

## Introduction to Computer Programming and Data Structures

### Assignment 09

Maximum Marks: –

Submission Deadline: **2022-Nov-22**

Topic: Matrix Algorithms

#### Assignment problem # AP0901

- **Problem:** Given a square matrix find the inverse of it, if exists.
- **Input:**
  - The first line contains a positive integer  $n$ , the order of the matrix.
  - It follows  $n$  lines where in each line is the row of the matrix where the elements are separated by spaces.
  - Input file name "input\_AP0901.txt".

#### Assignment problem # AP0902

- **Problem:** Given a square matrix find the determinant of it, if exists. Use row reduction method to calculate the determinant.
- **Input:**
  - The first line contains a positive integer  $n$ , the order of the matrix
  - It follows  $n$  lines where in each line is the row of the matrix where the elements are separated by spaces.
  - Input file name "input\_AP0902.txt".