

Source Code

MainActivity.java(Sign In)

```
1
2 package com.tarek.bmicalculator;
3
4 import android.content.Intent;
5 import android.os.Bundle;
6 import android.util.Patterns;
7 import android.view.View;
8 import android.widget.Button;
9 import android.widget.EditText;
10 import android.widget.TextView;
11 import android.widget.Toast;
12
13 import androidx.activity.EdgeToEdge;
14 import androidx.appcompat.app.AppCompatActivity;
15 import androidx.core.graphics.Insets;
16 import androidx.core.view.ViewCompat;
17 import androidx.core.view.WindowInsetsCompat;
18
19 import com.google.android.gms.tasks.OnCompleteListener;
20 import com.google.android.gms.tasks.Task;
21 import com.google.firebase.auth.AuthResult;
22 import com.google.firebase.auth.FirebaseAuth;
23
24 import androidx.annotation.NonNull;
25
26 public class MainActivity extends AppCompatActivity
27     implements View.OnClickListener {
28
29     private TextView notyetregistersignuptextview;
30     private EditText emailedittextid, passwordedittextid;
31     private Button signinid;
32     private FirebaseAuth mAuth;
33
34     @Override
35     protected void onCreate(Bundle savedInstanceState) {
```

```

35     super.onCreate(savedInstanceState);
36     EdgeToEdge.enable(this);
37     setContentView(R.layout.activity_main);
38
39     ViewCompat.setOnApplyWindowInsetsListener(
40         findViewById(R.id.main), (v, insets) -> {
41             Insets systemBars = insets.getInsets(
42                 WindowInsetsCompat.Type.systemBars());
43             v.setPadding(systemBars.left, systemBars.top,
44                 systemBars.right, systemBars.bottom);
45             return insets;
46         });
47
48     notyetregistersignuptextview = findViewById(R.id.
49         notyetregistersignuptextviewid);
50     notyetregistersignuptextview.setOnClickListener(this
51         );
52
53     emailedittextid = findViewById(R.id.
54         signinEmailEditText);
55     passwordedittextid = findViewById(R.id.
56         signinPasswordEditText);
57
58     signinid = findViewById(R.id.signinid);
59     signinid.setOnClickListener(this);
60
61     mAuth = FirebaseAuth.getInstance();
62 }
63
64 @Override
65 public void onClick(View view) {
66     if (view.getId() == R.id.
67         notyetregistersignuptextviewid) {
68         startActivity(new Intent(this, signup.class));
69     } else if (view.getId() == R.id.signinid) {
70         userlogin();
71     }
72 }
73
74 private void userlogin() {
75     String email = emailedittextid.getText().toString().
76         trim();
77     String password = passwordedittextid.getText().
78         toString().trim();
79
80     if (email.isEmpty()) {
81         emailedittextid.setError("Enter an email address
82             ");
83         emailedittextid.requestFocus();

```

```

73         return;
74     }
75     if (!Patterns.EMAIL_ADDRESS.matcher(email).matches()) {
76         emailedittextid.setError("Please enter a valid
77             email address");
78         emailedittextid.requestFocus();
79         return;
80     }
81     if (password.isEmpty()) {
82         passwordedittextid.setError("Enter a password");
83         passwordedittextid.requestFocus();
84         return;
85     }
86     if (password.length() < 6) {
87         passwordedittextid.setError("Minimum length of
88             the password is 6");
89         passwordedittextid.requestFocus();
90         return;
91     }
92     mAuth.signInWithEmailAndPassword(email, password)
93         .addOnCompleteListener(new
94             OnCompleteListener<AuthResult>() {
95                 @Override
96                 public void onComplete(@NonNull Task<
97                     AuthResult> task) {
98                     if (task.isSuccessful())
99                     {
100                         finish();
101                         startActivity(new Intent(
102                             MainActivity.this, profile.
103                             class));
104                     }
105                     else
106                     {
107                         Toast.makeText(MainActivity.this
108                             ,
109                             "Login failed: " + task.
110                                 getException().
111                                 getMessage(),
112                                 Toast.LENGTH_LONG).show
113                             ();
114                     }
115                 }
116             });

```

```

111     }
112 }

```

Listing 1: MainActivity.java: BMI calculation example

activity_main.xml

```

1
2 <?xml version="1.0" encoding="utf-8"?>
3 <RelativeLayout xmlns:android="http://schemas.android.com/
  apk/res/android"
4     xmlns:app="http://schemas.android.com/apk/res-auto"
5     xmlns:tools="http://schemas.android.com/tools"
6     android:id="@+id/main"
7     android:layout_width="match_parent"
8     android:layout_height="match_parent"
9     tools:context=".MainActivity"
10    android:background="@drawable/backgroundlogin"
11    android:orientation="vertical"
12    android:gravity="center"
13    >
14
15    <androidx.cardview.widget.CardView
16        android:layout_width="match_parent"
17        android:layout_height="330dp"
18        android:layout_marginTop="240dp"
19        android:layout_marginStart="20dp"
20        android:layout_marginEnd="20dp"
21        android:layout_marginBottom="20dp"
22        android:foregroundGravity="center"
23        app:cardCornerRadius="20dp"
24        app:cardElevation="20dp"
25        android:backgroundTint="#FFFFFF"
26    >
27
28        <LinearLayout
29            android:layout_width="match_parent"
30            android:layout_height="wrap_content"
31            android:orientation="vertical"
32            android:layout_gravity="center_horizontal"
33            android:padding="20dp"
34        >
35
36
37            <EditText
38                android:id="@+id/signinEmailEditText"
39                android:layout_width="match_parent"

```

```

40         android:layout_height="wrap_content"
41         android:minHeight="48dp"
42         android:hint="Email"
43         android:textColorHint="#601AB6"
44         android:textColor="#000000"
45         android:textColorHighlight="#9F89D1"
46         android:padding="9dp"
47         android:inputType="textEmailAddress"
48         android:layout_marginStart="10dp"
49         android:layout_marginEnd="10dp"
50         android:layout_marginTop="35dp"
51         android:layout_marginBottom="20dp"
52         android:drawableLeft="@drawable/emailicon"
53         android:drawablePadding="8dp"
54         android:background="@drawable/
           custom_edittext"
55     />
56
57
58     <EditText
59         android:id="@+id/signinPasswordEditText"
60         android:layout_width="match_parent"
61         android:layout_height="wrap_content"
62         android:minHeight="48dp"
63         android:hint="Password"
64         android:textColorHint="#601AB6"
65         android:textColor="#000000"
66         android:textColorHighlight="#9F89D1"
67         android:padding="9dp"
68         android:layout_marginStart="10dp"
69         android:layout_marginEnd="10dp"
70         android:layout_marginTop="10dp"
71         android:layout_marginBottom="10dp"
72         android:drawableLeft="@drawable/passwordicon"
73         android:drawablePadding="6dp"
74         android:inputType="textPassword"
75         android:background="@drawable/
           custom_edittext"
76     />
77
78     <TextView
79         android:id="@+id/forgetpasswordid"
80         android:layout_width="match_parent"
81         android:layout_height="wrap_content"
82         android:text="Forget Password?"
83         android:layout_gravity="center"
84         android:layout_marginTop="10dp"
85         android:gravity="center_horizontal"

