**Technical Design Document**

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**Program Description:**

This program collects grade information about students taking a class that gives three exams. The user is first prompted for a number of grades to be entered. It then takes students’ full names and grades as user inputs, stores them in a CSV file named grades.csv, then prints the contents of grades.csv in a tabular format.

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

1. **Function Name:** csvWrite

**Description:** This function prompts the user for a number of students, then takes information about each student one by one.

**Parameters:**

This function takes no parameters.

**Variables:**

csvfile (file object) – CSV file opened in write mode

gradesEntered (int) – Number of students provided by user

csvwriter (writer object) – Writer object used to write rows into grades.csv

iterations (int) – Variable used to count how many rows have been entered

firstName (string) – Student first name

lastName (string) – Student last name

examOne (int) – Grade received on first exam

examTwo (int) – Grade received on second exam

examThree (int) – Grade received on third exam

**Logical Steps:**

1. Set up CSV writer, using a with statement.
2. Prompt user for number of students to enter grades for.
3. Within a while loop, prompt user for student name and grades. For each iteration of the loop, write the user supplied information as a row in the CSV file.
4. When enough students and grades have been written to the CSV file, close csvfile.

**Returns:** None

2. **Function Name:** csvRead

**Description:** This function reads grades.csv and displays its contents in a tabular format.

**Parameters:**

This function takes no parameters.

**Variables:**

csvfile (file object) – CSV file opened in read mode

csvreader (reader object) – Reader object used to read contents of grades.csv

**Logical Steps:**

1. Set up a CSV reader, using a with statement.
2. Iterate through the reader object to print the contents of each row of grades.csv in formatted strings.
3. Close csvfile.

**Returns:** None

3. **Function Name:** main

**Description:** The main function runs csvWrite, then csvRead.

**Parameters:** This function takes no parameters.

**Variables:** This function has no variables.

**Logical Steps:**

1. Call csvWrite.
2. Display the contents of the resulting CSV file using csvRead.

**Returns:** None

**Link to your repository:** https://github.com/HenryH-SCF/COP2373

**Output Screenshot: (make sure big enough so I can see)**

