drawable/sharan"
                    android:layout_height="100dp"/>

                <TextView
```

```

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Sharan"
        android:textSize="28dp"
        android:textStyle="bold"/>

<!--<TextView
    android:layout_width="wrap_content"
    "
    android:layout_height="wrap_content"
    android:text="sharankumar@biways.in"
    android:textSize="12dp"
    android:textStyle="bold"/>-->

<RelativeLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:gravity="center"
    android:layout_gravity="bottom"
    android:layout_marginTop="20dp"
    android:background="@color/profileBackground">

    <View
        android:layout_alignParentTop="true"
        android:layout_width="match_parent"
        android:layout_height="30dp"
        android:background="@drawable/profile_bk"/>

    <TextView
        android:text="Back to\nHome"
        android:id="@+id/back_home"
        style="@style/profileStyledBackButton" />
</RelativeLayout>

</LinearLayout>

<com.google.android.material.appbar.MaterialToolbar
    android:id="@+id/toolbar"
    android:layout_width="match_parent"
    android:layout_height="?attr/actionBarSize"
    app:layout_collapseMode="pin"
    app:popupTheme="@style/AppTheme.PopupOverlay" />

</com.google.android.material.appbar.CollapsingToolbarLayout>
</com.google.android.material.appbar.AppBarLayout>

<include layout="@layout/content_profile" />

</androidx.coordinatorlayout.widget.CoordinatorLayout>

```

Content main.xml:

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.core.widget.NestedScrollView
    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"

```

```

app:layout_behavior="@string/appbar_scrolling_view_behavior"
" tools:context="com.ceg.sharandeveloper.ceg.profile"
tools:showIn="@layout/activity_profile">

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="vertical"
    android:layout_marginTop="20dp"
    android:layout_marginLeft="20dp"
    android:layout_marginRight="20dp">

    <TextView
        style="@style/headerText"
        android:text="Profile Info"
        android:layout_marginBottom="20dp"/>

    <RelativeLayout style="@style/profileDetailsLayout">
        <ImageView
            android:id="@+id/nameImageView"
            android:src="@drawable/ic_name"
            style="@style/profileDetailsImage"
            />

        <TextView
            android:id="@+id/nameTextView"
            android:text="Name"
            android:layout_toRightOf="@id/nameImageView"
            style="@style/profileDetailsTextMain" />

        <TextView
            android:text="sharan kumar sp"
            android:layout_toRightOf="@id/nameImageView"
            style="@style/profileDetailsMiniText" />

    </RelativeLayout>

    <View style="@style/proifileDetailsView" />
    <RelativeLayout style="@style/profileDetailsLayout">
        <ImageView
            android:id="@+id/mobileImageView"
            android:src="@drawable/ic_mobile"
            style="@style/profileDetailsImage"
            />

        <TextView
            android:text="Mobile"
            android:layout_toRightOf="@id/mobileImageView"
            style="@style/profileDetailsTextMain"/>

        <TextView
            android:text="+91-9514529746"
            android:layout_toRightOf="@id/mobileImageView"
            style="@style/profileDetailsMiniText" />

    </RelativeLayout>

    <View style="@style/proifileDetailsView" />
    <RelativeLayout style="@style/profileDetailsLayout">
        <ImageView
            android:id="@+id/emailImageView"
            android:src="@drawable/ic_email"
            style="@style/profileDetailsImage"
            />
        <TextView

```

```

        android:text="Email"
        android:layout_toRightOf="@id/emailImageView"
        style="@style/profileDetailsTextMain" />

        <TextView
            android:text="sharankumar@biways.in"
            android:layout_toRightOf="@id/emailImageView"
            style="@style/profileDetailsMiniText" />

    </RelativeLayout>

    <View style="@style/proifileDetailsView" />
    <RelativeLayout style="@style/profileDetailsLayout">
        <ImageView
            android:id="@+id/addressImageView"
            android:src="@drawable/ic_address"
            style="@style/profileDetailsImage"
            />

        <TextView
            android:text="Address"
            android:layout_toRightOf="@id/addressImageView"
            style="@style/profileDetailsTextMain" />

        <TextView
            android:text="162/A, Madurai
            Raod, Srivilliputtur."
            android:layout_toRightOf="@id/addressImageView"
            style="@style/profileDetailsMiniText" />

    </RelativeLayout>

    <View style="@style/proifileDetailsView" />
    <RelativeLayout style="@style/profileDetailsLayout">
        <ImageView
            android:id="@+id/dobImageView"
            android:src="@drawable/ic_dob"
            style="@style/profileDetailsImage"
            />

        <TextView
            android:text="D.O.B"
            android:layout_toRightOf="@id/dobImageView"
            style="@style/profileDetailsTextMain" />

        <TextView
            android:text="09-06-1999"
            android:layout_toRightOf="@id/dobImageView"
            style="@style/profileDetailsMiniText" />

    </RelativeLayout>

    <View style="@style/proifileDetailsView" />

</LinearLayout>

</androidx.core.widget.NestedScrollView>

```

Java Coding:

profile.java:

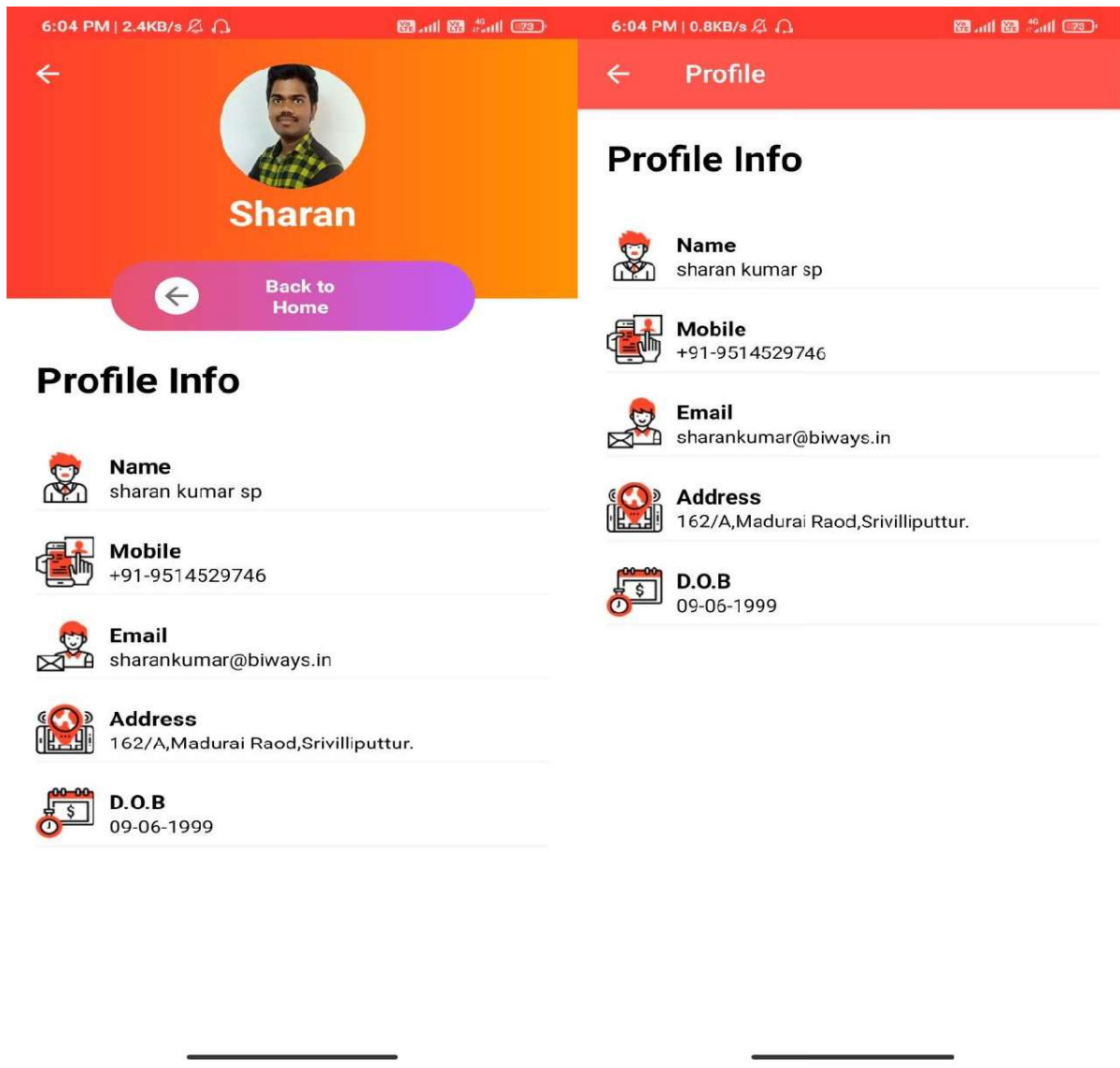
```
package com.ceg.sharandeveloper.ceg;

import androidx.appcompat.app.AppCompatActivity;
import androidx.appcompat.widget.Toolbar;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.TextView;

public class profile extends AppCompatActivity {
    TextView back_home;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_profile);
        Toolbar toolbar = (Toolbar) findViewById(R.id.toolbar);
        setSupportActionBar(toolbar);
        getSupportActionBar().setDisplayHomeAsUpEnabled(true);
        back_home=(findViewById(R.id.back_home));
        back_home.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent i =new Intent(profile.this,MainActivity.class);
                startActivity(i);
                finish();
            }
        });
    }
}
```

