CS300: Programming Languages

Spring 2022

Exercise #0

- Name only: _____
- Release date: Jan 18, 2022 (Tuesday)

1. In computing, row-major order (C/C++, etc) and column-major order (Fortran, etc) are methods for storing multidimensional arrays in linear storage such as random access memory. The difference between the orders lies in which elements of an array are contiguous in memory. In row-major order, the consecutive elements of a row reside next to each other, whereas the same holds true for consecutive elements of a column in column-major order. The storage mode affects the query and processing performance. If there were a two-dimensional array, how do you write the program to process (e.g., access all elements) the array more efficiently in different storage mode?