

**Department of Computer science and Technology,
Indian Institute of Engineering, Science and Technology, Shibpur,
Introduction To Computing Lab**

Assignment - 6

1. Write a C function “int stringLength(char src[])” that finds and returns the length of the null terminated string src[], that is, the number of characters (excluding the null character) in the parameter src[].
2. Write a C recursive function to compute GCD of two given numbers. The function prototype is as follows: int Compute_GCD(int a,int b), here compute the GCD of a and b and return it to calling function.
3. Write a function that will print the largest word in a line.
4. Write a function that takes a decimal number and base as argument and returns the equivalent number of the given base.
5. Write a C recursive function to reverse a string. Write the complete C program and display the reversed string at the calling function.
6. Write a C function to reverse every word of a given string. As, for example, if the input string is “C Programming Class” output string will be “C gnimmargorP ssalC”.
7. Declare a structure for storing complex numbers. Write a C program that perform the following operations:
a) Read two complex numbers (a+ib). b) add of two complex numbers. c) subtract two complex numbers. d) multiply two complex numbers.
8. Declare a structure to store the following information of an employee
 - (a) Employee Code
 - (b) Employee Name
 - (c) Salary
 - (d) Department number
 - (e) Date of joining (it is itself a structure consisting of day, month and year)

Write a program that can take above informations about 10 employee and Display informations for those employees whose Salary \geq 10000.

9. Write a C program to copy one existing file (source file, say *file1.txt*) into another named file (destination file, say *file2.txt*). In this case take file name as input through command line argument. As for example:
\$/a.out file1.txt file2.txt
Here the contents of *file1.txt* have to be copied to *file2.txt*.
10. Write a C program that can compare two files specified by the user, return a nonzero value if identical otherwise zero. (such as \$cmp file1.txt file2.txt; compare the content of file1.txt and file2.txt if identical display 1 otherwise 0.)