COE 205, Term 023

Computer Organization & Assembly Programming

Programming Assignment# 2
Due Date: Monday August 4, 2003

Q.1. Write an assembly program that does the following:

(i) Ask the user to enter the number of rows R (1-9).

(ii) Ask the user to enter the number of columns C (1-9).

(iii) Ask the user to enter a two-dimensional array of RxC digits. Elements of a single row should be separated by one or more spaces and each row is read in a new line.

(iv) Ask the user to select a row or a column. Then print the selected row or column. Then, sort the numbers in the row in increasing order and print it. Assume that columns and rows start from number 0.

A sample execution of the program is shown below:

Enter the number of rows (1-9): 3
Enter the number of columns (1-9): 4
Enter the array:
1 2 3 4
5 6 7 8
3 2 1 0
Enter your choice (0-row, 1-column, 2-stop the program): 1
Enter the column number: 0
Column 0 is: 1 5 3
Sorted Column 0 is: 1 3 5
Enter your choice (0-row, 1-column, 2-stop the program): 0
Enter the row number: 2
Row 2 is: 3 2 1 0
Sorted Row 2 is: 0 1 2 3
Enter your choice (0-row, 1-column, 2-stop the program): 2
Program is terminating ...

Include both a hard and soft copy of your program in an envelope that contains your name and ID. The solution should be well organized and your program should be well documented. The soft copy should be submitted in a floppy including a Readme file indicating the file names containing the solution and whether it works or not. The Readme file should also contain your name and ID.