**BMI\_CALCULATE**

**#MainActivity**

package com.example.bmi\_calculate  
  
import android.content.Intent  
import androidx.appcompat.app.AppCompatActivity  
import android.os.Bundle  
import android.widget.Toast  
import com.example.bmi\_calculate.databinding.ActivityMainBinding  
  
class MainActivity : AppCompatActivity() {  
 lateinit var binding: ActivityMainBinding  
 override fun onCreate(savedInstanceState: Bundle?) {  
 binding= ActivityMainBinding.inflate(*layoutInflater*)  
 super.onCreate(savedInstanceState)  
 setContentView(binding.*root*)  
  
  
 binding.btnNext.setOnClickListener**{** if (binding.etName.*text*?.*isEmpty*() == true){  
 Toast.makeText(this, "please enter your full name", Toast.*LENGTH\_LONG*).show()  
 }  
 else{  
 val intent= Intent(this,BMI::class.*java* )  
 intent.putExtra(Contast.USER\_NAME,binding.etName.*text*.*toString*())  
 startActivity(intent)  
 }  
 **}** }  
}

#drawable

*<?*xml version="1.0" encoding="utf-8"*?>*<selector xmlns:android="http://schemas.android.com/apk/res/android">  
 <item>  
 <shape>  
 <gradient  
 android:angle="90"  
 android:startColor="#38068f"  
 android:endColor="#9b0493 "  
 android:type="linear" />  
 </shape>  
 </item>  
</selector>

**#Contast**

package com.example.bmi\_calculate  
  
object Contast {  
 const val USER\_NAME="username"  
 const val Age="age"  
 const val Gender="gender"  
}

**#BMI**

package com.example.bmi\_calculate  
  
import android.R  
import android.content.Intent  
import androidx.appcompat.app.AppCompatActivity  
import android.os.Bundle  
import android.widget.ArrayAdapter  
import android.widget.Toast  
import com.example.bmi\_calculate.databinding.ActivityBmiBinding  
import java.lang.String.format  
import kotlin.properties.Delegates  
  
class BMI : AppCompatActivity() {  
 lateinit var binding: ActivityBmiBinding  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 binding = ActivityBmiBinding.inflate(*layoutInflater*)  
 setContentView(binding.*root*)  
  
 val name = *intent*.getStringExtra(Contast.USER\_NAME)  
 val options =*arrayOf*("Weight in Kg & Height in Cm", "Weight in Pounds(lb) & Height in Inch(in)")  
 val adapter = ArrayAdapter(this, R.layout.*simple\_spinner\_item*, options)  
 val option\_gender =*arrayOf*("Male","Female","Unknow")  
 val adapter1 = ArrayAdapter(this, R.layout.*simple\_spinner\_item*, option\_gender)  
 adapter.setDropDownViewResource(android.R.layout.*simple\_spinner\_item*)  
 binding.spChose.*adapter* = adapter  
 binding.spGender.*adapter*=adapter1  
  
  
  
  
 binding.btnBmi.setOnClickListener **{** val result=bmiResult()  
 binding.tvshowinfo.*text*="$name , ${binding.etAge.*text*} , gender:gender"  
 binding.tvshowbmi.*text*= bmiResult().toString()  
 binding.tvshowmess.*text*=bmiMess(result)  
 **}** binding.btnReset.setOnClickListener **{** binding.etWeight.*text*.clear()  
 binding.etHeight.*text*.clear()  
 binding.etAge.*text*.clear()  
 **}** binding.btnBack.setOnClickListener**{** val intent= Intent(this,MainActivity::class.*java* )  
 startActivity(intent)  
  
 **}** }  
  
 fun bmiMess(bmi: Float): String {  
 lateinit var answer: String  
 if (bmi < 16) {  
 answer = "Severe Thinness"  
 } else if (bmi > 16.0 && bmi < 17.0) {  
 answer = "Moderate Thinness"  
 } else if (bmi > 17.0 && bmi < 18.5) {  
 answer = "Mild Thinness"  
 } else if (bmi > 18.5 && bmi < 25.0) {  
 answer = "Normal"  
 } else if (bmi > 25.0 && bmi < 30.0) {  
 answer = "OverWeight"  
 } else if (bmi > 30.0 && bmi < 35.0) {  
 answer = "Obese Class I"  
 } else if (bmi > 30.0 && bmi < 35) {  
 answer = "Obese Class I"  
 } else if (bmi > 35.0 && bmi < 40.0) {  
 answer = "Obese Class II"  
 } else {  
 answer = "Obese Class III"  
 }  
 return answer  
 }  
  
