Department of Computer Applications

PES University

Data Structures Lab

Session 3 – 20 - 22 Dec 2021

Write a C program to implement the ADT for

1. Compute address of matrix using Row-Major and Column-Major Addressing.
   Input – Choice of row major or column major
   Choice of all address calculation or specific address calculation
   Total number of rows and columns
   Actual row and column number to calculate the address
   Data type of the array
   Output – Address of all elements
   Address of specific calculation
2. Find all the Saddle points of a matrix.

   *Note: Saddle point M(i, j) of a matrix M, is the smallest element in row 'i' and largest element in column 'j' .

   Input – Total number of rows and columns

   Elements of the matrix

   Output – Message 'Saddle Point does not exist" or all the Saddle Points

3. Compute the address of a matrix element for a multidimensional array.
   Input – Number of dimensions
   Upper bounds of all dimensions
   Actual values of the dimensions that the address has to be calculated for
   Data type of the array
   Output – Specific address calculated