

Introduction to Programming – IT110 – Lab Manual

Instructions:

1. Maintain a journal for this course.
2. Attempt all questions, and get yourself evaluated for them through a TA.

Lab 8

Write a C program for the following problems

Problem 1:

Convert the input string into all lowercase letters. (Note: Input string can have any ASCII characters including uppercase, lowercase, punctuations etc)

Problem 2:

Implement the following string functions in your own C program:

- `strcmp(s1, s2)` – returns 1 if $s1 > s2$, -1 if $s1 < s2$ and 0 if $s1$ equals $s2$
- `strstr(lrgstr, smlstr)` – index of 1st occurrence of $smlstr$ into $lrgstr$

Problem 3:

Check if a given square matrix is Upper Triangular Matrix and print appropriate message.

$$\text{Upper Triangular Matrix (U) = } \begin{matrix} & a_{11} & a_{12} & a_{13} & \dots & a_{1n-1} & a_{1n} \\ & 0 & a_{22} & a_{23} & \dots & a_{2n-1} & a_{2n} \\ & 0 & 0 & a_{33} & \dots & a_{3n-1} & a_{3n} \\ & \dots & & & & & \\ & 0 & 0 & 0 & \dots & 0 & a_{nn} \end{matrix}$$