

Write C++ programs for the following problems. Ensure that your program compiles and runs correctly. Upload the .cpp files. Name your files exactly as your instructor has specified.

Programming Project on Chapter 11 Structured Data

1. **Course Grade: courseGrade.cpp – 20 pts**

Write a program that uses a structure to store the following data:

Member Name	Description
Name	Student name
IdNum	Student ID number
Tests	Pointer to an array of test scores
Average	Average test score
Grade	Course grade

The program should keep a **list of test scores** for a **group of students**. It should ask the user how many students' test scores it is going to keep track of and how many tests the students took. It should then dynamically allocate an array of structures. Each structure's `Tests` member should point to a dynamically allocated array that will hold the test scores.

After the arrays have been dynamically allocated, the program should ask for the ID number and all the test scores for each student. The average test score should be calculated and stored in the `average` member of each structure. The course `grade` should be computed on the basis of the following grading scale:

Average Test Score	Grade
≥ 90	A
≥ 80 and < 90	B
≥ 70 and < 80	C
≥ 60 and < 70	D
< 60	F

The course grade should then be stored in the **Grade** member of each structure. Once all this data is calculated, a table should be displayed on the screen listing each student's name, ID number, average test score, and course grade.

Input Validation: Be sure all the data for each student is entered. Do not accept negative numbers for any test score.