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Project Report

Project Name: HR Organizer

A user defined type of acc is made containing following attributes:

String name

Float experience

String university

Float uniCGPA

String school

Float schlCGPA

String major

Float weight (Used as Points of Marks)

In main function: Program prompts welcome message and is asked for the number of applicants’ data he wants to input and the integer is stored in n. An array of type acc named acclist is made with length n. The weight of every index in acclist is updated to zero in a for loop. Next for loop inputs data for all applicants and coherently updates weights by calling following functions:

* float updateWeightForUniversity(char x[]);
* float updateWeightForUniversityCGPA(float gpa);
* float updateWeightForHighSchoolCGPA(float gpa);
* float updateWeightForExperience(float y);

Program now prompts another message giving user to choice to Display either of the two lists;

A list of All Candidates or A list of the Best n number of candidates of the user’s choice. An input of 0 or 1 is asked and stored in variable check which is used to run an if else statement to carry out the functions accordingly:

* void bestNofCandidates(acc x[]);
* void displayAllCandidates(int n, acc x[]);

List of User-Defined Function

* float updateWeightForUniversity(char x[]);

The function checks if the string argument is same with the list of universities’ names and updates the value of weight accordingly and then returns it. The assigned weight for each universities is as follows:

University Weight

University of Dhaka, BUET 3

MIST, AUST, JU, RUET, KUET, CUET 2.5

NSU, BRAC 2

IUB, AIUB 1.5

Others 1

* float updateWeightForUniversityCGPA(float gpa);

This function takes University CGPA as argument and calculates and returns weight accordingly to the following ratio:

University CGPA : Weight = 5:3

* float updateWeightForHighSchoolCGPA(float gpa);

This function takes University CGPA as argument and calculates and returns weight accordingly to the following ratio:

School CGPA : Weight = 5:1

* float updateWeightForExperience(float y);

This function takes years of experience as argument and calculates and returns weight accordingly to the following chart:

|  |  |
| --- | --- |
| Experience in years | Weight |
| 0 to 1 exclusive | 0.5 |
| 1 to 2 exclusive | 1 |
| 2 to 3 exclusive | 1.5 |
| 3 to 4 exclusive | 2 |
| 4 to 5 exclusive | 2.5 |
| more than 5 | 3 |

* void bestNofCandidates(acc x[]);

This function takes in an array of type acc. The function then prompts the user how many candidates they want to rank which is stored in integer variable a. A file is then opened with name best\_candidates.txt with write access to write the info of the candidates to. The program then sorts the acc array using bubble sort only upto the index of a, and then writes the info of the candidates to the text file. The function ends by printing a message saying “Best Candidates' Info are saved in the best\_candidates.txt file. in this folder."

* void displayAllCandidates(int n, acc x[]);

This function takes in an acc array and the length of the array in an integer variable. It opens a text file and writes all the candidates info in it using a for loop. The function ends by printing a message saying “All Candidates' Info are saved in the all\_candidates.txt file. in this folder."