```

```

86         android:textSize="16sp"
87     />
88
89     <Button
90         android:id="@+id/signinid"
91         android:layout_width="160dp"
92         android:layout_height="60dp"
93         android:text="Sign in"
94         android:textStyle="bold"
95         android:textSize="20sp"
96         android:textColor="#FFFFFF"
97         android:backgroundTint="#EA0658"
98         android:layout_gravity="center_horizontal"
99         android:layout_marginTop="20dp"
100         app:cornerRadius="12dp"
101     />
102
103 </LinearLayout>
104
105 </androidx.cardview.widget.CardView>
106
107
108 <LinearLayout
109     android:id="@+id/signuplinearlayoutid"
110     android:layout_width="match_parent"
111     android:layout_height="wrap_content"
112     android:orientation="vertical"
113     android:layout_alignParentBottom="true"
114     android:padding="20dp"
115     android:layout_marginBottom="93dp"
116 >
117
118     <TextView
119         android:id="@+id/notyetregistersignuptextviewid"
120         android:layout_width="match_parent"
121         android:layout_height="wrap_content"
122         android:text="Not yet Registered? Sign Up."
123         android:textSize="17sp"
124         android:gravity="center_horizontal"
125     />
126
127 </LinearLayout>
128
129 <LinearLayout
130     android:id="@+id/socialiconlinearlayoutid"
131     android:layout_width="match_parent"
132     android:layout_height="wrap_content"
133     android:orientation="horizontal"
134     android:gravity="center"

```

```

135         android:layout_alignParentBottom="true"
136         android:layout_marginBottom="20dp"
137     >
138
139     <ImageView
140         android:id="@+id/googlelogo"
141         android:layout_width="48dp"
142         android:layout_height="48dp"
143         android:src="@drawable/google"
144         android:layout_marginBottom="20dp"
145         android:layout_margin="20dp"
146     />
147
148     <ImageView
149         android:id="@+id/fblogoid"
150         android:layout_width="48dp"
151         android:layout_height="48dp"
152         android:src="@drawable/fb"
153         android:layout_marginBottom="20dp"
154         android:layout_margin="20dp"
155     />
156 </LinearLayout>
157 </RelativeLayout>

```

Listing 2: activity_main.xml layout

0.1 signup.java

```

1 package com.tarek.bmicalculator;
2
3 import android.content.Intent;
4 import android.os.Bundle;
5 import android.util.Patterns;
6 import android.view.View;
7 import android.widget.Button;
8 import android.widget.EditText;
9 import android.widget.TextView;
10 import android.widget.Toast;
11
12 import androidx.activity.EdgeToEdge;
13 import androidx.appcompat.app.AppCompatActivity;
14 import androidx.core.graphics.Insets;
15 import androidx.core.view.ViewCompat;
16 import androidx.core.view.WindowInsetsCompat;
17
18 import com.google.android.gms.tasks.OnCompleteListener;
19 import com.google.android.gms.tasks.Task;

```

```

20 import com.google.firebase.auth.AuthResult;
21 import com.google.firebase.auth.FirebaseAuth;
22 import com.google.firebase.auth.
    FirebaseAuthUserCollisionException;
23
24 import androidx.annotation.NonNull;
25
26 public class signup extends AppCompatActivity implements
    View.OnClickListener {
27
28     public TextView alreadyregisteredesignintextviewid;
29     private FirebaseAuth mAuth;
30     public Button signupbutton;
31     private EditText emailedittextid, passwordedittextid;
32
33     @Override
34     protected void onCreate(Bundle savedInstanceState) {
35         super.onCreate(savedInstanceState);
36         EdgeToEdge.enable(this);
37         setContentView(R.layout.activity_signup);
38
39         ViewCompat.setOnApplyWindowInsetsListener(
            findViewById(R.id.main), (v, insets) -> {
40             Insets systemBars = insets.getInsets(
                WindowInsetsCompat.Type.systemBars());
41             v.setPadding(systemBars.left, systemBars.top,
                systemBars.right, systemBars.bottom);
42             return insets;
43         });
44
45         alreadyregisteredesignintextviewid = findViewById(R.
            id.alreadyregisteredesignintextviewid);
46         alreadyregisteredesignintextviewid.setOnClickListener(
            this);
47
48         mAuth = FirebaseAuth.getInstance();
49
50         signupbutton = findViewById(R.id.signupbutton);
51         signupbutton.setOnClickListener(this);
52
53         emailedittextid = findViewById(R.id.
            signupEmailEditText);
54         passwordedittextid = findViewById(R.id.
            signupPasswordEditText);
55     }
56
57     @Override
58     public void onClick(View view) {

```



```

59         if (view.getId() == R.id.
        alreadyregisteredsignintextviewid) {
60             Intent intent = new Intent(getApplicationContext()
                (), MainActivity.class);
61             startActivity(intent);
62         } else if (view.getId() == R.id.signupbutton) {
63             registerUser();
64         }
65     }
66
67     private void registerUser() {
68         String email = emailedittextid.getText().toString().
            trim();
69         String password = passwordedittextid.getText().
            toString().trim();
70
71         if (email.isEmpty()) {
72             emailedittextid.setError("Enter an email address
                ");
73             emailedittextid.requestFocus();
74             return;
75         }
76         if (!Patterns.EMAIL_ADDRESS.matcher(email).matches()
            ) {
77             emailedittextid.setError("Please enter a valid
                email address");
78             emailedittextid.requestFocus();
79             return;
80         }
81
82
83         if (password.isEmpty()) {
84             passwordedittextid.setError("Enter a password");
85             passwordedittextid.requestFocus();
86             return;
87         }
88         if (password.length() < 6) {
89             passwordedittextid.setError("Minimum length of
                the password is 6");
90             passwordedittextid.requestFocus();
91             return;
92         }
93
94         mAuth.createUserWithEmailAndPassword(email, password
            )
95             .addOnCompleteListener(new
                OnCompleteListener<AuthResult>() {
96                 @Override

```

```

97         public void onComplete(@NonNull Task<
98             AuthResult> task) {
99             if (task.isSuccessful())
100             {
101                 finish();
102                 Intent intent = new Intent(
103                     getApplicationContext(),
104                     profile.class);
105                 intent.addFlags(Intent.
106                     FLAG_ACTIVITY_CLEAR_TOP);
107                 startActivity(intent);
108                 Toast.makeText(
109                     getApplicationContext(), "
110                     Registration is successful",
111                     Toast.LENGTH_SHORT).show();
112             }
113             else
114             {
115                 if (task.getException()
116                     instanceof
117                     FirebaseAuthUserCollisionException
118                 ) {
119                     Toast.makeText(
120                         getApplicationContext(),
121                         "User is already
122                         registered!!", Toast.
123                         LENGTH_SHORT).show();
124                 }
125                 else
126                 {
127                     Toast.makeText(
128                         getApplicationContext(),
129                         "Error: " + task.
130                         getException().
131                         getMessage(), Toast.
132                         LENGTH_SHORT).show();
133                 }
134             }
135         }
136     }
137 }

```

Listing 3: MainActivity.java: BMI calculation example

0.2 signup.xml

```

1 <?xml version="1.0" encoding="utf-8"?>
2 <RelativeLayout xmlns:android="http://schemas.android.com/
  apk/res/android"
3     xmlns:app="http://schemas.android.com/apk/res-auto"
4     xmlns:tools="http://schemas.android.com/tools"
5     android:id="@+id/main"
6     android:layout_width="match_parent"
7     android:layout_height="match_parent"
8     tools:context=".signup"
9     android:orientation="vertical"
10    android:gravity="center"
11    android:background="@drawable/backgroundlogin"
12    >
13
14    <androidx.cardview.widget.CardView
15        android:layout_width="match_parent"
16        android:layout_height="360dp"
17        android:layout_marginTop="200dp"
18        android:layout_marginStart="20dp"
19        android:layout_marginEnd="20dp"
20        android:layout_marginBottom="20dp"
21        android:foregroundGravity="center"
22        app:cardCornerRadius="20dp"
23        app:cardElevation="20dp"
24        android:backgroundTint="#FFFFFF"
25        >
26
27        <LinearLayout
28            android:layout_width="match_parent"
29            android:layout_height="wrap_content"
30            android:orientation="vertical"
31            android:layout_gravity="center_horizontal"
32            android:padding="20dp"
33            android:layout_marginTop="4dp"
34            >
35
36            <EditText
37                android:id="@+id/signupNameEdittext"
38                android:layout_width="match_parent"
39                android:layout_height="wrap_content"
40                android:minHeight="48dp"
41                android:hint="Name"
42                android:textColorHint="#601AB6"
43                android:textColor="#000000"
44                android:textColorHighlight="#9F89D1"
45                android:padding="9dp"
46                android:inputType="textEmailAddress"
47                android:layout_marginStart="10dp"

