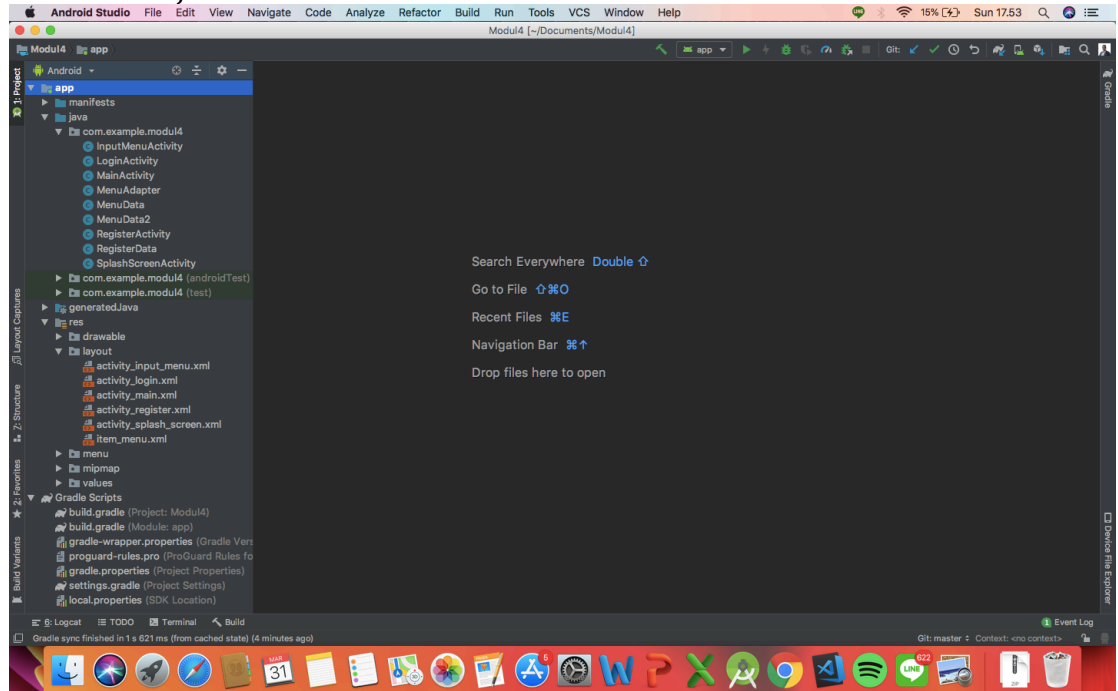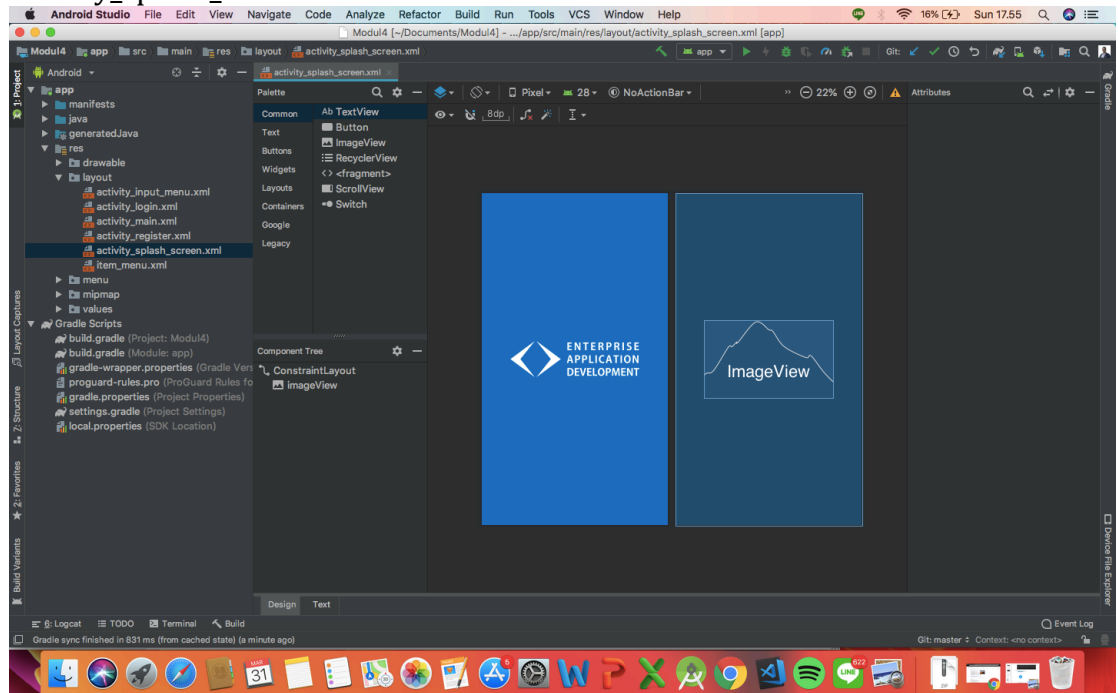