

CODE EXPLANATION :

Program.cs:

1. This is the entry point of the application.
2. The Main method is the starting point, where user interaction and logic execution occur.
3. It creates an instance of TeacherDataRepository and handles user input using a while (true) loop.
4. Depending on the user's choice, it performs operations like adding, displaying, updating teachers, or exiting the program.

Teacher.cs:

1. This file defines the Teacher class, which represents the structure of a teacher's data.
2. It has properties like ID, Name, Class, and Section to store the respective information about a teacher.

TeacherDataRepository.cs:

1. This class handles interactions with the teacher data stored in a file.
2. The constructor TeacherDataRepository takes a file path as an argument to specify where the teacher data is stored.
3. The AddTeacher method adds a new teacher's data to the file.
4. The GetAllTeachers method retrieves a list of all teachers from the file.
5. The UpdateTeacher method updates the data of an existing teacher based on their ID.

Overall Flow:

- In the Main method of Program.cs, a menu of options is displayed to the user.

The user enters a choice, and based on that choice, different actions are taken:

1. If the user chooses "Add Teacher" (option 1), the program prompts for teacher details, creates a Teacher object, and adds it to the repository using AddTeacher.
2. If the user chooses "Display All Teachers" (option 2), the program retrieves all teachers' data from the repository and displays it.
3. If the user chooses "Update Teacher" (option 3), the program prompts for the teacher's ID, gets updated details, and uses UpdateTeacher to modify the data.
4. If the user chooses "Exit" (option 4), the program exits.
5. If an invalid choice is entered, an error message is displayed.
6. The TeacherDataRepository class manages reading and writing teacher data to the specified file using methods like AddTeacher, GetAllTeachers, and UpdateTeacher.

GIT LINK : <https://github.com/sundar2568223/Phase1EndProject-2.git>