

# Speech Recognition Agent

Team: Techtitans



# The Team Behind the Innovation



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- **Revolutionizes attendance tracking in educational institutions**
- **Utilizes advanced audio recognition technology**
- **Captures and records students' names during class sessions via a microphone**
- **Automates attendance, eliminating manual roll calls**
- **Ensures accurate, efficient, and hassle-free attendance management**



# Key Features

## 1 Name Recognition Technology

The system continuously listens to and analyzes audio input during class to detect and verify students' presence.

## 2 Seamless Integration

The system is compatible with various classroom setups, including online and hybrid learning environments.

## 3 Adaptability

The system is capable of adapting to different classroom environments.

## 4 Attendance Tracking

The system will maintain a comprehensive record of student attendance, allowing for detailed analysis over time.

## 5 Student Management

Old student records can be removed to ensure the database remains current and relevant.

The system facilitates the seamless addition of new students, ensuring they are quickly integrated into class activities and discussions.

## 6 Participation Monitoring

Tracks and records student participation during class activities and discussions.

Provides insights into student engagement levels, helping teachers to identify active and less active participants, identifying those who may need additional support.



# Future Features

## Realtime Attendance Tracking

The system provides instant feedback on attendance status, allowing teachers to see who is present, absent, or late in real-time.

## Voice Recognition Technology

The system utilizes cutting-edge voice recognition algorithms to identify individual students based on their unique vocal characteristics.

## Participating Grades

The system will assign grades based on students' participation levels during class activities and discussions, tracking and evaluating the frequency and quality of student contributions.



A photograph of a classroom or lecture hall. In the foreground, the back of a student's head with curly hair is visible, and their hand is raised. Other students in the background also have their hands raised. A large screen at the front of the room displays a presentation with various charts and graphs. The room is dimly lit, with light coming from the screen and overhead fixtures.

# Participation Tracking



## Participation Frequency

The system monitors how often students participate in class discussions and activities, recording the number of times each student contributes to help identify engagement levels.



## Privacy and Security

The system ensures that all audio data is securely encrypted and stored, maintaining student privacy and confidentiality while complying with relevant data protection regulations and policies.



# How It Works

1

## Setup

A microphone is installed in the classroom or connected to the teacher's computer for online classes, and the AI system is configured with the voice profiles of enrolled students.

2

## Class Session

As the class begins, the teacher commands the agent to mark attendance when recognizing a student's name, and the AI system analyzes the audio and matches their name in the students' list.

3

## Reporting

At the end of the class, the system generates an attendance report, highlighting the attendance status of each student, which can be reviewed by teachers and shared with parents and school administrators.



# Benefits

## Efficiency

The system saves valuable class time by eliminating the need for manual roll calls.

## Accuracy

The system reduces errors associated with traditional attendance methods and ensures accurate records.

## Engagement

The system encourages student participation as their presence is tracked based on vocal contributions.

## Convenience

The system provides a hassle-free solution for teachers, allowing them to focus more on teaching rather than administrative tasks.



# A Message of Gratitude

Thank you for your time and attention throughout this presentation. We appreciate your interest in our innovative speech recognition agent and the positive impact it can have on educational institutions.