

# Chat Application

# Code Documentation

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Category : Android Application Development

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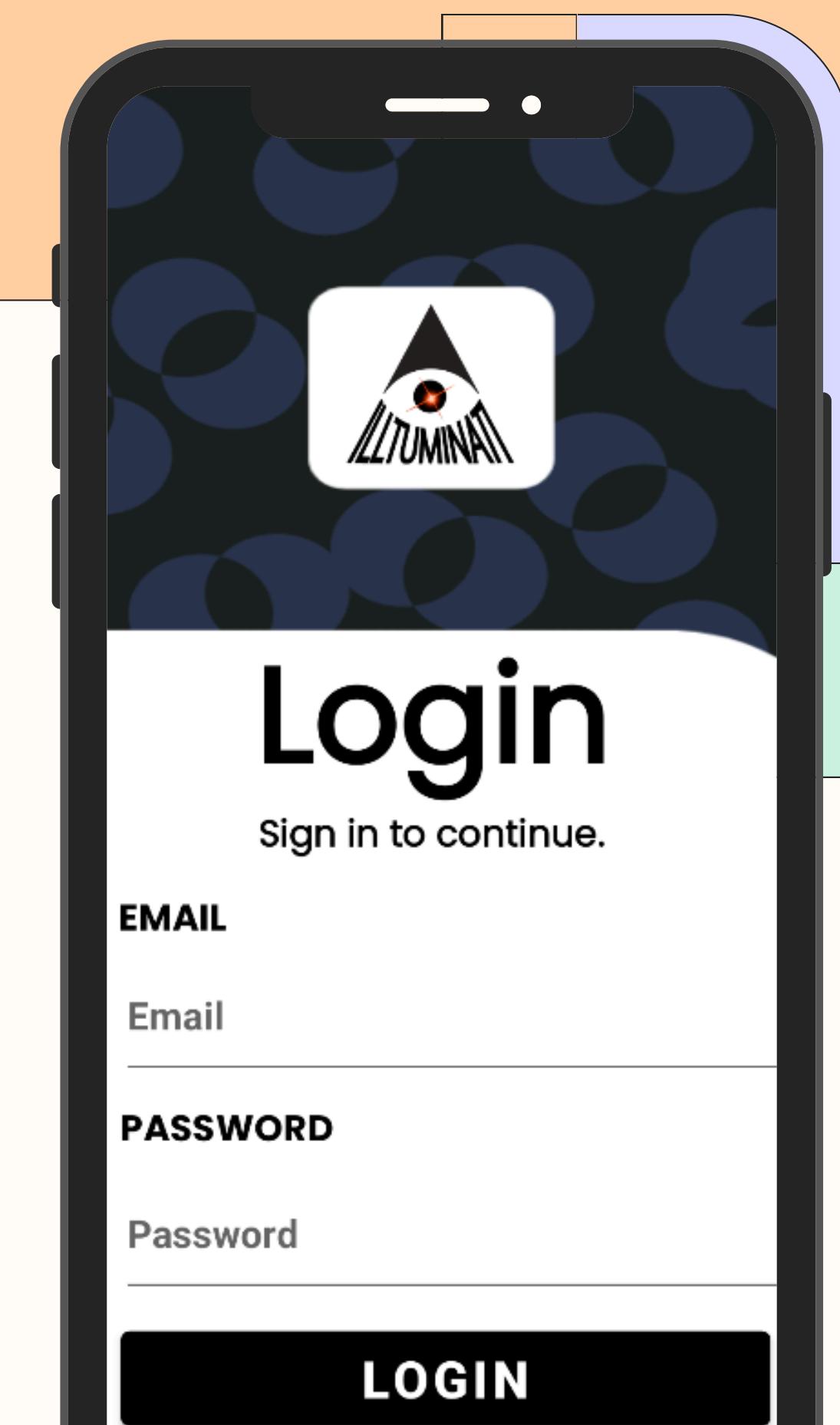
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# CHATCONNECT - A REAL-TIME CHAT AND COMMUNICATION APP

## Project Overview

- A real-time chat application built with Kotlin for Android, featuring intuitive XML-based layouts.
- Crafted to enable seamless, real-time communication through a sleek and user-friendly interface.



# DESCRIPTION

- **Secure Messaging App:**

Illuminati is designed with advanced security features to ensure your conversations remain private and protected.

- **Modern and Minimalist Design:**

The app features a sleek, minimalist interface that's easy to navigate, making communication smooth and intuitive.

- **Comprehensive Communication Features:**

Illuminati allows users to send text messages, make video calls, share files, and participate in group chats.

- **Available on Android :**

Illuminati is accessible to users across devices, ensuring seamless communication between android devices.

# MainActivity.kt

```
package com.av.avmessenger;

import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import
androidx.recyclerview.widget.LinearLayoutManager;
import androidx.recyclerview.widget.RecyclerView;

import android.annotation.SuppressLint;
import android.app.Dialog;
import android.content.Intent;
import android.os.Bundle;
import android.provider.MediaStore;
import android.view.View;
import android.widget.Button;
import android.widget.ImageView;

import com.google.firebase.auth.FirebaseAuth;
import com.google.firebaseio.database.DataSnapshot;
import com.google.firebaseio.database.DatabaseError;
import com.google.firebaseio.database.DatabaseReference;
import com.google.firebaseio.database.FirebaseDatabase;
import com.google.firebaseio.database.ValueEventListener;

import java.util.ArrayList;

public class MainActivity extends AppCompatActivity{

    FirebaseAuth auth;
    RecyclerView mainUserRecyclerView;
    UserAdpter adapter;
```

```
FirebaseDatabase database;
ArrayList<Users> usersArrayList;
ImageView imglogout;
ImageView cumbut, setbut;;
@SuppressLint("MissingInflatedId")
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
getSupportActionBar().hide();

database= FirebaseDatabase.getInstance();
auth = FirebaseAuth.getInstance();
cumbut = findViewById(R.id.camBut);
setbut = findViewById(R.id.settingBut);

DatabaseReference reference =
database.getReference().child("user");

usersArrayList = new ArrayList<>();

mainUserRecyclerView =
findViewById(R.id.mainUserRecyclerView);
mainUserRecyclerView.setLayoutManager(new
LinearLayoutManager(this));
adapter = new
UserAdpter(MainActivity.this,usersArrayList);
mainUserRecyclerView.setAdapter(adapter);

reference.addValueEventListener(new
ValueEventListener() {
@Override
public void onDataChange(@NonNull DataSnapshot
snapshot) {
```

```
for (DataSnapshot dataSnapshot: snapshot.getChildren()
{
    Users users = dataSnapshot.getValue(Users.class);

    usersArrayList.add(users);
}
adapter.notifyDataSetChanged();
}

@Override
public void onCancelled(@NonNull DatabaseError
error) {

}

});
imglogout = findViewById(R.id.logoutimg);

imglogout.setOnClickListener(new View.OnClickListener()
{
    @Override
    public void onClick(View v) {
        Dialog dialog = new
        Dialog(MainActivity.this,R.style.dialoge);
        dialog.setContentView(R.layout.dialog_layout);
        Button no,yes;
        yes = dialog.findViewById(R.id.yesbnt);
        no = dialog.findViewById(R.id.nobnt);
        yes.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                FirebaseAuth.getInstance().signOut();
                Intent intent = new Intent(MainActivity.this,login.class);
                startActivity(intent);
                finish();
            }
        });
    }
});
```

```
    }
});

no.setOnClickListener(new View.OnClickListener() {

    @Override
    public void onClick(View v) {
        dialog.dismiss();
    }
});
dialog.show();
}
});

setbut.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        Intent intent = new Intent(MainActivity.this,
setting.class);
startActivity(intent);
    }
});
cumbut.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        Intent intent = new
Intent(android.provider.MediaStore.ACTION_IMAGE_CAPTURE);
startActivityForResult(intent,10);
    }
});
if (auth.getCurrentUser() == null){
    Intent intent = new
Intent(MainActivity.this,login.class);
startActivity(intent);
}

}
```

# XML Layouts

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

    <ImageView
        android:id="@+id/imageView2"
        android:layout_width="148dp"
        android:layout_height="80dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.498"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.167"
        app:srcCompat="@drawable/logo_no_back" />
```

```
<TextView
    android:id="@+id/textView4"
    android:layout_width="233dp"
    android:layout_height="127dp"
    android:fontFamily="@font/poppins_regular"
    android:gravity="center"
    android:text="Login"
    android:textColor="@color/black"
    android:textSize="@dimen/_62sdp"
    android:textStyle="bold"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.415" />

    <TextView
        android:id="@+id/textView6"
        android:layout_width="310dp"
        android:layout_height="41dp"
        android:fontFamily="@font/poppins_regular"
        android:gravity="center"
        android:text="Sign in to continue."
        android:textColor="@color/black"
        android:textSize="@dimen/_14sdp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.495"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.514" />
```

```
<TextView
    android:id="@+id/textView7"
    android:layout_width="103dp"
    android:layout_height="30dp"
    android:fontFamily="@font/poppins_bold"
    android:gravity="center_vertical"
    android:text="EMAIL"
    android:textColor="@color/black"
    android:textSize="@dimen/_14sdp"
    android:textStyle="bold"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.159"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.572" />
```

```
<TextView
    android:id="@+id/textView8"
    android:layout_width="137dp"
    android:layout_height="35dp"
    android:fontFamily="@font/poppins_bold"
    android:gravity="center_vertical"
    android:text="PASSWORD"
    android:textColor="@color/black"
    android:textSize="@dimen/_14sdp"
    android:textStyle="bold"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.182"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.725" />
```

```
<EditText
    android:id="@+id/editTexLogEmail"
    android:layout_width="@dimen/_260sdp"
    android:layout_height="@dimen/_52sdp"
    android:ems="10"
    android:hint="Email"
    android:inputType="textEmailAddress"
    android:textColor="@color/black"
    android:textSize="@dimen/_15sdp"
    android:textStyle="bold"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.671"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.649" />
```

```
<EditText
    android:id="@+id/editTextLogPassword"
    android:layout_width="@dimen/_260sdp"
    android:layout_height="@dimen/_52sdp"
    android:ems="10"
    android:hint="Password"
    android:inputType="textPassword"
    android:textColor="@color/black"
    android:textSize="@dimen/_15sdp"
    android:textStyle="bold"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.671"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.813" />
```

```
<Button  
    android:id="@+id/logbutton"  
    android:layout_width="@dimen/_250sdp"  
    android:layout_height="@dimen/_45sdp"  
    android:backgroundTint="@color/black"  
    android:text="Login"  
    android:textSize="@dimen/_20sdp"  
    android:textStyle="bold"  
    app:layout_constraintBottom_toBottomOf="parent"  
    app:layout_constraintEnd_toEndOf="parent"  
    app:layout_constraintHorizontal_bias="0.581"  
    app:layout_constraintStart_toStartOf="parent"  
    app:layout_constraintTop_toTopOf="parent"  
    app:layout_constraintVertical_bias="0.916" />
```

```
<TextView  
    android:id="@+id/textView9"  
    android:layout_width="152dp"  
    android:layout_height="24dp"  
    android:gravity="center"  
    android:text="Need an account?"  
    android:textColor="@color/black"  
    app:layout_constraintBottom_toBottomOf="parent"  
    app:layout_constraintEnd_toEndOf="parent"  
    app:layout_constraintHorizontal_bias="0.536"  
    app:layout_constraintStart_toStartOf="parent"  
    app:layout_constraintTop_toTopOf="parent"  
    app:layout_constraintVertical_bias="0.954" />
```

```
<TextView  
    android:id="@+id/logs signup"  
    android:layout_width="@dimen/_124sdp"  
    android:layout_height="24dp"  
    android:gravity="center"  
    android:text="SIGN UP!"  
    android:textColor="@color/black"  
    android:textStyle="bold"  
    app:layout_constraintBottom_toBottomOf="parent"  
    app:layout_constraintEnd_toEndOf="parent"  
    app:layout_constraintStart_toStartOf="parent"  
    app:layout_constraintTop_toTopOf="parent"  
    app:layout_constraintVertical_bias="0.988" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>
```



# Output



The app is functioning successfully now and is fully connected with database, ensuring real-time communication and secure data management

