

Programming Assignment: Student Grades System

Each function below represents a separate question. Students are expected to implement each function independently based on the provided docstring and requirements. Do not copy code directly—understand the logic and write your own version.

Function 4: List All Students

Write a function called `list_students` that:

- Takes the file path of a CSV file as function parameters.
- If the file exists, read it using pandas and print students' information.
- If the file doesn't exist, print 'No data available. The student database is empty.'
- The output format should be like:

Student Information:

	Name	Grades	Average	Letter Grade
0	s1	[4.0, 6.0, 8.0]	6	F

Function 5: Save Student Data to CSV

Write a function called `save_student_data` that:

- Takes a dictionary of student data and a file path as function parameters.
- Saves the data into the CSV file.
- If the file does not exist, create it with headers.
- If it exists, append the new student data without rewriting the headers.

Function 6: Modify a Student's Grade

Write a function called `modify_student_data` that:

- Takes the student's name, a list of new grades, and the file path as function parameters.
- If the student is found in the CSV, update their grades, average, and letter grade.
- Save the modified data back to the file.
- If not found, print an appropriate message.