```

```

48         android:layout_marginEnd="10dp"
49         android:layout_marginTop="5dp"
50         android:layout_marginBottom="6dp"
51         android:drawableLeft="@drawable/name"
52         android:drawablePadding="7dp"
53         android:background="@drawable/
           custom_edittext"
54
55     />
56
57     <EditText
58         android:id="@+id/signupAgeEditText"
59         android:layout_width="match_parent"
60         android:layout_height="wrap_content"
61         android:minHeight="48dp"
62         android:hint="Age"
63         android:textColorHint="#601AB6"
64         android:textColor="#000000"
65         android:textColorHighlight="#9F89D1"
66         android:padding="9dp"
67         android:inputType="textEmailAddress"
68         android:layout_marginStart="10dp"
69         android:layout_marginEnd="10dp"
70         android:layout_marginTop="5dp"
71         android:layout_marginBottom="6dp"
72         android:drawableLeft="@drawable/age"
73         android:drawablePadding="7dp"
74         android:background="@drawable/
           custom_edittext"
75
76     />
77
78     <EditText
79         android:id="@+id/signupEmailEditText"
80         android:layout_width="match_parent"
81         android:layout_height="wrap_content"
82         android:minHeight="48dp"
83         android:hint="Email"
84         android:textColorHint="#601AB6"
85         android:textColor="#000000"
86         android:textColorHighlight="#9F89D1"
87         android:padding="9dp"
88         android:inputType="textEmailAddress"
89         android:layout_marginStart="10dp"
90         android:layout_marginEnd="10dp"
91         android:layout_marginTop="5dp"
92         android:layout_marginBottom="6dp"
93         android:drawableLeft="@drawable/emailicon"
94         android:drawablePadding="7dp"

```

```

95         android:background="@drawable/
96             custom_edittext "
97     />
98
99
100     <EditText
101         android:id="@+id/signupPasswordEditText "
102         android:layout_width="match_parent "
103         android:layout_height="wrap_content "
104         android:minHeight="48dp "
105         android:hint="Password "
106         android:textColorHint="#601AB6 "
107         android:textColor="#000000 "
108         android:textColorHighlight="#9F89D1 "
109         android:padding="9dp "
110         android:layout_marginStart="10dp "
111         android:layout_marginEnd="10dp "
112         android:layout_marginTop="5dp "
113         android:layout_marginBottom="5dp "
114         android:drawableLeft="@drawable/passwordicon
115             "
116         android:drawablePadding="6dp "
117         android:inputType="textPassword "
118         android:background="@drawable/
119             custom_edittext "
120
121     />
122
123     <Button
124         android:id="@+id/signupbutton "
125         android:layout_width="160dp "
126         android:layout_height="60dp "
127         android:text="Register "
128         android:textStyle="bold "
129         android:textSize="20sp "
130         android:textColor="#FFFFFF "
131         android:backgroundTint="#EA0658 "
132         android:layout_gravity="center_horizontal "
133         android:layout_marginTop="13dp "
134         app:cornerRadius="12dp "
135     />
136
137 </LinearLayout>
138
139 </androidx.cardview.widget.CardView>
140

```

```

141 <LinearLayout
142     android:id="@+id/signuplinearlayoutid"
143     android:layout_width="match_parent"
144     android:layout_height="wrap_content"
145     android:orientation="vertical"
146     android:layout_alignParentBottom="true"
147     android:padding="20dp"
148     android:layout_marginBottom="93dp"
149 >
150
151 <TextView
152     android:id="@+id/
153         alreadyregisteredsigninintextviewid"
154     android:layout_width="match_parent"
155     android:layout_height="wrap_content"
156     android:text="Already Registered? Sign In."
157     android:textSize="18sp"
158     android:gravity="center_horizontal"
159 />
160
161 </LinearLayout>
162
163 <LinearLayout
164     android:id="@+id/socialiconlinearlayoutid"
165     android:layout_width="match_parent"
166     android:layout_height="wrap_content"
167     android:orientation="horizontal"
168     android:gravity="center"
169     android:layout_alignParentBottom="true"
170     android:layout_marginBottom="20dp"
171 >
172
173 <ImageView
174     android:id="@+id/googlelogoid"
175     android:layout_width="48dp"
176     android:layout_height="48dp"
177     android:src="@drawable/google"
178     android:layout_marginBottom="20dp"
179     android:layout_margin="20dp"
180 />
181
182 <ImageView
183     android:id="@+id/fblogoid"
184     android:layout_width="48dp"
185     android:layout_height="48dp"
186     android:src="@drawable/fb"
187     android:layout_marginBottom="20dp"
188     android:layout_margin="20dp"
189 />

```

```

189
190         </LinearLayout>
191
192     </RelativeLayout>

```

Listing 4: MainActivity.java: BMI calculation example

0.3 activity_profile.java

```

1 package com.tarek.bmicalculator;
2
3 import android.content.Intent;
4 import android.os.Bundle;
5 import android.view.View;
6
7 import androidx.activity.EdgeToEdge;
8 import androidx.appcompat.app.AppCompatActivity;
9 import androidx.cardview.widget.CardView;
10 import androidx.core.graphics.Insets;
11 import androidx.core.view.ViewCompat;
12 import androidx.core.view.WindowInsetsCompat;
13
14 public class profile extends AppCompatActivity {
15
16     CardView buttonone, buttontwo, buttonthree, buttonfour,
17         buttonbmi;
18
19     @Override
20     protected void onCreate(Bundle savedInstanceState) {
21         super.onCreate(savedInstanceState);
22         EdgeToEdge.enable(this);
23         setContentView(R.layout.activity_profile);
24         ViewCompat.setOnApplyWindowInsetsListener(
25             findViewById(R.id.main), (v, insets) -> {
26                 Insets systemBars = insets.getInsets(
27                     WindowInsetsCompat.Type.systemBars());
28                 v.setPadding(systemBars.left, systemBars.top,
29                     systemBars.right, systemBars.bottom);
30                 return insets;
31             });
32
33     buttonone = findViewById(R.id.buttonone);
34     buttontwo = findViewById(R.id.buttontwo);
35     buttonthree = findViewById(R.id.buttonthree);
36     buttonfour = findViewById(R.id.buttonfour);
37     buttonbmi = findViewById(R.id.buttonbmi);

```

```

35
36
37
38
39     buttonone.setOnClickListener(new View.
        OnClickListener() {
40         @Override
41         public void onClick(View v) {
42             Intent intentone = new Intent(profile.this,
                screenone.class);
43             startActivity(intentone);
44         }
45     });
46
47
48
49
50     buttontwo.setOnClickListener(new View.
        OnClickListener() {
51         @Override
52         public void onClick(View v) {
53             Intent intenttwo = new Intent(profile.this,
                screentwo.class);
54             startActivity(intenttwo);
55         }
56     });
57
58
59
60
61     buttonthree.setOnClickListener(new View.
        OnClickListener() {
62         @Override
63         public void onClick(View v) {
64             Intent intentthree = new Intent(profile.this
                , screenthree.class);
65             startActivity(intentthree);
66         }
67     });
68
69
70
71
72     buttonfour.setOnClickListener(new View.
        OnClickListener() {
73         @Override
74         public void onClick(View v) {
75             Intent intentfour = new Intent(profile.this,
                screenfour.class);

```



```

76         startActivity(intentfour);
77     }
78 });
79
80
81
82     buttonbmi.setOnClickListener(new View.
83         OnClickListener() {
84         @Override
85         public void onClick(View v) {
86             Intent intentbmi = new Intent(profile.this,
87                 screenbmi.class);
88             startActivity(intentbmi);
89         }
90     });
91 }