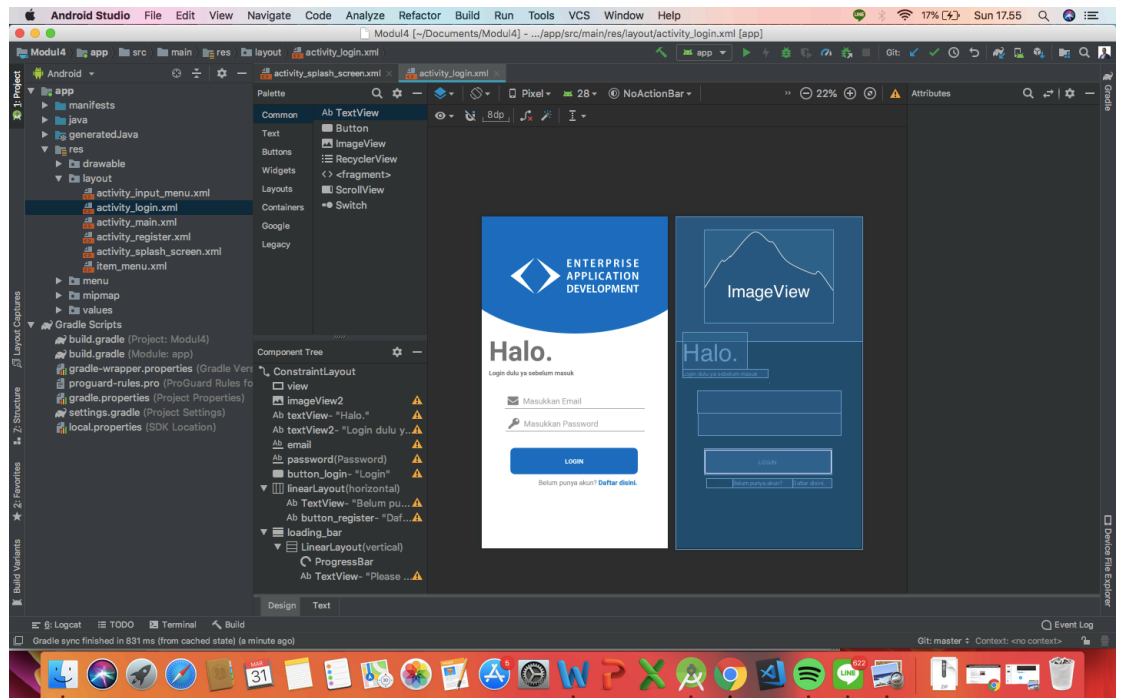1. Project
   - Android Project
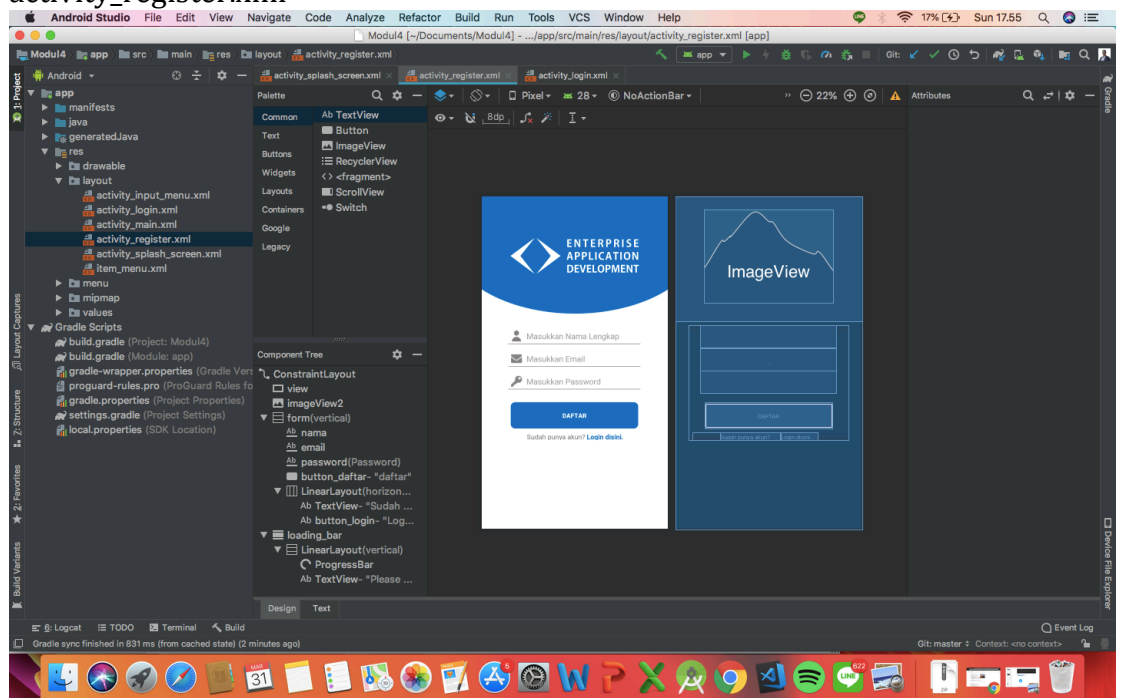

