PROJECT REPORT

ON

StrangCAM

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DECLARATION

I would like to express my special thanks of gratitude to my project guide **Dr. Manoj Varshney** sir who gave me the golden opportunity to do this wonderful project on the topic **StrangCAM**, which also helped me in doing a lot of research and I came to know about so many new things I am really thankful to them.

Secondly, I would also like to thank my parents and friends who helped me a lotin finalizing this project within the limited time frame.

Candidate Name: **Sanjeev Kumar**

Roll No: 201500617

CERTIFICATE

This is to certify that the above statements made by the candidate are correct to the best of my/our knowledge and belief.

Project Supervisor

Dr. Manoj Varshney

Assistant Professor

Date: 01-May-2023

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INTRODUCTION

The trend of online chatting is increasing rapidly and is have several advantages also like people can interact with each other from anywhere in world and get to know more about different culture at free of cost which increase your friend circle and also increase network also. If this app used as tool it can act as a tool to improve one's reading, writing and speaking skills and help to improve overall communication and all the above mentioned things at free of cost. This app also have a reward feature through which help you in calling like for every call or chat user will pay 50 reward points and user can easily earn more points using earning system no other cost is required for video calling or chatting. Considering all these things the idea of this project came into picture. The idea is to create an android application that act as a platform for people to interact with strangers and learn more about different culture and also improve their communication skills.

Android-

Android is a mobile operating system based on a modified version of the Linux kernel and other open-source software, designed primarily for touchscreen

mobile devices such as smartphones and tablets. Android is developed by a consortium of developers known as the Open Handset Alliance and commercially sponsored by Google. It was unveiled in November 2007, with the first commercial Android device, the HTC Dream, being launched in September 2008.

Android 13-

Android 13 is the thirteenth major release of the Android mobile operating system, developed by Google, released for the public on August 15, 2022. Android 13 includes several new features intended to enhance user privacy, both user-facing and developer-facing. A new media picker is added, which improves privacy by allowing users to choose which photos and videos apps have access to.

TECHNOLOGY USED

Java -

Since the introduction of Android in 2008, this object-oriented programming language has been the popular and official language for Android mobile app development. An extremely versatile language, Java helps keep your app flexible, modular, and extensible. Java is easy to handle and many open source libraries are made available for users to choose from.

Java is created in 1995 by Sun Microsystems (now owned by Oracle). Java is Object-Oriented. Java syntax is similar to C/C++. But Java does not provide low-level programming functionalities like pointers. Also, Java code is always written in the form of classes and objects. Android heavily relies on the Java programming language all the SDKs required to build for android applications use the standard libraries of Java. So in this discussion, there is a complete guide to learn Java specifically considering Android App Development.

XML -

XML stands for eXtensible Markup Language. XML is a software- and hardware-independent tool for storing and transporting data. It is a markup language and file format for storing, transmitting, and reconstructing arbitrary data. It defines a set of rules for encoding documents in a format that is both human-readable and machine-

readable. Because XML is extensible and very flexible, it's used for many different things, including defining the UI layout of Android apps.

Android Studio -

Android Studio is the official integrated development environment (IDE) for Google's Android operating system, built on JetBrains' IntelliJ IDEA software and designed specifically for Android development. It is available for download on Windows, macOS and Linux based operating systems. It is a replacement for the Eclipse Android Development Tools (E-ADT) as the primary IDE for native Android application development.

SYSTEM REQUIREMENTS

Software Requirement-

To build application –

- 64-bit Windows 8/10/11
- Java SE Development Kit 17.0.5
- Android Studio Dolphin 2021.3.1

To Run application –

- Android Device with android 6.0 (marshmallow) or higher versions

Hardware Requirement –

- x86_64 CPU architecture; 2nd generation Intel Core or newer
- 8 GB RAM or more
- 8 GB of available disk space minimum