```

Listing 5: MainActivity.java: BMI calculation example

0.4 activity_profile.xml

```

1 <?xml version="1.0" encoding="utf-8"?>
2 <RelativeLayout xmlns:android="http://schemas.android.com/
3     apk/res/android"
4     xmlns:app="http://schemas.android.com/apk/res-auto"
5     xmlns:tools="http://schemas.android.com/tools"
6     android:id="@+id/main"
7     android:layout_width="match_parent"
8     android:layout_height="match_parent"
9     tools:context=".profile"
10    android:background="@drawable/three_color"
11    android:orientation="vertical"
12
13    >
14    <androidx.cardview.widget.CardView
15        android:layout_width="match_parent"
16        android:layout_height="202dp"
17        android:layout_marginStart="5dp"
18        android:layout_marginTop="10dp"
19        android:layout_marginEnd="5dp"
20        android:layout_marginBottom="5dp"
21        android:backgroundTint="#FFFFFF"
22        android:foregroundGravity="center"
23        app:cardCornerRadius="20dp"
24        app:cardElevation="60dp"

```

```

25
26     >
27
28     <com.airbnb.lottie.LottieAnimationView
29         android:id="@+id/animationView"
30         android:layout_width="match_parent"
31         android:layout_height="200dp"
32         app:lottie_autoPlay="true"
33         app:lottie_loop="true"
34         app:lottie_rawRes="@raw/lottie_anim"
35     />
36
37 </androidx.cardview.widget.CardView>
38
39
40
41 <androidx.cardview.widget.CardView
42     android:layout_width="match_parent"
43     android:layout_height="match_parent"
44     android:layout_marginStart="5dp"
45     android:layout_marginTop="227dp"
46     android:layout_marginEnd="5dp"
47     android:layout_marginBottom="10dp"
48     android:backgroundTint="#87CE"
49     android:foregroundGravity="center"
50     app:cardCornerRadius="20dp"
51     app:cardElevation="20dp"
52
53     >
54
55     <LinearLayout
56         android:layout_width="match_parent"
57         android:layout_height="match_parent"
58         android:orientation="vertical"
59
60
61     >
62
63     <LinearLayout
64         android:layout_width="match_parent"
65         android:layout_height="180dp"
66         android:layout_marginStart="15dp"
67         android:layout_marginTop="3dp"
68         android:layout_marginEnd="15dp"
69         android:layout_marginBottom="0dp"
70         android:orientation="horizontal"
71         android:weightSum="2"
72
73     >

```

```

74
75 <androidx.cardview.widget.CardView
76     android:id="@+id/buttonone"
77     android:layout_width="fill_parent"
78     android:layout_height="match_parent"
79     android:layout_marginStart="5dp"
80     android:layout_marginTop="15dp"
81     android:layout_marginEnd="8dp"
82     android:layout_marginBottom="8dp"
83     android:backgroundTint="#0C2238"
84     app:cardCornerRadius="20dp"
85     app:cardElevation="20dp"
86     android:layout_weight="1"
87
88 >
89
90 <LinearLayout
91     android:layout_width="match_parent"
92     android:layout_height="match_parent"
93     android:orientation="vertical"
94     android:layout_marginStart="5dp"
95     android:layout_marginEnd="5dp"
96     android:layout_marginTop="5dp"
97     android:layout_marginBottom="5dp"
98     android:layout_gravity="center"
99     android:gravity="center"
100
101 >
102
103 <ImageView
104     android:layout_width="60dp"
105     android:layout_height="60dp"
106     android:src="@drawable/
107         bmi_health_risk"
108     android:layout_marginBottom="7dp"
109
110     android:layout_gravity="center"
111
112 />
113
114 <TextView
115     android:layout_width="
116         wrap_content"
117     android:layout_height="
118         wrap_content"
119     android:text="About BMI"
120     android:textStyle="bold"
121     android:textSize="18sp"
122     android:textColor="#FFFFFF"

```

```

119         android:layout_gravity="center"
120         android:fontFamily="@font/
            poppins_bold"
121         android:shadowColor="#80000000"
122         android:shadowDx="2"
123         android:shadowDy="2"
124         android:shadowRadius="3"
125     />
126
127 </LinearLayout>
128
129
130 </androidx.cardview.widget.CardView>
131
132 <androidx.cardview.widget.CardView
133     android:id="@+id/buttontwo"
134     android:layout_width="fill_parent"
135     android:layout_height="match_parent"
136     android:layout_marginStart="8dp"
137     android:layout_marginTop="15dp"
138     android:layout_marginEnd="5dp"
139     android:layout_marginBottom="8dp"
140     android:backgroundTint="#0C2238"
141     app:cardCornerRadius="20dp"
142     app:cardElevation="20dp"
143     android:layout_weight="1"
144
145 >
146
147     <LinearLayout
148         android:layout_width="match_parent"
149         android:layout_height="match_parent"
150         android:orientation="vertical"
151         android:layout_marginStart="5dp"
152         android:layout_marginEnd="5dp"
153         android:layout_marginTop="5dp"
154         android:layout_marginBottom="5dp"
155         android:layout_gravity="center"
156         android:gravity="center"
157
158     >
159         <ImageView
160             android:layout_width="60dp"
161             android:layout_height="60dp"
162             android:src="@drawable/
                physical_activity"
163             android:layout_marginBottom="7dp"
164
            android:layout_gravity="center"

```

```

165         />
166
167
168         <TextView
169             android:layout_width="
170                 wrap_content"
171             android:layout_height="
172                 wrap_content"
173             android:text="Healthy Lifestyle"
174             android:textStyle="bold"
175             android:textSize="16sp"
176             android:textColor="#FFFFFF"
177             android:layout_gravity="center"
178             android:fontFamily="@font/
179                 poppins_bold"
180             android:shadowColor="#80000000"
181             android:shadowDx="2"
182             android:shadowDy="2"
183             android:shadowRadius="3"
184         />
185
186     </LinearLayout>
187
188 </androidx.cardview.widget.CardView>
189
190 </LinearLayout>
191
192 <LinearLayout
193     android:layout_width="match_parent"
194     android:layout_height="180dp"
195     android:layout_marginStart="15dp"
196     android:layout_marginTop="0dp"
197     android:layout_marginEnd="15dp"
198     android:layout_marginBottom="3dp"
199     android:orientation="horizontal"
200     android:weightSum="2"
201 >
202
203     <androidx.cardview.widget.CardView
204         android:id="@+id/buttonthree"
205         android:layout_width="fill_parent"
206         android:layout_height="match_parent"
207         android:layout_marginStart="5dp"
208         android:layout_marginTop="8dp"
209         android:layout_marginEnd="8dp"
210         android:layout_marginBottom="15dp"

```

```

211         android:backgroundTint="#0C2238"
212         app:cardCornerRadius="20dp"
213         app:cardElevation="20dp"
214         android:layout_weight="1"
215     >
216
217     <LinearLayout
218         android:layout_width="match_parent"
219         android:layout_height="match_parent"
220         android:orientation="vertical"
221         android:layout_marginStart="5dp"
222         android:layout_marginEnd="5dp"
223         android:layout_marginTop="5dp"
224         android:layout_marginBottom="5dp"
225         android:layout_gravity="center"
226         android:gravity="center"
227
228     >
229         <ImageView
230             android:layout_width="60dp"
231             android:layout_height="60dp"
232             android:src="@drawable/
233                 healthy_lifestyle"
234             android:layout_marginBottom="7dp"
235
236             android:layout_gravity="center"
237
238         />
239
240         <TextView
241             android:layout_width="
242                 wrap_content"
243             android:layout_height="
244                 wrap_content"
245             android:text="Physical Activity"
246             android:textStyle="bold"
247             android:textSize="16sp"
248             android:textColor="#FFFFFF"
249             android:layout_gravity="center"
250             android:fontFamily="@font/
251                 poppins_bold"
252             android:shadowColor="#80000000"
253             android:shadowDx="2"
254             android:shadowDy="2"
255             android:shadowRadius="3"
256         />
257     </LinearLayout>

