

1. Create new Project, choose empty activity, give the name DaftarBelanja

2. Add some libraries in build.gradle

```
implementation 'com.google.firebase:firebase-database:10.0.1'
```

```
implementation 'com.google.firebase:firebase-auth:10.0.1'
```

```
implementation 'com.google.firebase:firebase-core:10.0.1'
```

```
implementation 'com.firebaseui:firebase-ui-database:0.4.0'
```

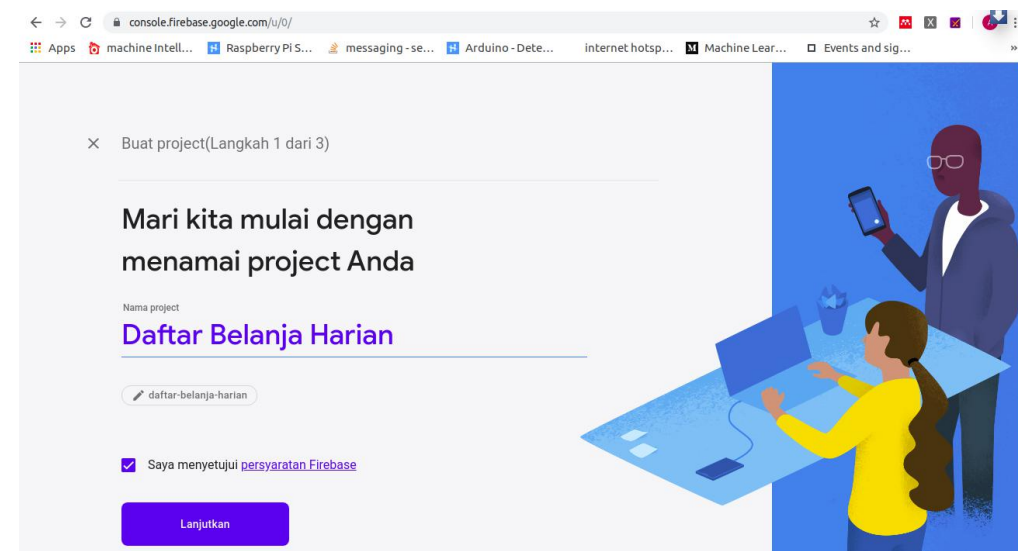
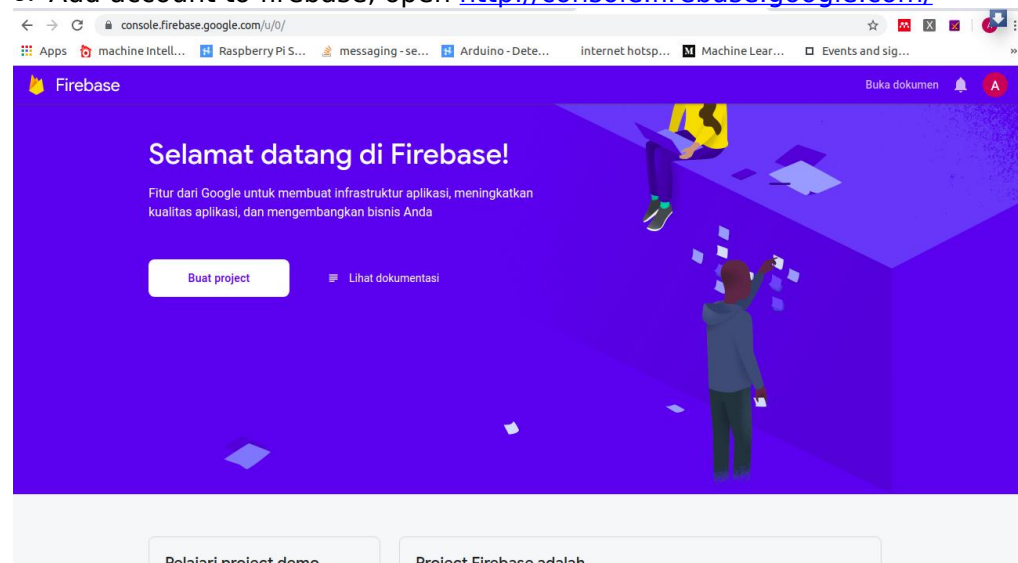
```
implementation 'androidx.cardview:cardview:1.0.0'
```

```
implementation 'com.google.android.material:material:1.0.0'
```

