**Rating bar**

**XML code**

<?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">  
  
 <RatingBar  
 android:id="@+id/r1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentStart="true"  
 android:layout\_alignParentEnd="true"  
 android:numStars="7"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.432"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.072" />  
  
 <RatingBar  
 android:id="@+id/r2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentStart="true"  
 android:layout\_alignParentEnd="true"  
 android:numStars="5"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.432"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.191" />  
  
 <RatingBar  
 android:id="@+id/r3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentStart="true"  
 android:layout\_alignParentEnd="true"  
 android:numStars="5"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.432"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/r2"  
 app:layout\_constraintVertical\_bias="0.045" />  
  
 <RatingBar  
 android:id="@+id/r4"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentStart="true"  
 android:layout\_alignParentEnd="true"  
 android:layout\_marginTop="20dp"  
 android:numStars="5"  
 app:layout\_constraintBottom\_toTopOf="@+id/button"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.432"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/r3"  
 app:layout\_constraintVertical\_bias="0.452"  
 tools:ignore="UnknownIdInLayout" />  
  
 <Button  
 android:id="@+id/button1"  
 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\_constraintHorizontal\_bias="0.231"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/r1"  
 app:layout\_constraintVertical\_bias="0.574"  
 tools:ignore="HardcodedText" />  
  
 <RatingBar  
 android:id="@+id/r5"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentStart="true"  
 android:layout\_alignParentEnd="true"  
 android:numStars="5"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.432"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/button2"  
 app:layout\_constraintVertical\_bias="0.185" />  
  
 <Button  
 android:id="@+id/button2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginEnd="112dp"  
 android:text="Cancel"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="1.0"  
 app:layout\_constraintStart\_toEndOf="@+id/button1"  
 app:layout\_constraintTop\_toBottomOf="@+id/r4"  
 app:layout\_constraintVertical\_bias="0.278"  
 tools:ignore="HardcodedText,UnknownId" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

**Kotlin Code**

package com.example.rating  
  
import android.os.Bundle  
import android.widget.Button  
import android.widget.RatingBar  
import android.widget.Toast  
import androidx.appcompat.app.AppCompatActivity  
  
class MainActivity : AppCompatActivity() {  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 setContentView(R.layout.activity\_main)  
  
 val r1 = findViewById<RatingBar>(R.id.r1)  
 val r2 = findViewById<RatingBar>(R.id.r2)  
 val r3 = findViewById<RatingBar>(R.id.r3)  
 val r4 = findViewById<RatingBar>(R.id.r4)  
  
 val r5 = findViewById<RatingBar>(R.id.r5)  
 val submit = findViewById<Button>(R.id.button1)  
 //val cancel = findViewById<Button>(R.id.button2)  
  
 /\*btn.setOnClickListener {  
 val totalstars = "total stars: " + ratingbar.numStars  
 val rating = "rating : " + ratingbar.rating  
 Toast.makeText(this, """$totalstars $rating""".trimIndent(), Toast.LENGTH\_LONG).show()  
 }  
 simplerating.setOnRatingBarChangeListener{ \_, rating, fromUser ->  
 Toast.makeText(this, "rating $rating, $fromUser", Toast.LENGTH\_LONG).show()  
  