```

```

255     </androidx.cardview.widget.CardView>
256
257     <androidx.cardview.widget.CardView
258         android:id="@+id/buttonfour"
259         android:layout_width="fill_parent"
260         android:layout_height="match_parent"
261         android:layout_marginStart="8dp"
262         android:layout_marginTop="8dp"
263         android:layout_marginEnd="5dp"
264         android:layout_marginBottom="15dp"
265         android:backgroundTint="#0C2238"
266         app:cardCornerRadius="20dp"
267         app:cardElevation="20dp"
268         android:layout_weight="1"
269     >
270
271         <LinearLayout
272             android:layout_width="match_parent"
273             android:layout_height="match_parent"
274             android:orientation="vertical"
275             android:layout_marginStart="5dp"
276             android:layout_marginEnd="5dp"
277             android:layout_marginTop="5dp"
278             android:layout_marginBottom="5dp"
279             android:layout_gravity="center"
280             android:gravity="center"
281
282         >
283             <ImageView
284                 android:layout_width="60dp"
285                 android:layout_height="60dp"
286                 android:src="@drawable/
287                     healthy_diet"
288                 android:layout_marginBottom="7dp"
289
290                 android:layout_gravity="center"
291
292             />
293
294             <TextView
295                 android:layout_width="
296                     wrap_content"
297                 android:layout_height="
298                     wrap_content"
299                 android:text="Healthy Diet"
300                 android:textStyle="bold"
301                 android:textSize="18sp"
302                 android:textColor="#FFFFFF"
303                 android:layout_gravity="center"

```

```

300         android:fontFamily="@font/
301             poppins_bold"
302         android:shadowColor="#80000000"
303         android:shadowDx="2"
304         android:shadowDy="2"
305         android:shadowRadius="3"
306     />
307
308     </LinearLayout>
309
310     </androidx.cardview.widget.CardView>
311
312 </LinearLayout>
313
314 <androidx.cardview.widget.CardView
315     android:id="@+id/buttonbmi"
316     android:layout_width="match_parent"
317     android:layout_height="90dp"
318     android:layout_marginStart="40dp"
319     android:layout_marginTop="0dp"
320     android:layout_marginEnd="40dp"
321     android:layout_marginBottom="10dp"
322     android:backgroundTint="#0C2238"
323     android:foregroundGravity="center"
324     app:cardCornerRadius="20dp"
325     app:cardElevation="20dp"
326 >
327
328     <TextView
329         android:layout_width="match_parent"
330         android:layout_height="wrap_content"
331         android:text="Calculate BMI"
332         android:textStyle="bold"
333         android:textSize="30sp"
334         android:gravity="center"
335         android:layout_gravity="center"
336         android:textColor="#FFFFFF"
337         android:fontFamily="@font/poppins_bold"
338         android:shadowColor="#80000000"
339         android:shadowDx="2"
340         android:shadowDy="2"
341         android:shadowRadius="3"
342
343     />
344
345 </androidx.cardview.widget.CardView>
346
347 <androidx.cardview.widget.CardView

```



```

348     android:layout_width="200dp"
349     android:layout_height="60dp"
350     android:layout_marginStart="20dp"
351     android:layout_marginTop="10dp"
352     android:layout_marginEnd="20dp"
353     android:layout_marginBottom="10dp"
354     android:backgroundTint="#E31044"
355     android:foregroundGravity="center"
356     app:cardCornerRadius="20dp"
357     app:cardElevation="20dp"
358     android:layout_gravity="center"
359 >
360
361 <LinearLayout
362     android:layout_width="wrap_content"
363     android:layout_height="wrap_content"
364     android:orientation="horizontal"
365     android:layout_gravity="center"
366
367 >
368
369     <TextView
370         android:layout_width="wrap_content"
371         android:layout_height="wrap_content"
372         android:text="Rate Us"
373         android:textStyle="bold"
374         android:textSize="25sp"
375         android:layout_marginEnd="5dp"
376         android:textColor="#FFFFFF"
377         android:layout_gravity="center"
378         android:fontFamily="@font/
379             poppins_bold"
380         android:shadowColor="#80000000"
381         android:shadowDx="2"
382         android:shadowDy="2"
383         android:shadowRadius="3"
384     />
385
386     <ImageView
387         android:layout_width="30dp"
388         android:layout_height="30dp"
389         android:src="@drawable/rate_us"
390         android:layout_marginEnd="8dp"
391         android:layout_marginLeft="5dp"
392         android:layout_marginStart="4dp"
393         android:layout_marginTop="4dp"
394     />
395

```

```

396         </LinearLayout>
397
398         </androidx.cardview.widget.CardView>
399
400
401     </LinearLayout>
402
403
404 </androidx.cardview.widget.CardView>
405
406 </RelativeLayout>

```

Listing 6: MainActivity.java: BMI calculation example

0.5 Screenbmi.java

```

1 package com.tarek.bmicalculator;
2
3 import android.content.Intent;
4 import android.os.Bundle;
5 import android.view.View;
6 import android.widget.Button;
7 import android.widget.EditText;
8 import android.widget.RadioButton;
9 import android.widget.RadioGroup;
10
11 import androidx.activity.EdgeToEdge;
12 import androidx.appcompat.app.AppCompatActivity;
13 import androidx.core.graphics.Insets;
14 import androidx.core.view.ViewCompat;
15 import androidx.core.view.WindowInsetsCompat;
16
17 public class screenbmi extends AppCompatActivity {
18
19     EditText editname, edittextweight, edittextfeet,
20         edittextinch, editage;
21     Button buttoncal;
22     RadioGroup genderGroup;
23     RadioButton genderSelected;
24
25     @Override
26     protected void onCreate(Bundle savedInstanceState) {
27         super.onCreate(savedInstanceState);
28         EdgeToEdge.enable(this);
29         setContentView(R.layout.activity_screenbmi);

```

```

30     ViewCompat.setOnApplyWindowInsetsListener(
31         findViewById(R.id.main), (v, insets) -> {
32             Insets systemBars = insets.getInsets(
33                 WindowInsetsCompat.Type.systemBars());
34             v.setPadding(systemBars.left, systemBars.top,
35                 systemBars.right, systemBars.bottom);
36             return insets;
37         });
38
39     editname = findViewById(R.id.editname);
40     edittextweight = findViewById(R.id.edittextweight);
41     edittextfeet = findViewById(R.id.edittextfeet);
42     edittextinch = findViewById(R.id.edittextinch);
43     editage = findViewById(R.id.editage);
44     buttoncal = findViewById(R.id.buttoncal);
45     genderGroup = findViewById(R.id.genderGroup);
46
47     buttoncal.setOnClickListener(new View.
48         OnClickListener() {
49             @Override
50             public void onClick(View v) {
51
52                 String sname = editname.getText().toString()
53                     ;
54                 String sweight = edittextweight.getText().
55                     toString();
56                 String sfeet = edittextfeet.getText().
57                     toString();
58                 String sinch = edittextinch.getText().
59                     toString();
60                 String sage = editage.getText().toString();
61
62                 int selectedId = genderGroup.
63                     getCheckedRadioButtonId();
64
65                 if (sname.length()>0 && sage.length()>0 &&
66                     sweight.length()>0 && sfeet.length()>0
67                     && sinch.length()>0 && selectedId != -1)
68                 {
69
70                     float weight = Float.parseFloat(sweight)
71                         ;
72                     float feet = Float.parseFloat(sfeet);
73                     float inch = Float.parseFloat(sinch);