IMPLEMENTATION

Final Code –

MainActivity.java –

```
package com.sk.strangcam.Activities;

import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import androidx.core.content.ContextCompat;

import android.Manifest;
import android.app.ProgressDialog;
import android.content.Intent;
import android.content.pm.PackageManager;
import android.os.Bundle;
import android.os.CountDownTimer;
import android.view.View;
import android.view.animation.AlphaAnimation;
import android.view.animation.Animation;
import android.widget.Toast;

import com.bumptech.glide.Glide;
import com.google.android.gms.ads.MobileAds;
import com.google.android.gms.ads.initialization.InitializationStatus;
import com.google.android.gms.ads.initialization.OnInitializationCompleteListener;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.auth.FirebaseUser;
```

```
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.ValueEventListener;
import com.sk.strangcam.Models.User;
import com.sk.strangcam.R;
import com.sk.strangcam.databinding.ActivityMainBinding;

public class MainActivity extends AppCompatActivity {

    ActivityMainBinding binding;
    FirebaseAuth auth;
    FirebaseDatabase database;
    FirebaseUser currentUser;
    String[] permissions = new String[]{Manifest.permission.CAMERA,
Manifest.permission.RECORD_AUDIO};
    int coins;
    ProgressDialog progressDialog;
    private int requestCode = 1;
    User user;
    int payCoins;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        binding = ActivityMainBinding.inflate(getLayoutInflater());
        setContentView(binding.getRoot());

        auth = FirebaseAuth.getInstance();
        database = FirebaseDatabase.getInstance();
        currentUser = auth.getCurrentUser();
```

```
        progressDialog = new ProgressDialog(this);
        progressDialog.setTitle("Please Wait");
        progressDialog.setCanceledOnTouchOutside(false);
        progressDialog.show();

        getOnlineUser();
        MobileAds.initialize(this, new OnInitializationCompleteListener() {
            @Override
            public void onInitializationComplete(InitializationStatus initializationStatus) {
            }
        });


database.getReference().child("profiles").child(currentUser.getUid()).addValueEventListener
(new ValueEventListener() {
            @Override
            public void onDataChange(@NonNull DataSnapshot snapshot) {
                user = snapshot.getValue(User.class);
                coins = user.getCoins();
                binding.totalCoins.setText("You have : " + coins);
                if(!user.getProfile().equals("")) {
                    Glide.with(MainActivity.this)
                            .load(user.getProfile())
                            .into(binding.mainUserImageView);
                }

                database.getReference("payCoins").addListenerForSingleValueEvent(new
ValueEventListener() {
                    @Override
                    public void onDataChange(@NonNull DataSnapshot snapshot) {
                        long val =  snapshot.getValue(Long.class);
```

```
                payCoins = (int) val;
                binding.payCoins.setText("Coins : "+payCoins);
            }

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

            }
        });

        progressDialog.dismiss();
    }

    @Override
    public void onCancelled(@NonNull DatabaseError error) {
        progressDialog.dismiss();
        Toast.makeText(MainActivity.this, "Please check your network connection...",
Toast.LENGTH_SHORT).show();
    }
  });

  binding.mainVideoCallBtn.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        askPermissions();
        if(isPermissionsGranted()){
            if(coins >= payCoins){
                coins = coins-payCoins;
                binding.totalCoins.setText("You have : " + coins);
```

```
database.getReference().child("profiles").child(currentUser.getUid()).child("coins").setValue
(coins);
                    Intent intent = new Intent(MainActivity.this, ConnectingActivity.class);
                    intent.putExtra("profile", user.getProfile());
                    intent.putExtra("request", "call");
                    startActivity(intent);
                } else {
                    Toast.makeText(MainActivity.this, "Insufficient Coins",
Toast.LENGTH_SHORT).show();
                    animateReward();
                }
            }
        }
    });


    binding.mainChatBtn.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            if(coins >= payCoins){
                coins = coins-payCoins;
                binding.totalCoins.setText("You have : " + coins);

database.getReference().child("profiles").child(currentUser.getUid()).child("coins").setValue
(coins);
                Intent intent = new Intent(MainActivity.this, ConnectingActivity.class);
                intent.putExtra("profile", user.getProfile());
                intent.putExtra("request", "chat");
                startActivity(intent);
            } else {
```

```
                Toast.makeText(MainActivity.this, "Insufficient Coins",
Toast.LENGTH_SHORT).show();
                animateReward();
            }
        }
    });

    binding.getCoinsLinearLayout.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            startActivity(new Intent(MainActivity.this, RewardsActivity.class));
        }
    });

    binding.mainUserImageView.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            Intent intent = new Intent(MainActivity.this, EditProfileActivity.class);
            intent.putExtra("id", user.getuID());
            startActivity(intent);
        }
    });

}

int charUser = 0, vidUser = 0;
private void getOnlineUser() {
    database.getReference().child("users").addValueEventListener(new
ValueEventListener() {
        @Override
        public void onDataChange(@NonNull DataSnapshot snapshot) {
```