   - activity_splash_screen.xml

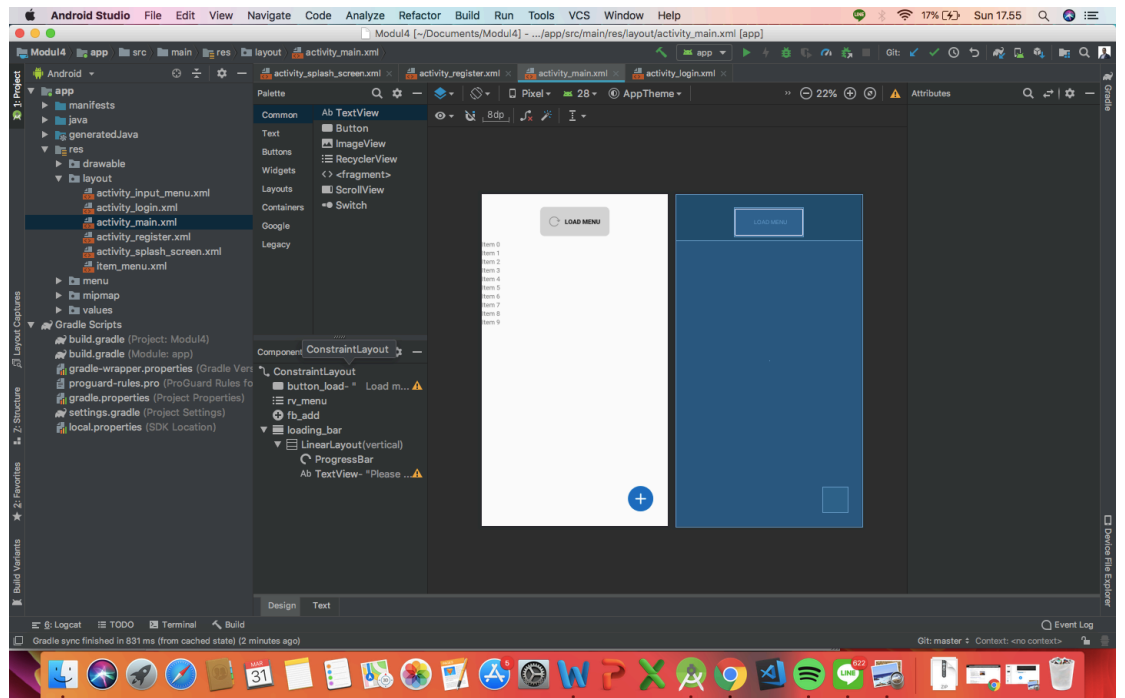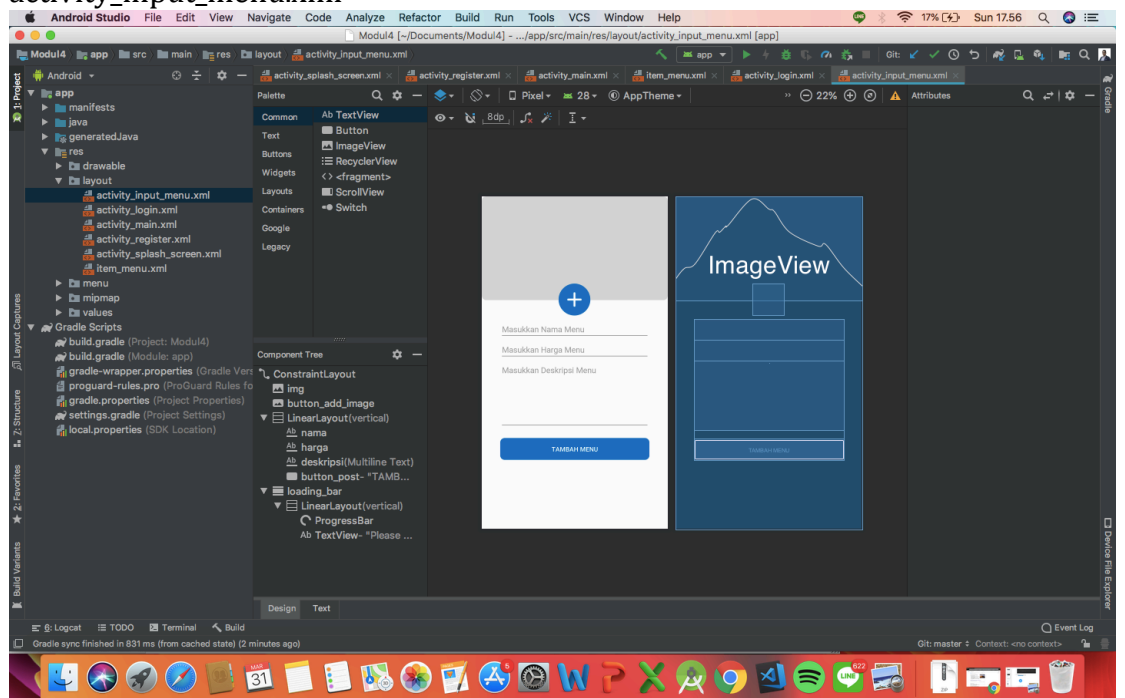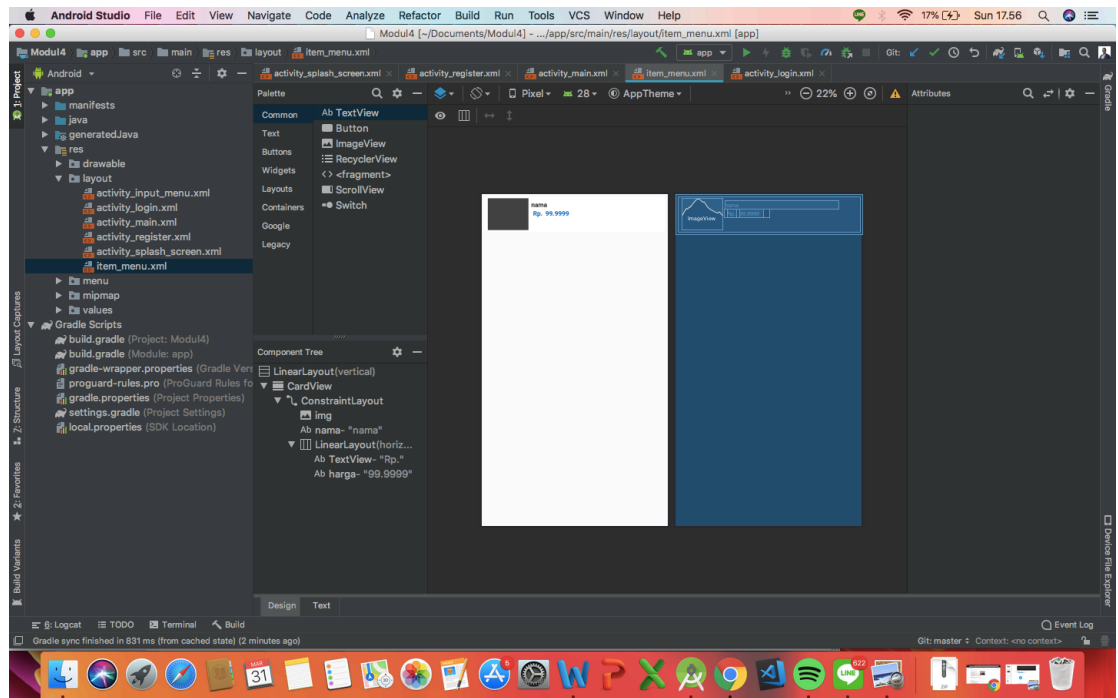   - activity_login.xml