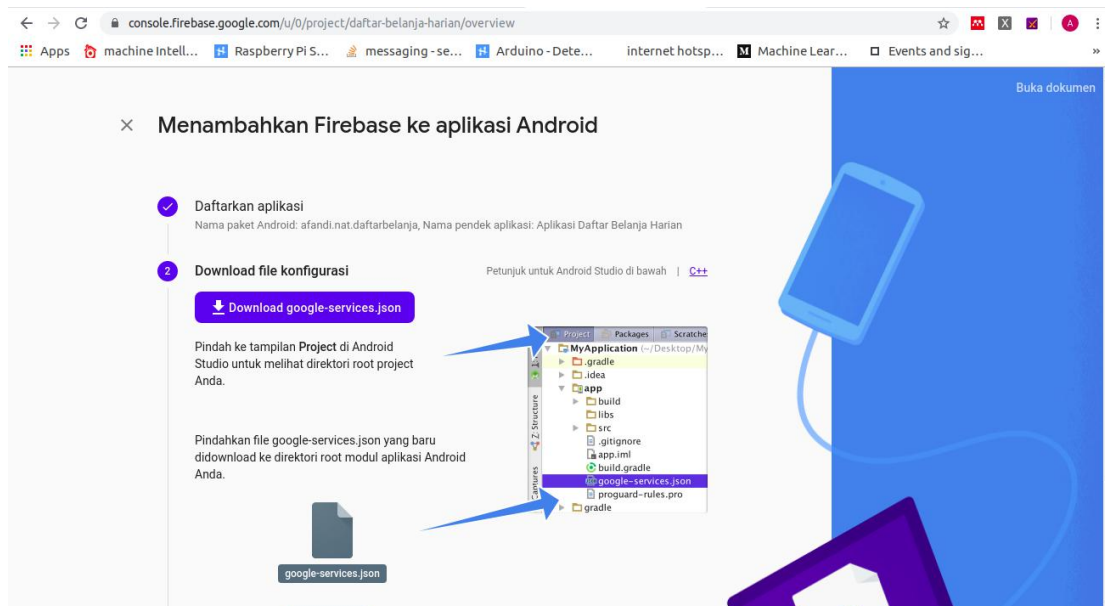
```
implementation 'com.android.support.design:29.0.0'
```

```
implementation 'de.hdodenhof:circleimageview:3.0.1'
```

3. Add account to firebase, open <http://console.firebase.google.com/>

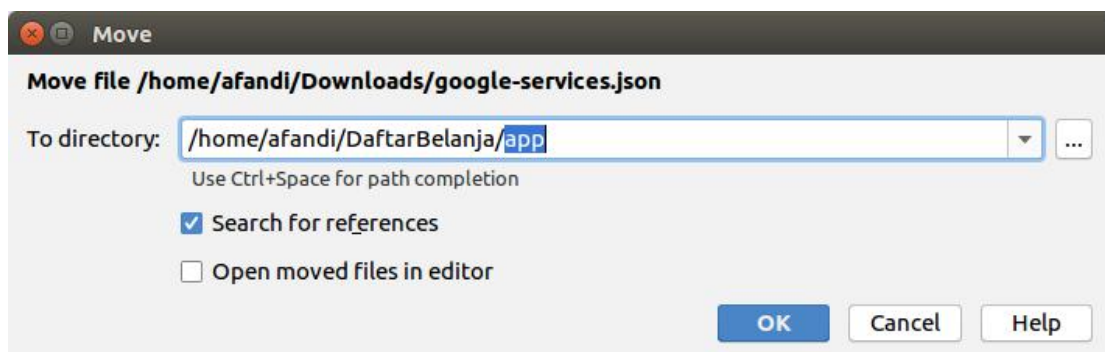


Allow permission to google analytic, choose country Indonesia, accept all permissions