 fun bmiResult(): Float {  
 *//var result by Delegates.notNull<Float>()* var heightValue = binding.etHeight.*text*.toString().*toFloat*()  
 var weightValue = binding.etWeight.*text*.toString().*toFloat*()  
 if (binding.etHeight.*text*.toString().*isNotEmpty*() && binding.etWeight.*text*.toString()  
 .*isNotEmpty*()) {  
 if (binding.spChose.toString() != "Weight in Pounds(lb) & Height in Inch(in)") {  
 heightValue=heightValue/100F  
 Toast.makeText(this, (weightValue / (heightValue\*heightValue)).toString(), Toast.*LENGTH\_LONG*).show()  
 return (weightValue / (heightValue\*heightValue))  
 }  
 else {  
 return 703 \* ((weightValue / (heightValue.times(heightValue))).toFloat())  
 }  
 } else {  
 Toast.makeText(this, "Please input Weight and Height greater than 0", Toast.*LENGTH\_LONG*).show()  
 }  
 return 0F  
 }  
}  
*//seletedPositon*

**LAYOUT(GIAO DIỆN)**

**Activity\_bmi.xml**

*<?*xml version="1.0" encoding="utf-8"*?>*<LinearLayout 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:gravity="center"  
 android:background="@drawable/header\_bg"  
 tools:context=".BMI"  
 android:orientation="vertical">  
  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="-10dp"  
 android:text="BMI Calculator"  
 android:gravity="center"  
 android:textColor="@color/white"  
 android:textSize="24sp"  
 android:textStyle="bold"  
 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="0.208" />  
  
 <Spinner  
 android:id="@+id/spChose"  
 android:layout\_width="match\_parent"  
 android:layout\_height="56dp"  
 android:layout\_marginTop="20dp"  
 android:gravity="center"  
 android:textColor="#FAF7F7"  
 android:scrollbarSize="23sp"  
 android:outlineAmbientShadowColor="@color/white"  
 android:textStyle="bold" />  
  
 <com.google.android.material.card.MaterialCardView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 app:layout\_constraintTop\_toBottomOf="@+id/tvQuizApp"  
 app:layout\_constraintEnd\_toStartOf="parent"  
 app:layout\_constraintStart\_toEndOf="parent"  
 android:background="@color/white"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginEnd="20dp"  
 android:layout\_marginTop="16dp"  
 app:cardCornerRadius="10dp"  
 >  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="horizontal"  
 android:gravity="center\_horizontal"  
 android:padding="16dp">  
  
 <TextView  
 android:id="@+id/tvAge"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Age:"  
 android:textSize="16sp"  
 android:textStyle="bold" />  
  
 <EditText  
 android:id="@+id/etAge"  
 android:layout\_width="94dp"  
 android:layout\_height="wrap\_content"  
 android:textSize="26sp"></EditText>  
  
 <TextView  
 android:layout\_width="70dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="5dp"  
 android:text="Gender:"  
 android:textSize="16sp"  
 android:textStyle="bold"></TextView>  
  
 <Spinner  
 android:id="@+id/spGender"  
 android:layout\_width="135dp"  
 android:layout\_height="49dp"  
 android:layout\_marginLeft="3dp" />  
 />  
 </LinearLayout>  
  
 </com.google.android.material.card.MaterialCardView>  
  
 <com.google.android.material.card.MaterialCardView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 app:layout\_constraintTop\_toBottomOf="@+id/tvQuizApp"  
 app:layout\_constraintEnd\_toStartOf="parent"  
 app:layout\_constraintStart\_toEndOf="parent"  
 android:background="@color/white"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginEnd="20dp"  
 android:layout\_marginTop="16dp"  
 app:cardCornerRadius="10dp"  
 >  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="vertical"  
 android:padding="16dp">  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:gravity="center"  
 android:orientation="horizontal">  
 <TextView  
 android:id="@+id/tvWeight"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Weight:"  
 android:textSize="16sp"  
 android:textStyle="bold" />  
  
 <EditText  
 android:id="@+id/etWeight"  
 android:layout\_width="79dp"  
 android:layout\_height="wrap\_content"></EditText>  
 </LinearLayout>  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:gravity="center"  
 android:orientation="horizontal">  
 <TextView  
 android:id="@+id/tvHeight"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Height:"  
 android:textSize="16sp"  
 android:textStyle="bold" />  
  
