**PRACTICAL NO.5**

**Programming UI elements**

**AppBar, Fragments, UI Components**

**Code:**

**activity\_main.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=".MainActivity">  
  
 <Button  
 android:id="@+id/button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Change Fragment"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.307" />  
  
 <androidx.fragment.app.FragmentContainerView  
 android:id="@+id/fragmentContainerView"  
 android:name="com.example.appbar.FragOne"  
 android:layout\_width="300dp"  
 android:layout\_height="400dp"  
 android:layout\_marginStart="32dp"  
 android:layout\_marginTop="32dp"  
 android:layout\_marginEnd="32dp"  
 android:layout\_marginBottom="32dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.51"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.91" />  
  
 <EditText  
 android:id="@+id/name"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:ems="10"  
 android:inputType="textPersonName"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.761"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.134" />  
  
 <TextView  
 android:id="@+id/textView"  
 android:layout\_width="95dp"  
 android:layout\_height="42dp"  
 android:text="Name :"  
 android:textSize="20sp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.117"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.148" />  
  
 <Button  
 android:id="@+id/submit"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Submit"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.221" />  
  
 <ImageButton  
 android:id="@+id/imageButton2"  
 android:layout\_width="68dp"  
 android:layout\_height="58dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.498"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.023"  
 app:srcCompat="@drawable/ic\_baseline\_info\_24" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

**MainActivity.kt:**

package com.example.appbar  
class MainActivity : AppCompatActivity() {  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 setContentView(R.layout.activity\_main)  
  
 submit.setOnClickListener {  
 var n=name.text.toString()  
 Toast.makeText(this,n,Toast.LENGTH\_SHORT).show()  
 }  
 var flag=0  
 var fm=supportFragmentManager  
 button.setOnClickListener {  
 if(flag==0){  
 fm.beginTransaction().replace(R.id.fragmentContainerView,FragTwo()).commit()  
 flag=1  
 }  
 else{  
 fm.beginTransaction().replace(R.id.fragmentContainerView,FragOne()).commit()  
 flag=0  
 }  
 }  
 }  
  
 override fun onCreateOptionsMenu(menu: Menu?): Boolean {  
 menuInflater.inflate(R.menu.app\_menu,menu)  
 return true  
 }  
}

**fragment\_frag\_one.xml:**

<?xml version="1.0" encoding="utf-8"?>  
<FrameLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:background="#CDDC39"  
 tools:context=".FragOne">  
  
 <!-- TODO: Update blank fragment layout -->  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:text="This is First Fragment"  
 android:textSize="24sp" />  
</FrameLayout>

**FragOne.kt:**

package com.example.appbar  
class FragOne : Fragment() {  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 }  
  
 override fun onCreateView(  
 inflater: LayoutInflater, container: ViewGroup?,  
 savedInstanceState: Bundle?  
 ): View? {  
 // Inflate the layout for this fragment  
 var root= inflater.inflate(R.layout.fragment\_frag\_one, container, false)  
 Toast.makeText(context,"This is First Fragment",Toast.LENGTH\_SHORT).show()  
 return root  
 }  
}

**fragment\_frag\_two.xml:**

<?xml version="1.0" encoding="utf-8"?>  
<FrameLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:background="#4CAF50"  
 tools:context=".FragTwo">  
  
 <!-- TODO: Update blank fragment layout -->  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:background="#00BCD4"  
 android:text="This is Second Fragment"  
 android:textSize="24sp" />  
</FrameLayout>

**FragTwo.kt:**

package com.example.appbar  
class FragTwo : Fragment() {  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 }  
 override fun onCreateView(  
 inflater: LayoutInflater, container: ViewGroup?,  
 savedInstanceState: Bundle?  
 ): View? {  
 // Inflate the layout for this fragment  
 var root= inflater.inflate(R.layout.fragment\_frag\_two, container, false)  
 return root  
 }  
}

**app\_menu.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/person"  
 android:title="Profile"  
 android:icon="@drawable/ic\_baseline\_person\_24"  
 app:showAsAction="always"/>  
 <item android:id="@+id/file"  
 android:title="Files"  
 android:icon="@drawable/ic\_baseline\_file\_copy\_24"  
 app:showAsAction="always"/>  
 <item android:id="@+id/msg"  
 android:title="Message"  
 android:icon="@drawable/ic\_baseline\_message\_24"  
 app:showAsAction="always"/>  
</menu>

**Output:**

 

