**[2CEIT5PE5: MOBILE APPLICATION DEVELOPMENT]**

Practical: 3



AIM: Create following UI by using **[ConstraintLayout](https://developer.android.com/training/constraint-layout" \t "_blank)**, **[LinearLayout](https://developer.android.com/guide/topics/ui/layout/linear" \t "_blank)**, in one android Application. Create two activities for each layout & use **[BottomNavigationBar](https://m3.material.io/components/navigation-bar/implementation/android" \t "_blank)**& Explicit Intent to move from one activity to another activity. Don't use LinearLayout in ConstraintLayout and vice versa.

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Enrollment number: 21012022022



**Department of Computer Engineering/Information Technology**

**Study: Resource, Theme, Color, Layout, Explicit Intent, BottomNavigationView, Gradle File structure, Material Design 3**

[**LinearLayout**](https://developer.android.com/guide/topics/ui/layout/linear), **[RelativeLayout](https://developer.android.com/guide/topics/ui/layout/relative" \t "_blank)**, **[ConstraintLayout](https://developer.android.com/training/constraint-layout" \t "_blank)**, [**Card View**](https://m3.material.io/components/cards/implementation/android)**,** Image View, **[BottomNavigationView](https://m3.material.io/components/navigation-bar/implementation/android" \t "_blank)**, Navigation Menu in res/menu folder, ScollView, **[MaterialToolBar](https://m3.material.io/components/top-app-bar/implementation/android" \t "_blank)**, Light Theme, Dark Theme, jpg & png image in drawable folder, Data binding, Color in theme, string in xml file, **[TextInputLayout](https://m3.material.io/components/text-fields/implementation" \t "_blank)**, **[TextInputEditText](https://m3.material.io/components/text-fields/implementation" \t "_blank)**

**activity\_login.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"  
 tools:context=".LoginActivity">  
  
 <com.google.android.material.appbar.AppBarLayout  
 android:id="@+id/appBarLayout"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:fitsSystemWindows="true">  
  
 <com.google.android.material.appbar.MaterialToolbar  
 android:id="@+id/toolbar"  
 android:layout\_width="match\_parent"  
 android:layout\_height="?attr/actionBarSize"  
 app:layout\_scrollFlags="scroll|enterAlways|snap" />  
   
 </com.google.android.material.appbar.AppBarLayout>  
  
 <androidx.core.widget.NestedScrollView  
 android:id="@+id/nestedScrollView"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:layout\_marginBottom="50dp"  
 app:layout\_behavior="@string/appbar\_scrolling\_view\_behavior">  
  
 <androidx.constraintlayout.widget.ConstraintLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 app:layout\_behavior="@string/appbar\_scrolling\_view\_behavior">  
 <ImageView  
 android:id="@+id/imageView"  
 android:layout\_width="match\_parent"  
 android:layout\_height="100dp"  
 android:src="@drawable/guni\_logo"  
 tools:ignore="MissingConstraints" />  
  
 <com.google.android.material.card.MaterialCardView  
 android:id="@+id/cv\_login"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center"  
 app:layout\_anchorGravity="center"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginEnd="20dp"  
 app:layout\_constraintTop\_toBottomOf="@+id/imageView"  
 tools:layout\_editor\_absoluteX="20dp">  
  
 <com.google.android.material.textfield.TextInputLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginTop="20dp"  
 android:layout\_marginEnd="20dp"  
 android:hint="Email"  
 app:endIconDrawable="@drawable/ic\_baseline\_email\_24"  
 app:endIconTint="@color/icon\_color"  
 app:endIconMode="custom">  
  
 <com.google.android.material.textfield.TextInputEditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:inputType="textEmailAddress" />  
  
 </com.google.android.material.textfield.TextInputLayout>  
  
 <com.google.android.material.textfield.TextInputLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginTop="90dp"  
 android:layout\_marginEnd="20dp"  
 android:hint="Password"  
 app:endIconTint="@color/icon\_color"  
 app:endIconDrawable="@drawable/ic\_baseline\_vpn\_key\_24"  
 app:endIconMode="custom">  
  
 <com.google.android.material.textfield.TextInputEditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:inputType="textPassword" />  
  
 </com.google.android.material.textfield.TextInputLayout>  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="right"  
 android:layout\_marginTop="170dp"  
 android:layout\_marginEnd="20dp"  
 android:layout\_marginBottom="40dp"  
 android:text="Forgot Password?" />  
  
 </com.google.android.material.card.MaterialCardView>  
  
 <Button  
 android:id="@+id/btn\_login"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="-25dp"  
 android:text="Login"  
 app:layout\_anchorGravity="center"  
 app:layout\_constraintEnd\_toEndOf="@+id/cv\_login"  
 app:layout\_constraintStart\_toStartOf="@+id/cv\_login"  
 app:layout\_constraintTop\_toBottomOf="@+id/cv\_login"  
 tools:ignore="MissingConstraints" />  
  
 <TextView  
 android:id="@+id/textView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Don't have account? "  
 android:layout\_marginEnd="30dp"  
 android:layout\_marginTop="20dp"  
 app:layout\_constraintEnd\_toEndOf="@+id/btn\_login"  
 app:layout\_constraintStart\_toStartOf="@+id/btn\_login"  
 app:layout\_constraintTop\_toBottomOf="@+id/btn\_login" />  
  
 <TextView  
 android:id="@+id/tv\_signup"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="SIGN UP"  
 android:textColor="#DB3D91"  
 android:textStyle="bold"  
 app:layout\_constraintBottom\_toBottomOf="@+id/textView"  
 app:layout\_constraintStart\_toEndOf="@+id/textView" />  
 </androidx.constraintlayout.widget.ConstraintLayout>  
 </androidx.core.widget.NestedScrollView>  
  
 <com.google.android.material.bottomnavigation.BottomNavigationView  
 android:id="@+id/bottomNavigationView"  
 android:layout\_width="match\_parent"  
 android:layout\_height="75dp"  
 app:layout\_anchor="@+id/nestedScrollView"  
 app:layout\_anchorGravity="bottom|center"  
 app:menu="@menu/navigation\_menu" />  
</androidx.coordinatorlayout.widget.CoordinatorLayout>**

**activity\_registration.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"  
 tools:context=".RegistrationActivity">  
  
 <com.google.android.material.appbar.AppBarLayout  
 android:id="@+id/appBarLayout2"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:fitsSystemWindows="true">  
  
 <com.google.android.material.appbar.MaterialToolbar  
 android:id="@+id/toolbar"  
 android:layout\_width="match\_parent"  
 android:layout\_height="?attr/actionBarSize"  
 app:layout\_scrollFlags="scroll|enterAlways|snap" />  
  
 </com.google.android.material.appbar.AppBarLayout>  
  
 <androidx.core.widget.NestedScrollView  
 android:id="@+id/nestedScrollView2"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:layout\_marginBottom="50dp"  
 app:layout\_behavior="@string/appbar\_scrolling\_view\_behavior">  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"  
 app:layout\_behavior="@string/appbar\_scrolling\_view\_behavior">  
  
 <ImageView  
 android:layout\_width="match\_parent"  
 android:layout\_height="100dp"  
 android:src="@drawable/guni\_logo" />  
  
 <com.google.android.material.card.MaterialCardView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginEnd="20dp"  
 android:layout\_marginBottom="20dp"  
 android:elevation="10dp"  
 app:cardCornerRadius="15dp">  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical">  
  
 <com.google.android.material.textfield.TextInputLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginTop="20dp"  
 android:layout\_marginEnd="20dp"  
 android:hint="Use Full Name"  
 app:endIconDrawable="@drawable/ic\_baseline\_person\_24"  
 app:endIconMode="custom"  
 app:endIconTint="@color/icon\_color">  
  
 <com.google.android.material.textfield.TextInputEditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content" />  
  
 </com.google.android.material.textfield.TextInputLayout>  
  
 <com.google.android.material.textfield.TextInputLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginTop="5dp"  
 android:layout\_marginEnd="20dp"  
 android:hint="Phone Number"  
 app:endIconDrawable="@drawable/ic\_baseline\_phone\_android\_24"  
 app:endIconMode="custom"  
 app:endIconTint="@color/icon\_color">  
  
 <com.google.android.material.textfield.TextInputEditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content" />  
  
 </com.google.android.material.textfield.TextInputLayout>  
  
 <com.google.android.material.textfield.TextInputLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginTop="5dp"  
 android:layout\_marginEnd="20dp"  
 android:hint="City"  
 app:endIconDrawable="@drawable/ic\_baseline\_location\_city\_24"  
 app:endIconMode="custom"  
 app:endIconTint="@color/icon\_color">  
  
 <com.google.android.material.textfield.TextInputEditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content" />  
  
 </com.google.android.material.textfield.TextInputLayout>  
  
 <com.google.android.material.textfield.TextInputLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginTop="5dp"  
 android:layout\_marginEnd="20dp"  
 android:hint="Email"  
 app:endIconDrawable="@drawable/ic\_baseline\_email\_24"  
 app:endIconMode="custom"  
 app:endIconTint="@color/icon\_color">  
  
 <com.google.android.material.textfield.TextInputEditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:inputType="textEmailAddress" />  
  
