Dylan Torres

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**Program Description:**

**Program 1: Write**

**Description:**  
This program allows an instructor to enter a number of students and input each student’s first name, last name, and three exam scores. The data is written into a CSV file called grades.csv using Python’s built-in csv module. Each student becomes a record, and the file begins with a header.

**Program 2: Read**

**Description:**  
This program reads the contents of the grades.csv file and displays each student's data in a tabular format using proper spacing and alignment. It uses the csv module and the with keyword to ensure safe file handling.

**Functions and Their Details:**

**Write**

* **Parameters:** None
* **Returns:** Nothing (writes data to grades.csv)
* **Purpose:** To collect student data and save it in a CSV file.
* **How it works:**
  + Prompts the user for the number of students.
  + For each student, collects name and exam grades.
  + Writes all data into a CSV file with appropriate headers.

**Read**

* **Parameters:** None
* **Returns:** Nothing (prints data to screen)
* **Purpose:** To read student data from grades.csv and display it in tabular format.
* **How it works:**
  + Opens the file using the with statement.
  + Uses csv.reader() to parse the file.
  + Prints a formatted table with column headings and rows.

**Logical Steps of Each Program:**

**Write Logic:**

1. Display a welcome message.
2. Prompt the instructor for the number of students.
3. Initialize the CSV writer with a header: First Name, Last Name, Exam 1, Exam 2, Exam 3.
4. Loop through each student:
   * Prompt for first and last names.
   * Prompt for three exam scores (as integers).
   * Validate all inputs.
   * Write the data to the CSV file as a new row.
5. Close the file and confirm the operation to the user.

**Read Logic:**

1. Open the grades.csv file using with open(...).
2. Create a CSV reader object.
3. Read the header row and print it with column formatting.
4. Read each data row (student record) and print it using aligned spacing for clarity.
5. Handle the case where the file is not found (e.g. if write\_grades() wasn't run yet).

**Link to your COP2373 repository:**

<https://github.com/Shinymon/COP2373>

**Screenshot:**

A screenshot of a computer program

AI-generated content may be incorrect.Write:

A screenshot of a computer program

AI-generated content may be incorrect.Read: