**Synopsis**

**Title** - *A Mobile Based Messaging And Video Calling App*

**Problem Statements-**

The number of mobile users is increasing in many folds and it is because of the improvement in technology, availability of wide set of applications and reduction in technology cost. The expected era of applications will be mobility and streaming applications , especially video and it is possible due to a significant growth in mobile bandwidth capacity.

After reviewing on various aspects , we analysed that the various stages in mobile communication system need improvements to achieve seamless video streaming continuity during handover. The present study has identified the following issues to aim better video continuity during mobility.

I: High end-to-end delay due to

1. Signalling delay of a mobility protocol

2. Handover delay of a mobility protocol

3. Additional delays occur in layout and other parts of the framework.

II: Higher packet losses due to

1. Insufficient buffering or static buffering capacity during handover period.

2. Incapable buffer management.

3. Improper selection of PoAs to improve service availability

**Reason –**

As we all know in this today’s world where technology is changing really quick. Everyone is switching from desktops to mobile devices. Those days are gone when people used to send text messages and pays for it, also there is no much time to waste to call via PC’s video calling softwares. As no one can carry PC’s and laptops with themselves everywhere. Nowadays everyone gets switched to mobile. People is engaging more in mobile applications rather than using PC’s softwares.

So, keeping all this in mind, we decided to make a *messaging and video calling application*. So that user has to not waste his precious time in downloading or keep waiting for others as what happens in desktop softwares. He/She can get in touch with anyone in the world using this application from anywhere. So the idea behind this is simple, it’s just to connect people at once so that they can share their precious moments with their loved ones.

**Objective-**

From yahoo chat that started in those early days of internet to Snapchat, WhatsApp and Facebook’s highly sophisticated chat messenger, online Chat applications have evolved dramatically over the last decade.

With multi-tasking mechanism playing the major focus, today’s chat apps are explored globally by billions of users for both personal as well as commercial fulfilment.

At the heart of these chat app innovation lies fascination for mobile technology that was earlier seen as a fleeting fad. The reason why chat apps are exercised with great sincerity is the fact that there is a subtle opportunity to transform chat application services into a major marketing. As now more than 70% of total visits on top digital news websites come from mobile devices, the need for developing mobile-specific chat apps has escalated.

A lot of traffic and referrals observed on news organisation belong to social platforms, which translates into a great opportunity for relationship building and audience engagement.

Chat messengers present themselves as representatives of socials on mobile and drive the size of traffic too huge to ignore.

From above discussion, it is evident how chat applications are purposed to play various roles in addition to acting as a chat communication medium.

As days pass by, chat messengers are going to be even more advanced in its capability. While app publishers exhibit immense joy, optimism and excitement for their success so far, they all almost agree that chat app industry is still its experimental and exploratory phase.

After spending loads of time perfecting user experience, publishers now gravitate to media-powered partnerships. Hope you have learned enough from chat apps success stories to initiate your own experiment.

**Future Scope-**

It is the year 2020 and we carry the future with us in our pocket – that is a simple and sleek mobile device. Texting is one of the most common activities that are performed in a smart phone. Apart from exchanging text and picture messages and videos, the messaging  Apps has gone far beyond these tasks. Messaging apps are also including corporate accounts, browsers, chat bots, and payment methods as well. People can now chat and exchange messages via messaging  apps but also pay their bills online, transfer money, shop online and do many more tasks.  Over 2.5 billion people   have at least one messenger apps installed in their phone. There are so many new messenger apps in current market . With so many newly emerging messenger apps, it seems that the future of messenger apps is really bright and promising.  messenger App has a simple user interface that can be used regularly. Apart from photographs, users can also share funny content and get money from various advertisers.

*There is lot of scope for Messenger applications to be involved and connected with people on daily basis and provide them lot of free services and help them.* So keeping all these discussions in mind, you can be sure that messaging apps has been created globally to update people on technology and it seems that the future of messaging  apps is sure to be booming as well.4

**Software To Be Used-**

Software used to make this application is-

1. Android Studio.

**Technology To Be Used-**

To make this messaging and video calling application we will use various technologies like.

1. Java Programming Language.

2. Git and GitHub.

3. Amazon EC2 Server

**Methodology-**

Before starting to develop a messaging app, let’s talk about the essential features of a messaging and video calling application.

1. Authentication in chat apps can be implemented in various ways: via phone number, email, or social media profiles. Most instant messaging apps require users to sign in with a phone number.

2. Customising profiles helps users express their individuality. They might change names and nicknames, background colours, patterns, and fonts, or choose an avatar photo from the camera roll or by taking a photo instantly. In a lot of apps, people can see user status, namely when people last used the messenger app, who’s online, and when someone is typing.

3. Instant messaging feature operates over the internet, but if users go offline they can receive all the messages they miss as soon as they get back online. Also, messages can have statuses (delivered/failed/seen/edited).

4. Video and voice calling make a chat app more interactive, putting no limits on the way users can interact and communicate with each other. Here are the main voice and video options an app can provide:

Voice calling. Voice calling lets users call their contacts for free, even if they’re in another country. With voice calling, users can speak but they can’t see each other.

Video calling. Video calling offers visual communication between users. A video call uses an internet connection, which includes video of the person making the call. This feature makes it easy to connect with friends and family even when they’re far apart.

**Contribution-**

This awesome messaging and video calling application will help users to simplifying their needs. We will try our best that this app will consume less data and we will care our users data also.

**Scope Of Extension Into Major-**

In this project we can easily change this into a major one. As we know that messaging app will never can get out of trend as it becomes now a major part of a human life.

We will add various new features in it later on as we can add it a business feature from which we can also manage business profiles. Also we can add multiple video calling at a single time feature and many more later on.

**Conclusion-**

The conclusion is Application is very nice and unique apps in mobile application. This is because it have many advantage if we install and use the application. CoChat also have many features like video call, voice chat. If they don't have internet access, we cant use all the features. However, CoChat application is free cost.  Using this application, we can manage it about the contact list, who will become our friends and who can see our moments.