# MINI PROJECT

(2021-22)

# "Video Chatting App- VClub"

# Project Mid Term Report


Institute of Engineering & Technology

Submitted By -

Hardik Pratap Singh (191500310)

Priyanshu Vishwakarma (191500611)

Srijan Kumar (191500823)

Under the Supervision Of

Akash Kumar Chaudhary

Technical Trainer

Department of Computer Engineering & Applications


Department of Computer Engineering and Applications

GLA University, 17 km. Stone NH#2, Mathura-Delhi Road,

Chaumuha, Mathura – 281406 U.P (India)

Sign: Hardik

Name of Candidate: Hardik Pratap Singh

University Roll No.:191500310

Sign: Priyanshu

Name of Candidate: PriyanshuVishwakarma

University Roll No.: 191500611

Sign: Srijan

Name of Candidate: Srijan Kumar

University Roll No.: 191500823

# Declaration

I/we hereby declare that the work which is being presented in the Bachelor of technology. Project "VClub", in partial fulfilment of the requirements for the award of the Bachelor of Technology in Computer Science and Engineering and submitted to the Department of Computer Engineering and Applications of GLA University, Mathura, is an authentic record of my/our own work carried under the supervision of Mr. Akash Kumar Chaudhary, Technical Trainer, Dept. of CEA,GLA University.

The contents of this project report, in full or in parts, have not been submitted to any other Institute or University for the award of any degree.


Department of Computer Engineering and Applications

GLA University, 17 km. Stone NH#2, Mathura-Delhi Road,

Chaumuha, Mathura – 281406 U.P (India)

# Certificate

This is to certify that the project entitled “VClub”, carried out in Mini Project – I Lab, is a bonafide work by Hardik Pratap Singh, Priyanshu Vishwakarma and Srijan Kumar and is submitted in partial fulfillment of the requirements for the award of the degree Bachelor of Technology (Computer Science & Engineering).

Signature of Supervisor:

Name of Supervisor: Akash Kumar Chaudhary

Date:

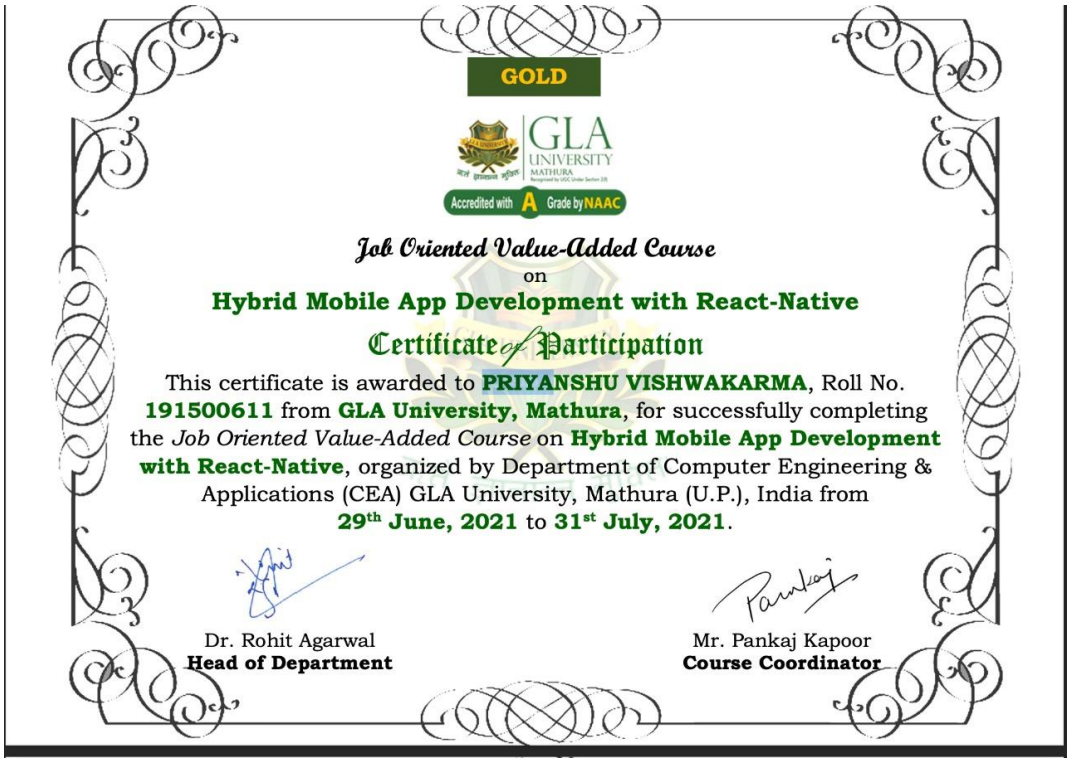
# Training Certificates

## Hardik Pratap Singh

VClub


PriyanshuVishwakarma

VClub




Srijan Kumar

Department of Computer Engineering and Applications

GLA University, 17 km. Stone NH#2, Mathura-Delhi Road,

Chaumuha, Mathura – 281406 U.P (India)

# ACKNOWLEDGEMENT

Presenting the ascribed project paper report in this very simple and official form, we would like to place my deep gratitude to GLA University for providing us the instructor Mr. Akash Chaudhary, our technical trainer and supervisor.

