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Video Chatting Application Website

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ABSTRACT: Chats are bound to be an efficient way of disseminating synchronous and asynchronous information through textual messages or video communication among various people over a network. An Integrated Development Environment (IDE), is a text editor that allows developers and engineers to enhance the different features of writing executable software. Using IDEs, the programmer's productivity is enhanced by consolidating common activities involved in writing computer programs into a single application. These activities include source code editing, auto-completing, syntax highlighting, building executable, debugging, and automated testing. Python is a programming language used to develop mostly sophisticated Machine Learning and web applications. An IDE makes coding in Python much easier and efficient. It consists of features like indentation and code folding which are very important aspects in executing Python programs successfully. Also, unresolved imports or undefined methods are indicated with warnings and error signs to give programmers more information on impending problems. A web-based Python Integrated Development Environment (IDE) was developed by applying modern communication techniques of text and video chats. This software delivers facilities to programmers for efficient development of programs. It also consists of autocompletion, code fixing, code editing, management and automated testing. A cloud-based IDE was deployed because it enables programmers to easily access their projects anywhere and at any time. Also, hardware limitation issues are eliminated with no setups and configurations required, as all the information is to be stored in the cloud.

I. INTRODUCTION

The importance and popularity of chat applications in a software development environment have been increasing every day. This is as a result of a lucrative solution which enables seamless interaction among programmers concurrently. The real-time interactions will allow other members of the group to communicate and solve problems together anywhere at any time. Chat applications are mostly integrated with the development environment. An Integrated Development (IDE) consists of tools existing in isolated or separated systems, including a code editor, a debugger, and a compiler with all these disjointed components integrated to make a complete "integrated" system. Nevertheless, all IDEs have yielded tremendous growth over the past ten years and have significant advancement in all functionalities which have only fortified their wide acceptance by the target audience. Developers hold a conversation in online chat rooms in real-time with the use of the Internet and their personal computers to send text messages and show in the receivers' screens in real-time. This chatting platform offers a leeway in understanding the underlying problem very well. Due to its synchronous nature, the textual chat is deployed to augment face-to-face interaction with advantages including repair moves and negotiation for meaning. For example, it was discovered that members in the synchronous chat utilized interactional alterations analogous to face-to-face interactions. The research revealed that most people make use of textual chat to initiate communication and organize different activities. Texting offers enormous importance to explore various tasks and chat in real-time. Studies also showed that textual chat does not cover all aspects of face-to-face communication. Text chatting can accommodate many participants that can forward messages concurrently concerning similar or discarded topics.

Therefore, this produces a sequence of dialogues apart from the face-to-face interaction in which members of the group usually talk on a single thread at a time. Given this, the textual chat platform may require the need necessary for repair moves because of interruptions in communication due to topic incoherence. Video chat or conferencing can be referred to as a real-time connection among people in disparate sites for interaction and communication often consists of audio and video. This offers the transmission of text and static images between different sites. It also provides the transmission of high-quality audio and full-motion video images among many sites. Video conferencing

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technology was invented about 40-50 years ago. The advancement of video conferencing relied on the accessibility of a dependable digital communications network.

II. LITRETURE SURVEY

YANG TAO , YUANZI HE , "AN INTELLIGENT NETWORK VIDEO CHAT SYSTEM BASED ON VNN PLATFORM", 2020: The epidemic of novel coronavirus pneumonia (COVID-19) has spread worldwide, which greatly affected people's daily life, study and office. Especially the distance education needs better video communication software. Among them, video chat technology is the key technology. At present, there are a large number of video chat systems in the market. Based on the analysis of the technical background of video chat system, this paper proposes a new P2P video chat system design, aiming at the problem of unstable video communication in the current video chat system. Based on VNN technology, this paper presents the logic and model design of P2P video chat system, including login and call model, and analyzes its workflow. Finally, the prototype system of video chat room is realized. The video communication of the system is smooth and the picture quality is good. Next, we will use the technology in the research and development of distance education system, which can be applied in the teaching of colleges and universities. It has been a long time since the start of school in 2020. Due to the epidemic, many school students are using distance learning for teaching and learning. To carry out distance education, of course, we cannot do without video chat system, HD video server and other equipment, which also directly affects the development and progress of video chat technology. The research of video chat system based on VNN can be used in distance education.

Gan Hongchao, Lei Yu, "RESEARCH ON KEY TECHNOLOGY OF VIDEO CHAT", 2020: Video chat has been accepted by more and more people. Because of its innovation and practical applicability, mobile video chat is considered to be the key innovation based on the 3rd generation telecommunication. With the popularity of smartphones and perfection of mobile network, more and more people use mobile phones to satisfy their daily recreational needs. It is estimated that by 2015, 29.6 billion or more video telephone calls will be made annually, which shows the promising future of video chat. The key point for the research on mobile video chat system is how the quality of video chat by wireless network can be guaranteed. The key technologies to solve these problems include: control of bit rate, RTP data packetization algorithm, and error resilience based on the unequal protection. Recently, domestic and foreign scholarsdoa series of researches in these technical areas. In the field of mobile video chat, at home and abroad, the research on H.264 video codec technology and mobile video QoS technology has made great progress. However, because of the limitations of wireless network, mobile video chat service is still unstable. The current application of mobile video chat cannot be achieved in high resolution (QCIF mostly based). What's more, there are still insufficient in fluency and clarity. Therefore, the development of a high-resolution, high fluency mobile video chat system is of great significance.

Qin Lv, "Detecting Misbehavior in Online Video Chat Services", 2020: Online video chat is hardly foreign to most Internet users. To start a video conversation online, all you need is a Web camera, or webcam, a computing device with a wired or wireless network connection, and video chat software or a Web service (many of which are free). A wide range of computing devices, including desktops, laptops, tablets, and smartphones, now come equipped with built-in webcams and microphones; coupled with easy-to-use software and Web interfaces, this has made online video chat increasingly popular.To overcome these challenges, my colleagues and I developed SafeVchat, which fuses together multiple types of image-based evidence to detect misbehaving users. SafeVchat's overall system architecture. As input, the system takes three consecutive snapshots captured within a certain interval (for example, every 10 seconds) and removes dark images and static scenes. It then uses individual image-processing methods to detect whether face, eye, nose, mouth, and upper body are present, and employs an enhanced motion-based skin detector. Another important perspective is the fast-growing adoption of mobile video chat. On one hand, intensive image-based processing for misbehaviour detection can pose high computation overhead for mobile devices. On the other hand, leveraging such devices' rich sensing capabilities could let us infer important contextual information about users, alleviating the need for image-based analysis and even enhancing efficiency and effectiveness.

III. METHODS

Video conferencing has made significant improvements in communication between remote locations, both within the industry and between the learners and tutors. This also speeds up the development of the project. Users from different locations can access, send, and make submissions just as e-mail as transformed the sharing of information. Also, video chat allows for video sessions to be recorded for later reference, involving promotional or instructional activities. A live

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video conference may be developed by delivering video conferencing software resources on a machine such as a strong Internet connection, microphone, and a webcam. These communication resources offer wide-ranging services of information sharing, asynchronous and synchronous interactions among team members. Video chatting promotes awareness of activities done by other team members in real-time, artifacts changes, and prevents coding errors as well as mistakes. In contrast to the audio-only calls, a video conferencing application allows non-vocal communication described to be an efficient approach to the collaborative environment. Real-time Communication (RTC) is an amalgamation of communication and collaboration systems, which is a combination of communication technologies, like Voice-over-IP (VoIP) telephony, instant messaging, and various collaborative applications. RTC systems usually Model Implementation of Text and Video Chats With Python Ide Software R. O. Bello, M. A. Ogunrinde and O. B. Bello 92 enable two-person communication and support the multi-person conferences. By providing and integrating a range of synchronous communication media in one integrated environment. RTC systems allow users to collaborate in real-time by editing a document, voice call, multi-person, and video conference. RTC technology could assist in solving synchronization challenges, especially when working as a team. It offers flexibility and interacting remotely with other users. RTC system has been facilitated and improved on users' interaction and communication for effectiveness.

As future work, we can make a video chat that is based on AIML and LSA. This technology will enable a client to interact with a video chat in a more natural fashion. We can enhance the discussion by including and changing patterns and templates for general client queries using AIML and the right response are given more often than LSA.

IV. CONCLUSION

We implemented a Python IDE enhanced with state of the Ecommunication tools of textual and video-based chats. Due to insufficient memory and Central Processing Unit cycle requirements by desktop-based IDE, we developed an online code editor that takes s advantage of the facilities offered by the web such as none deployment, instantaneous access to services provided, and limited computational resources. These advantages allow the possibility of developing a chatting platform for users and programmers who encountered some computer-related challenges and are open to relate it with their counterparts. The combination of synchronous chats with lists of tasks in which programmers follow and can easily be accessible will give fellow project partners clear information on what they need to do which makes the work faster and organized. This study presents a promising phase towards achieving a design of a feasible, scalable, and robust software development environment for learning and teaching to program in Python programming language.

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