BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY

Department of Computer Science and Engineering

CSE 316 January 2021

Assignment 4

Array, String, and Recursion using Assembly Language Programming

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Q1: Write an assembly program that will take two 2×2 matrices as input, add them, and print the resultant matrix. You have to use **arrays** for taking input, for performing the addition operations, and for the final resultant matrix. Please note that, while the entries of the matrices will be non-negative single digit numbers, the entries of the output matrix can be two-digit numbers. Also, you need not print the square brackets of the output matrix.

Sample Input	Sample Output
$\begin{bmatrix} 1 & 1 \\ 1 & 1 \end{bmatrix} \quad \begin{bmatrix} 2 & 2 \\ 2 & 2 \end{bmatrix}$	$\begin{bmatrix} 3 & 3 \\ 3 & 3 \end{bmatrix}$

Q2: Using **recursion**, write an assembly program that will take a non-negative two-digit integer number n as input, and print the first n numbers of the Fibonacci sequence.

Sample Input	Sample Output
01	0
02	0, 1
04	0, 1, 1, 2
10	0, 1, 1, 2, 3, 5, 8, 13, 21, 34

Submission Deadline: 8 AM, March 28, 2021

* While you are encouraged to talk to your peers, seek help from teachers, and search relevant resources from online, under no circumstances should you copy code from any source. If found out, you will receive full 100% negative marks.