 </com.google.android.material.textfield.TextInputLayout>  
  
 <com.google.android.material.textfield.TextInputLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginTop="5dp"  
 android:layout\_marginEnd="20dp"  
 android:hint="Password"  
 app:endIconDrawable="@drawable/ic\_baseline\_vpn\_key\_24"  
 app:endIconMode="custom"  
 app:endIconTint="@color/icon\_color">  
  
 <com.google.android.material.textfield.TextInputEditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:inputType="textPassword" />  
  
 </com.google.android.material.textfield.TextInputLayout>  
  
 <com.google.android.material.textfield.TextInputLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginTop="5dp"  
 android:layout\_marginEnd="20dp"  
 android:layout\_marginBottom="50dp"  
 android:hint="Confirm Password"  
 app:endIconDrawable="@drawable/ic\_baseline\_vpn\_key\_24"  
 app:endIconMode="custom"  
 app:endIconTint="@color/icon\_color">  
  
 <com.google.android.material.textfield.TextInputEditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:inputType="textPassword" />  
  
 </com.google.android.material.textfield.TextInputLayout>  
  
 </LinearLayout>  
  
 </com.google.android.material.card.MaterialCardView>  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center\_horizontal|bottom"  
 android:layout\_marginTop="-45dp"  
 android:text="Register"  
 android:elevation="50dp" />  
 <LinearLayout  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center\_horizontal"  
 android:layout\_marginTop="20dp"  
 android:orientation="horizontal">  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Do you have account?"  
 android:layout\_marginBottom="40dp"  
 android:layout\_gravity="center\_horizontal"/>  
  
 <TextView  
 android:id="@+id/tv\_login"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="LOGIN"  
 android:textColor="#DB3D91"  
 android:textStyle="bold"  
 android:layout\_marginStart="10dp"/>  
  
 </LinearLayout>  
  
 </LinearLayout>  
  
 </androidx.core.widget.NestedScrollView>  
  
 <com.google.android.material.bottomnavigation.BottomNavigationView  
 android:id="@+id/bottomNavigationView"  
 android:layout\_width="match\_parent"  
 android:layout\_height="75dp"  
 android:layout\_gravity="bottom"  
 app:menu="@menu/navigation\_menu" />  
  
</androidx.coordinatorlayout.widget.CoordinatorLayout>**

**LoginActivity.kt**

**package com.example.madpractical3\_21012022022  
  
import android.content.Intent  
import androidx.appcompat.app.AppCompatActivity  
import android.os.Bundle  
import com.example.madpractical3\_21012022022.databinding.ActivityLoginBinding  
  
class LoginActivity : AppCompatActivity() {  
 private lateinit var binding: ActivityLoginBinding  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 binding = ActivityLoginBinding.inflate(*layoutInflater*)  
 setContentView(binding.*root*)  
  
 setSupportActionBar(binding.toolbar)  
 binding.bottomNavigationView.*selectedItemId* = R.id.*bottom\_nav\_login* binding.bottomNavigationView.setOnItemSelectedListener{it1->  
 when(it1.*itemId*)  
 {  
 R.id.*bottom\_nav\_reg*->  
 {  
 Intent(this,RegistrationActivity::class.*java*).*also* {startActivity(it)}  
 }  
 }  
 return@setOnItemSelectedListener true  
 }  
 binding.tvSignup.setOnClickListener{  
 Intent(this,RegistrationActivity::class.*java*).*apply* {  
 startActivity(this)  
 }  
  
 }  
 }  
}**

**RegistrationActivity.kt**

**package com.example.madpractical3\_21012022022  
  
import android.content.Intent  
import androidx.appcompat.app.AppCompatActivity  
import android.os.Bundle  
import com.example.madpractical3\_21012022022.databinding.ActivityRegistrationBinding  
  
class RegistrationActivity : AppCompatActivity() {  
 private lateinit var binding: ActivityRegistrationBinding  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 binding = ActivityRegistrationBinding.inflate(*layoutInflater*)  
 setContentView(binding.*root*)  
  
 setSupportActionBar(binding.toolbar)  
 binding.bottomNavigationView.*selectedItemId* = R.id.*bottom\_nav\_reg* binding.bottomNavigationView.setOnItemSelectedListener{it1->  
 when(it1.*itemId*)  
 {  
 R.id.*bottom\_nav\_login*->  
 {  
 Intent(this,LoginActivity::class.*java*).*also* {startActivity(it)}  
 }  
 }  
 return@setOnItemSelectedListener true  
 }  
  
 binding.tvLogin.setOnClickListener{  
 Intent(this,LoginActivity::class.*java*).*apply* {startActivity(this)}  
 }  
 }  
}**

**Output:**

  

  