DOCUMENTATION & GUIDLINE

### 1. \*\*Set Up Your Development Environment\*\*

- Install Python on your machine if you haven’t already. You can download it from [python.org](https://www.python.org/).

- Choose a development environment, such as:

- A text editor like \*\*Visual Studio Code\*\*, \*\*Sublime Text\*\*, or \*\*PyCharm\*\*.

- A command-line interface for executing the code.

### 2. \*\*Understand the Classes and Functionality\*\*

- \*\*Classes:\*\*

- `Student`: Stores information about students such as their name, phone number, email, and feedback.

- `Teacher`: Stores information about teachers and contains a list of students.

- \*\*Functions:\*\*

- `give\_feedback(student)`: Allows a teacher to give feedback to a student.

- `add\_student(teacher)`: Adds a student to a teacher's list.

- `delete\_student(teacher)`: Deletes a student from a teacher's list by resetting their data.

- `view\_all\_feedback(teacher)`: Displays feedback for all students under a teacher.

- `add\_teacher(teachers, num\_teachers)`: Adds a teacher to the list.

- `delete\_teacher(teachers, num\_teachers)`: Deletes a teacher from the list.

- \*\*Main Functionality:\*\*

- The `main()` function starts the program, letting users choose between \*\*Manager\*\* and \*\*Teacher\*\* roles.

- Managers can add or delete teachers and view feedback for all students.

- Teachers can manage students, give feedback, and delete students.

### 3. \*\*Break Down Features\*\*

#### a) \*\*Manager Actions\*\*

1. \*\*Add Teacher\*\*:

- When a manager adds a new teacher, the teacher's name is requested.

- If the maximum number of teachers (3) is reached, no more can be added.

2. \*\*Delete Teacher\*\*:

- A manager can delete a teacher by specifying the teacher's index in the list.

3. \*\*View All Feedback\*\*:

- Displays feedback for all students supervised by all teachers.

#### b) \*\*Teacher Actions\*\*

1. \*\*Give Feedback\*\*:

- Allows teachers to give feedback for a specific student.

2. \*\*Add Student\*\*:

- Adds a new student to the teacher's list. The teacher can only have two students at a time.

3. \*\*Delete Student\*\*:

- Removes a student from the teacher's list by resetting their data.

### 4. \*\*Expand the Application (Optional Enhancements)\*\*

- \*\*Input Validation\*\*: Add error checking to prevent invalid inputs, such as numbers out of range or empty strings.

- \*\*Database or File Storage\*\*: Store teacher and student data persistently using a database (e.g., SQLite) or file storage (e.g., JSON or CSV).

- \*\*GUI (Graphical User Interface)\*\*: Use libraries like \*\*Tkinter\*\* or \*\*PyQt\*\* to add a graphical interface for better user interaction.

- \*\*Testing\*\*: Add unit tests using the \*\*unittest\*\* or \*\*pytest\*\* library to ensure each function behaves as expected.

### 5. \*\*Run the Program\*\*

- Save the code in a file (e.g., `student\_feedback\_system.py`).

- Open a terminal or command prompt, navigate to the folder containing your file, and run the code with the following command:

```bash

python student\_feedback\_system.py

```

- Follow the prompts to interact with the program.

### 6. \*\*Iterate and Test\*\*

- Test each functionality by following the prompts to ensure everything works as expected (e.g., adding teachers, giving feedback, viewing feedback).

This is a guide for building and running the basic application based on the python code.