**Technical Design Document**

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**Date Created:** October 22nd, 2025

**Program Description: An instructor teaches a class in which each student takes three exams. The instructor would like to store this information in a file named grades.csv for later use. Create a program that allows an instructor to input how many students they want to enter. Then enter each student’s first name and last name as strings and the student’s three exam grades as integers. Use the csv module to write each record into the grades.csv file and have a header of First Name, Last Name, Exam 1, Exam 2 and Exam3. Each student should be a record in the grades.csv file. Once the file is created, create a separate program to read the grades.csv file and display the data in tabular format. Implement the *with*keyword. You may need to refer back to Chapter 5 for formatting.**

**Functions used in the Program (list in order as they are called):**

1. **Function Name:** write\_grades\_to\_csv() (This is in the first file, write\_grades)

**Description:** It makes the inserted grading data written in a csv file for the next py file to use

**Parameters:** none

**Variables:**

num\_students (number of students input by user)

first/last\_name (first and last name of student for user input)

exam1/2/3 (exam number for user to input)

writer (writes data to csv file)

**Logical Steps:**

1. Code asks user to input how many students are going into the program
2. Asks for first and last name of student after user input for student amount
3. Aks user to input student grades for 3 exams
4. Once all students are accounted for, data gets stored into a csv file

**Returns:** (if more than 1 student it asks for the first and last name again)

2. **Function Name:** def read\_grades\_from\_csv() (This is in the second file, read\_grades)

**Description:** Takes information from csv data file created in the last file and displays the information on it

**Parameters:** none

**Variables:**

Reader (reads the csv file)

Rows (puts the data in a list)

**Logical Steps:**

1. Program looks for the CSV file that was created from the previous program
2. Once found, it will take that file and display its data

**Returns:** none

**Logical Steps:**

1. Program asks user to input how many students are going to be added in the code
2. After user input for student amount, it asks for the student first name and last name
3. Program then asks for the grade numbers on 3 of that student’s exam
4. If there is more than 1 student, it asks for the first and last name of the next student to get their exam scores
5. Once all students have been accounted for, the data gets inserted into a CSV file
6. The 2nd program (read grades) needs to be run
7. Once the program runs, it will take the CSV file and display its data

**Link to your repository:**

Write Grades: <https://github.com/EdgarJCebo/Programming-Concepts-2/blob/main/Edgar%20Cebollero_Programming%20Exercise_CSV_write_grades.py>

Read Grades: <https://github.com/EdgarJCebo/Programming-Concepts-2/blob/main/Edgar%20Cebollero_%20Programming%20Exercise_CSV_read_grades.py>

**Output Screenshot:**

**A screenshot of a computer

AI-generated content may be incorrect.**

**A screen shot of a computer

AI-generated content may be incorrect.**