```

```

66
67
68         float height = (float) (feet * 0.3048 +
69             inch * 0.0254);
70
71
72
73         float bmiindex = weight / (height *
74             height);
75
76         genderSelected = findViewById(selectedId
77             );
78         String gender = genderSelected.getText()
79             .toString();
80
81         String suggestion;
82         if (gender.equalsIgnoreCase("Male"))
83         {
84             if (bmiindex < 18.5)
85             {
86                 suggestion = "You are Underweight (
87                     Male).\n Eat more protein &
88                     carbs, do muscle building
89                     exercise.\n\nBMI 18.5 ;
90             }
91             else if (bmiindex >= 18.5 &&
92                 bmiindex <= 24.9)
93             {
94                 suggestion = "You are Healthy (
95                     Male).
96             }
97             else if (bmiindex >= 25 && bmiindex
98                 <= 29.9)
99             {
100                 suggestion = "You are Overweight
101                     (Male).;
102             }
103             else {
104                 suggestion = "You are Obese (
105                     Male).;
106             }
107         }

```

```

103
104         else { // Female
105
106             if (bmiindex < 18.5) {
107                 suggestion = "You are
108                     Underweight (Female).;
109             }
110
111             else if (bmiindex >= 18.5 &&
112                 bmiindex <= 24.9) {
113                 suggestion = "You are Normal,
114                     Healthy (Female).;
115             }
116
117             else if (bmiindex >= 25 && bmiindex
118                 <= 29.9) {
119                 suggestion = "You are Overweight
120                     (Female).;
121             }
122
123             else {
124                 suggestion = "You are Obese (
125                     Female).;
126             }
127         }
128
129         String finalResult = "Welcome " + sname
130             +
131             ",\nAge: " + sage +
132             "\nGender: " + gender +
133             "\nYour BMI: " + String.format("
134                 %.2f", bmiindex) +
135             "\n\n" + suggestion;
136
137         Intent intent = new Intent(screenbmi.
138             this, result.class);
139         intent.putExtra("finalResult",
140             finalResult);
141         startActivity(intent);
142     }
143
144     else {

```

```

141         Intent intent = new Intent(screenbmi.
142             this, result.class);
143         intent.putExtra("finalResult", "Please
144             fill all the information correctly!"
145             );
146         startActivity(intent);
147     }
148 }

```

Listing 7: MainActivity.java: BMI calculation example

0.6 Activity_screenbmi.xml

```

1 <?xml version="1.0" encoding="utf-8"?>
2 <LinearLayout xmlns:android="http://schemas.android.com/apk/
   res/android"
3     xmlns:app="http://schemas.android.com/apk/res-auto"
4     xmlns:tools="http://schemas.android.com/tools"
5     android:id="@+id/main"
6     android:layout_width="match_parent"
7     android:layout_height="match_parent"
8     tools:context=".screenbmi"
9     android:orientation="vertical"
10    android:background="@drawable/two_color"
11 >
12
13    <TextView
14        android:layout_width="match_parent"
15        android:layout_height="wrap_content"
16        android:text="BMI (Body mass index) "
17        android:textSize="30sp"
18        android:textStyle="bold"
19        android:textColor="#000000"
20        android:layout_marginStart="5dp"
21        android:layout_marginTop="27dp"
22        android:gravity="center"
23        android:fontFamily="@font/poppins_bold"
24    />
25
26    <androidx.cardview.widget.CardView
27        android:layout_width="match_parent"
28        android:layout_height="474dp"
29        android:layout_marginStart="5dp"
30        android:layout_marginTop="11dp"

```

```

31     android:layout_marginEnd="5dp"
32     android:layout_marginBottom="10dp"
33     android:backgroundTint="#FFFFFF"
34     app:cardCornerRadius="20dp"
35     app:cardElevation="60dp"
36
37     >
38
39     <LinearLayout
40         android:layout_width="match_parent"
41         android:layout_height="wrap_content"
42         android:orientation="vertical"
43         android:layout_margin="7dp"
44     >
45
46     <TextView
47         android:layout_width="match_parent"
48         android:layout_height="wrap_content"
49         android:text="Give your Name: "
50         android:textSize="20sp"
51         android:textStyle="bold"
52         android:textColor="#000000"
53         android:layout_marginStart="5dp"
54         android:fontFamily="@font/poppins_bold"
55     />
56
57     <EditText
58         android:id="@+id/editname"
59         android:layout_width="190dp"
60         android:layout_height="48dp"
61         android:minHeight="48dp"
62         android:hint="Name"
63         android:textColorHint="#601AB6"
64         android:textColor="#000000"
65         android:textColorHighlight="#9F89D1"
66         android:padding="9dp"
67         android:inputType="text"
68         android:layout_marginStart="5dp"
69         android:layout_marginEnd="5dp"
70         android:layout_marginTop="0dp"
71         android:layout_marginBottom="5dp"
72         android:drawablePadding="6dp"
73         android:background="@drawable/
74             custom_edittext"
75     />
76
77     <TextView
78         android:layout_width="match_parent"
79         android:layout_height="wrap_content"

```

```

79         android:text="Select Gender: "
80         android:textSize="20sp"
81         android:textStyle="bold"
82         android:textColor="#000000"
83         android:layout_marginTop="5dp"
84         android:layout_marginStart="5dp"
85         android:fontFamily="@font/poppins_bold"
86     />
87
88     <RadioGroup
89         android:id="@+id/genderGroup"
90         android:layout_width="match_parent"
91         android:layout_height="wrap_content"
92         android:orientation="horizontal"
93         android:layout_marginStart="5dp"
94     >
95
96         <RadioButton
97             android:id="@+id/radioMale"
98             android:layout_width="wrap_content"
99             android:layout_height="wrap_content"
100             android:text="Male"
101         />
102
103         <RadioButton
104             android:id="@+id/radioFemale"
105             android:layout_width="wrap_content"
106             android:layout_height="wrap_content"
107             android:text="Female"
108             android:layout_marginStart="20dp"
109         />
110     </RadioGroup>
111
112
113     <TextView
114         android:layout_width="match_parent"
115         android:layout_height="wrap_content"
116         android:text="Give your Age: "
117         android:textSize="20sp"
118         android:textStyle="bold"
119         android:textColor="#000000"
120         android:layout_marginTop="5dp"
121         android:layout_marginStart="5dp"
122         android:fontFamily="@font/poppins_bold"
123     />
124
125     <EditText
126         android:id="@+id/editage"
127         android:layout_width="190dp"

```



```

128         android:layout_height="48dp"
129         android:minHeight="48dp"
130         android:hint="Age"
131         android:textColorHint="#601AB6"
132         android:textColor="#000000"
133         android:textColorHighlight="#9F89D1"
134         android:padding="9dp"
135         android:inputType="number"
136         android:layout_marginStart="5dp"
137         android:layout_marginEnd="5dp"
138         android:layout_marginTop="0dp"
139         android:layout_marginBottom="5dp"
140         android:drawablePadding="6dp"
141         android:background="@drawable/
            custom_edittext"
142     />
143
144     <TextView
145         android:layout_width="match_parent"
146         android:layout_height="wrap_content"
147         android:text="Give your Weight: "
148         android:textSize="20sp"
149         android:textStyle="bold"
150         android:textColor="#000000"
151         android:layout_marginStart="5dp"
152         android:layout_marginTop="5dp"
153         android:fontFamily="@font/poppins_bold"
154     />
155
156     <EditText
157         android:id="@+id/edittextweight"
158         android:layout_width="190dp"
159         android:layout_height="48dp"
160         android:minHeight="48dp"
161         android:hint="Weight in KG"
162         android:textColorHint="#601AB6"
163         android:textColor="#000000"
164         android:textColorHighlight="#9F89D1"
165         android:padding="9dp"
166         android:inputType="numberDecimal"
167         android:layout_marginStart="5dp"
168         android:layout_marginEnd="5dp"
169         android:layout_marginTop="0dp"
170         android:layout_marginBottom="5dp"
171         android:drawablePadding="6dp"
172         android:background="@drawable/
            custom_edittext"
173     />
174