He has been helping us since Day 1 in this project. He provided us with the roadmap, the basic guidelines explaining on how to work on the project. He has been conducting regular meeting to check the progress of the project and providing us with the resources related to the project. Without his help, we wouldn't have been able to complete this project.

And at last, but not the least we would like to thank our dear parents for helping us to grab this opportunity to get trained and also my colleagues who helped me find resources during the training.

Thanking You

Sign: Hardik Pratap Singh

Name of Candidate: Hardik Pratap Singh

University Roll No.:191500310

Sign: Priyanshu Vishwakarma

Name of Candidate: Priyanshu Vishwakarma

University Roll No.: 19150611

Sign: Srijan Kumar

Name of Candidate: Srijan Kumar

University Roll No.: 191500823

# ABSTRACT

In this project, we are creating Video Calling website which we have named VClub. The Online Video chat is a web-based application intended for online community. The main objective of this application is to make it interactive and easy to communicate.

It would make Video calling, chatting and communication between people. It contains a sophisticated Video calling SDK for users to call and join the meeting. The Video Call provides an easy and convenient way to call for user and call other users simultaneously and also the User-friendly User Interface. The user can easily join the meeting and have the communication without any software requirement. They can also chat using this web app inside the meeting. The application also provides a better communication system by using Agora as an SDK provider.

# CHAPTER-1 INTRODUCTION

## CONTEXT

This Website “VClub” has been submitted in partial fulfilment of the requirements for the award of the degree of Bachelor of Technology in Computer Science and Engineering at GLA University, Mathura supervised by Mr. Akash Kumar Chaudhary. This project has been completed approximately three months and has been executed in modules, meetings have been organised to check the progress of the work and for instructions and guidelines.

## MOTIVATION

In the recent years, we have realized the importance of web apps and because of corona the online calls have been very common.

In the century we are living the world is progressing at a really great pace, a lot number of technologies come up every single day. To keep up with the technology is also important to survive in this world of digitalization and learning. Along with this we need to have a place to keep the resources for areas of our interest so we thought of developing a website which could provide us a platform where we could communicate more efficiently.

## OBJECTIVE

There are large numbers of video calling apps offering large number of products tailored to meet the communication gap of large number of users. These apps are usually needed to install onto the system but ours can we be run using any web browser

## EXISTING SYSTEM

In day-to-day life, we will need to communicate with other people so to make this process more efficient we have developed this app. Now a days, it is really hard to communicate to the people who are far away and even for the offices to work in offline mode. In order to solve this, problem zoom like apps were started. Using these apps, we can video chat with the people.

This existing system of calling has several disadvantages. It requires a lot of headache to login and and join the meeting and also requires to install the software onto our systems. Also

In order to overcome these, we have web app as solution, i.e one place where we can easily communicate with our loved ones. The proposed system helps in building a website to chat, and leave and also mute himself. Tis web app also gives the user to turn off their cameras and mute themselves while doing th video call

Some of the existing system's are
1. Zoom
2.Gooslemeet
3.Teams

# HARDWARE AND SOFTWARE REQUIREMENTS

## Hardware Requirement

| | |
|---|---|
| Processor | :Pentium and above |
| Operating System | :Windows,Ubuntu etc. |
| RAM | : 2 GB |
| Hardware Devices | :Laptop,PC,Mobile |
| Hard Disk | :500 GB |
| Display | : 1920x1080 |

## Software Requirement

| | |
|---|---|
| Technology Implemented | :Front-End+Back-End(Agora)+Video SDK(Agora) |
| Language used | : HTML,CSS,JS |
| Video Transmission | : Agora |
| User Interface Design | : Bootstrap |
| Web Browser | : Firefox,Chrome etc. |

# The functionalities provided by the user interface is:

1.Meeting Create page

2.Join link & Host link page

3.Video chat webpage

4.Inbuilt chat

5.Leave,mic-button,Video-button

# CHAPTER-2 TECHNOLOGY USED

## 1. HTML

HTML (Hypertext Markup Language) is the code that is used to structure a web page and its content. For example, content could be structured within a set of paragraphs, a list of bulleted points, or using images and data tables. As the title suggests, this article will give you a basic understanding of HTML and its functions.

The main parts of our element are as follows:

The opening tag: This consists of the name of the element (in this case, p), wrapped in opening and closing angle brackets. This states where the element begins or starts to take effect — in this case where the paragraph begins.

The closing tag: This is the same as the opening tag, except that it includes a forward slash before the element name. This states where the element ends — in this case where the paragraph ends. Failing to add a closing tag is one of the standard beginner errors and can lead to strange results.

