Voice Recognition System

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Introduction

The voice recognition system is an advanced technology that enables computers to understand and process human speech. This project aims to demonstrate a basic voice recognition system using web technologies, specifically HTML, CSS, and JavaScript. The implementation allows users to interact with the system by speaking commands, which are then recognized and displayed on the screen.

Objectives

- To create an interactive voice recognition system using modern web technologies.
- To provide users with a simple interface for voice input.
- To understand the implementation of the Web Speech API and its functionalities.

Tools and Technologies

- **HTML**: For structuring the web application.
- **CSS**: For styling the user interface.
- **JavaScript**: For implementing the voice recognition functionality using the Web Speech API.

Implementation

The project consists of three main files:

1.index.html
The structure of the webpage.

2.styles.css
The styling of the webpage.

3.script.js
The logic for voice recognition.

Testing the System

1. **Open index.html**: Launch the file in a modern web browser (preferably Google Chrome).
2. **Microphone Access**: Allow the browser to access the microphone when prompted.
3. **Click the Button**: Click the "Start Recognition" button and begin speaking. The recognized text will appear on the screen.

Challenges and Solutions

- **Microphone Access**
  Initially, there were issues with microphone permissions, which were resolved by adjusting browser settings.

- **Network Errors**
  Some users experienced network errors. This was addressed through error handling in the JavaScript code.

Conclusion

The voice recognition system successfully demonstrates the ability to recognize and display spoken words on a webpage. This project highlights the capabilities of the Web Speech API and provides a foundation for developing more advanced voice-controlled applications.