```

```

175         <TextView
176             android:layout_width="match_parent"
177             android:layout_height="wrap_content"
178             android:text="Give your Height: "
179             android:textSize="20sp"
180             android:textStyle="bold"
181             android:textColor="#000000"
182             android:layout_marginStart="5dp"
183             android:layout_marginTop="5dp"
184             android:fontFamily="@font/poppins_bold"
185         />
186
187     <LinearLayout
188         android:layout_width="380dp"
189         android:layout_height="50dp"
190         android:orientation="horizontal"
191         android:weightSum="2"
192
193     >
194
195     <EditText
196         android:id="@+id/edittextfeet"
197         android:layout_width="190dp"
198         android:layout_height="48dp"
199         android:minHeight="48dp"
200         android:hint="Height in Feet"
201         android:textColorHint="#601AB6"
202         android:textColor="#000000"
203         android:textColorHighlight="#9F89D1"
204         android:padding="9dp"
205         android:inputType="numberDecimal"
206         android:layout_marginStart="5dp"
207         android:layout_marginEnd="5dp"
208         android:layout_marginTop="0dp"
209         android:layout_marginBottom="5dp"
210         android:drawablePadding="6dp"
211         android:background="@drawable/custom_edittext"
212         android:layout_weight="1"
213     />
214
215     <EditText
216         android:id="@+id/edittextinch"
217         android:layout_width="190dp"
218         android:layout_height="48dp"
219         android:minHeight="48dp"
220         android:hint="Height in Inch"
221         android:textColorHint="#601AB6"
222         android:textColor="#000000"
223         android:textColorHighlight="#9F89D1"

```

```

224         android:padding="9dp"
225         android:inputType="numberDecimal"
226         android:layout_marginStart="5dp"
227         android:layout_marginEnd="5dp"
228         android:layout_marginTop="0dp"
229         android:layout_marginBottom="5dp"
230         android:drawablePadding="6dp"
231         android:background="@drawable/custom_editttext"
232         android:layout_weight="1"
233     />
234
235 </LinearLayout>
236
237 </LinearLayout>
238 </androidx.cardview.widget.CardView>
239
240 <Button
241     android:id="@+id/buttoncal"
242     android:layout_width="230dp"
243     android:layout_height="70dp"
244     android:text="Calculate"
245     android:textSize="35sp"
246     android:textColor="#21EA31"
247     android:layout_marginTop="12dp"
248     android:fontFamily="@font/poppins_bold"
249     android:layout_gravity="center"
250     android:backgroundTint="#000000"
251 />
252 </LinearLayout>

```

Listing 8: MainActivity.java: BMI calculation example

0.7 Result.java

```

1 package com.tarek.bmicalculator;
2
3 import android.os.Bundle;
4 import android.widget.TextView;
5
6 import androidx.activity.EdgeToEdge;
7 import androidx.appcompat.app.AppCompatActivity;
8 import androidx.core.graphics.Insets;
9 import androidx.core.view.ViewCompat;
10 import androidx.core.view.WindowInsetsCompat;
11
12 public class result extends AppCompatActivity {
13

```

```

14     TextView textFinalResult;
15
16     @Override
17     protected void onCreate(Bundle savedInstanceState) {
18         super.onCreate(savedInstanceState);
19         EdgeToEdge.enable(this);
20         setContentView(R.layout.activity_result);
21
22         ViewCompat.setOnApplyWindowInsetsListener(
23             findViewById(R.id.main), (v, insets) -> {
24                 Insets systemBars = insets.getInsets(
25                     WindowInsetsCompat.Type.systemBars());
26                 v.setPadding(systemBars.left, systemBars.top,
27                     systemBars.right, systemBars.bottom);
28                 return insets;
29             });
30
31         textFinalResult = findViewById(R.id.textFinalResult)
32             ;
33         String resultText = getIntent().getStringExtra("
34             finalResult");
35         textFinalResult.setText(resultText);
36     }
37 }

```

Listing 9: MainActivity.java: BMI calculation example

0.8 activity_result.xml

```

1 <?xml version="1.0" encoding="utf-8"?>
2 <LinearLayout xmlns:android="http://schemas.android.com/apk/
3     res/android"
4     xmlns:app="http://schemas.android.com/apk/res-auto"
5     xmlns:tools="http://schemas.android.com/tools"
6     android:id="@+id/main"
7     android:layout_width="match_parent"
8     android:layout_height="match_parent"
9     tools:context=".result"
10    android:orientation="vertical"
11    android:background="@drawable/two_color"
12    >
13    <ScrollView
14        android:layout_width="match_parent"
15        android:layout_height="wrap_content"
16        >
17

```

```

18
19         <androidx.cardview.widget.CardView
20             android:layout_width="match_parent"
21             android:layout_height="match_parent"
22             android:layout_marginStart="5dp"
23             android:layout_marginTop="10dp"
24             android:layout_marginEnd="5dp"
25             android:layout_marginBottom="10dp"
26             android:backgroundTint="#FFFFFF"
27             android:foregroundGravity="center"
28             app:cardCornerRadius="20dp"
29             app:cardElevation="60dp"
30
31         >
32
33
34     <LinearLayout
35         android:layout_width="match_parent"
36         android:layout_height="match_parent"
37         android:orientation="vertical"
38         android:layout_margin="6dp"
39     >
40
41     <TextView
42         android:id="@+id/resultTitle"
43         android:layout_width="wrap_content"
44         android:layout_height="wrap_content"
45         android:text="BMI Result with tips:"
46         android:textSize="24sp"
47         android:textColor="#000000"
48         android:layout_marginTop="4dp"
49         android:layout_marginBottom="12dp"
50         android:layout_gravity="center"
51         android:fontFamily="@font/poppins_bold"
52     />
53
54     <TextView
55         android:id="@+id/textFinalResult"
56         android:layout_width="match_parent"
57         android:layout_height="wrap_content"
58         android:text="Your Result will appear here"
59         android:textSize="20sp"
60         android:textStyle="bold"
61         android:justificationMode="inter_word"
62         android:textColor="#333333"
63         android:gravity="left"
64         android:padding="5dp"
65         android:elevation="4dp"
66         android:fontFamily="@font/poppins_light"

```

```

67         android:layout_gravity="left"
68     />
69
70
71
72 </LinearLayout>
73
74     </androidx.cardview.widget.CardView>
75
76 </ScrollView>
77
78 </LinearLayout>

```

Listing 10: MainActivity.java: BMI calculation example

0.9 Screenone.java

```

1 package com.tarek.bmicalculator;
2
3 import android.os.Bundle;
4
5 import androidx.activity.EdgeToEdge;
6 import androidx.appcompat.app.AppCompatActivity;
7 import androidx.core.graphics.Insets;
8 import androidx.core.view.ViewCompat;
9 import androidx.core.view.WindowInsetsCompat;
10
11 public class screenone extends AppCompatActivity {
12
13     @Override
14     protected void onCreate(Bundle savedInstanceState) {
15         super.onCreate(savedInstanceState);
16         EdgeToEdge.enable(this);
17         setContentView(R.layout.activity_screenone);
18         ViewCompat.setOnApplyWindowInsetsListener(
19             findViewById(R.id.main), (v, insets) -> {
20                 Insets systemBars = insets.getInsets(
21                     WindowInsetsCompat.Type.systemBars());
22                 v.setPadding(systemBars.left, systemBars.top,
23                     systemBars.right, systemBars.bottom);
24                 return insets;
25             });
26     }
27 }