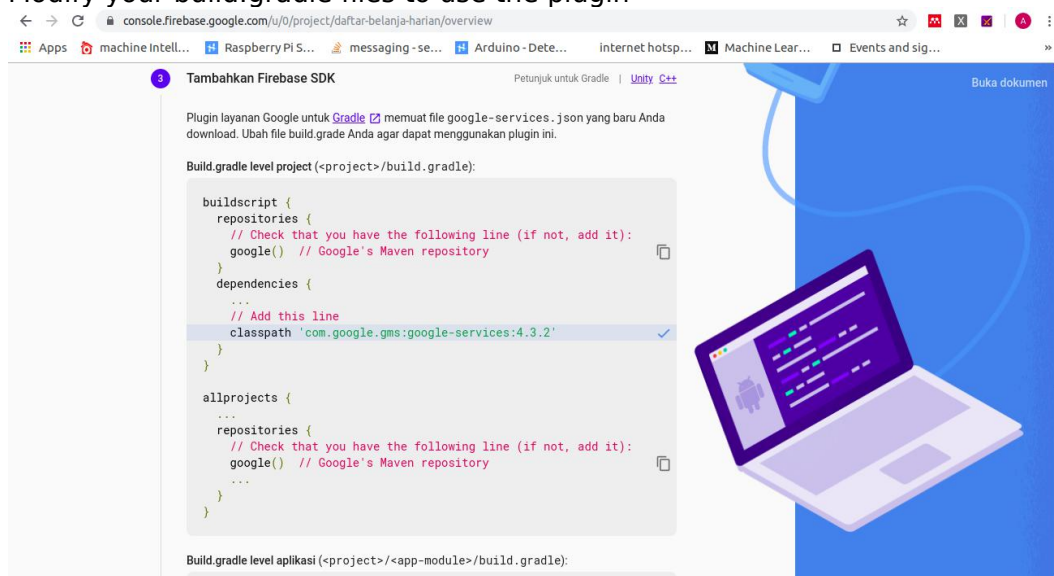


Download google-services.json. Switch to the project view in android studio to see your project root directory

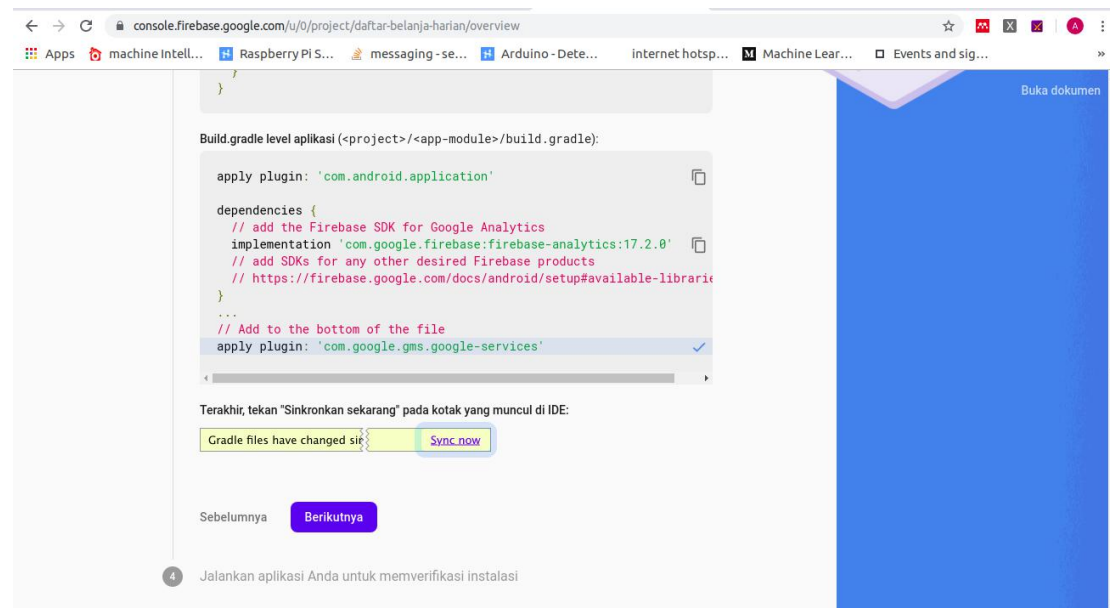
Move the google-service.json file you just downloaded into your android app module root directory