 \*/  
  
 submit.setOnClickListener **{** val rated = r1.rating + r2.rating + r3.rating + r4.rating  
 val finalrating = rated / 4  
 r5.rating = finalrating  
 Toast.makeText(this, "$finalrating", Toast.LENGTH\_LONG).show()  
 **}** r1.setOnRatingBarChangeListener **{** ratingBar, fl, b **->** val rated = r1.rating + r2.rating + r3.rating + r4.rating  
 val finalrating = rated / 4  
 r5.rating = finalrating  
 Toast.makeText(this, "$finalrating", Toast.LENGTH\_LONG).show()  
 **}** r2.setOnRatingBarChangeListener **{** ratingBar, fl, b **->** val rated = r1.rating + r2.rating + r3.rating + r4.rating  
 val finalrating = rated / 4  
 r5.rating = finalrating  
 Toast.makeText(this, "$finalrating", Toast.LENGTH\_LONG).show()  
 **}** r3.setOnRatingBarChangeListener **{** ratingBar, fl, b **->** val rated = r1.rating + r2.rating + r3.rating + r4.rating  
 val finalrating = rated / 4  
 r5.rating = finalrating  
 Toast.makeText(this, "$finalrating", Toast.LENGTH\_LONG).show()  
 **}** r4.setOnRatingBarChangeListener **{** ratingBar, fl, b **->** val rated = r1.rating + r2.rating + r3.rating + r4.rating  
 val finalrating = rated / 4  
 r5.rating = finalrating  
 Toast.makeText(this, "$finalrating", Toast.LENGTH\_LONG).show()  
 **}** }  
 override fun onBackPressed() {  
 super.onBackPressed()  
 }  
}

**Navigation Bar( Bottom ) footer**

**Xml code (activity main file - 1)**

<?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">  
  
 <TextView  
 android:id="@+id/txtview"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Hello World!"  
 android:textSize="25sp"  
 android:textStyle="bold"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.641" />  
  
 <com.google.android.material.bottomnavigation.BottomNavigationView  
 android:id="@+id/navigationview"  
 android:layout\_width="match\_parent"  
 android:layout\_alignParentBottom = "true"  
 android:layout\_height="58dp"  
 android:background="@android:color/white"  
 app:elevation="2dp"  
 app:labelVisibilityMode="auto"  
 app:itemIconSize="24dp"  
 app:menu="@menu/menu"  
 app:itemIconTint="@color/selector\_nav\_item"  
 app:itemTextColor="@color/selector\_nav\_item"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="1.0"  
 tools:layout\_editor\_absoluteX="0dp" />  
  
  
</androidx.constraintlayout.widget.ConstraintLayout>

**MENU file**

<?xml version="1.0" encoding="utf-8"?>  
<menu xmlns:android="http://schemas.android.com/apk/res/android">  
  
 <item android:id="@+id/home"  
 android:title="Home"  
 android:icon="@drawable/ic\_home\_24"  
  
 />  
 <item android:id="@+id/notfication"  
 android:title="Notification"  
 android:icon="@drawable/ic\_notifications"  
  
 />  
 <item android:id="@+id/search"  
 android:title="search"  
 android:icon="@drawable/ic\_search"  
  
 />  
  
 <item android:id="@+id/settings"  
 android:title="Settings"  
 android:icon="@drawable/ic\_settings"  
 />  
</menu>

**Color xml file**

<?xml version="1.0" encoding="utf-8"?>  
<selector xmlns:android="http://schemas.android.com/apk/res/android">  
<item android:state\_selected="true"  
 android:color="@color/purple\_200" />  
  
 <item android:color = "@color/purple\_700"/>  
</selector>

**Kotlin code( file 1)**

package com.example.feb6\_term32  
  
import android.os.Bundle  
import android.widget.TextView  
import android.widget.Toast  
import androidx.appcompat.app.AppCompatActivity  
import com.google.android.material.bottomnavigation.BottomNavigationView  
  
class MainActivity : AppCompatActivity() {  
 private lateinit var tvlabel:TextView  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 setContentView(R.layout.*activity\_main*)  
  
 val btmview = findViewById<BottomNavigationView>(R.id.*navigationview*)  
 tvlabel = findViewById(R.id.*txtview*)  
  
 btmview.setOnItemSelectedListener **{** when (**it**.*itemId*) {  
 R.id.*home* -> {  
 setContent("Home")  
 Toast.makeText(this, "you clicked home", Toast.*LENGTH\_LONG*).show()  
 true  
 }  
  
 R.id.*notfication* -> {  
 setContent("Notification")  
 Toast.makeText(this, "you clicked notificcation", Toast.*LENGTH\_LONG*).show()  
 true  
 }  
 R.id.*search* -> {  
 setContent("search")  
 Toast.makeText(this, "you clicked search", Toast.*LENGTH\_LONG*).show()  
 true  
  