Screenshots:



2. Develop An Applications With Layout Managers And Events Listner

Aim:

Develop an applications which uses Layout Managers and Events listner include the previous GUI based fonts colours background images etc...

XML Coding:

Activity_login:

```
<?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:orientation="vertical"
    android:background="@drawable/profile_bk"
    android:layout_height="match_parent"
    android:gravity="center"
    tools:context=".login">
    <ScrollView
        android:layout_width="match_parent"
        android:layout_height="match_parent">
        <LinearLayout
            android:layout_width="match_parent"
            android:layout_gravity="center"
            android:gravity="center"
            android:padding="10dp"
            android:orientation="vertical"
            android:layout_height="wrap_content">
            <androidx.appcompat.widget.AppCompatTextView
                android:layout_width="match_parent"
                android:textColor="#ffffff"
                android:text="LOGIN"
                android:fontFamily="@font/asap_bolditalic"
                android:textStyle="bold"
                android:textSize="25dp"
                android:gravity="center"
                android:layout_height="wrap_content"/>
            <ImageView
                android:layout_width="100dp"
                android:layout_marginTop="10dp"
                android:src="@drawable/ic_user"
                android:layout_height="100dp"/>
            <LinearLayout
                android:layout_width="match_parent"
                android:orientation="vertical"
                android:padding="20dp"
                android:layout_height="wrap_content">
                <com.google.android.material.textfield.TextInputLayout
                    android:layout_width="match_parent"
                    android:textColorHint="#FFFFFF"
```

```

        app:hintTextColor="#FFFFFF"
        android:layout_height="wrap_content">

<com.google.android.material.textfield.TextInputEditText
    android:layout_width="match_parent"
    android:hint="Phone No"
    android:id="@+id/username"
    android:fontFamily="@font/asap_medium"
    android:textColor="#ffffff"
    android:inputType="number"
    android:drawableRight="@drawable/ic_user"
    android:textColorHint="#ffffff"
    android:layout_height="wrap_content"/>
</com.google.android.material.textfield.TextInputLayout>
<com.google.android.material.textfield.TextInputLayout
    android:layout_width="match_parent"
    android:layout_marginTop="50dp"
    app:hintTextColor="#FFFFFF"
    app:errorTextColor="#7c3bcd"
    android:textColorHint="#FFFFFF"
    android:layout_height="wrap_content">

<com.google.android.material.textfield.TextInputEditText
    android:layout_width="match_parent"
    android:hint="Password"
    android:id="@+id/password"
    android:inputType="textPassword"
    android:fontFamily="@font/asap_medium"
    android:textColor="#ffffff"
    android:textColorHint="#ffffff"
    android:layout_height="wrap_content"/>
</com.google.android.material.textfield.TextInputLayout>
<TextView
    android:layout_width="match_parent"
    android:text="Forget Password?"
    android:layout_gravity="end"
    android:gravity="end"
    android:id="@+id/forget"
    android:textSize="17dp"
    android:layout_marginTop="10dp"
    android:textColor="#FFFFFF"
    android:fontFamily="@font/asap_medium"
    android:layout_height="wrap_content"/>
</LinearLayout>
<Button
    android:layout_width="wrap_content"
    android:text="LOGIN"
    android:layout_marginTop="20dp"
    android:textColor="#FFFFFF"
    android:textStyle="bold"
    android:textSize="18dp"
    android:id="@+id/login"
    android:fontFamily="@font/asap_bold"
    android:background="@drawable/profile_back_button"
    android:layout_height="wrap_content"/>

<TextView
    android:layout_width="match_parent"
    android:text="SignUp?"
    android:gravity="center"
    android:layout_marginTop="20dp"
    android:textSize="18dp"
    android:fontFamily="@font/asap_bold"
    android:textColor="#ffffff"

```



```

        android:id="@+id/signup"
        android:layout_height="wrap_content"/>
    </LinearLayout>
</ScrollView>
</LinearLayout>

```

Activity_signup.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:orientation="vertical"
    android:background="@drawable/profile_bk"
    android:layout_height="match_parent"
    android:gravity="center"
    tools:context=".signup">
    <ScrollView
        android:layout_width="match_parent"
        android:layout_height="match_parent">
        <LinearLayout
            android:layout_width="match_parent"
            android:orientation="vertical"
            android:layout_height="match_parent">
            <LinearLayout
                android:layout_width="match_parent"
                android:layout_gravity="center"
                android:gravity="center"
                android:padding="10dp"
                android:id="@+id/mainlayout"
                android:orientation="vertical"
                android:layout_height="wrap_content">
                <androidx.appcompat.widget.AppCompatTextView
                    android:layout_width="match_parent"
                    android:textColor="#ffffff"
                    android:text="Sign Up"
                    android:fontFamily="@font/asap_bolditalic"
                    android:textStyle="bold"
                    android:textSize="25dp"
                    android:gravity="center"
                    android:layout_height="wrap_content"/>
                <ImageView
                    android:layout_width="100dp"
                    android:layout_marginTop="10dp"
                    android:src="@drawable/ic_user"
                    android:layout_height="100dp"/>
                <LinearLayout
                    android:layout_width="match_parent"
                    android:orientation="vertical"
                    android:padding="20dp"
                    android:layout_height="wrap_content">
                    <com.google.android.material.textfield.TextInputLayout
                        android:layout_width="match_parent"
                        android:textColorHint="#FFFFFF"
                        app:hintTextColor="#FFFFFF"
                        android:layout_marginBottom="20dp"
                        android:layout_height="wrap_content">

<com.google.android.material.textfield.TextInputEditText
    android:layout_width="match_parent"
    android:hint="First Name"

```

```

        android:id="@+id/first"
        android:drawableTint="#ffffff"
        android:fontFamily="@font/asap_medium"
        android:textColor="#ffffff"
        android:textColorHint="#ffffff"
        android:layout_height="wrap_content"/>

</com.google.android.material.textfield.TextInputLayout>
    <com.google.android.material.textfield.TextInputLayout
        android:layout_width="match_parent"
        android:textColorHint="#FFFFFF"
        app:hintTextColor="#FFFFFF"
        android:layout_marginBottom="20dp"
        android:layout_height="wrap_content">

<com.google.android.material.textfield.TextInputEditText
        android:layout_width="match_parent"
        android:hint="Last Name"
        android:id="@+id/last"
        android:fontFamily="@font/asap_medium"
        android:textColor="#ffffff"
        android:textColorHint="#ffffff"
        android:layout_height="wrap_content"/>

</com.google.android.material.textfield.TextInputLayout>
    <com.google.android.material.textfield.TextInputLayout
        android:layout_width="match_parent"
        android:textColorHint="#FFFFFF"
        app:hintTextColor="#FFFFFF"
        android:layout_height="wrap_content">

<com.google.android.material.textfield.TextInputEditText
        android:layout_width="match_parent"
        android:hint="Email"
        android:id="@+id/email"
        android:fontFamily="@font/asap_medium"
        android:textColor="#ffffff"
        android:inputType="textEmailAddress"
        android:textColorHint="#ffffff"
        android:layout_height="wrap_content"/>