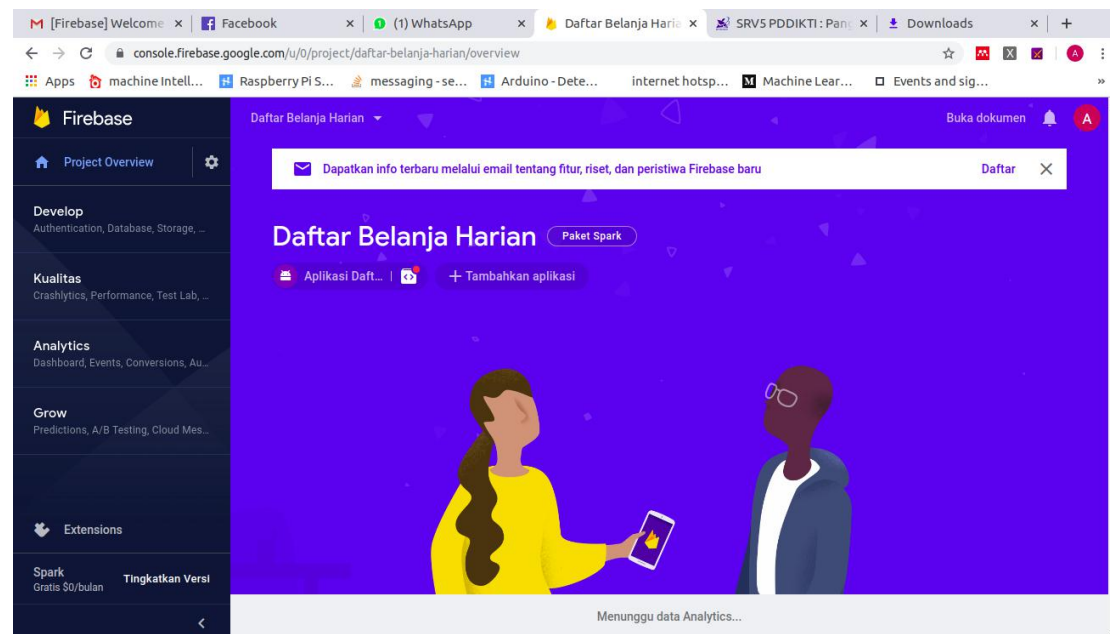
After that, click next in firebase.
Modify your build.gradle files to use the plugin



Copy classpath 'com.google.gms:google-services:4.3.2' and paste it in build.gradle your android project



And also copy apply plugin: 'com.google.gms.google-services' to build.gradle(module)
Click next to synchronize you app to firebase



Your firebase project is ready

Sebelum menambahkan fungsionalitas, kita desain dulu tampilan antarmuka dari aplikasi. Silahkan buka file **strings.xml**, tambahkan beberapa kode berikut

```
1. <resources>
2.   <string name="app_name">Daftar Belanja</string>
3.   <string name="ket_register">Belum Punya Akun, Klik Tulisan ini</string>
4.   <string name="ket_login">Sudah Punya Akun? Silahkan Sign In</string>
5.   <string name="login">Masuk</string>
6.   <string name="register">Daftar</string>
7.   <string name="email">Email</string>
8.   <string name="pass">Password</string>
9.   <string name="nama">Nama Barang</string>
10.  <string name="harga">Harga</string>
11.  <string name="deskripsi">Deskripsi</string>
12.  <string name="total">Total Harga :</string>
13.  <string name="save">Simpan</string>
14.  <string name="update">Update</string>
15. </resources>
```

Kemudian untuk mempercantik tampilan antarmuka pengguna, tambahkan drawable resources file yaitu **background_profile.xml**, **edittextstyle.xml**, dan **buttonstyle.xml**.

background_profile.xml

```
1. <?xml version="1.0" encoding="utf-8"?>
2. <shape xmlns:android="http://schemas.android.com/apk/res/android"
3.   android:shape="rectangle">
4.   <corners android:radius="1000dp" />
5.   <solid android:color="#5EAE9E" />
6.   <stroke
7.     android:width="5dp"
8.     android:color="#5EAE9E" />
9.   <padding
10.    android:bottom="4dp"
11.    android:left="4dp"
12.    android:right="4dp"
13.    android:top="4dp" />
14. </shape>
```