 }  
 R.id.*settings* -> {  
 setContent("settings")  
 Toast.makeText(this, "you clicked settings", Toast.*LENGTH\_LONG*).show()  
 true  
 }  
 else -> false  
 }  
 **}** }  
  
 private fun setContent(content: String) {  
 *title* = content  
 tvlabel.*text* = content  
 }  
}

**PROGRESS BAR**

**XML FILE**

<?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"  
 >  
  
 <ProgressBar  
 android:id="@+id/pBarCircular"  
 style="?android:attr/progressBarStyle"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:visibility="invisible"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/pauseThread" />  
  
 <TextView  
 android:id="@+id/tView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="32dp"  
 android:textColor="@color/black"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
 <ProgressBar  
 android:id="@+id/pBar"  
 style="?android:attr/progressBarStyleHorizontal"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="8dp"  
 android:minWidth="200dp"  
 android:maxWidth="2500dp"  
 android:minHeight="40dp"  
 android:progressTint="#FD0000"  
  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/tView" />  
  
 <Button  
 android:id="@+id/btnShow"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Start Progress"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toStartOf="@+id/pauseThread"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
 <Button  
 android:id="@+id/btnReset"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="reset"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toEndOf="@+id/pauseThread"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
 <Button  
 android:id="@+id/pauseThread"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Pause"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toStartOf="@+id/btnReset"  
 app:layout\_constraintStart\_toEndOf="@+id/btnShow"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
  
</androidx.constraintlayout.widget.ConstraintLayout>

**KOTLIN CODE**

package com.example.practiceca1  
  
import android.annotation.SuppressLint  
import androidx.appcompat.app.AppCompatActivity  
import android.os.Bundle  
import android.os.Handler  
import android.os.Looper  
import android.view.View  
import android.widget.Button  
import android.widget.TextView  
  
class ProgressBar : AppCompatActivity() {  
 private var i = 0  
  
 @SuppressLint("SetTextI18n")  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 setContentView(R.layout.*activity\_progress\_bar*)  
  
 val pgsBar = findViewById<android.widget.ProgressBar>(R.id.*pBar*)  
 val pgsBar1 = findViewById<android.widget.ProgressBar>(R.id.*pBarCircular*)  
 val txtView = findViewById<TextView>(R.id.*tView*)  
 val btn = findViewById<Button>(R.id.*btnShow*)  
 val btnR = findViewById<Button>(R.id.*btnReset*)  
 val pauseth = findViewById<Button>(R.id.*pauseThread*)  
 var flag: Int  
  
// pgsBar1.visibility = View.INVISIBLE  
 txtView.*text* = i.toString() + "/" + pgsBar.*max* pauseth.setOnClickListener **{** flag = 0  
 btn.*text* = "Resume"  
 **}** btn.setOnClickListener **{** flag = 1  
 pgsBar1.*visibility* = View.*VISIBLE* i = pgsBar.*progress* Thread **{** while (i < 100) {  
 i += 1  
 if (flag == 0) {  
 pgsBar1.*visibility* = View.*INVISIBLE* break  
 }  
  
 Handler(Looper.getMainLooper()).post **{** pgsBar.*progress* = i  
 txtView.*text* = i.toString() + "/" + pgsBar.*max* if (i == 100) { //Or pgsBar.max in place of 100  
 pgsBar1.*visibility* = View.*INVISIBLE*// btn.text = "Start again"  
// i = 0  
// pgsBar.progress = i  
 }  
 **}** try {  
 Thread.sleep(100)  
 } catch (e: InterruptedException) {  
 e.printStackTrace()  
 }  
 }  
 **}**.start()  
  
 **}** btnR.setOnClickListener **{** pgsBar.*progress* = 0  
 txtView.*text* = 0.toString() + "/" + pgsBar.*max* pgsBar1.*visibility* = View.*INVISIBLE* flag = 0  
 btn.*text* = "Start Again"  
  
 **}** }  
}