



CSE122 Computer Programming

Sheet 10: Structures

1. Write a program to represent Blue Ray movies in a movie rental store. Each movie is represented by the following pieces of information
 - a. Movie Title
 - b. Name of lead actress
 - c. Price

The rental store contains 5 Blue Ray movies. Your program should read the information of all these movies from the user and store them in the program. It should then print the movie title of the most expensive movie.

2. An auto dealer requires a program to store information about his 5 automobiles on sale. Define a structure for an automobile that has 3 fields: Manufacturer (String), Year of Manufacture (int) and Price (float). Call your structure "Auto". Create an array to store the information of all the cars. The program then does the following:
 - a. Enter the data for all automobiles.
 - b. Print a list of all cars manufactured in a certain year (which dealer enters).
3. Write a C++ program that defines a structure which represents a student record the fields: ID, Name, five subject scores (sc1, sc2, sc3, sc4, sc5), the average score and the grade letter.
 - a. Define an array of 50 students.
 - b. Read the structure for each student.
 - c. Compute the average and grade letter for each student according to the following rule:
 - i. Grade 'A' for average ≥ 90

- ii. Grade 'B' for average ≥ 80 and less than 90
 - iii. Grade 'C' for average ≥ 70 and less than 80
 - iv. Grade 'D' for average ≥ 60 and less than 70
 - v. Grade 'F' for average less than 60
 - d. Print the contents for each student structure.
 - e. Display all the records sorted alphabetically according to the students' names.
4. Write a C++ program that stores the information of employees in a certain company. You must use nested structures to define and store information as follows:-
- a. Name (first, middle, last).
 - b. Address (Address_1, Address_2, City, Zip_Code).
 - c. Hiring Date (day, month, and year).
 - d. Contact Information (phone, cell phone, fax, email).
- Your program reads the information of 100 employees. The program has the following functionalities:-
- a. Adding a new employee.
 - b. Deleting an employee.
 - c. Displaying a sorted list of records.
-