APLIKASI PRESENSI PERKULIAHAN BERBASIS ANDROID

1. Kode Program

a. MainActivity

```
package com.proyek.presensiperkuliahan;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.ProgressBar;
import android.widget.Toast;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import androidx.appcompat.widget.Toolbar;
import
com.google.android.material.floatingactionbutton.FloatingActionButto
import com.google.android.material.snackbar.Snackbar;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.auth.FirebaseUser;
public class MainActivity extends AppCompatActivity {
    private Button signOut;
    private ProgressBar progressBar;
    private FirebaseAuth.AuthStateListener authListener;
    private FirebaseAuth auth;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        Toolbar toolbar = findViewById(R.id.toolbar);
        setSupportActionBar(toolbar);
        //get firebase auth instance
        auth = FirebaseAuth.getInstance();
        //get current user
        final FirebaseUser user =
FirebaseAuth.getInstance().getCurrentUser();
        authListener = new FirebaseAuth.AuthStateListener() {
            @Override
            public void onAuthStateChanged(@NonNull FirebaseAuth
firebaseAuth) {
                FirebaseUser user = firebaseAuth.getCurrentUser();
                if (user == null) {
                    // user auth state is changed - user is null
                    // launch login activity
                    startActivity(new Intent(MainActivity.this,
login.class));
                    finish();
```

```
signOut = (Button) findViewById(R.id.btnSignOut);
        signOut.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Toast.makeText(MainActivity.this, "Berhasil Sign
Out", Toast.LENGTH SHORT).show();
                startActivity(new Intent(MainActivity.this,
login.class));
                signOut();
        });
        FloatingActionButton fab = (FloatingActionButton)
findViewById(R.id.fab);
        fab.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Snackbar.make(view, "Baru Test Login",
Snackbar. LENGTH LONG)
                        .setAction("Action", null).show();
        });
    public void TambahPertemuan (View view) {
        Intent intent = new Intent(MainActivity.this,
FormPertemuan.class);
        startActivity(intent);
    //sign out method
    public void signOut() {
        auth.signOut();
        finish();
    //end
```

b. Form Pertemuan

```
package com.proyek.presensiperkuliahan;
import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.ViewGroup;
import androidx.appcompat.app.AppCompatActivity;
import androidx.recyclerview.widget.LinearLayoutManager;
import androidx.recyclerview.widget.RecyclerView;
```

```
Import com.firebase.ui.database.FirebaseRecyclerOptions;
import com.google.firebase.database.Query;
public class FormPertemuan extends AppCompatActivity {
    private FirebaseRecyclerAdapter<mahasiswa, MahasiswaViewHolder>
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
       mDatabase = FirebaseDatabase.getInstance().getReference();
        mRecycler = findViewById(R.id.list mahasiswa);
        mRecycler.setHasFixedSize(true);
        mManager.setStackFromEnd(true);
FirebaseRecyclerOptions.Builder<mahasiswa>()
       mAdapter = new FirebaseRecyclerAdapter<mahasiswa,
MahasiswaViewHolder>(options) {
            public MahasiswaViewHolder onCreateViewHolder(ViewGroup
parent, int viewType) {
LayoutInflater.from(parent.getContext());
MahasiswaViewHolder(inflater.inflate(R.layout.data mahasiswa,
parent, false));
holder, int position, final mahasiswa model) {
        mAdapter.notifyDataSetChanged();
```

```
@Override
public void onStart() {
    super.onStart();
    if (mAdapter != null) {
        mAdapter.startListening();
    }
}

@Override
public void onStop() {
    super.onStop();
    if (mAdapter != null) {
        mAdapter.stopListening();
    }
}

private Query getQuery(DatabaseReference mDatabase) {
    Query query = mDatabase.child("PresensiMhs");
    return query;
}
```

c. Login

```
package com.proyek.presensiperkuliahan;
import android.content.Intent;
import android.cos.Bundle;
import android.text.TextUtils;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.FogressBar;
import android.widget.Toast;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import androidx.appcompat.widget.Toolbar;
import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.android.material.floatingactionbutton.FloatingActionButton;
import com.google.android.material.snackbar.Snackbar;
import com.google.firebase.auth.AuthResult;
import com.google.firebase.auth.FirebaseAuth;

public class login extends AppCompatActivity {
    private EditText inputEmail, inputPassword;
    private FirebaseAuth auth;
    private ProgressBar progressBar;
    private Button btnLogin;

@Override
    protected void onCreate(Bundle savedInstanceState) {
```

```
setContentView(R.layout.activity login);
        btnLogin = (Button) findViewById(R.id.btn login);
        auth = FirebaseAuth.getInstance();
                String email = inputEmail.getText().toString();
inputPassword.getText().toString();
                if (TextUtils.isEmpty(password)) {
                            public void onComplete(@NonNull
Task<AuthResult> task) {
```

```
inputPassword.setError(getString(R.string.minimum password));
getString(R.string.auth failed), Toast.LENGTH LONG).show();
                Snackbar.make(view, "INFO LOGIN SILAHKAN HUBUNGI
```

d. Mahasiswa

```
package com.proyek.presensiperkuliahan;
import com.google.firebase.database.Exclude;
import java.util.HashMap;
import java.util.Map;
public class mahasiswa {
   public String Nama;
   public String MhswID;
   public mahasiswa() {
    }
   public mahasiswa(String Nama, String MhswID) {
        this.Nama = Nama;
        this.MhswID = MhswID;
   }
```

```
@Exclude
public Map<String, Object> toMap() {
    HashMap<String, Object> result = new HashMap<>();
    result.put("Nama", Nama);
    result.put("MhswID", MhswID);
    return result;
}
```

e. MahasiswaViewHolder

```
package com.proyek.presensiperkuliahan;
import android.view.View;
import android.widget.TextView;
import androidx.recyclerview.widget.RecyclerView;

public class MahasiswaViewHolder extends RecyclerView.ViewHolder {
    public TextView Nama;
    public TextView NPM;

    public MahasiswaViewHolder(View itemView) {
        super(itemView);
        Nama = itemView.findViewById(R.id.tvNama);
        NPM = itemView.findViewById(R.id.tvNPM);
    }

    public void bindToMahasiswa(mahasiswa mhsw) {
        Nama.setText(mhsw.Nama);
        NPM.setText(mhsw.MhswID);
    }
}
```

f. splashScreen

```
package com.proyek.presensiperkuliahan;
import android.content.Intent;
import android.os.Bundle;
import androidx.appcompat.app.AppCompatActivity;
public class splashScreen extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_splash_screen);
        // langsung pindah ke MainActivity atau activity lain
        // begitu memasuki splash screen ini
        Intent intent = new Intent(this, login.class);
        startActivity(intent);
        finish();
    }
}
```

g. activity_form_pertemuan.xml

```
xmlns:android="http://schemas.android.com/apk/res/android"
    <TextView
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toBottomOf="@+id/pertemuanTeks" />
    <TextView
        android:layout width="wrap content"
        app:layout constraintEnd toEndOf="parent"
```

```
app:layout constraintVertical bias="1.0" />
           android:ems="10"
           android:inputType="textPersonName"
           app:layout constraintEnd toEndOf="parent"
       <LinearLayout
           <androidx.recyclerview.widget.RecyclerView</pre>
  </androidx.constraintlayout.widget.ConstraintLayout>
h. activity_login.xml
  <?xml version="1.0" encoding="utf-8"?>
  xmlns:android="http://schemas.android.com/apk/res/android"
```

```
android:layout_height="match_parent"
tools:context=".login">

<com.google.android.material.appbar.AppBarLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:theme="@style/AppTheme.AppBarOverlay">

    <androidx.appcompat.widget.Toolbar
        android:layout_width="match_parent"
        android:layout_width="match_parent"
        android:layout_height="?attr/actionBarSize"
        android:background="?attr/colorPrimary"
        app:popupTheme="@style/AppTheme.PopupOverlay" />

    </com.google.android.material.appbar.AppBarLayout>

    <include layout="@layout/content_login" />

<com.google.android.material.floatingactionbutton.FloatingActionButt
on
    android:id="@+id/fab"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_paravity="bottom|end"
    android:layout_margin="@dimen/fab_margin"
    app:srcCompat="@android:drawable/ic_dialog_email" />

</androidx.coordinatorlayout.widget.CoordinatorLayout>
```

i. activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.coordinatorlayout.widget.CoordinatorLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <com.google.android.material.appbar.AppBarLayout
        android:layout_width="wrap_content"
        android:theme="@style/AppTheme.AppBarOverlay">

        </com.google.android.material.appbar.AppBarLayout>
        </com.google.android.material.appbar.AppBarLayout>

        </com.google.android.material.appbar.AppBarLayout>

        </com.google.android.material.floatingactionbutton.FloatingActionButt
on
        android:id="@+id/fab"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_height="wrap_content"</pre>
```

```
android:layout_gravity="bottom|end"
android:layout_margin="@dimen/fab_margin"
app:srcCompat="@android:drawable/ic_dialog_email" />

<androidx.appcompat.widget.Toolbar
android:id="@+id/toolbar"
android:layout_width="match_parent"
android:layout_height="?attr/actionBarSize"
android:background="?attr/colorPrimary"
app:popupTheme="@style/AppTheme.PopupOverlay" />

</androidx.coordinatorlayout.widget.CoordinatorLayout>
```

i. activity_splash_screen.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".splashScreen">
</androidx.constraintlayout.widget.ConstraintLayout>
```

k. content_login.xml

```
android:textAlignment="center"
   android:textSize="24sp"
<EditText
   android:inputType="textEmailAddress"
   android:ems="10"
<ProgressBar
    android:layout width="49dp"
```

1. content_main.xml

m. data_mahasiswa.xml

n. values/strings.xml

o. values/styles.xml