</com.google.android.material.textfield.TextInputLayout>
    <com.google.android.material.textfield.TextInputLayout
        android:layout_width="match_parent"
        android:textColorHint="#FFFFFF"
        app:hintTextColor="#FFFFFF"
        android:layout_marginTop="20dp"
        android:layout_height="wrap_content">

<com.google.android.material.textfield.TextInputEditText
        android:layout_width="match_parent"
        android:hint="Mobile No"
        android:id="@+id/phone"
        android:inputType="number"
        android:fontFamily="@font/asap_medium"
        android:textColor="#ffffff"
        android:textColorHint="#ffffff"
        android:layout_height="wrap_content"/>

</com.google.android.material.textfield.TextInputLayout>
    <com.google.android.material.textfield.TextInputLayout
        android:layout_width="match_parent"
        android:layout_marginTop="20dp"
        app:hintTextColor="#FFFFFF"

```

```

        android:textColorHint="#FFFFFF"
        android:layout_height="wrap_content">

<com.google.android.material.textfield.TextInputEditText
        android:layout_width="match_parent"
        android:hint="Password"
        android:id="@+id/password"
        android:inputType="textPassword"
        android:fontFamily="@font/asap_medium"
        android:textColor="#ffffff"
        android:textColorHint="#ffffff"
        android:layout_height="wrap_content"/>

</com.google.android.material.textfield.TextInputLayout>
<com.google.android.material.textfield.TextInputLayout
        android:layout_width="match_parent"
        android:layout_marginTop="20dp"
        app:hintTextColor="#FFFFFF"
        android:textColorHint="#FFFFFF"
        android:layout_height="wrap_content">

<com.google.android.material.textfield.TextInputEditText
        android:layout_width="match_parent"
        android:hint="Re-Password"
        android:id="@+id/repassword"
        android:inputType="textPassword"
        android:fontFamily="@font/asap_medium"
        android:textColor="#ffffff"
        android:textColorHint="#ffffff"
        android:layout_height="wrap_content"/>

</com.google.android.material.textfield.TextInputLayout>
<TextView
        android:layout_width="match_parent"
        android:text="Already Have Account?"
        android:layout_gravity="end"
        android:gravity="end"
        android:id="@+id/account"
        android:textSize="17dp"
        android:layout_marginTop="10dp"
        android:textColor="#FFFFFF"
        android:fontFamily="@font/asap_medium"
        android:layout_height="wrap_content"/>
</LinearLayout>
<Button
        android:layout_width="wrap_content"
        android:text="SignUp"
        android:layout_marginTop="20dp"
        android:textColor="#FFFFFF"
        android:textStyle="bold"
        android:textSize="18dp"
        android:layout_marginBottom="10dp"
        android:id="@+id/signup"
        android:fontFamily="@font/asap_bold"
        android:background="@drawable/profile_back_button"
        android:layout_height="wrap_content"/>
</LinearLayout>
<LinearLayout
        android:layout_width="match_parent"
        android:id="@+id/otplayout"
        android:visibility="gone"
        android:layout_gravity="center"
        android:gravity="center"
        android:padding="10dp"

```

```

        android:orientation="vertical"
        android:layout_height="wrap_content">
        <com.google.android.material.textfield.TextInputLayout
            android:layout_width="match_parent"
            android:layout_marginTop="20dp"
            app:hintTextColor="#FFFFFF"
            android:layout_marginBottom="20dp"
            android:textColorHint="#FFFFFF"
            android:layout_height="wrap_content">

        <com.google.android.material.textfield.TextInputEditText
            android:layout_width="match_parent"
            android:hint="OTP"
            android:id="@+id/otp"
            android:inputType="number"
            android:fontFamily="@font/asap_medium"
            android:textColor="#ffffff"
            android:textColorHint="#ffffff"
            android:layout_height="wrap_content"/>
        </com.google.android.material.textfield.TextInputLayout>
        <Button
            android:layout_width="wrap_content"
            android:background="@drawable/profile_back_button"
            android:text="Validate"
            android:layout_marginTop="20dp"
            android:layout_gravity="center"
            android:gravity="center"
            android:id="@+id/validateotp"
            android:textColor="#FFFFFF"
            android:textSize="18dp"
            android:fontFamily="@font/asap_bold"
            android:layout_height="wrap_content"/>
    </LinearLayout>
</LinearLayout>
</ScrollView>
</LinearLayout>

```

Java

Coding:

Login.java