Edittextstyle.xml

```
1. <?xml version="1.0" encoding="utf-8"?>
2. <shape xmlns:android="http://schemas.android.com/apk/res/android">
3.   <corners android:radius="10dp"></corners>
4.   <stroke android:color="#000" android:width="1dp"/>
5.   <padding android:bottom="15dp" android:right="15dp" android:left="15dp" android:top="
15dp"></padding>
6.   <solid android:color="#fff"/>
7. </shape>
```

Buttonstyle.xml

```
1.  <?xml version="1.0" encoding="utf-8"?>
2.  <shape xmlns:android="http://schemas.android.com/apk/res/android">
3.      <corners android:radius="10dp"></corners>
4.      <padding android:bottom="15dp" android:right="15dp" android:left="15dp" android:top="
    15dp"></padding>
5.      <solid android:color="#448AFF"/>
6.  </shape>
```

Selanjutnya kita desain tampilan antarmuka untuk Login User. Buka file **activity_main.xml** kemudian tambahkan kode dibawah ini

```
1.  <?xml version="1.0" encoding="utf-8"?>
2.  <RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
3.      android:layout_width="match_parent"
4.      android:layout_height="match_parent"
5.      android:background="#4A9586"
6.      android:orientation="vertical"
7.      android:scrollbarAlwaysDrawVerticalTrack="true">
8.
9.      <TextView
10.         android:id="@+id/login_title"
11.         android:layout_width="fill_parent"
12.         android:layout_height="wrap_content"
13.         android:layout_marginTop="26dp"
14.         android:gravity="center_horizontal"
15.         android:text="@string/login"
16.         android:textColor="#fff"
17.         android:textSize="26sp"
18.         android:textStyle="bold"
19.         android:layout_alignParentTop="true"
20.         android:layout_alignParentStart="true" />
21.
22.      <RelativeLayout
23.         android:layout_width="fill_parent"
24.         android:layout_height="wrap_content"
25.         android:layout_below="@+id/login_title"
26.         android:layout_marginLeft="30dp"
27.         android:layout_marginRight="30dp"
28.         android:layout_marginTop="70dp"
29.         android:background="#fff"
30.         android:elevation="4dp"
31.         android:orientation="vertical"
32.         android:padding="20dp"
33.         android:id="@+id/relativeLayout">
34.
35.          <LinearLayout
36.             android:layout_width="fill_parent"
```

```
37.         android:layout_height="wrap_content"
38.         android:orientation="vertical"
39.         android:paddingTop="30dp">
40.
41.     <com.google.android.material.textfield.TextInputLayout
42.         android:layout_width="match_parent"
43.         android:layout_height="wrap_content">
44.
45.         <EditText
46.             android:layout_width="match_parent"
47.             android:layout_height="wrap_content"
48.             android:drawableLeft="@drawable/person_icon"
49.             android:hint="@string/email"
50.             android:inputType="textEmailAddress"
51.             android:id="@+id/email_login"/>
52.
53.     </com.google.android.material.textfield.TextInputLayout>
54.
55.     <com.google.android.material.textfield.TextInputLayout
56.         android:layout_width="match_parent"
57.         android:layout_height="wrap_content">
58.
59.         <EditText
60.             android:layout_width="match_parent"
61.             android:layout_height="wrap_content"
62.             android:layout_marginTop="16dp"
63.             android:drawableLeft="@drawable/pass_icon"
64.             android:hint="@string/pass"
65.             android:inputType="textPassword"
66.             android:id="@+id/password_login"/>
67.     </com.google.android.material.textfield.TextInputLayout>
68.
69.     <Button
70.         android:layout_width="match_parent"
71.         android:layout_height="wrap_content"
72.         android:layout_margin="22dp"
73.         android:background="#d67601"
74.         android:text="@string/login"
75.         android:textAllCaps="false"
76.         android:textColor="#fff"
77.         android:textSize="18sp"
78.         android:id="@+id/btn_login"/>
79.
80.     <TextView
81.         android:id="@+id/signup_txt"
82.         android:layout_width="wrap_content"
```



```

83.         android:layout_height="wrap_content"
84.         android:layout_gravity="center"
85.         android:paddingTop="5dp"
86.         android:text="@string/ket_register" />
87.     </LinearLayout>
88. </RelativeLayout>
89.
90. <ImageButton
91.     android:id="@+id/user_profile_photo"
92.     android:layout_width="100dp"
93.     android:layout_height="100dp"
94.     android:layout_below="@+id/login_title"
95.     android:layout_centerHorizontal="true"
96.     android:layout_marginTop="16dp"
97.     android:background="@drawable/background_profile"
98.     android:elevation="4dp"
99.     android:src="@drawable/user_icon" />
100. </RelativeLayout>