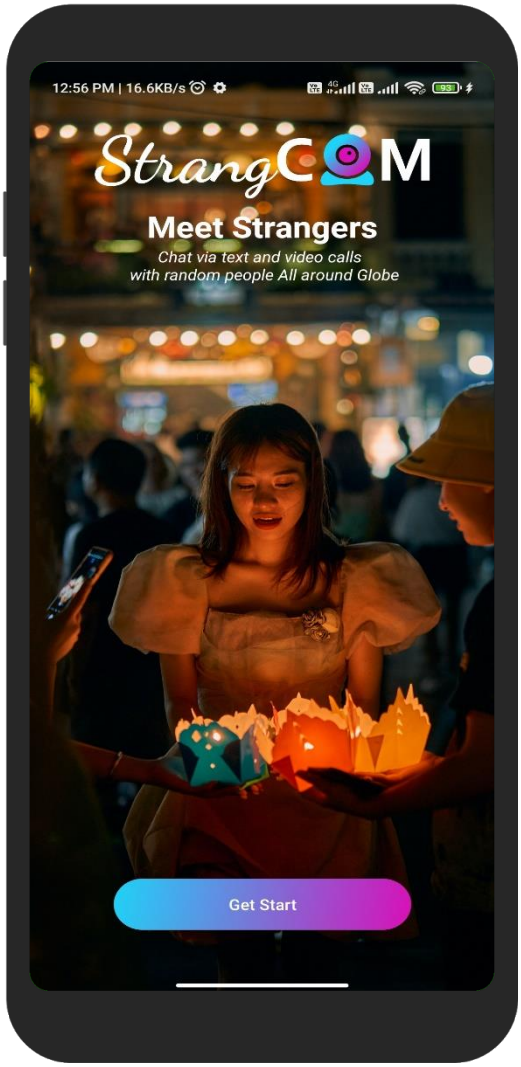
```
            vidUser = (int) snapshot.getChildrenCount();
            database.getReference().child("chatRooms").addValueEventListener(new
ValueEventListener() {
                @Override
                public void onDataChange(@NonNull DataSnapshot snapshot) {
                    charUser = (int) snapshot.getChildrenCount();
                    binding.onlinUserTextView.setText(String.valueOf(vidUser+charUser));
                }

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

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

        }
    });
  }


   private void animateReward() {

binding.getCoinsLinearLayout.setBackground(ContextCompat.getDrawable(MainActivity.thi
s, R.drawable.blue_background));
      Animation animation = new AlphaAnimation(0.0f, 1.0f);
      animation.setDuration(200);
      animation.setStartOffset(20);
      animation.setRepeatMode(Animation.REVERSE);
      animation.setRepeatCount(10);
```

