

Ain Portal - User Guide

Introduction

This guide is designed to help users understand and use the Ain Portal web application. It is intended for both students and teachers, providing a full walkthrough of the system's functionalities.

Ain Portal is an educational platform that uses AI to recognize sign language and facial emotions to assist communication for deaf and hard-of-hearing students.

Start Up

Download the files as requested in read me file from the github

<https://github.com/MohdSerdane/ain-portal>

Then Python run full_pipeline.py then open the django server by python manage.py runserver

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Logging In and Out

To log in, navigate to the main portal page and click on 'Login'. Use your registered username and password.

To register, click on 'Join Now' and fill out the registration form. Once registered, you can login and access your dashboard.

To logout, click the 'Logout' button in the navigation bar at the top of the page.

Student Features

Students can:

- View dashboard with enrolled courses and suggestions.- Join new courses via invitation or search.- View course materials and submit reports.- Participate in quizzes and view grades.- Access real-time meeting links for active sessions.

Teacher Features

Teachers can:- Create and manage courses.- Add students manually or accept join requests.- Upload course materials and assign reports.- Create, update, and delete quiz questions.- Grade student reports and generate progress reports.

ASL & Emotion Detection

To start the ASL and Emotion Detection system:- Navigate to `meeting/API` directory.- Run `python full_pipeline.py`.- Ensure webcam is enabled. Hold a hand gesture for 1.5 seconds to register.- Use both hands to insert a space. Remove hands for 4 seconds to end the sentence.- Emotions will be detected continuously and matched against sentence sentiment.

Managing Courses and Quizzes

Teachers manage courses via the dashboard.- Add new courses via the 'Add Course' option.- Create quizzes and add questions dynamically.- View and edit quiz responses and statistics.

Submitting and Grading Reports

Students upload report files in the course detail page.

Teachers can view, evaluate, and update grades and comments from the course panel.

Real-Time Video Meetings

Meetings are hosted using Agora SDK.- Teachers schedule sessions through the 'Schedule Meeting' form.- Students and teachers can join meetings through links generated per course.- Live ASL and emotion updates are integrated into the chat.

Generating and Viewing Reports

Each full pipeline session is logged and analyzed:- Reports include engagement metrics, emotion trends, and feedback.- Reports are saved in PDF format under the `reports/result` directory.

Admin Panel Access

Admin users can access <http://127.0.0.1:8000/admin> with:

Username: admin

Password: admin123

They can view and manage users, models, and database entries