



# University of Central Punjab

*(Incorporated by Ordinance No. XXIV of 2002 promulgated by Government of the Punjab)*

**FACULTY OF INFORMATION TECHNOLOGY**

## **Programming Fundamental**

### **Lab 06**



**Topic: Arrays, Arrays with Functions,  
Filing and functions, Pointers**

**Faculty of Information Technology**



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## Task 1:

Write a C++ Program to Count Digits, Alphabets and Spaces using File Handling.

### Sample Output:

**No. of Alphabets:** 146

**No. Of Digits:** 5

**No. Of White Spaces:** 30

## Task 2:

Write a function based C++ program that takes two array called source and destination array. It copies source array into destination array in reverse order.

**Sample Input in source Array:** 1    2    3    4    5

**Sample Output in destination Array:** 5    4    3    2    1

## Task 3:

Write a function based C++ program in which two character arrays are accepted from the user. Your program then merges the two arrays in a third array but the entries must be done in alphabetical order.

### Sample Output:

**Enter 1st array:**

D    R    P    I    E    A    N

**Enter 2nd array:**

B    G    K    Q    M    O    L

**Output:**

A    B    D    E    G    I    K    L    M    N    O    P    R



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## Task 4:

Write a program in C++ to read an array containing n elements and sort this array in ascending order and descending order using user defined function and display sorted array from main function.

### Sample Output:

```
Enter any number:
5
1
2
3
4
6
7
9
8
10

Input Array is: 5 1 2 3 4 6 7 9 8 10

Array is Ascending Order: 1 2 3 4 5 6 7 8 9 10
```

## Task 5:

Write a function based C++ program that takes two arrays called source and destination array. It copies source array into destination array and then store the output of destination array in text file.

**Sample Input in source Array:** 1    2    3    4    5

**Sample Output in text File:** 1    2    3    4    5



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## Pointers

**Task 6:** Write a C++ program that takes an integer number from user. Make a pointer of integer type that stores address of the integer in a pointer variable. Now print the address and also the value stored in pointer variable.

```
Enter x
10
Value of x is : 10
Value of ptr is : 0x6ffe14
Value of *ptr is : 10
```

**Task 7:** Write a C++ program that takes a float number from user. Make a pointer of voidtype that stores address of the float in a pointer variable. Now print the address of float variable and also the value stored in pointer variable.

```
Enter x
10
Value of &x:0x6ffe14
Value of ptr:0x6ffe14
```

**Task 8:** Write a C++ program that takes two positive integers and make an integer type pointer that calculate sum.

```
Enter 1st number:
2
Enter 2nd number:
4
Sum of Two Numbers = 6
```



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**Task 9:** Write a C++ program that takes two float numbers from user. Make a float type pointer that calculate result after division.

```
Enter 1st number:
2.5
Enter 2nd number:
4.5
Division of Two Numbers = 0.555556
```

**Task 10:** Write a C++ program that takes an integer from user. Make a pointer of integer type that checks whether the integer entered by user is positive, negative or equal to zero.

```
Enter number
-5
Number is negative
```

**Task 11:** Write a C++ program that takes a positive integer from user. Make a pointer of integer type that prints the table of an integer entered by user.

```
Enter the number for Table:
2
Multiplicaiton Table:
2*1 = 2
2*2 = 4
2*3 = 6
2*4 = 8
2*5 = 10
2*6 = 12
2*7 = 14
2*8 = 16
2*9 = 18
2*10 = 20
```



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**Task 12:** Write a C++ program that takes an integer from user. Make a pointer of integer type that first increment (+1) then decrement (-1) in an integer number entered by user.

```
Enter number
10
Increment value: 11
Decrement Value: 10
```

**Task 13:** Write a C++ program that takes two positive integers from user and make an integer type pointer that find the difference between them.

```
Enter 1st number:
20
Enter 2nd number:
10
Difference of Two Numbers: 10
```

**Task 14:** Write a C++ program that takes three integers from user and make an integer type pointer that find the maximum number between them.

```
Enter 1st number:
10
Enter 2nd number:
15
Enter 3rd number:
5
Max number is:15
```