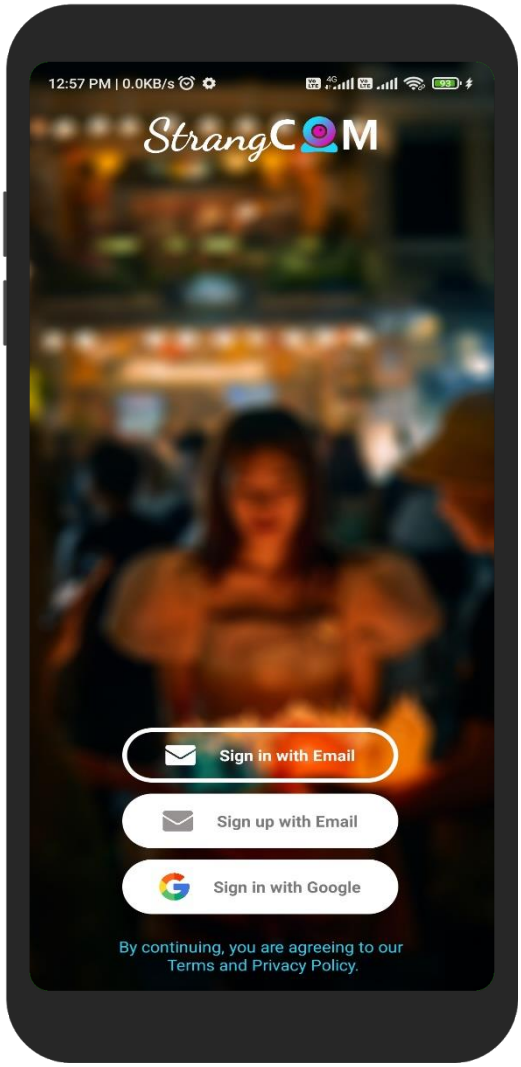
```
        binding.getCoinsLinearLayout.startAnimation(animation);
        animation.setAnimationListener(new Animation.AnimationListener() {
            @Override
            public void onAnimationStart(Animation animation) {

            }

            @Override
            public void onAnimationEnd(Animation animation) {

binding.getCoinsLinearLayout.setBackground(ContextCompat.getDrawable(MainActivity.this, R.drawable.gray_background));
            }

            @Override
            public void onAnimationRepeat(Animation animation) {

            }
        });
    }

    private void askPermissions() {
        ActivityCompat.requestPermissions(this, permissions, requestCode);
    }

    private boolean isPermissionsGranted() {
        for(String permission : permissions){
            if(ActivityCompat.checkSelfPermission(this, permission) != PackageManager.PERMISSION_GRANTED){
                return false;
            }
```

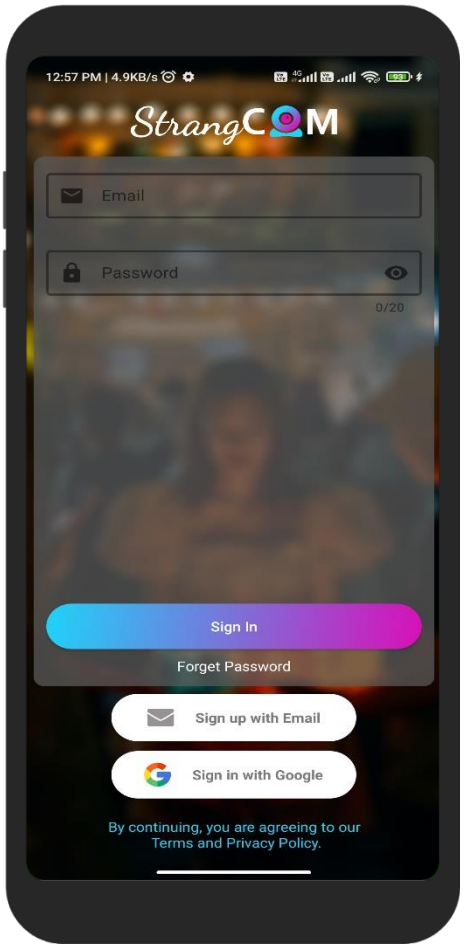
```
        }
        return true;
    }

}
```

WORKING

1. User login or Signup to the app
2. Then we come to home page where one can make video or voice call and text message to a random person.
3. If user choose to make a video call then the activity to connection activity where user wait in room until new user joins the call.
4. Similarly is user select to make chat room then the activity to connection activity where user wait in room until new user joins the chat.
5. For every video call, voice call or chat user have to pay 50 reward points.
6. User can view there reward point in wallet section.
7. User can earn reward by watching rewarded ads in wallet section.