The content: This is the content of the element, which in this case, is just text. The element: The opening tag, the closing tag, and the content together comprise the element.

An attribute should always have the following:

A space between it and the element name (or the previous attribute, if the element already has one or more attributes).

The attribute name followed by an equal sign.

The attribute value wrapped by opening and closing quotation marks.

## 2. CSS

Let’s start at the beginning. CSS stands for Cascading Style Sheets, and it’s used to add style to a web page by dictating how a site is displayed on a browser. CSS is unique in that it doesn’t create any new elements, like HTML or JavaScript. Instead, it’s a language used to style HTML elements.

CSS is responsible for the text style, size, positioning, color, and more on a website. It’s also what controls how a website’s style shifts between desktop and mobile versions. Without CSS, websites would look pretty boring.

### Advantages of CSS

There are many reasons why you’ll want to use CSS in web design. First, CSS can save you time. Once you have a style sheet created, you can use it multiple times. The best practice for CSS is to save it as a .css file, separate from your .html file. The style sheet can then be linked to your HTML file. When you find a style that you like, you can apply it to as many pages as you’d like.

Second, CSS is efficient. Only a few lines of code are required to dictate the style on a webpage, which speeds up loading time and keeps files relatively lightweight. Lastly, it’s easy for users to learn and update, which makes global changes to style simple and quick.

### Types of CSS

There are three types of CSS styling: internal, external, and inline. The types of CSS refer to how CSS is implemented. Internal CSS, which is also called embedded CSS, is the practice

of inserting the CSS code in the <head> section of the HTML document that defines a specific website.

While an internal style sheet is a nice way to have all the code in one file, it makes that file rather large and doesn't allow for style changes to be applied globally across different web pages. You can see that if you wanted to make a change to an element across a few pages, it would be easy to make a mistake when you use an internal style sheet.

The second type of CSS is external, where the style sheet is kept in a file separate from the HTML code. As we discussed earlier, this is the preferred type of CSS for many developers and companies.

If you or your team is working on a large project or has a large company website, standardization of style will be important. Keeping the style separate from the structure means that global style changes can be done efficiently and more accurately than with an internal style sheet.

The final type, inline CSS, is where the CSS code is applied within the HTML code but is not globally applied to a particular element. Instead, the CSS code is used within the HTML code to alter a single element.

Generally speaking, inline CSS isn't recommended. But as you're developing a web page, and you want to modify a single element, you could use inline CSS. In another scenario, if there's a bug on a website and you need to fix it fast, inline CSS could be the ticket — that is, until you can go back in later and fix the issue more globally with external CSS.

## 3. JavaScript

JavaScript is a text-based programming language used both on the client-side and serverside that allows you to make web pages interactive. Where HTML and CSS are languages that give structure and style to web pages, JavaScript gives web pages interactive elements that engage a user. Common examples of JavaScript that you might use every day include the search box on Amazon, a news recap video embedded on The New York Times, or refreshing your Twitter feed.

Incorporating JavaScript improves the user experience of the web page by converting it from a static page into an interactive one. To recap, JavaScript adds behavior to web pages.

JavaScript allows users to interact with web pages. There are almost no limits to the things you can do with JavaScript on a web page – these are just a few examples:

- Show or hide more information with the click of a button
- Change the color of a button when the mouse hovers over it
- Slide through a carousel of images on the homepage
- Zooming in or zooming out on an image
- Displaying a timer or count-down on a website
- Playing audio and video in a web page
- Displaying animations
- Using a drop-down hamburger menu

## 4.Agora:

To make real-time engagement ubiquitous, allowing everyone to interact with anyone, anytime and anywhere.

Agora is the leading video, voice and live interactive streaming platform, helping developers deliver rich in-app experiences—including embedded voice and video chat, realtime recording, interactive live streaming, and real-time messaging.

A Vision of the Future

Traditionally, real-time video and voice happen in standalone, dedicated applications but people increasingly want to engage directly in applications they’re already using.

These real-time voice and video solutions were difficult and expensive to develop, requiring reliable multi-way transmission of large amounts of data across geographies and network operators, often resulting in significant data packet loss and slow response times.In 2013, our founder had already imagined this future and set out to create the solution.

## Building the Future Now

Today our Real-Time Engagement Platform provides developers with simple-to-use, customizable and widely compatible APIs to embed real-time video and voice into their applications without the need to build the infrastructure themselves. Real-time data transmission is handled by our Software-Defined Real-Time Network (SD-RTN™) with more than 200+ points of presence worldwide. Using sophisticated algorithms, SD-RTN™ continuously monitors and optimizes data transmission paths, minimizing latency and packet loss while enabling high-quality real-time engagement across millions of concurrent users.

Agora goal is to empower every developer—whether working as a solo entrepreneur or part of a larger organization—to leverage Real-Time Engagement to create innovative products, elevate user experiences, differentiate themselves and build the applications of the future right now