- activity_register.xml

- activity_main.xml

- activity_input_menu.xml

- item_menu.xml

2. Source Code
   • SplashScreenActivity.java

```java
package com.example.modul4;

import android.content.Intent;
import android.os.Handler;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;

public class SplashScreenActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_splash_screen);

        new Handler().postDelayed(new Runnable() {
            @Override
            public void run() {
                Intent homeIntent = new Intent(SplashScreenActivity.this,
        MainActivity.class);
                startActivity(homeIntent);
                finish();
            }
        },1000);
    }
}
```

   • LoginActivity.java

```java
package com.example.modul4;

import android.content.Intent;
import android.support.annotation.NonNull;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.support.v7.widget.CardView;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
```

```java
import android.widget.TextView;
import android.widget.Toast;

import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.firebase.auth.AuthResult;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;

public class LoginActivity extends AppCompatActivity {

    private TextView button_register;
    private EditText email, password;
    private Button button_login;
    CardView loading_bar;

    //deklarasi Firebase
    FirebaseDatabase firebaseDatabase;
    DatabaseReference databaseReference;
    FirebaseAuth firebaseAuth;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_login);

        //initialize xml component
        button_register = findViewById(R.id.button_register);
        button_login = findViewById(R.id.button_login);
        email = findViewById(R.id.email);
        password = findViewById(R.id.password);
        loading_bar = findViewById(R.id.loading_bar);


        //setOnClickListener
        button_register.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                do_register();
            }
        });
        button_login.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                do_login();
            }
        });


    }
    public void do_register(){
        Intent intent = new Intent(this, RegisterActivity.class);
        this.startActivity(intent);
    }
    public void do_login(){
        loading_bar.setVisibility(View.VISIBLE);
        String emails = email.getText().toString();
        String passwords = password.getText().toString();

        firebaseAuth = FirebaseAuth.getInstance();

        if(!emails.equals("") && !passwords.equals("")) {

            firebaseAuth.signInWithEmailAndPassword(emails,
passwords).addOnCompleteListener(new OnCompleteListener<AuthResult>() {
                @Override
```

```java
        public void onComplete(@NonNull Task<AuthResult> task) {
            if(task.isSuccessful()){
                loading  bar.setVisibility(View.GONE);
                Intent intent = new Intent(getApplicationContext(), MainActivity.class);
                intent.addFlags(Intent.FLAG_ACTIVITY_CLEAR_TOP);
                getApplicationContext().startActivity(intent);
            }else{
                Toast.makeText(getApplicationContext(), task.getException().getMessage(),
Toast.LENGTH_SHORT).show();
            }
        }
    });

    }

    }

}
```

- RegisterActivity.java

```java
package com.example.modul4;

import android.content.Intent;
import android.support.annotation.NonNull;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.support.v7.widget.CardView;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;

import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.firebase.auth.AuthResult;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;

public class RegisterActivity extends AppCompatActivity {

    private TextView button_login;
    private EditText nama, email,password;
    private Button button_daftar;
    CardView loading_bar;

    FirebaseAuth firebaseAuth;
    FirebaseDatabase firebaseDatabase;
    DatabaseReference databaseReference;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_register);

        //initialize component xml
        button_login = findViewById(R.id.button_login);
        nama = findViewById(R.id.nama);
        email = findViewById(R.id.email);
        password = findViewById(R.id.password);
        button_daftar = findViewById(R.id.button_daftar);
        loading_bar = findViewById(R.id.loading_bar);

        //dekalari firebase
```

```java
        firebaseDatabase = FirebaseDatabase.getInstance();
        databaseReference = firebaseDatabase.getReference();

        //initialize onClickListener
        button_login.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                do_login();
            }
        });
        button_daftar.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                do_register();
            }
        });

    }
    public void do_login(){
        Intent intent = new Intent(this, LoginActivity.class);
        this.startActivity(intent);
        finish();
    }
    public void do_register(){
        loading_bar.setVisibility(View.VISIBLE);
        final String emails = email.getText().toString();
        final String passwords = password.getText().toString();
        final String namas = nama.getText().toString();

        firebaseAuth = FirebaseAuth.getInstance();
        firebaseAuth.createUserWithEmailAndPassword(emails, passwords)
            .addOnCompleteListener(RegisterActivity.this, new
OnCompleteListener<AuthResult>() {
                @Override
                public void onComplete(@NonNull Task<AuthResult> task) {

                    if (!task.isSuccessful()) {

                        Toast.makeText(RegisterActivity.this, "Authentication failed." +
task.getException(),
                            Toast.LENGTH_LONG).show();

                    } else {
                        email.setText("");
                        password.setText("");
                        nama.setText("");

                        loading_bar.setVisibility(View.GONE);
                        // THE USER ID
                        String uid = task.getResult().getUser().getUid();
                        RegisterData register = new RegisterData
                            (namas,emails,passwords);

                        databaseReference.child("user").child(uid)
                            .setValue(register);

                        Intent intent = new Intent(RegisterActivity.this, MainActivity.class);
                        intent.addFlags(Intent.FLAG_ACTIVITY_CLEAR_TOP);
                        RegisterActivity.this.startActivity(intent);
                        finish();

                    }
                }
            });
    }
}
```

