NATIONAL TEXTILE UNIVERSITY

Department of Computer Science

Lab # 8: Programming Fundamentals (COC-1071)

Basic Information			
Registration#		**Name**	
Total Marks		**Marks Obtained**	
Objectives	1. Arrays	2. Array Search, Sort	

Simple Arrays: Solve 1-6 Questions without loop

1. Declare and initialize an integer array of size 5. Display elements of array on separate lines. **(Without Loop)**
2. Initialize a float array of size 5 in using { }. Display elements of array on same line with tab. **(Without Loop)**
3. Input marks of 5 students inside an array of size 5 and display the average marks. **(Without Loop)**
4. Input marks of 5 students inside an array of size 7 and display minimum and maximum marks. **(Without Loop)**
5. Declare 2-character arrays of size 5. Initialize 1st array with characters & input 2nd array, display both.
6. Declare 2-float arrays of size 5. Input 1st array from user and assign its values to the 2nd array, display 2nd one
7. Declare a 10 elements integer array and input its values from the user. Display the element of the array on the screen on different lines. **(using loop)**
8. Declare 10 elements float array and input its values from the user. Copy the element of this array on the other 10 elements float array. Display the element of the array on the screen on same line with space **(using loop)**
9. Declare 5 elements integer array and input its values from user using loop. Swap the first and last element, second and fourth element. Display the elements of the array on the screen using loop
10. Ask ten students of a class to enter their marks out of hundred. Store their marks in an array and display the average marks. **(using loop)**
11. Ask ten students of a class to enter their marks out of hundred. Store their marks in an array. Estimate how many students are passed (marks greater than 50) or failed (marks less than or equal to 50). **(using loop)**

Arrays, Searching and Sorting

12. Declare and initialize an integer array of size 7 in one statement. Copy array data on another array using loop and display it on console. **(using loop)**
13. Declare an integer array of size 10. Input this array and force the user to enter a value between 1 to 20. Make a histogram of this array just like, we did in the lecture. **(using loop)**
14. Input a float array of size 10 and display the smallest element of the array **(using loop)**
15. Input an integer array of size 10 and display the largest and smallest element of the array **(using loop)**
16. Declare and initialize a float array of size 20. Ask the user to enter a value and search this value from the array. Display the message "Value exists" if it exists otherwise display "Value not exists"
17. Declare and initialize an integer array of minimum size ten with some values. Ask user to enter key value and count how many times this key value exists in the array, if it exists. Otherwise display value not exists.
18. Ask the 10 students to enter their grades in form of (A,B,C,F) and count how many students got A,B, or C grade and how many students are Failed with F grade **(using loop)**
19. Ask 10 users to enter first character of their name count how many names start with C
20. Ask the user to enter an integer array of ten elements and sort this array in ascending and descending order
21. Ask the user to enter a float array of ten elements and sort this array in ascending and descending order
22. Ask the user to enter a character array of ten elements and sort this array in ascending and descending order
23. Declare and initialize an integer array with some values. Ask user to enter two key values and search these values from array.
24. In Fibonacci series, next number is calculated by adding previous two numbers. 0, 1, 1, 2, 3, 5, 8, 13… Ask the user to enter the bound and show Fibonacci numbers up to that bound. For example, if user enters 60 then your program will save in an array 0, 1, 1, 2, 3, 5, 8, 13, 21, 35, 56.