Day 21

Lab Assignments

1. WAP to multiply two numbers using pointers.
   Input: Enter two numbers: 4 5
   Output: Product of 4 and 5 = 20
2. WAP to swap two numbers using call by reference.
   Input: Enter two numbers: 10 20
   Output: Before swapping the numbers are: 10 20
   After swapping the numbers are: 20 10
3. WAP to compute the sum of all elements in an array using pointer.
   Input: Enter the array size: 5
   Enter the elements of the array: 4 1 6 3 9
   Output: Sum of the elements of the array: 23
4. WAP to read a string and print it in reverse order using a pointer.
   Input: Enter a string: INDIA
   Output: Entered string in reverse order: AIDNI
5. WAP to swap two consecutive characters starting from left to right of a string using pointer.
   Input: Enter a string: UNIVERSITY
   Output: After swapping two consecutive characters starting from left to right the string is : NUVIREISYT
6. WAP to sort an integer array using pointer.
   Input: Enter the array size: 5
   Enter the elements of the array: 4 1 6 3 9
   Output: Before sorting the elements of the array are: 4 1 6 3 9
   After sorting the elements of the array are: 1 3 4 6 9

Home Assignments

1. WAP to swap three numbers in cyclic order using Call by Reference. In other words, WAP to read three numbers and store them in three variables a, b, c. Rotate the values stored in a, b, c so that value of a will go to b, value of b will go to c and value of c will go to a.
   Input: Enter three numbers: 10 20 35
   Output: Before swapping the numbers are: a=10, b=20, c=35
   After swapping the numbers are: a=35, b=10, c=20
2. Write a C program to copy the elements of one integer array into another array using pointers.
   Input: Enter the array size: 5
   Enter the elements of the first array: 4 1 6 3 9
   Output: After copying elements of the first array: 4 1 6 3 9
   Elements of the second array: 4 1 6 3 9
3. Write a C program to demonstrate how a function returns a pointer. The program should use a function which receives two string address and returns the address of the string which comes first in alphabetical order. Assume that two strings are different.
   Input: Enter the first string: function
   Enter the second string: fungal
   Output: Among the two strings the first string in alphabetical order: function
4. Write a C program to print the size of different types of pointers.

Output: Size of char pointer: 4 bytes
Size of integer pointer: 4 bytes
Size of float pointer: 4 bytes
Size of double pointer: 4 bytes

5. WAP to compare the elements of two arrays are same or not using pointer.
   Input 1: Enter the array size: 5
   Enter the elements of the first array: 4 1 6 3 9
   Enter the elements of the second array: 4 1 6 3 9
   Output 1: Given two arrays are same.
   Input 2: Enter the array size: 5
   Enter the elements of the first array: 5 1 6 3 9
   Enter the elements of the second array: 5 1 7 3 9
   Output 2: Two arrays are different.
6. Write a program in C to print all permutations of a given string using pointers.
   Input: Enter a string: RUN
   Output: “RUN”, “RNU”, “URN”, “UNR”, “NRU”, “NUR”