- RegisterData.java

```java
package com.example.modul4;

public class RegisterData {
    private String nama, email, password;

    public RegisterData(String nama, String email, String password) {
        this.nama = nama;
        this.email = email;
        this.password = password;
    }

    public String getNama() {
        return nama;
    }

    public void setNama(String nama) {
        this.nama = nama;
    }

    public String getEmail() {
        return email;
    }

    public void setEmail(String email) {
        this.email = email;
    }

    public String getPassword() {
        return password;
    }

    public void setPassword(String password) {
        this.password = password;
    }
}
```

- MainActivity.java

```java
package com.example.modul4;

import android.content.DialogInterface;
import android.content.Intent;
import android.os.AsyncTask;
import android.support.annotation.NonNull;
import android.support.design.widget.FloatingActionButton;
import android.support.v7.app.AlertDialog;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.support.v7.widget.CardView;
import android.support.v7.widget.LinearLayoutManager;
import android.support.v7.widget.RecyclerView;
import android.util.Log;
import android.view.Menu;
import android.view.MenuItem;
import android.view.View;
import android.widget.Button;

import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.firebase.FirebaseApp;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.ValueEventListener;
```

```java
import com.google.firebase.firestore.FirebaseFirestore;
import com.google.firebase.firestore.QueryDocumentSnapshot;
import com.google.firebase.firestore.QuerySnapshot;

import java.util.ArrayList;
import java.util.List;

public class MainActivity extends AppCompatActivity {

    private FloatingActionButton fb_add;
    private Button button_load;
    CardView loading_bar;

    private static final String TAG = "MyActivity";

    RecyclerView rv_menu;
    MenuAdapter adapter;
    ArrayList<MenuData2> menuArrayList;

    FirebaseFirestore firebaseFirestore;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        FirebaseApp.initializeApp(this);

        //initialize
        fb_add = findViewById(R.id.fb_add);
        button_load = findViewById(R.id.button_load);
        rv_menu = findViewById(R.id.rv_menu);
        loading_bar = findViewById(R.id.loading_bar);
        firebaseFirestore = FirebaseFirestore.getInstance();

        //onclick
        fb_add.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent intent = new Intent(MainActivity.this, InputMenuActivity.class);
                MainActivity.this.startActivity(intent);
            }
        });
        button_load.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                showDataAsycktask show = new showDataAsycktask();
                show.execute();
            }
        });

        //check user login
        checkUserLogin();




    }
    public void checkUserLogin(){
        if(FirebaseAuth.getInstance().getCurrentUser() == null){
            Intent intent = new Intent(this, LoginActivity.class);
            intent.addFlags(Intent.FLAG_ACTIVITY_CLEAR_TOP);
            this.startActivity(intent);
            finish();
        }
```

```java
        }

    public void do  logout(){
        AlertDialog.Builder alert = new AlertDialog.Builder(this);
        alert.setMessage("Ketuk Ya untuk logout")
                .setPositiveButton("Ya",new DialogInterface.OnClickListener() {
                    public void onClick(DialogInterface dialog,int id) {
                        // if this button is clicked, close
                        // current activity
                        loading_bar.setVisibility(View. VISIBLE);
                        FirebaseAuth.getInstance().signOut();
                        Intent intent = new Intent(MainActivity.this, MainActivity.class);
                        intent.addFlags(Intent.FLAG_ACTIVITY_CLEAR_TOP);
                        loading_bar.setVisibility(View.GONE);
                        MainActivity.this.startActivity(intent);
                        finish();
                    }
                })
                .setNegativeButton("Cancel",new DialogInterface.OnClickListener() {
                    public void onClick(DialogInterface dialog,int id) {
                        // if this button is clicked, just close
                        // the dialog box and do nothing
                        dialog.cancel();
                    }
                });

        AlertDialog alertDialog = alert.create();
        alertDialog.show();
    }

    public class showDataAsycktask extends AsyncTask<Void, Void, Void>{

        DatabaseReference rootRef = FirebaseDatabase.getInstance().getReference();
        final DatabaseReference menu = rootRef.child("menu");

        ArrayList<MenuData2> menuArray;
        String getnama, getharga, getdeskripsi, getimgUrl;

        @Override
        protected Void doInBackground(Void... voids) {
            menuArray = new ArrayList<>();
            firebaseFirestore.collection("menu")
                    .get()
                    .addOnCompleteListener(new OnCompleteListener<QuerySnapshot>() {
                        @Override
                        public void onComplete(@NonNull Task<QuerySnapshot> task) {
                            if (task.isSuccessful()) {
                                loading_bar.setVisibility(View.VISIBLE);
                                for (QueryDocumentSnapshot document : task.getResult()) {
                                    getnama = document.getData().get("name").toString();
                                    getharga = document.getData().get("harga").toString();
                                    getdeskripsi = document.getData().get("deskripsi").toString();
                                    getimgUrl = document.getData().get("imgUrl").toString();

                                    Log.i(TAG, "nama " + getnama + " harga " + getharga + " deskripsi " +
getdeskripsi + " imgUrl " + getimgUrl);
                                    menuArray.add(new MenuData2(getnama, getharga, getimgUrl));

                                    adapter = new MenuAdapter(MainActivity.this, menuArray);
                                    RecyclerView.LayoutManager layoutManager = new
LinearLayoutManager(MainActivity.this);
                                    rv_menu.setLayoutManager(layoutManager);
                                    rv_menu.setAdapter(adapter);
                                    loading_bar.setVisibility(View.GONE);

                                }
                            } else {
```

```java
                }
            }
        });

        return null;
    }

    @Override
    protected void onPreExecute() {
        super.onPreExecute();
        loading_bar.setVisibility(View.VISIBLE);
    }




}

    public boolean onCreateOptionsMenu(Menu menu) {
        getMenuInflater().inflate(R.menu.menu, menu);
        return super.onCreateOptionsMenu(menu);
    }

    public boolean onOptionsItemSelected(MenuItem item) {
        switch (item.getItemId()){
            case R.id.logout:
                do  logout();
            break;

        }
        return super.onOptionsItemSelected(item);
    }


    @Override
    protected void onStart() {
        super.onStart();
        FirebaseAuth.getInstance().getCurrentUser();
    }


    @Override
    protected void onResume() {
        super.onResume();
        FirebaseAuth.getInstance().getCurrentUser();
    }

    @Override
    protected void onStop() {
        super.onStop();
        FirebaseAuth.getInstance().getCurrentUser();
    }

}
```

