# **Ipulse Systems Microphone Visualizer**

## **Overview**

# This project is a simple microphone visualizer implemented as a web application. It uses the Web Audio API to capture audio input from the user's microphone and visualises it in real-time on a canvas element. The visualizer displays dynamic bars that change in height according to the volume of the audio input.

## **Features**

# Real-time audio visualisation with dynamic colour bars.

# Full-screen canvas that automatically resizes with the window.

# Error handling for microphone access permissions.

## **How to Run**

# Clone the Repository with this command

# git clone [repository-url]

# Open visual.html in a Browser:

# Ensure you open the HTML file in a modern browser that supports the Web Audio API and the getUserMedia method.

## **File Descriptions**

# microphone.js: Handles microphone input using the Web Audio API, initialises the audio context, and captures audio samples.

# visualizer.js: Manages the visualisation logic, including the canvas setup, resizing, and drawing the audio data.

# style.css: Contains the styles for the visualisation, ensuring the canvas takes up the full screen.

# visual.html: The HTML file that hosts the visualizer. It links all the scripts and styles together.

## **Browser Compatibility**

# The visualizer is compatible with most modern web browsers that support the Web Audio API and HTML5 Canvas. Recommended browsers include Google Chrome, Mozilla Firefox, and Microsoft Edge.

## **Troubleshooting**

# If you encounter issues with microphone access:

# Check your browser's site settings to ensure the microphone is not blocked.

# Reload the page and try again, allowing permissions when prompted.

# For any other issues or to contribute to the project, please refer to the GitHub issues page or submit a pull request.

# 

# 