

# README for TA<sup>2</sup>I Prototype

## Overview

**TA<sup>2</sup>I** is a prototype designed to help teachers generate personalized and consistent feedback for their students. The tool automates the feedback process by providing timely insights based on the teacher's input. This system ensures consistency and fairness in evaluations, ultimately saving teachers time and enhancing the quality of feedback provided to students.

## Framework/Tools Being Used

- **Framework:** React Native with Expo
- **Libraries:**
  - [expo-router](#) for navigation
  - [react-native-chart-kit](#) for rendering progress charts
  - [FlatList](#) for listing students and categories

## Implemented Features

1. **Student List:** Displays a list of students with initials or placeholder images.
2. **Navigation:** Allows navigation from the class list to individual student details and progress pages.
3. **Progress Charts:** Dynamic bar charts that visualize overall progress per student.
4. **Expandable Categories:** Users can expand categories to see detailed progress metrics for each student.
5. **Action Buttons:** Includes buttons for "Give Feedback" and "Add Notes" for further teacher interaction.

## Unimplemented Features & Plans for Completion

1. **Integration with Backend:** Integration with real student data (e.g., from a system like Canvas) for student profiles and progress metrics.
2. **Real-Time Data Updates:** Incorporating real-time updates to progress charts as new data is entered.
3. **Editable Feedback and Notes:** Enabling teachers to directly edit and save feedback and notes for students.

## Setup and Operation

## Installation Instructions

### Clone the repository:

bash

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```
git clone https://github.com/your-repo/tai-prototype.git
```

```
cd tai-prototype
```

1.

### Install dependencies:

bash

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npm install
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2.

### Start the application:

bash

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```
npx expo start
```

3. Follow the on-screen instructions to open the app on a mobile simulator or device.

## Usage

- **Home Screen:** Teachers can view a list of students with initials or placeholder images. Clicking on a student takes them to that student's progress details.
- **Progress Details:** A dynamic bar chart displays the student's overall progress. Teachers can expand categories for a deeper view of progress metrics.
- **Feedback:** Teachers can add notes and give feedback using the provided action buttons.

## Limitations and Hard-Coded Aspects

### Wizard of Oz Techniques

- **Simulated Student Data:** Progress and category details for each student are hardcoded to simulate functionality, as the backend integration is not yet in place.
- **Placeholder Chart Data:** Progress charts are filled with placeholder data to mimic real-time data and simulate how charts would update as real data is entered.

## Hard-Coded Aspects

- **Static Student List:** The student list is populated with predefined names and progress data. No dynamic student data is being fetched at this stage.
- **Fixed Category Names:** The categories under the progress section are hardcoded with fixed names and details for each student.
- **Navigation:** Navigation paths and routes are pre-defined and do not yet interact with a live backend system.

## Issues and Questions

1. **Chart Responsiveness:** Adjusting the chart to be fully responsive on smaller devices (especially smartphones) is still a work in progress.
2. **State Management:** Once backend integration is implemented, we need to figure out how to manage dynamic updates (e.g., when new feedback is added or progress data is updated in real-time).
3. **Expandable List UX:** Ensuring smooth and fluid user experience when expanding categories without visual glitches is still being refined.

## Future Plans and Enhancements

- **Backend Integration:** Full integration with backend systems (e.g., Canvas or similar) to pull live student data, assignments, and progress.
- **Real-Time Feedback:** Enabling teachers to interact with live data and update progress metrics instantly.
- **Enhanced UI/UX:** Continuously refining the user interface for better responsiveness, accessibility, and ease of use.