```

Kemudian untuk halaman register, pertama-tama kita buat dulu activity baru dengan nama **RegistrationActivity**. Kemudian akan terbentuk dua file yaitu RegistrationActivity.java dan activity_registration.xml. Buka file activity_registration.xml dan tambahkan kode berikut.

```

1. <?xml version="1.0" encoding="utf-8"?>
2. <ScrollView xmlns:android="http://schemas.android.com/apk/res/android"
3.     xmlns:tools="http://schemas.android.com/tools"
4.     android:layout_width="match_parent"
5.     android:layout_height="match_parent"
6.     android:padding="16dp"
7.     tools:context=".RegistrationActivity">
8.
9.     <LinearLayout
10.         android:layout_width="match_parent"
11.         android:layout_height="wrap_content"
12.         android:gravity="center"
13.         android:layout_marginTop="20dp"
14.         android:orientation="vertical">
15.
16.         <de.hdodenhof.circleimageview.CircleImageView
17.             android:layout_width="100dp"
18.             android:layout_height="100dp"
19.             android:layout_gravity="center"
20.             android:src="@drawable/register"/>
21.
22.         <TextView
23.             android:id="@+id/TextView1"

```



```
24.     android:layout_width="wrap_content"
25.     android:layout_height="wrap_content"
26.     android:layout_gravity="center"
27.     android:layout_marginBottom="5dp"
28.     android:layout_marginTop="5dp"
29.     android:text="@string/register"
30.     android:textColor="@android:color/black"
31.     android:textSize="18sp"
32.     android:textStyle="bold" />
33.
34. <View
35.     android:id="@+id/View1"
36.     android:layout_width="fill_parent"
37.     android:layout_height="1dp"
38.     android:layout_gravity="center"
39.     android:background="#448AFF"
40.     android:layout_marginBottom="16dp"/>
41.
42. <EditText
43.     android:id="@+id/email_reg"
44.     android:layout_width="match_parent"
45.     android:layout_height="wrap_content"
46.     android:layout_margin="10dp"
47.     android:hint="@string/email"
48.     android:inputType="textEmailAddress"
49.     android:background="@drawable/edittextstyle" />
50.
51. <EditText
52.     android:id="@+id/password_reg"
53.     android:layout_width="match_parent"
54.     android:layout_height="wrap_content"
55.     android:layout_margin="10dp"
56.     android:hint="@string/pass"
57.     android:background="@drawable/edittextstyle"
58.     android:inputType="textPassword"/>
59.
60. <Button
61.     android:id="@+id/btn_reg"
62.     android:layout_width="match_parent"
63.     android:layout_height="wrap_content"
64.     android:layout_gravity="center"
65.     android:background="@drawable/buttonstyle"
66.     android:textColor="#fff"
67.     android:layout_marginBottom="16dp"
68.     android:layout_marginTop="16dp"
69.     android:layout_marginLeft="8dp"
```

```

70.         android:layout_marginRight="8dp"
71.         android:text="@string/register"
72.         android:textStyle="bold" />
73.
74.     <TextView
75.         android:layout_width="wrap_content"
76.         android:layout_height="wrap_content"
77.         android:layout_gravity="center"
78.         android:paddingTop="5dp"
79.         android:id="@+id/signin_txt"
80.         android:text="@string/ket_login" />
81.
82. </LinearLayout>
83. </ScrollView>

```

Tambahkan Activity baru lagi dengan nama **HomeActivity**. Kemudian akan terbentuk dua file yaitu HomeActivity.java dan activity_home.xml. Buka file activity_home.xml dan tambahkan kode berikut.

```

1. <?xml version="1.0" encoding="utf-8"?>
2. <LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
3.     xmlns:tools="http://schemas.android.com/tools"
4.     android:layout_width="match_parent"
5.     android:layout_height="match_parent"
6.     xmlns:app="http://schemas.android.com/apk/res-auto"
7.     android:orientation="vertical"
8.     tools:context=".MainActivity">
9.
10.    <androidx.coordinatorlayout.widget.CoordinatorLayout
11.        android:layout_width="match_parent"
12.        android:layout_height="match_parent">
13.
14.        <LinearLayout
15.            android:layout_width="match_parent"
16.            android:layout_height="match_parent"
17.            android:orientation="vertical">
18.
19.            <androidx.cardview.widget.CardView
20.                android:layout_width="match_parent"
21.                android:layout_margin="10dp"
22.                app:cardElevation="10dp"
23.                android:elevation="10dp"
24.                android:layout_height="wrap_content">
25.
26.                <LinearLayout
27.                    android:layout_width="match_parent"
28.                    android:orientation="horizontal"

```

```
29.         android:layout_height="wrap_content">
30.
31.         <RelativeLayout
32.             android:layout_width="0dp"
33.             android:layout_height="wrap_content"
34.             android:layout_weight="2">
35.
36.             <TextView
37.                 android:layout_width="match_parent"
38.                 android:layout_height="wrap_content"
39.                 android:text="@string/total"
40.                 android:padding="10dp"
41.                 android:textAppearance="?android:textAppearanceMedium"/>
42.
43.         </RelativeLayout>
44.
45.         <RelativeLayout
46.             android:layout_width="0dp"
47.             android:layout_height="wrap_content"
48.             android:layout_weight="2">
49.
50.             <TextView
51.                 android:layout_width="match_parent"
52.                 android:layout_height="wrap_content"
53.                 android:text="000000"
54.                 android:id="@+id/total_amount"
55.                 android:padding="10dp"
56.                 android:textAppearance="?android:textAppearanceMedium"/>
57.
58.         </RelativeLayout>
59.
60.     </LinearLayout>
61.
62. </androidx.cardview.widget.CardView>
63.
64. <androidx.recyclerview.widget.RecyclerView
65.     android:layout_width="match_parent"
66.     android:layout_height="match_parent"
67.     android:id="@+id/recycler_home">
68.
69. </androidx.recyclerview.widget.RecyclerView>
70.
71. </LinearLayout>
72.
73. <com.google.android.material.floatingactionbutton.FloatingActionButton
74.     android:id="@+id/fab"
```

```

75.         android:layout_width="wrap_content"
76.         android:layout_height="wrap_content"
77.         android:layout_gravity="bottom|end"
78.         android:layout_margin="15dp"
79.         app:fabSize="normal"
80.         android:src="@drawable/plus"
81.         android:backgroundTint="#FFF8940"/>
82.
83.     </androidx.coordinatorlayout.widget.CoordinatorLayout>
84. </LinearLayout>

```

Setelah kita berhasil mendesain tampilan antarmukanya, langkah berikutnya adalah menambahkan fungsionalitas dari masing-masing tampilan. Pertama-tama buka file **MainActivity.java** dan tambahkan kode berikut ini

```

1.  public class MainActivity extends AppCompatActivity {
2.
3.      private EditText email;
4.      private EditText pass;
5.      private Button btnLogin;
6.      private TextView signUp;
7.
8.      private FirebaseAuth mAuth;
9.      private ProgressDialog mDialog;
10.
11.     @Override
12.     protected void onCreate(Bundle savedInstanceState) {
13.         super.onCreate(savedInstanceState);
14.         setContentView(R.layout.activity_main);
15.
16.         mAuth = FirebaseAuth.getInstance();
17.         mDialog = new ProgressDialog(this);
18.
19.         email = findViewById(R.id.email_login);
20.         pass = findViewById(R.id.password_login);
21.
22.         btnLogin = findViewById(R.id.btn_login);
23.         btnLogin.setOnClickListener(new View.OnClickListener() {
24.             @Override
25.             public void onClick(View view) {
26.                 String mEmail = email.getText().toString().trim();
27.                 String mPass = pass.getText().toString().trim();
28.
29.                 if(TextUtils.isEmpty(mEmail)){
30.                     email.setError("Required Field...");
31.                     return;
32.                 }