 <EditText  
 android:id="@+id/etHeight"  
 android:layout\_width="80dp"  
 android:layout\_height="wrap\_content"></EditText>  
 </LinearLayout>  
  
 </LinearLayout>  
  
 </com.google.android.material.card.MaterialCardView>  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_margin="17dp"  
 android:orientation="horizontal"  
 android:layout\_height="wrap\_content">  
  
 <Button  
 android:id="@+id/btnBmi"  
 android:layout\_width="189dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginRight="100dp"  
 android:layout\_weight="1"  
 android:text="CALCULATE BMI"></Button>  
  
 <Button  
 android:id="@+id/btnReset"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_weight="1"  
 android:backgroundTint="@color/teal\_200"  
 android:text="RESET"></Button>  
 </LinearLayout>  
 <com.google.android.material.card.MaterialCardView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 app:layout\_constraintTop\_toBottomOf="@+id/tvQuizApp"  
 app:layout\_constraintEnd\_toStartOf="parent"  
 app:layout\_constraintStart\_toEndOf="parent"  
 android:background="@color/white"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginEnd="20dp"  
 android:layout\_marginTop="16dp"  
 app:cardCornerRadius="10dp"  
 >  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="vertical"  
 android:padding="16dp">  
 <TextView  
 android:id="@+id/tvshowinfo"  
 android:gravity="center"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 tools:hint="show information"  
 android:textSize="16sp"  
 android:textStyle="bold" />  
 <TextView  
 android:id="@+id/tvshowbmi"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 tools:hint="result bmi"  
 android:gravity="center"  
 android:textSize="30sp"  
 android:textColor="#E53935"  
 android:textStyle="bold" />  
  
 <TextView  
 android:id="@+id/tvshowmess"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 tools:hint="result mess"  
 android:gravity="center"  
 android:textSize="16sp"  
 android:textStyle="bold" />  
 />  
 </LinearLayout>  
  
 </com.google.android.material.card.MaterialCardView>  
 <Button  
 android:id="@+id/btnBack"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="10dp"  
 android:text="BACK"  
 ></Button>  
</LinearLayout>

**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"  
 android:background="@drawable/header\_bg"  
 tools:context=".MainActivity">  
  
  
 <TextView  
 android:id="@+id/tvBMI"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="BMI Calculator!"  
 android:textColor="@color/white"  
 android:textSize="24sp"  
 android:textStyle="bold"  
 android:layout\_marginTop="-150dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 />  
 <com.google.android.material.card.MaterialCardView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 app:layout\_constraintTop\_toBottomOf="@+id/tvBMI"  
 app:layout\_constraintEnd\_toStartOf="parent"  
 app:layout\_constraintStart\_toEndOf="parent"  
 android:background="@color/white"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginEnd="20dp"  
 android:layout\_marginTop="16dp"  
 app:cardCornerRadius="10dp"  
 >  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="vertical"  
 android:gravity="center"  
 android:padding="16dp">  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="5dp"  
 android:gravity="center"  
 android:text="Welcome!"  
 android:textSize="26sp"  
 android:textStyle="bold"/>  
  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="5dp"  
 android:gravity="center"  
 android:text="Please enter your name."  
 android:textSize="16sp"  
 android:textStyle="italic"/>  
  
 <com.google.android.material.textfield.TextInputLayout  
 style="@style/Widget.MaterialComponents.TextInputLayout.OutlinedBox"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content">  
  
 <androidx.appcompat.widget.AppCompatEditText  
 android:id="@+id/etName"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="5dp"  
 android:hint="Name"  
 tools:ignore="SpeakableTextPresentCheck" />  
 </com.google.android.material.textfield.TextInputLayout>  
  
 <Button  
 android:id="@+id/btnNext"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="5dp"  
 android:gravity="center"  
 android:text="NEXT"  
 android:paddingBottom="10dp"  
 android:paddingTop="10dp"  
 android:paddingLeft="20dp"  
 android:paddingRight="20dp"  
 android:backgroundTint="@color/purple\_500"  
 android:textColor="@color/white"  
 android:textSize="18sp"  
 android:textStyle="bold"  
 />  
 </LinearLayout>  
 </com.google.android.material.card.MaterialCardView>  
  
</androidx.constraintlayout.widget.ConstraintLayout>