

PROJECT: 3  
DUE DATE: November 25, 2020

### Description:

Write a program that constructs and outputs an adjacency matrix for a digraph. The graph will be constructed as a word matrix. The implementation must include the following subprograms:

**main** – prompt the user for the number vertices and build the matrix by prompting for the from to edges.

Matrix must be allocated on the stack

**addedge**(mat, ncol, from, to) – add an edge to the matrix, input will be row and col as indices, not letters.

**getae**(mat, ncol, row, col) – compute the effective address of mat[row][col]

**print**(mat, nrow, ncol) – output the matrix as shown.

### Required I/O:

Digraph by F. Last

Enter number of vertices? 9

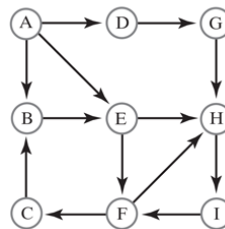
Enter edge? AB

Enter edge? AE

...

Enter edge? X

```
* A B C D E F H I G
A 0 1 0 1 1 0 0 0 0
B 0 0 0 0 1 0 0 0 0
C 0 1 0 0 0 0 0 0 0
...
I 0 0 0 0 0 1 0 0 0
G 0 0 0 0 0 0 1 0 0
```



### Turn in:

1. Submit the source code to:

```
cp digraph.s /user/tvnguyen7/cs2640-00#/BroncoName-digraph.s
```

# is your section number, 1 or 2. BroncoName is the part preceding @cpp.edu in your email address.

### Notes:

1. The following information is required in the beginning of every source file.

```
#
# Name:      Last, First
# Project:   #
# Due:       date
# Course:    cs-2640-00#-f20
#
# Description:
#           A brief description of the project.
#
```