```

```

33.
34.         if(TextUtils.isEmpty(mPass)){
35.             pass.setError("Required Field...");
36.             return;
37.         }
38.
39.         mDialog.setMessage("Processing...");
40.         mDialog.show();
41.
42.         mAuth.signInWithEmailAndPassword(mEmail, mPass).addOnCompleteListener(new
OnCompleteListener<AuthResult>() {
43.             @Override
44.             public void onComplete(@NonNull Task<AuthResult> task) {
45.                 if(task.isSuccessful){
46.                     startActivity(new Intent(getApplicationContext(), HomeActivity.class));
47.                     Toast.makeText(getApplicationContext(), "Successful", Toast.LENGTH_SHO
RT).show();
48.                     mDialog.dismiss();
49.                 }else {
50.                     Toast.makeText(getApplicationContext(), "Failed", Toast.LENGTH_SHORT).
show();
51.                     mDialog.dismiss();
52.                 }
53.
54.             }
55.         });
56.     }
57. });
58.
59.     signUp = findViewById(R.id.signup_txt);
60.     signUp.setOnClickListener(new View.OnClickListener() {
61.         @Override
62.         public void onClick(View view) {
63.             startActivity(new Intent(getApplicationContext(), RegistrationActivity.class));
64.         }
65.     });
66. }
67. }

```

Dengan menambahkan kode diatas, maka tampilan fitur authentication harusnya berjalan dengan lancar.

Kemudian untuk menambahkan tampilan fungsionalitas dari fitur register, tambahkan kode berikut pada file **RegisterActivity.java**

```

1.  public class RegistrationActivity extends AppCompatActivity {
2.
3.      private EditText email;

```

```

4.     private EditText pass;
5.     private TextView SignIn;
6.     private Button btnReg;
7.
8.     private FirebaseAuth mAuth;
9.     private ProgressDialog mDialog;
10.
11.    @Override
12.    protected void onCreate(Bundle savedInstanceState) {
13.        super.onCreate(savedInstanceState);
14.        setContentView(R.layout.activity_registration);
15.
16.        mAuth = FirebaseAuth.getInstance();
17.        mDialog = new ProgressDialog(this);
18.
19.        email = findViewById(R.id.email_reg);
20.        pass = findViewById(R.id.password_reg);
21.
22.        btnReg = findViewById(R.id.btn_reg);
23.        SignIn = findViewById(R.id.signin_txt);
24.
25.        btnReg.setOnClickListener(new View.OnClickListener() {
26.            @Override
27.            public void onClick(View view) {
28.                String mEmail = email.getText().toString().trim();
29.                String mPass = pass.getText().toString().trim();
30.
31.                if(TextUtils.isEmpty(mEmail)){
32.                    email.setError("Email harus diisi!");
33.                    return;
34.                }
35.
36.                if(TextUtils.isEmpty(mPass)){
37.                    pass.setError("Password harus diisi!");
38.                    return;
39.                }
40.
41.                mDialog.setMessage("Processing...");
42.                mDialog.show();
43.
44.                mAuth.createUserWithEmailAndPassword(mEmail, mPass).addOnCompleteListener(
                    new OnCompleteListener<AuthResult>() {
45.                    @Override
46.                    public void onComplete(@NonNull Task<AuthResult> task) {
47.                        if(task.isSuccessful){
48.                            startActivity(new Intent(getApplicationContext(), HomeActivity.class));

```

```
49.         Toast.makeText(getApplicationContext(), "Successful..", Toast.LENGTH_SH
    ORT).show();
50.         mDialog.dismiss();
51.
52.     } else {
53.         Toast.makeText(getApplicationContext(), "Failed...", Toast.LENGTH_SHOR
    T).show();
54.         mDialog.dismiss();
55.     }
56.
57.     }
58.     });
59. }
60. });
61.
62. SignIn.setOnClickListener(new View.OnClickListener() {
63.     @Override
64.     public void onClick(View view) {
65.         startActivity(new Intent(getApplicationContext(), MainActivity.class));
66.     }
67. });
68. }
69. }
```