CSE224: Fundamentals of Android

CA-2

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Github Link: https://github.com/AamirSohail999/Android-Designing

Problem-1 Solution

Kotlin code:

```kotlin
package com.example.androaamirsohail

import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle

class Project_01 : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_project01)

    }
}
```

colors.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <color name="purple_200">#FFBB86FC</color>
    <color name="purple_500">#FF6200EE</color>
    <color name="purple_700">#FF3700B3</color>
    <color name="teal_200">#FF03DAC5</color>
    <color name="teal_700">#FF018786</color>
    <color name="black">#FF000000</color>
    <color name="white">#FFFFFFFF</color>
    <color name="blue">#008CFF</color>
    <color name="lightpink">#FFB6C1</color>
    <color name="red">#FF0000</color>
</resources>
```

strings.xml

```xml
<resources>
    <string name="app_name">AndroAamirSohail</string>
```

```xml
    <string name="Click_Me_string">click me</string>
</resources>
```

drawables:

ic_account.xml

```xml
<vector android:height="24dp" android:tint="#FA5C5C"
    android:viewportHeight="24" android:viewportWidth="24"
    android:width="24dp"
xmlns:android="http://schemas.android.com/apk/res/android">
    <path android:fillColor="@android:color/white"
android:pathData="M12,2C6.48,2 2,6.48 2,12s4.48,10 10,10 10,-4.48 10,-
10S17.52,2 12,2zM12,5c1.66,0 3,1.34 3,3s-1.34,3 -3,3 -1.34 -3,-3 1.34,-3
3,-3zM12,19.2c-2.5,0 -4.71,-1.28 -6,-3.22 0.03,-1.99 4,-3.08 6,-3.08 1.99,0
5.97,1.09 6,3.08 -1.29,1.94 -3.5,3.22 -6,3.22z"/>
</vector>
```

custom_button.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<shape android:shape="rectangle"
xmlns:android="http://schemas.android.com/apk/res/android">
    <corners android:radius="50dp"></corners>
    <solid android:color="@color/purple_500"></solid>
</shape>
```

Custom_button1.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<shape android:shape="rectangle"
xmlns:android="http://schemas.android.com/apk/res/android">
    <corners android:radius="50dp"></corners>
    <solid android:color="@color/white"></solid>
</shape>
```

Textview_border.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android">

    <stroke
        android:width="1dp"
        android:color="#696969"></stroke>

</shape>
```

Icons:

Layout xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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="#E75480"
    tools:context=".Project_01">

    <TextView
        android:id="@+id/tv_border"
        android:layout_width="350dp"
        android:layout_height="750dp"
        android:layout_centerHorizontal="true"
        android:layout_centerVertical="true"
        android:background="@drawable/textview_border"
        android:gravity="center" />


    <androidx.cardview.widget.CardView
        android:id="@+id/imgV"
        android:layout_width="180dp"
        android:layout_height="180dp"
        android:foregroundGravity="center"
        app:cardCornerRadius="160dp"
        app:cardElevation="20dp"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="20dp"
        >

        <ImageView
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:src="@drawable/ic_account"
            android:layout_centerHorizontal="true" />
    </androidx.cardview.widget.CardView>

    <ImageView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        />
```

```xml
<androidx.appcompat.widget.AppCompatButton
    android:id="@+id/Sign_up"
    android:layout_width="200dp"
    android:layout_height="wrap_content"
    android:text="Sign up"
    android:textAllCaps="false"
    android:textColor="@color/black"
    android:background="@drawable/custom_button1"
    android:layout_below="@+id/imgV"
    android:layout_marginTop="20dp"
    android:layout_marginLeft="150dp"
    >
</androidx.appcompat.widget.AppCompatButton>

