[2CEIT5PE5: MOBILE APPLICATION DEVELOPMENT]

Practical: 3

AIM: Create following UI by using **ConstraintLayout**, **LinearLayout**, in one android Application. Create two activities for each layout & use **BottomNavigationBar** & Explicit Intent to move from one activity to another activity. Don't use LinearLayout in ConstraintLayout and vice versa.

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

LinearLayout, **RelativeLayout**, **ConstraintLayout**, **Card View,** Image View, **BottomNavigationView**, Navigation Menu in res/menu folder, ScollView, **MaterialToolBar**, Light Theme, Dark Theme, jpg & png image in drawable folder, Data binding, Color in theme, string in xml file, **TextInputLayout**, **TextInputEditText**

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activity_login.xml

```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
```

```xml
        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>
```

```xml
    <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
<?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>
```

```xml
        <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

```kotlin
package com.example.madpractical3_20012011035

import android.content.Intent
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import com.example.madpractical3_20012011035.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

```kotlin
package com.example.madpractical3_20012011035

import android.content.Intent
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import com.example.madpractical3_20012011035 .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: