



# NATIONAL TEXTILE UNIVERSITY

Department of Computer Science

## Lab # 9: Programming Fundamentals (COC-1071)

Basic Information			
Registration#		Name	
Total Marks		Marks Obtained	
Tools:	Dev-C++ 5.4.1		
Objectives	1. Character Arrays 2. Arrays and Functions	3. 2-Dimensional Arrays	
Note	Solve the following problems using the concepts we have covered so far		

### Character Arrays

1. Save the following string in an array and display it on screen exactly in the same manner:  
The most likely way for the world to be destroyed,  
Most experts agree, 'is by accident'.  
That's where we come in;  
"We're computer professionals. We cause accidents."
2. Count how many vowels are in the above string
3. Ask the user to enter a character array and display it on the screen
4. Input the first two questions of this lab plan in an array and count vowels (a,e,i,o u) and consonants
5. Input a string from the user and count how many characters (excluding space) are entered in the text
6. Declare an array of characters. The size of the array is 100. Input a string from the user and returns it with more spaces on the location where spaces already exist.
7. Ask the user to enter his name and display his name in reverse order
8. Ask the user to enter a string and display each word of the string on separate line
9. Input your first name and last name separately, and then display your full name (first and second concatenated)
10. Input your name (capital and small letters mixed) and display the name in Capital letters.

### Arrays and functions

11. Implement following functions in menu driven way: void menu(); void input(int[]); void output(int[]); void large(int[]); void small(int[]); void sortA(int[]); void sortD(int[]); void search(int[]); const int Size=10; int main(){ }
12. Write a function with random initialize which will initialize 500 elements array random values between 1 and 1000. Write a function output which will display this array
13. Declare and initialize a float array of size 20. Pass the first, tenth and last element of the array to a function which take the average of these values and return it to calling function. Display it in main.
14. A palindrome string is a string that spell forward and backward same. Examples include "radar", "level", "madam", "pop", "noon", and "refer". Write a function which takes two strings as argument and check whether they are palindrome or not.

### 2-Dimensional Arrays

15. Declare and initialize a 3X5 array with some values. Display it on screen without using loop
16. Declare and initialize a 3X2 array with some values. Swap the element on first row and second column with the element on third row second column. Display it on screen without using loop
17. Input a 5X5 array using loop. And display it on screen looking like a matrix
18. Input a 3X5 array using loop, add 10 with every element of array. And display it on screen looking like a matrix
19. Input a 4X3 array subtract 7 from first and last row. And display it on screen
20. Input two 4X4 array and subtract the first from second and display the result
21. Input a 5X5 array and only display values on diagonal
22. Input a 5X5 array and save its transpose in another array and display it on screen