<androidx.appcompat.widget.AppCompatButton
    android:id="@+id/log_in"
    android:layout_width="150dp"
    android:layout_height="wrap_content"
    android:text="Log in"
    android:textAllCaps="false"
    android:textColor="@color/white"
    android:background="@drawable/custom_button"
    android:layout_below="@+id/imgV"
    android:layout_marginTop="20dp"
    android:layout_marginLeft="40dp"
    >
</androidx.appcompat.widget.AppCompatButton>

<ImageView
    android:id="@+id/fb"
    android:layout_width="50dp"
    android:layout_height="50dp"
    android:src="@drawable/google1"
    android:layout_below="@+id/log_in"
    android:layout_marginStart="80dp"
    android:layout_marginTop="20dp" />

<ImageView
    android:id="@+id/google"
    android:layout_width="50dp"
    android:layout_height="50dp"
    android:src="@drawable/fb2"
    android:layout_below="@+id/log_in"
    android:layout_marginTop="20dp"
    android:layout_marginLeft="170dp" />

<ImageView
    android:id="@+id/twitter"
    android:layout_width="50dp"
    android:layout_height="50dp"
    android:src="@drawable/twitter3"
    android:layout_below="@+id/log_in"
    android:layout_marginLeft="260dp"
    android:layout_marginTop="20dp" />

<TextView
    android:id="@+id/or"
```

```xml
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="or"
        android:layout_below="@+id/fb"
        android:layout_marginTop="20dp"
        android:layout_centerHorizontal="true"
        android:textSize="20sp"
        android:textColor="@color/black"
        android:textStyle="bold" />


    <TextView
        android:id="@+id/tv_user"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Username/Email Address"
        android:layout_below="@+id/or"
        android:layout_marginTop="20dp"
        android:layout_centerHorizontal="true"
        android:textSize="15sp"
        android:textColor="@color/purple_700"
        android:textStyle="bold" />


    <EditText
        android:id="@+id/et_user"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_centerVertical="true"
        android:layout_marginLeft="40dp"
        android:layout_marginRight="40dp"
        android:layout_below="@+id/tv_user"
        android:textColor="@color/white"
        android:textAlignment="center" />

    <TextView
        android:id="@+id/tv_pass"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Password"
        android:layout_marginTop="10dp"
        android:layout_below="@+id/et_user"
        android:layout_centerHorizontal="true"
        android:textSize="15sp"
        android:textColor="@color/purple_700"
        android:textStyle="bold" />


    <EditText
        android:id="@+id/et_pass"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_centerVertical="true"
        android:layout_marginLeft="40dp"
        android:layout_marginRight="40dp"
        android:layout_below="@+id/tv_pass"
        android:inputType="textPassword"
```

```xml
            android:textColor="@color/white"
            android:textAlignment="center" />


    <CheckBox
        android:id="@+id/chkBox"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/et_pass"
        android:text="Remember me"
        android:textSize="15sp"
        android:textColor="@color/purple_700"
        android:layout_marginLeft="40dp">

    </CheckBox>

    <androidx.appcompat.widget.AppCompatButton
        android:id="@+id/sbmt"
        android:layout_width="300dp"
        android:layout_height="wrap_content"
        android:text="                              Done                              >"
        android:textColor="@color/white"
        android:background="@drawable/custom_button"
        android:layout_below="@+id/chkBox"
        android:layout_marginTop="20dp"
        android:layout_centerHorizontal="true"
        >
    </androidx.appcompat.widget.AppCompatButton>

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Forget Password?"
        android:textSize="15sp"
        android:layout_centerHorizontal="true"
        android:layout_below="@+id/sbmt"
        android:layout_marginTop="10dp" />

