**Practical 5**

Programming UI elements

AppBar, Fragments, UI Components

**activityMain.xml**

*<?*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"  
 android:background="@color/black"  
 tools:context=".MainActivity">  
  
 <ImageView  
 android:id="@+id/imageView"  
 android:layout\_width="50dp"  
 android:layout\_height="50dp"  
 android:layout\_marginStart="60dp"  
 android:layout\_marginTop="50dp"  
 android:src="@drawable/insta"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"/>  
 <TextView  
 android:id="@+id/textView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginTop="50dp"  
 android:layout\_marginEnd="70dp"  
 android:fontFamily="sans-serif-medium"  
 android:text="Instagram"  
 android:textColor="@color/white"  
 android:textSize="40dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toEndOf="@id/imageView"  
 app:layout\_constraintTop\_toTopOf="parent" />  
 <androidx.cardview.widget.CardView  
 android:id="@+id/cardView"  
 android:layout\_width="match\_parent"  
 android:layout\_height="450dp"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginTop="70dp"  
 android:layout\_marginEnd="20dp"  
 app:cardCornerRadius="30dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/textView">  
 <LinearLayout  
 android:id="@+id/user"  
 android:layout\_width="match\_parent"  
 android:layout\_height="450dp"  
 android:background="@drawable/gradient"  
 android:orientation="vertical"  
 tools:ignore="MissingConstraints">  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="20dp"  
 android:gravity="center"  
 android:text="Login"  
 android:textColor="@color/purple\_500"  
 android:textSize="30dp"/>  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="20dp"  
 android:orientation="horizontal">  
 <ImageView  
 android:layout\_width="60dp"  
 android:layout\_height="60dp"  
 android:layout\_marginLeft="20dp"  
 android:layout\_marginTop="10dp"  
 android:src="@drawable/user"/>  
  
 <EditText  
 android:id="@+id/username"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginLeft="20dp"  
 android:layout\_marginTop="20dp"  
 android:layout\_marginRight="20dp"  
 android:minHeight="48dp"  
 tools:ignore="SpeakableTextPresentCheck" />  
 </LinearLayout>  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="20dp"  
 android:orientation="horizontal">  
  
 <ImageView  
 android:layout\_width="60dp"  
 android:layout\_height="50dp"  
 android:layout\_marginLeft="20dp"  
 android:layout\_marginTop="10dp"  
 android:src="@drawable/passkey"/>  
  
 <EditText  
 android:id="@+id/password"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginLeft="20dp"  
 android:layout\_marginTop="20dp"  
 android:layout\_marginRight="20dp"  
 android:minHeight="48dp"  
 tools:ignore="SpeakableTextPresentCheck" />  
 </LinearLayout>  
 <Button  
 android:id="@+id/loginbtn"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginLeft="50dp"  
 android:layout\_marginTop="40dp"  
 android:layout\_marginRight="50dp"  
 android:background="@drawable/gradient2"  
 android:text="Login"  
 android:textSize="25dp"/>  
 <TextView  
 android:id="@+id/signup"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginLeft="20dp"  
 android:layout\_marginTop="30dp"  
 android:layout\_marginRight="20dp"  
 android:gravity="center"  
 android:text="Not an account ? Sign up"  
 android:textColor="@color/purple\_200"  
 android:textSize="20dp"/>  
  
 </LinearLayout>  
 </androidx.cardview.widget.CardView>  
  
</androidx.constraintlayout.widget.ConstraintLayout>

**MainActivity.kt**

package com.example.pract5  
import android.content.Intent  
import android.widget.Button  
import android.widget.EditText  
import android.widget.ImageView  
import android.widget.LinearLayout  
import android.widget.TextView  
import android.widget.Toast  
import androidx.appcompat.app.AppCompatActivity  
import androidx.cardview.widget.CardView  
import android.os.Bundle as Bundle  
  
class MainActivity : AppCompatActivity() {  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 setContentView(R.layout.*activity\_main*)  
  
 val logo = findViewById<ImageView>(R.id.*imageView*)  
 val logotext = findViewById<TextView>(R.id.*textView*)  
 val card = findViewById<CardView>(R.id.*cardView*)  
 val user = findViewById<LinearLayout>(R.id.*user*)  
 val username = findViewById<EditText>(R.id.*username*)  
 val password = findViewById<EditText>(R.id.*password*)  
 val loginbtn = findViewById<Button>(R.id.*loginbtn*)  
 val signup = findViewById<TextView>(R.id.*signup*)  
  
 loginbtn.setOnClickListener **{** if (username.*text*.toString()=="admin"&& password.*text*.toString()=="123456")  
 {  
 val Intent=Intent(this,MainActivity2::class.*java*)  
 startActivity(*intent*)  
 }  
 else{Toast.makeText(this@MainActivity,"Invalid Credentials",Toast.*LENGTH\_SHORT*).show()}  
 **}** signup.setOnClickListener **{** Toast.makeText(this@MainActivity,"Sign Up",Toast.*LENGTH\_SHORT*).show() **}** }  
}