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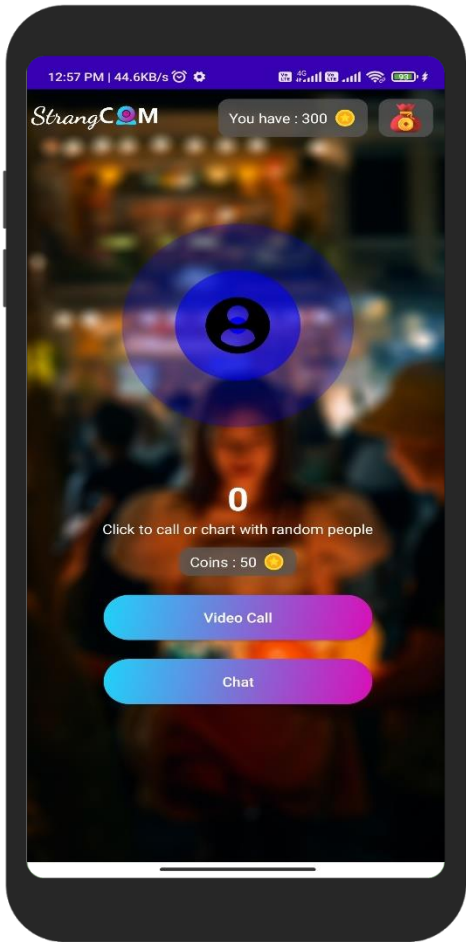
StrangCOM
Email
Password
0/20
Sign In
Forget Password
Sign up with Email
Sign in with Google
By continuing, you are agreeing to our
Terms and Privad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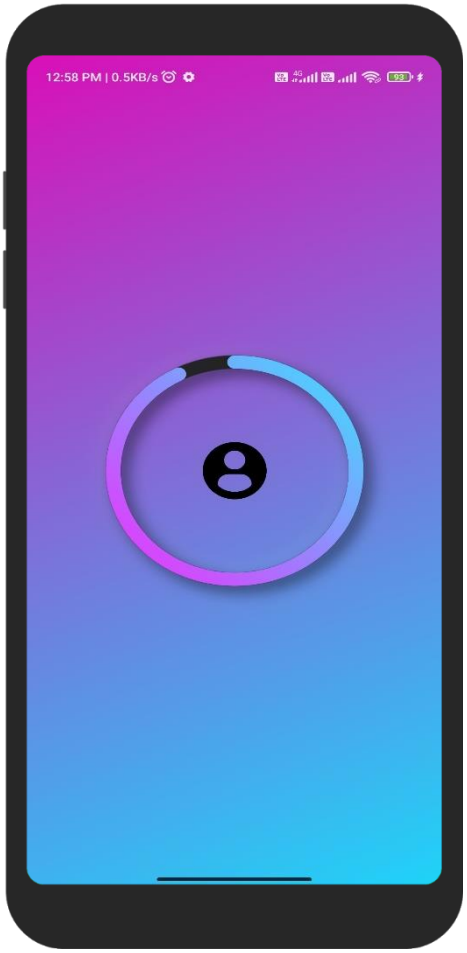
StrangCOM
You have : 300
0
Click to call or chart with random people
Coins : 50
Video Call
Chat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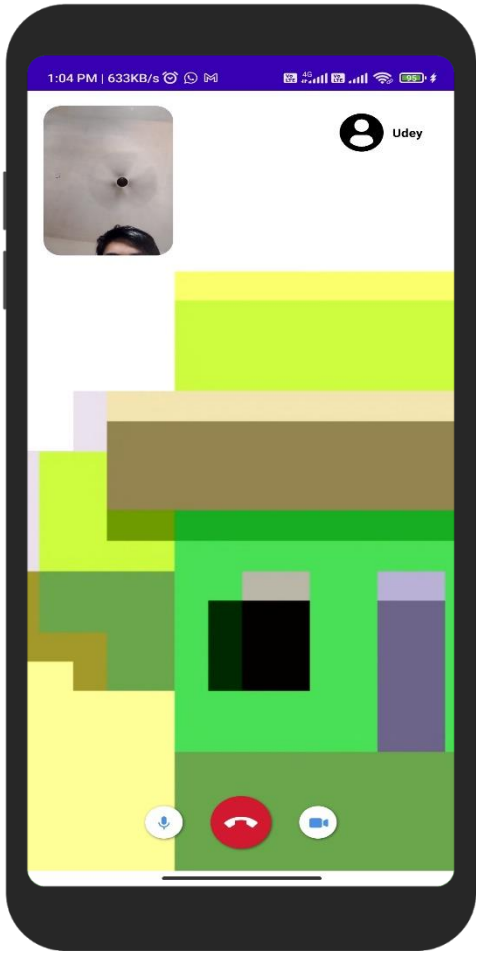
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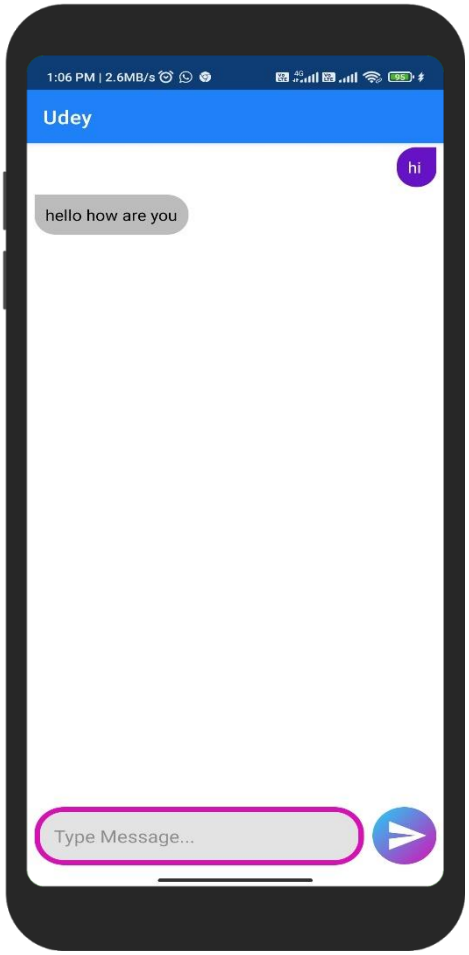
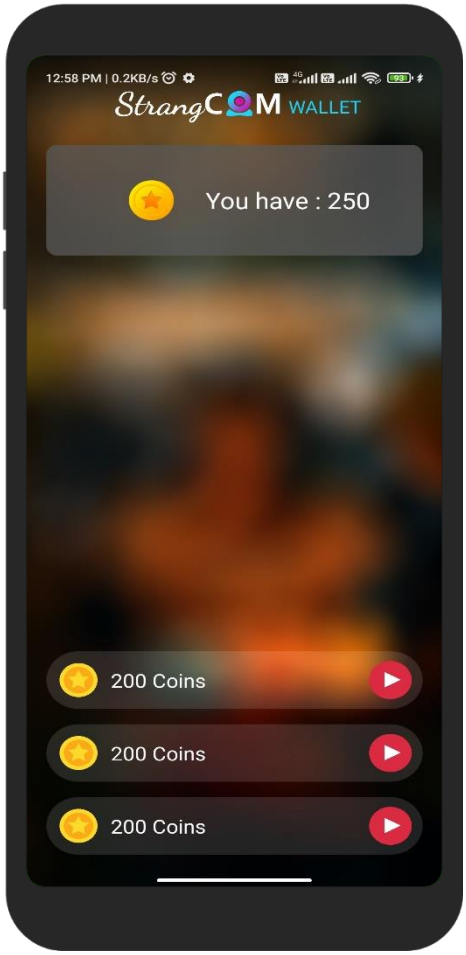
Udey


1:06 PM | 2.6MB/s
Udey
hi
hello how are you
Type Message...


12:58 PM | 0.2KB/s
StrangCOM WALLET
You have : 250
200 Coins
200 Coins
200 Coins

CONCLUSION AND FUTURE WORK

Conclusion:

As per the goal of this project an attempt is made to make a android application where people can connect with strangers and make new friends via video call, chat or voice call.

StrangCAM application that act as a platform for people to interact with strangers and learn more about different culture and also improve their overall communication skills(like- written and verbel).

Future work:-

The scope of android application are increasing day by day and in free item people waste their time so this application can help them to connect with new people. This success can also be the result of increased internet use and engagement on play store among our generation.

Many different adaptations, tests, and experiments have been left for the future due to lack of time. The present system is just an interactive UI with user database but Future work concerns with developing random gaming feature where two or more remote user can connect with each and can play games like ludo, chess etc.

Github Link

play.google.com/store/apps/details?id=com.sk.strangcam

Project is under review on play console and will live soon