- MenuAdapter.java

```java
package com.example.modul4;

import android.content.Context;
import android.support.annotation.NonNull;
import android.support.v7.widget.RecyclerView;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ImageView;
```

```java
import android.widget.TextView;

import com.bumptech.glide.Glide;

import java.util.ArrayList;

public class MenuAdapter extends RecyclerView.Adapter<MenuAdapter.menuViewHolder> {

    Context context;
    ArrayList<MenuData2> dataList;

    public MenuAdapter(Context context, ArrayList<MenuData2> dataList){
        this.context = context;
        this.dataList = dataList;
    }
    @NonNull
    @Override
    public MenuAdapter.menuViewHolder onCreateViewHolder(@NonNull ViewGroup
viewGroup, int i) {
        LayoutInflater layoutInflater = LayoutInflater.from(viewGroup.getContext());
        View view = layoutInflater.inflate(R.layout.item_menu, viewGroup, false);
        return new menuViewHolder(view);

    }

    @Override
    public void onBindViewHolder(@NonNull MenuAdapter.menuViewHolder
menuViewHolder, int i) {
        menuViewHolder.nama.setText(dataList.get(i).getNama());
        menuViewHolder.harga.setText(dataList.get(i).getHarga());
        Glide.with(context)
            .load(dataList.get(i).getImgUrl())
            .into(menuViewHolder.img);

    }

    @Override
    public int getItemCount() {
        return dataList.size();
    }
    public class menuViewHolder extends RecyclerView.ViewHolder{

        private TextView nama, harga;
        private ImageView img;

        public menuViewHolder(@NonNull View itemView) {
            super(itemView);

            img = itemView.findViewById(R.id.img);
            nama = itemView.findViewById(R.id.nama);
            harga = itemView.findViewById(R.id.harga);
        }
    }

}
```

- MenuData.java

```java
package com.example.modul4;

public class MenuData {

    private String nama, harga, deskripsi, imgUrl;

    public MenuData(String nama, String harga, String deskripsi, String imgUrl) {
        this.nama = nama;
        this.harga = harga;
        this.deskripsi = deskripsi;
        this.imgUrl = imgUrl;
```

```java
    }

    public String getNama() {
        return nama;
    }

    public void setNama(String nama) {
        this.nama = nama;
    }

    public String getHarga() {
        return harga;
    }

    public void setHarga(String harga) {
        this.harga = harga;
    }

    public String getDeskripsi() {
        return deskripsi;
    }

    public void setDeskripsi(String deskripsi) {
        this.deskripsi = deskripsi;
    }

    public String getImgUrl() {
        return imgUrl;
    }

    public void setImgUrl(String imgUrl) {
        this.imgUrl = imgUrl;
    }
}
```

- MenuData2.java

```java
package com.example.modul4;

public class MenuData2 {
    private String nama, harga, imgUrl;

    public MenuData2(String nama, String harga, String imgUrl) {
        this.nama = nama;
        this.harga = harga;
        this.imgUrl = imgUrl;
    }

    public String getNama() {
        return nama;
    }

    public void setNama(String nama) {
        this.nama = nama;
    }

    public String getHarga() {
        return harga;
    }

    public void setHarga(String harga) {
        this.harga = harga;
    }

    public String getImgUrl() {
        return imgUrl;
    }
}
```

```java
    public void setImgUrl(String imgUrl) {
        this.imgUrl = imgUrl;
    }
}
```

- InputMenuActivity.java

```java
package com.example.modul4;

import android.content.Intent;
import android.graphics.Bitmap;
import android.graphics.BitmapFactory;
import android.net.Uri;
import android.provider.MediaStore;
import android.support.annotation.NonNull;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.support.v7.widget.CardView;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.ImageButton;
import android.widget.ImageView;
import android.Manifest;
import android.widget.TextView;
import android.widget.Toast;

import com.google.android.gms.auth.api.signin.internal.Storage;
import com.google.android.gms.tasks.OnFailureListener;
import com.google.android.gms.tasks.OnSuccessListener;
import com.google.android.gms.tasks.Task;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.firestore.DocumentReference;
import com.google.firebase.firestore.FirebaseFirestore;
import com.google.firebase.storage.FirebaseStorage;
import com.google.firebase.storage.StorageReference;
import com.google.firebase.storage.UploadTask;

import java.io.FileNotFoundException;
import java.io.IOException;
import java.io.InputStream;
import java.util.HashMap;
import java.util.Map;
import java.util.UUID;

public class InputMenuActivity extends AppCompatActivity {

    private ImageButton button_add_image;
    Button button_post;
    ImageView img;
    Bitmap selectedImage;
    EditText nama,harga,deskripsi;
    CardView loading_bar;

    private static int RESULT_LOAD_IMG = 1;

    private StorageReference mStorageRef;
    FirebaseAuth firebaseAuth;
    FirebaseDatabase firebaseDatabase;
    DatabaseReference databaseReference;

    FirebaseFirestore firebaseFirestore;



    Uri imageUri;
```

```java
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_input_menu);

        button_add_image = findViewById(R.id.button_add_image);
        button_post = findViewById(R.id.button_post);
        img = findViewById(R.id.img);
        nama = findViewById(R.id.nama);
        harga = findViewById(R.id.harga);
        deskripsi = findViewById(R.id.deskripsi);
        loading_bar = findViewById(R.id.loading_bar);

        //firebase storage reference
        mStorageRef = FirebaseStorage.getInstance().getReference();
        //dekalari firebase
        firebaseDatabase = FirebaseDatabase.getInstance();
        databaseReference = firebaseDatabase.getReference("menu");
        firebaseFirestore = FirebaseFirestore.getInstance();


        button_add_image.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                openGalery();
            }
        });
        button_post.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {

                String getNama = nama.getText().toString();
                String getHarga = harga.getText().toString();
                String getDeskripsi = deskripsi.getText().toString();

                if(getNama.equals("") || getHarga.equals("") || getDeskripsi.equals("")){
                    Toast.makeText(InputMenuActivity.this, "Lengkapi Data",
Toast.LENGTH_SHORT).show();
                }else{
                    uploadFirebase();
                }

            }
        });

    }

    public void openGalery() {
        Intent photoPickerIntent = new Intent(Intent.ACTION_PICK);
        photoPickerIntent.setType("image/*");
        startActivityForResult(photoPickerIntent, RESULT_LOAD_IMG);
    }

    public void uploadFirebase(){
        loading_bar.setVisibility(View.VISIBLE);
        final String getNama = nama.getText().toString();
        final String getHarga = harga.getText().toString();
        final String getDeskripsi = deskripsi.getText().toString();

        StorageReference riversRef = mStorageRef.child(getNama);
        riversRef.putFile(imageUri)
                .addOnSuccessListener(new OnSuccessListener<UploadTask.TaskSnapshot>() {
                    @Override
                    public void onSuccess(UploadTask.TaskSnapshot taskSnapshot) {
                        loading_bar.setVisibility(View.GONE);
                        // Get a URL to the uploaded content
```

```java
                        Uri downloadUrl = taskSnapshot.getDownloadUrl();

                        String getDownloadUrl = downloadUrl.toString();

                        MenuData menu = new MenuData
                            (getNama,getHarga,getDeskripsi, getDownloadUrl);

                        Map<String, String> inputMenu = new HashMap<>();
                        inputMenu.put("name", getNama);
                        inputMenu.put("harga", getHarga);
                        inputMenu.put("imgUrl", getDownloadUrl);
                        inputMenu.put("deskripsi", getDeskripsi);

                        firebaseFirestore.collection("menu").add(inputMenu)
                            .addOnSuccessListener(new OnSuccessListener<DocumentReference>() {
                                @Override
                                public void onSuccess(DocumentReference documentReference) {
                                    Toast.makeText(InputMenuActivity.this, "Uploaded",
Toast.LENGTH_SHORT).show();
                                    Intent intent = new Intent(InputMenuActivity.this,
MainActivity.class);
                                    intent.addFlags(Intent.FLAG_ACTIVITY_CLEAR_TOP);
                                    InputMenuActivity.this.startActivity(intent);
                                }
                            });
                    }
                })
                .addOnFailureListener(new OnFailureListener() {
                    @Override
                    public void onFailure(@NonNull Exception exception) {
                        Toast.makeText(InputMenuActivity.this, "Failed",
Toast.LENGTH_SHORT).show();
                    }
                });
        }

    @Override
    protected void onActivityResult(int reqCode, int resultCode, Intent data) {
        super.onActivityResult(reqCode, resultCode, data);


        if (resultCode == RESULT_OK) {
            try {
                imageUri = data.getData();
                final InputStream imageStream = getContentResolver().openInputStream(imageUri);
                selectedImage = BitmapFactory.decodeStream(imageStream);
                img.setImageBitmap(selectedImage);
            } catch (FileNotFoundException e) {
                e.printStackTrace();
                Toast.makeText(InputMenuActivity.this, "failed", Toast.LENGTH_LONG).show();
            }

        }else {
            Toast.makeText(InputMenuActivity.this, "Pilih gambar
dulu",Toast.LENGTH_LONG).show();
        }
    }


}
```
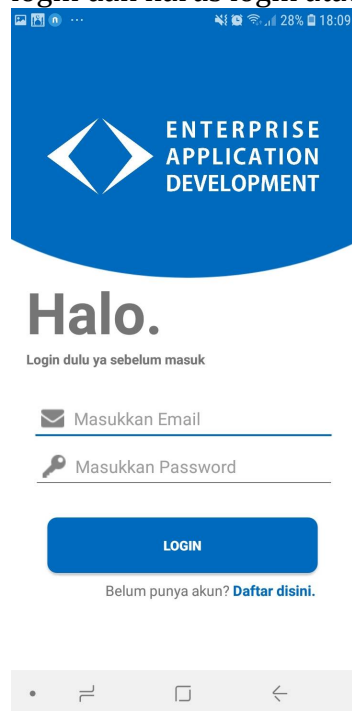
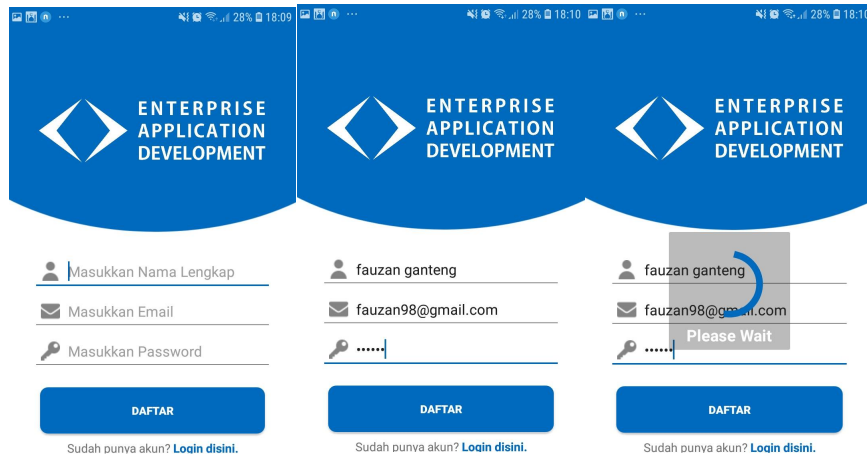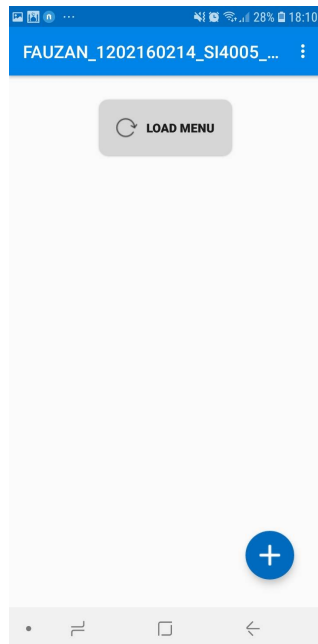3. Run Application
   • Tampilan Awal Aplikasi

- Aplikasi akan membawa kita kehalaman login apabila kita belum login dan harus login atau register terlebih dahulu
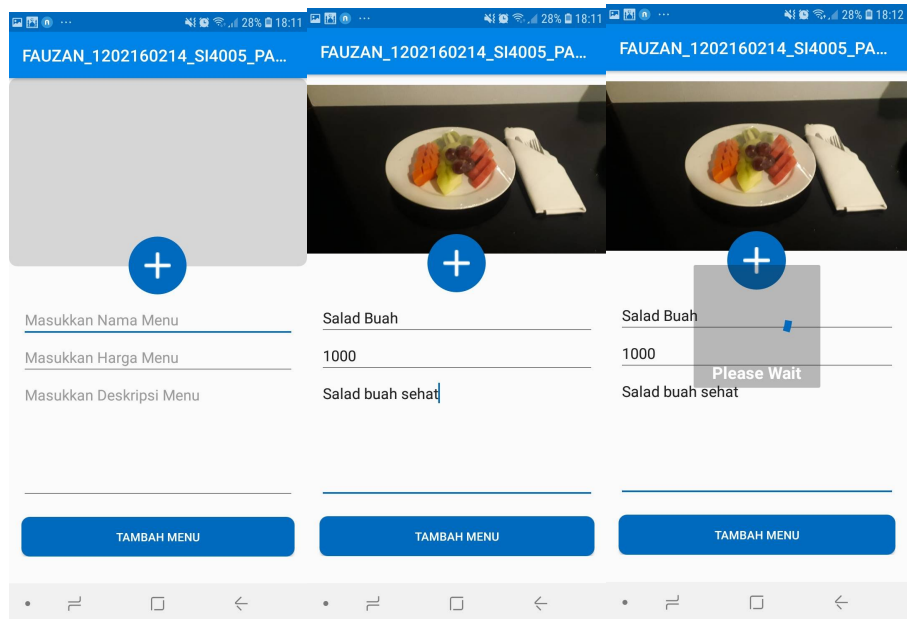

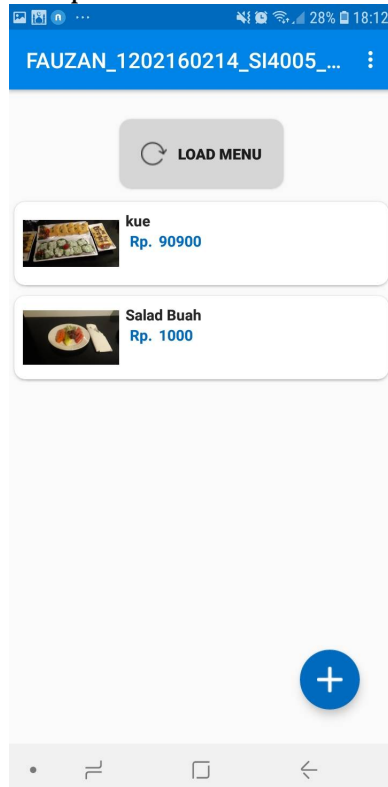- Tampilan ketika kita mengklik tombol daftar disini

- Tampilan ketika kita telah login atau register maka otomatis kita akan berada di MainActivity
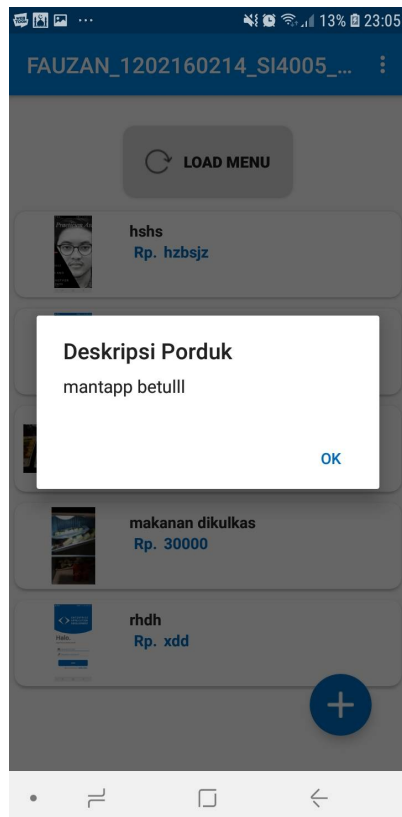

- Tampilan ketika mengklik FloatinActionButton pada MainActivity

- Tampilan ketika tombol load menu di klik

- Tampilan ketika menu di klik akan muncul deskripsi dari menunya

- Tampilan ketika kita klik menu logout diatas