```

Listing 11: MainActivity.java: BMI calculation example

0.10 activity_screenone.xml

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <LinearLayout xmlns:android="http://schemas.android.com/apk/
  res/android"
3     xmlns:app="http://schemas.android.com/apk/res-auto"
4     xmlns:tools="http://schemas.android.com/tools"
5     android:id="@+id/main"
6     android:layout_width="match_parent"
7     android:layout_height="match_parent"
8     tools:context=".screenone"
9     android:background="@drawable/three_color"
10    android:orientation="vertical"
11    >
12
13    <ScrollView
14        android:layout_width="match_parent"
15        android:layout_height="wrap_content"
16        >
17
18        <LinearLayout
19            android:layout_width="match_parent"
20            android:layout_height="wrap_content"
21            android:orientation="vertical"
22            android:layout_marginStart="5dp"
23            android:layout_marginTop="20dp"
24            android:layout_marginEnd="5dp"
25            android:layout_marginBottom="20dp"
26            android:background="#FFFFFF"
27
28        >
29
30        <TextView
31            android:layout_width="match_parent"
32            android:layout_height="wrap_content"
33            android:layout_marginStart="8dp"
34            android:layout_marginEnd="8dp"
35            android:layout_marginTop="8dp"
36            android:layout_marginBottom="8dp"
37            android:gravity="left"
38            android:justificationMode="inter_word"
39            android:text=":"
40            android:textColor="#000000"
41            android:textSize="20sp"
42            android:fontFamily="@font/poppins_bold"
43        />
44
45
```

```

46 <ImageView
47     android:layout_width="320dp"
48     android:layout_height="140dp"
49     android:layout_gravity="center"
50     android:src="@drawable/onepic"
51 />
52
53 <TextView
54     android:layout_width="match_parent"
55     android:layout_height="wrap_content"
56     android:layout_marginStart="8dp"
57     android:layout_marginEnd="8dp"
58     android:gravity="left"
59     android:justificationMode="inter_word"
60     android:text=""
61     android:textColor="#000000"
62     android:textSize="17sp"
63     android:fontFamily="@font/poppins_light"
64 />
65
66 <TextView
67     android:layout_width="match_parent"
68     android:layout_height="wrap_content"
69     android:layout_marginStart="8dp"
70     android:layout_marginEnd="8dp"
71     android:layout_marginTop="8dp"
72     android:layout_marginBottom="8dp"
73     android:gravity="left"
74     android:justificationMode="inter_word"
75     android:text=""
76     android:textColor="#000000"
77     android:textSize="20sp"
78     android:fontFamily="@font/poppins_bold"
79 />
80
81 <TextView
82     android:layout_width="match_parent"
83     android:layout_height="wrap_content"
84     android:layout_marginStart="8dp"
85     android:layout_marginEnd="8dp"
86     android:gravity="left"
87     android:justificationMode="inter_word"
88     android:text="(Obese)"
89     android:textColor="#000000"
90     android:textSize="17sp"
91     android:fontFamily="@font/poppins_light"
92 />
93
94 <TextView

```



```

95         android:layout_width="match_parent"
96         android:layout_height="wrap_content"
97         android:layout_marginStart="8dp"
98         android:layout_marginEnd="8dp"
99         android:layout_marginTop="8dp"
100        android:layout_marginBottom="8dp"
101        android:gravity="left"
102        android:justificationMode="inter_word"
103        android:text=""
104        android:textColor="#000000"
105        android:textSize="20sp"
106        android:fontFamily="@font/poppins_bold"
107    />
108
109    <TextView
110        android:layout_width="match_parent"
111        android:layout_height="wrap_content"
112        android:layout_marginStart="8dp"
113        android:layout_marginEnd="8dp"
114        android:gravity="left"
115        android:justificationMode="inter_word"
116        android:text=""
117        android:textColor="#000000"
118        android:textSize="17sp"
119        android:fontFamily="@font/poppins_light"
120    />
121
122    <TextView
123        android:layout_width="match_parent"
124        android:layout_height="wrap_content"
125        android:layout_marginStart="8dp"
126        android:layout_marginEnd="8dp"
127        android:layout_marginTop="8dp"
128        android:layout_marginBottom="8dp"
129        android:gravity="left"
130        android:justificationMode="inter_word"
131        android:text=""
132        android:textColor="#000000"
133        android:textSize="20sp"
134        android:fontFamily="@font/poppins_bold"
135    />
136
137    <TextView
138        android:layout_width="match_parent"
139        android:layout_height="wrap_content"
140        android:layout_marginStart="8dp"
141        android:layout_marginEnd="8dp"
142        android:gravity="left"
143        android:justificationMode="inter_word"

```

```

144         android:text=""
145         android:textColor="#000000"
146         android:textSize="17sp"
147         android:fontFamily="@font/poppins_light"
148     />
149
150
151     </LinearLayout>
152
153 </ScrollView>
154
155 </LinearLayout>

```

Listing 12: MainActivity.java: BMI calculation example

0.11 screentwo.java

```

1 package com.tarek.bmicalculator;
2
3 import android.os.Bundle;
4
5 import androidx.activity.EdgeToEdge;
6 import androidx.appcompat.app.AppCompatActivity;
7 import androidx.core.graphics.Insets;
8 import androidx.core.view.ViewCompat;
9 import androidx.core.view.WindowInsetsCompat;
10
11 public class screentwo extends AppCompatActivity {
12
13     @Override
14     protected void onCreate(Bundle savedInstanceState) {
15         super.onCreate(savedInstanceState);
16         EdgeToEdge.enable(this);
17         setContentView(R.layout.activity_screentwo);
18         ViewCompat.setOnApplyWindowInsetsListener(
19             findViewById(R.id.main), (v, insets) -> {
20                 Insets systemBars = insets.getInsets(
21                     WindowInsetsCompat.Type.systemBars());
22                 v.setPadding(systemBars.left, systemBars.top,
23                     systemBars.right, systemBars.bottom);
24                 return insets;
25             });
26     }
27 }

```

Listing 13: MainActivity.java: BMI calculation example

0.12 screenthree.java

```
1 package com.tarek.bmicalculator;
2
3 import android.os.Bundle;
4
5 import androidx.activity.EdgeToEdge;
6 import androidx.appcompat.app.AppCompatActivity;
7 import androidx.core.graphics.Insets;
8 import androidx.core.view.ViewCompat;
9 import androidx.core.view.WindowInsetsCompat;
10
11 public class screenthree extends AppCompatActivity {
12
13     @Override
14     protected void onCreate(Bundle savedInstanceState) {
15         super.onCreate(savedInstanceState);
16         EdgeToEdge.enable(this);
17         setContentView(R.layout.activity_screenthree);
18         ViewCompat.setOnApplyWindowInsetsListener(
19             findViewById(R.id.main), (v, insets) -> {
20                 Insets systemBars = insets.getInsets(
21                     WindowInsetsCompat.Type.systemBars());
22                 v.setPadding(systemBars.left, systemBars.top,
23                     systemBars.right, systemBars.bottom);
24                 return insets;
25             });
26     }
27 }
```

Listing 14: MainActivity.java: BMI calculation example

0.13 screenfour.java

```
1 package com.tarek.bmicalculator;
2
3 import android.os.Bundle;
4
5 import androidx.activity.EdgeToEdge;
6 import androidx.appcompat.app.AppCompatActivity;
7 import androidx.core.graphics.Insets;
8 import androidx.core.view.ViewCompat;
9 import androidx.core.view.WindowInsetsCompat;
10
11 public class screenfour extends AppCompatActivity {
12
```

```

13     @Override
14     protected void onCreate(Bundle savedInstanceState) {
15         super.onCreate(savedInstanceState);
16         EdgeToEdge.enable(this);
17         setContentView(R.layout.activity_screenfour);
18         ViewCompat.setOnApplyWindowInsetsListener(
19             findViewById(R.id.main), (v, insets) -> {
20                 Insets systemBars = insets.getInsets(
21                     WindowInsetsCompat.Type.systemBars());
22                 v.setPadding(systemBars.left, systemBars.top,
23                     systemBars.right, systemBars.bottom);
24                 return insets;
25             });
26     }
27 }

```

Listing 15: MainActivity.java: BMI calculation example