</RelativeLayout>
```
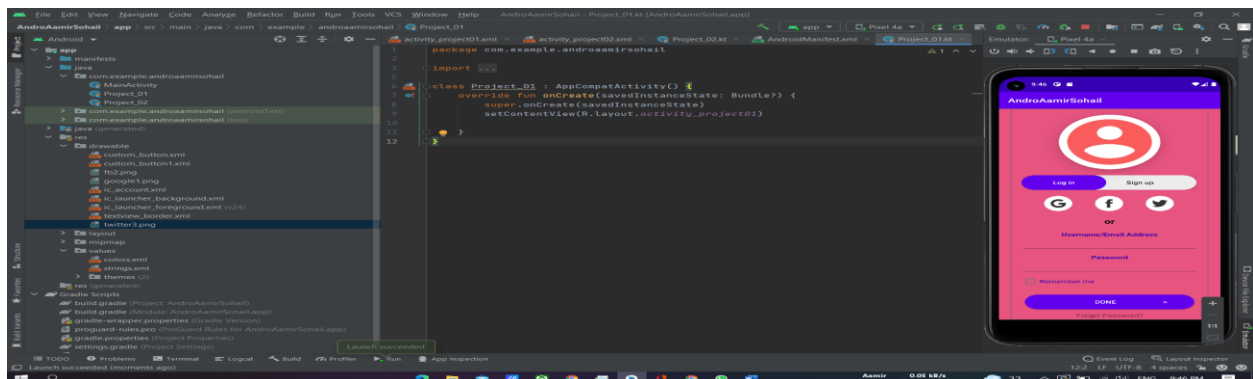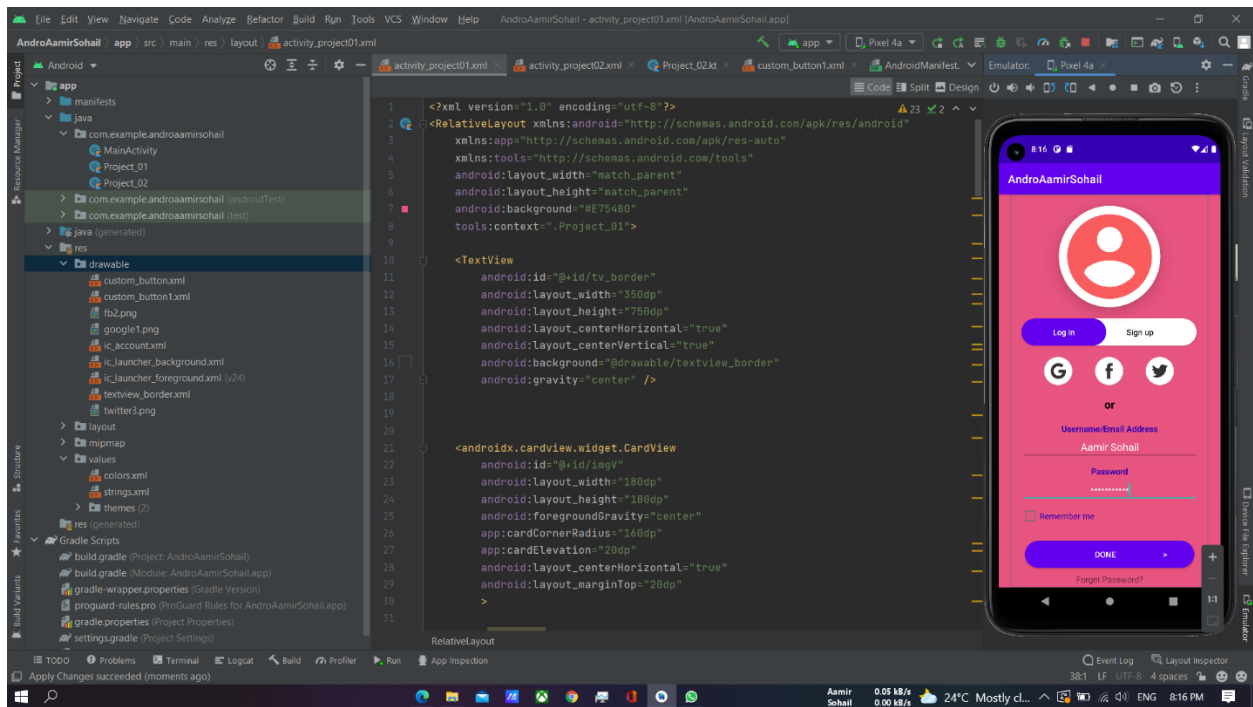
Screenshot:

Problem-2 Solution

Kotlin code:

```kotlin
package com.example.androaamirsohail

import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.widget.*

class Project_02 : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_project02)


        var editTEXT = findViewById<EditText>(R.id.EdText)
        var Btn1 = findViewById<Button>(R.id.BTN)
        var Rad = findViewById<RadioButton>(R.id.radBtn)
        var CHKbox = findViewById<CheckBox>(R.id.CHKBOX)

        Rad.setOnClickListener{
            Toast.makeText(this, "Radio Button Triggered",
Toast.LENGTH_LONG).show()

        }
```

```kotlin
        CHKbox.setOnClickListener{
            Toast.makeText(this, "CheckBox Triggered",
Toast.LENGTH_LONG).show()

        }


    }
}
```

Layout xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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="#feb209"
    tools:context=".Project_02">

    <EditText
        android:id="@+id/EdText"
        android:layout_width="200dp"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="100dp">
    </EditText>

    <Button
        android:id="@+id/BTN"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="20dp"
        android:text="@string/Click_Me_string"
        android:textColor="@color/red"
        android:layout_centerHorizontal="true"
        android:layout_below="@+id/EdText"
        >
    </Button>

    <RadioButton
        android:id="@+id/radBtn"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="20dp"
        android:text="Radio Button"
        android:textColor="@color/red"
        android:layout_below="@+id/BTN"
        android:layout_centerHorizontal="true">

    </RadioButton>

    <CheckBox
```

```
        android:id="@+id/CHKBOX"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="20dp"
        android:text="CheckBox"
        android:textColor="@color/red"
        android:layout_below="@+id/radBtn"
        android:layout_centerHorizontal="true">

    </CheckBox>



</RelativeLayout>
```
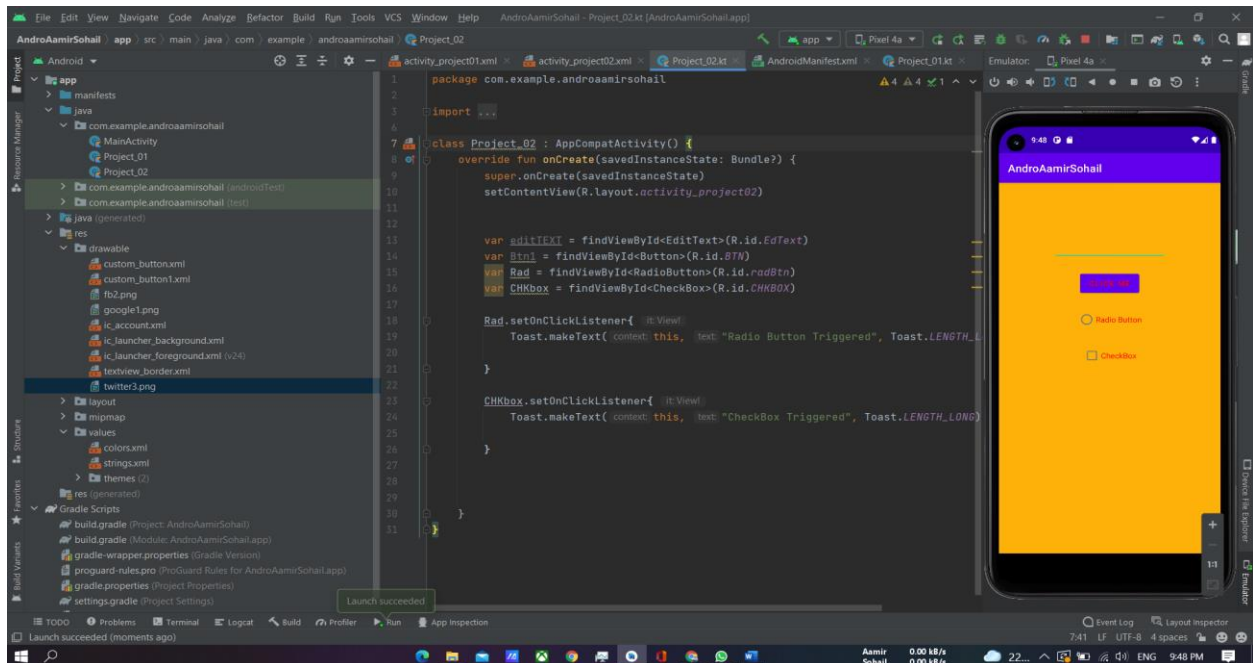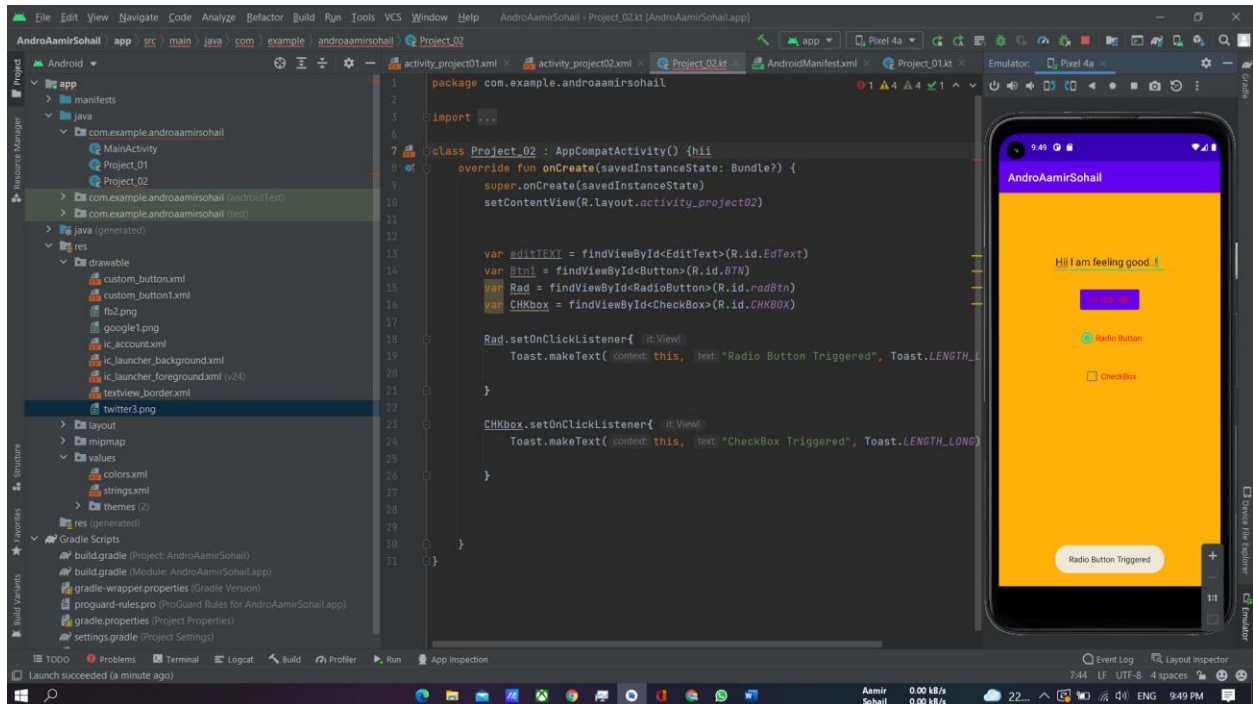
Screenshot:

Initial layout:

Radio Button Toast:

Checkbox Toast: