Pratibodh

A Journal for Engineering
A free and Open Access Journal
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Voice Chatting website

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Abstract

This research paper explores the design, development, and evaluation of a Voice Chat Website aimed at Communicating Through Voice Message The website was built using modern web development technologies and frameworks to provide a user-friendly interface, responsive design, interactive features, and Safe and reliable for users. The paper discusses the development process, features, technologies used, and an evaluation of the website's usability and effectiveness in enhancing healthcare accessibility.

Article Status

Available online :

1. INTRODUCTION

Web development is a dynamic and rapidly evolving field that encompasses the design, creation, and maintenance of websites and web applications. Web development involves two main components: frontend and back-end development. Front-end development focuses on creating the user interface and user experience of a website or application. On the other hand, back-end development deals with server-side logic and database management.

"ViChat "is a platform similar to Twitter in the sense that it allows users to share their thoughts, ideas, and experiences with a wide audience. However, what sets it apart is the medium of communication. Instead of typing out messages, users communicate through voice clips. This innovative approach not only adds a personal touch to online interactions but also caters to individuals who prefer expressing themselves verbally. In This project mainly Some Concept Which are used in the development of this project. Like Svelte Kit is built on Svelte, a UI framework that uses a compiler to let you write breathtakingly concise components that do minimal work in the browser. It is used for state management and backend Service and other Tailwind CSS is a powerful combination for creating a modern website and improving the developer Experience for more information refer to [Ref1].

2. METHODOLOGY

Vi Chat is a voice sharing platform involves a combination of technologies and methodologies to allow users to share and interact with voice-based content. The key steps and methodologies typically involved in developing such a platform:
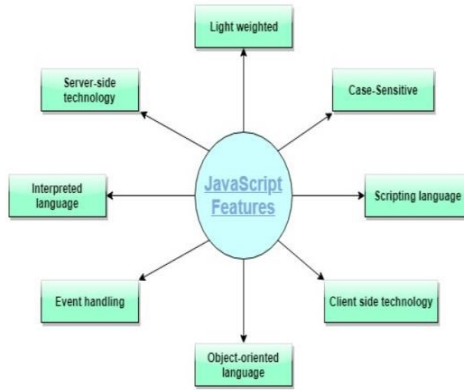Concept and Planning:

- Identify the Purpose: Determine the specific use case and purpose of the voice
- Target Audience: Define your target audience and their needs. Understanding your users is crucial for platform design.

3. Technology Stack:

Tailwind CSS: Tailwind CSS is a highly popular and utility-first CSS framework used for building user interfaces in web development. It differs from traditional CSS frameworks like Bootstrap or Foundation in its approach, emphasizing the use of utility classes to style elements rather than writing custom CSS rules.

JavaScript: JavaScript is a versatile and widely used programming language primarily used for creating interactive and dynamic content on web pages. It's an
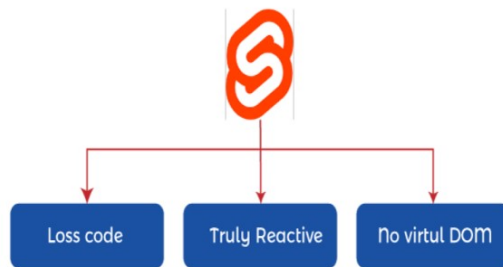
essential component of web development, enabling developers to add behaviours, manipulate the DOM (Document Object Model), and interact with users and their browsers In the Below Fig1 there is the feature of JavaScript

Feature of Java Script Fig (1)

Svelte Kit: It is a web application framework built on top of the Svelte framework, designed to simplify and enhance the development of web applications. Svelte Kit brings several improvements and features to the Svelte ecosystem.
Here's a brief overview of Svelte Kit Ref [Fig2].

Feature of Svelte kit Fig (2)

Convex Dashboard: The Convex Dashboard is a hub for viewing and managing your convex project. It shows all of your convex teams and projects, allowing you to manage your teams, projects, and convex deployments.

4. Feature of Project

Below there is a Feature of Project: -
User Authentication and Authorization:
- Implement secure user authentication mechanisms, such as OAuth or JWT, to protect user accounts and data.
- Set up roles and permissions to control who can create, access, and manage voice content.