```

package com.ceg.sharandeveloper.ceg;

import androidx.appcompat.app.ActionBar;
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;
import android.widget.TextView;
import android.widget.Toast;

public class login extends AppCompatActivity {
    EditText username,password;
    TextView forget,signup;
    Button login;

```



```

        signup.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent i=new Intent(login.this,signup.class);
                startActivity(i);
            }
        });
    }
    private void hide() {
        // Hide UI first
        ActionBar actionBar = getSupportActionBar();
        if (actionBar != null) {
            actionBar.hide();
        }
    }
}

```

Signup.java:

```

package com.ceg.sharandeveloper.ceg;
import androidx.appcompat.app.ActionBar;
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;
import android.widget.LinearLayout;
import android.widget.TextView;

import com.ceg.sharandeveloper.ceg.utils.validator;

import java.util.Random;

public class signup extends AppCompatActivity {
    EditText firstname,lastname,email,phone,password,repasword;
    Button signup;
    TextView account;
    LinearLayout mainlayout,otplayout;
    Random rand;
    EditText textotp;
    Button otpvalidate;
    private static int otp;
    public static String sfirstname,slastname,semail,sphone,spassword;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_signup);
        hide();
        firstname=(EditText)findViewById(R.id.first);
        lastname=(EditText)findViewById(R.id.last);
        email=(EditText)findViewById(R.id.email);
        phone=(EditText)findViewById(R.id.phone);
        password=(EditText)findViewById(R.id.password);
        repassword=(EditText)findViewById(R.id.repassword);
        signup=(Button)findViewById(R.id.signup);
        account=(TextView)findViewById(R.id.account);
        mainlayout=(LinearLayout)findViewById(R.id.mainlayout);
        otplayout=(LinearLayout)findViewById(R.id.otplayout);
        textotp=(EditText)findViewById(R.id.otp);
        otpvalidate=(Button)findViewById(R.id.validateotp);
    }
}

```

```

        rand = new Random();
        final validator=new validator();
        signup.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {

if(firstname.getText().toString().equals("")&&lastname.getText().toString()
.equals("")&&email.getText().toString().equals("")&&phone.getText().toStrin
g().equals("")&&password.getText().toString().equals("")&&repassword.getTex
t().toString().equals(""))
            {
                firstname.setError("Please Enter The Firstname");
                lastname.setError("Please Enter The Lastname");
                email.setError("Please Enter The Email");
                phone.setError("Please Enter The MobileNo");
                password.setError("Please Enter The Password");
                repassword.setError("Please Enter The Re-Password");
            }
            else if(firstname.getText().toString().equals(""))
            {
                firstname.setError("Please Enter The Firstname");

            }
            else if(lastname.getText().toString().equals(""))
            {

                lastname.setError("Please Enter The Lastname");
            }
            else if(email.getText().toString().equals("")||
!validator.isEmailValid(email.getText().toString()))
            {
                email.setError("Please Enter Valid Email");
            }
            else
if(phone.getText().toString().equals("")||validator.isValidMobile(phone.get
Text().toString()))
            {
                phone.setError("Please Enter Valid MobileNo");
            }
            else if(password.getText().toString().equals(""))
            {
                password.setError("Please Enter The Password");
            }
            else
if(!validator.isValidPassword(password.getText().toString()))
            {
                password.setError("Password must be at least 8
characters long and contain A-Z, a-z, numeric and special characters");
            }
            else if(repassword.getText().toString().equals(""))
            {
                repassword.setError("Please Enter The Re-Password");
            }
            else
if(!password.getText().toString().equals(repassword.getText().toString()))
            {
                repassword.setError("Please Enter The Correct
Password");
            }
            else
            {
                sphone=phone.getText().toString();
            }
            }
        }
    }

```

```

    }
    });
    account.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            Intent i=new Intent(signup.this,login.class);
            startActivity(i);
        }
    });
}

private void hide() {
    // Hide UI first
    ActionBar actionBar = getSupportActionBar();
    if (actionBar != null) {
        actionBar.hide();
    }
}
}

```

Screenshots:

