# CHEN3600 – Computer-Aided Chemical Engineering Spring 2012

# Chemical Engineering Department CQ3

**T.D. Placek Auburn University**

 **CQ3 – Filling an Array with Random Vowel Strings**

DO NOT SUBMIT YOUR SOLUTION!

Create a function file named email\_vowel\_scramble. You will be writing the required subfunction. The following code should be placed in the file:

function placetd\_vowel\_scramble

% This is the driver for a function to populate a n-by-n array with

% a randomly selected vowel surrounded by “dash” characters.

% The value of “n” determines the size of the array.

% Set problem data

clear; clc; format compact;

n=5;

x=vowel\_scramble(n)

end

Typical Output w/ n=5

x =

 '-e-' '-o-' '-o-' '-a-' '-a-'

 '-i-' '-u-' '-e-' '-i-' '-e-'

 '-o-' '-e-' '-i-' '-o-' '-u-'

 '-u-' '-i-' '-a-' '-a-' '-e-'

 '-u-' '-e-' '-u-' '-e-' '-u-'

Hint(1): You can build a string by “concatenation” (see the help file).

<http://www.mathworks.com/help/techdoc/matlab_prog/f2-47856.html>

For example:

>> x='A';

>> dash='-';

>> y=[dash x dash]

y =

-A-

Hint(2): You will be using cell arrays to solve this problem.

Solution

function z = vowel\_scramble(n)

vowels='aeiou';

for k = 1 : n

 for kk = 1 : n

 r=randi(length(vowels));

 z{k,kk}=['-' vowels(r) '-'];

 end

end

end