Voice Content Creation:
- Create user-friendly interfaces for recording and uploading voice content.

Voice Playback and Streaming:
- Develop a player interface for users to listen to voice recordings.
- Implement streaming to enable users to listen to content.

User Interactions:
- Enable users to like, comment on, and share voice recordings.
- Implement user engagement features like following, notifications, and activity feeds.
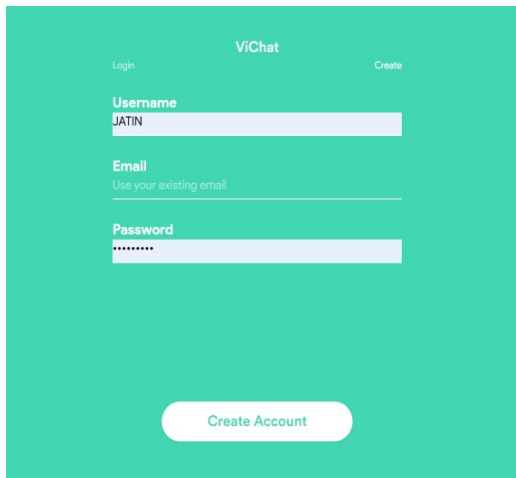
Content Discovery and Search:
- Create algorithms for content discovery, such as recommending relevant recordings to users based on their preferences.

Privacy and Security:
- Implement privacy settings to allow users to control the visibility of their voice content.
- Ensure data encryption, secure APIs, and regular security audits to protect user data. Community Guidelines and Moderation:
- Conduct thorough testing to identify and resolve bugs, security vulnerabilities, and usability issues.
- Test the platform on various devices and browsers to ensure compatibility.

5. Project Description

It is Voice Chat Messaging Website Which We can Convey any message through Voice chat .it is an Interactive Website Where Several can communicate through voice message. Here,
In This First We have to Create an account
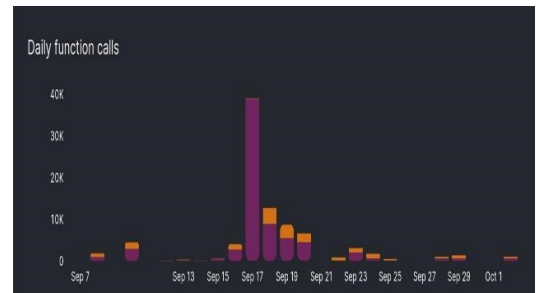For using this Website Ref to Fig (3)

Login Page of this Website Fig (3)

When Account is created interface come show in Below figure and tell how this project Work and Fig [4] appears on the Window.

**Interface of this Website
Fig [4]**

For Backend I use convex which provides Backend Service and manage all the data including creating new post, creating new account and login the account. And the Fig [5] it talk about the daily interaction on this Website including creating post Or using this Website

**Daily interaction on this Website Fig
[5]**

6. IDE TOOLS

Visual Studio Code (VS Code) is an indispensable tool for web developers, offering a robust and versatile platform to streamline the web development process. At its core, VS Code functions as a code editor, providing a user - friendly interface where developers can write, edit, and organize their code effortlessly. Equipped with a plethora of extensions and plugins, VS Code enhances functionality and customization, allowing developers to tailor the environment to their specific needs.

Editor Features:
1.Syntax-highlighting
2.Real time error checking
3.Code formatting

**Visual Studio code
Fig [6]**

Here, is the Snapshot of code which used in the development of this project (ref to Fig (8)).

Snapshot of Source code Fig [7]

7. Conclusion

This research paper presents the successful design, development, and evaluation of a Voice chat website using modern web development technologies. The website demonstrates modern messaging and providing information, through the voice chat and showcasing the potential of web development in the Modern World. Future work will focus on further enhancements based on user feedback and integration of additional features to meet evolving healthcare needs

8. Acknowledgment

I would like to extend my heartfelt gratitude and appreciation to Prof. Vinita Mathur for your invaluable guidance, mentorship, and support throughout the process of conducting research and preparing the research paper titled Voice chatting website.

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