**MainACtivity2.xml**

*<?*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=".MainActivity2">  
 <androidx.appcompat.widget.Toolbar  
 android:id="@+id/mtool"  
 android:layout\_width="0dp"  
 android:layout\_height="wrap\_content"  
 android:background="@color/purple\_500"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="@+id/textView2"  
 app:navigationIcon="@drawable/baseline\_menu\_24"  
 app:title="Menu"  
 app:titleMarginStart="10dp"/>  
  
 <TextView  
 android:id="@+id/textView2"  
 android:layout\_width="0dp"  
 android:layout\_height="0dp"  
 android:gravity="center"  
 android:text="Successful"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 tools:ignore="TextSizeCheck" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

**MainActivity2.kt**

package com.example.pract5  
  
import androidx.appcompat.app.AppCompatActivity  
import android.os.Bundle  
import android.view.Menu  
import android.view.MenuItem  
import android.widget.Toast  
import androidx.appcompat.widget.Toolbar  
  
class MainActivity2 : AppCompatActivity() {  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 setContentView(R.layout.*activity\_main2*)  
 setSupportActionBar(findViewById(R.id.*mtool*))  
 }  
  
 override fun onCreateOptionsMenu(menu: Menu?): Boolean {  
 *menuInflater*.inflate(R.menu.*mainmenu*,menu)  
 return super.onCreateOptionsMenu(menu)  
 }  
  
 override fun onOptionsItemSelected(item: MenuItem): Boolean {  
 return when(item.*itemId*){  
 R.id.*qwerty*->{  
 Toast.makeText(this@MainActivity2,"You clicked on add image",Toast.*LENGTH\_SHORT*).show()  
 return true  
 }  
 R.id.*asdf*->{  
 Toast.makeText(this@MainActivity2,"You clicjed on notification",Toast.*LENGTH\_SHORT*).show()  
 return true  
 }  
 else->super.onOptionsItemSelected(item)  
 }  
 }  
}

**mainmenu.xml**

*<?*xml version="1.0" encoding="utf-8"*?>*<menu xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto">  
  
 <item  
 android:id="@+id/qwerty"  
 android:icon="@drawable/baseline\_add\_photo\_alternate\_24"  
 app:showAsAction="always"  
 android:title="TODO" />  
 <item  
 android:id="@+id/asdf"  
 android:title="Notification"  
 app:showAsAction="never"  
 />  
</menu>

**Gradient.xml**

*<?*xml version="1.0" encoding="utf-8"*?>*<shape xmlns:android="http://schemas.android.com/apk/res/android">  
  
 <gradient  
 android:startColor="@color/teal\_200"  
 android:centerColor="@color/white"  
 android:endColor="@color/teal\_200"  
 />  
</shape>

**Gradient2.xml**

*<?*xml version="1.0" encoding="utf-8"*?>*<shape xmlns:android="http://schemas.android.com/apk/res/android">  
  
 <gradient  
 android:startColor="@color/purple\_500"  
 android:centerColor="@color/white"  
 android:endColor="@color/purple\_200"/>  
 <corners android:radius="20dp"/>  
</shape>

**AndroidManifest.xml**

*<?*xml version="1.0" encoding="utf-8"*?>*<manifest xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools">  
  
 <application  
 android:allowBackup="true"  
 android:dataExtractionRules="@xml/data\_extraction\_rules"  
 android:fullBackupContent="@xml/backup\_rules"  
 android:icon="@mipmap/ic\_launcher"  
 android:label="@string/app\_name"  
 android:roundIcon="@mipmap/ic\_launcher\_round"  
 android:supportsRtl="true"  
 android:theme="@style/Theme.AppCompat.DayNight.NoActionBar"  
 tools:targetApi="31">  
 <activity  
 android:name=".MainActivity2"  
 android:exported="false">  
 <meta-data  
 android:name="android.app.lib\_name"  
 android:value="" />  
 </activity>  
 <activity  
 android:name=".MainActivity"  
 android:exported="true">  
 <intent-filter>  
 <action android:name="android.intent.action.MAIN" />  
  
 <category android:name="android.intent.category.LAUNCHER" />  
 </intent-filter>  
  
 <meta-data  
 android:name="android.app.lib\_name"  
 android:value="" />  
 </activity>  
 </application>  
  
</manifest>

