1. **Write a program that defines two structures Data and Employee. Date has data members: name (int), age (float), salary (loat), tax (flat). Employee has data members: E (Data) net_s(float), a function to read data members and set the value of the net_s(net salary), a function to display data members. Also, in this program write a function to swap two Employee objects. In main function, define an array of m Employees, read it, sort it in ascending order according to the value of net_s (use swap function), compute the difference between the min and max net salaries. Finally, display the elements of array in a tabular form.**

2. **Write a program contains a function to return the factorial of a given positive integer number (check if the given number negative convert it to positive number) this program contains the structure Series that has data members: a (float), X[20] (float), S[20] (double) , n (number of array's elements). It contains a function to read data members and set the elements of S such that each element S_i is equal to $\sum_{k=0}^{i} \binom{i}{k} X_i \; a^{i-k}$ for i=0, ..,n-1 (use factorial function), a function to return the maximum number in S , and a function to display data members X, S in tabular form. In main function, define two**

objects of Series, display the difference between two max numbers (S' max numbers) for two objects, compare between them and display the object with max value.

Homework

Write a program contains a structure Date that has data members: d(int), m(int) , y(int), a function to read data members, and a function to display data members in date format . Also, it contains the structure Student that has data members: name (string), BD (Date), G[7] (float) (seven student's grades). It contains a function to read data member, a function to return the average of student's grades, and a function to display data members. In main function, define an array of n Student, read this array, and display only the students with min and max averages.