March 9, 2022

# Problem 8.22

```
clear,clc
% Nick McCullough, AerE 161, HW 5, Problem 8.22
% create variables for different values, rows and columns, from the vector
% of "quizstuff" then using that info, print the student ID number and the
% corresponding average score of each quiz. (use mean function)


- - - -(insert your solution here)


% let's start by storing the quiz data in a data file called quizstuff
% quizstuff = [44 7 7.5 8;33 5.5 6 6.5;37 8 8 8;24 6 7 8];


load quizstuff.dat % load data file quizstuff above


[x,y] = size(quizstuff); % rows (x) & columns (y)
for i = 1:x % create the for statement for rows, x
    % create the variable i from title 'students' as shown in instructions
    % the "id_no" is the first column in the table, (i,1)
    students(i).id_no = quizstuff(i,1); % assign the id_no variable
    for j = 2:y % nested loop
        students(i).quiz(j-1) = quizstuff(i,j);
        % this loop creates the quiz variable, y is the columns from quizstuff
    end % end nested loop
end % end loop


% now we have to create the print statement for the quiz averages.
% we can use the mean function to accomplish this if we identify correctly


disp('Student ID #    Average Score') % simple display statement
for i = 1:x % create another for loop
    fprintf('%d \t\t %.1f\n',students(i).id_no,mean(students(i).quiz))
    % prints id# & avg/mean of the students quiz to 1 decimal place
```

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```
end % end loop
```

## *Output 1:*
*------(insert  output (your results)  here)*

Student ID #    Average Score

44              7.5

33              6.0

37              8.0

24              7.0

>>

# Problem 9.10

```
clear,clc
% Nick McCullough, AerE 161, HW 5, problem 9.10
% prompt the user to enter the correct file name if they don't then use a
% loop to error-check until that user enters the right name.
```

*- - - -(insert your solution here)*

```
file = input('Hello, please enter the file name: ','s'); % input for script
x = fopen(file); % opens file, "file"
while x == -1 % while loop and variable created if doesn't open
    file = input('Error, please enter the correct file name: ','s');
end
```

## *Output 1:*
*------(insert  output (your results)  here)*

Hello, please enter the file name: fourty

Error, please enter the correct file name: Problem1

How much fuel, in US Gallons, is on board the airplane?:

% it opened my problem 1 file from Project 1 ^

## Problem 9.11

% Nick McCullough, AerE 161, HW 5, problem 9.11

% file "potfilenames.dat" stores file names. one per line

% write a script that prints the names of the valid files, once .dat is

% added, valid just means the file exists.

- - - -(insert your solution here)

% potfilenames.dat is:

% Hello (Hello.dat)

% This (This.dat)

% Is (Is.dat)

% Nick (Nick.dat)

I did not finish this problem, I couldn't figure out how to open multiple data files or create a loop that prints if it works. I started with an if statement and creating variables for the file name but wasn't sure where to go after getting the file x.

**Output 1:**

------(insert  output (your results)  here)

# HW# 5 - Nick McCullough

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```matlab
x = fopen('potfilenames.dat'); % variable that opens the file
if x == -1 % if statement in case it doesn't open correctly
    disp('Error, file did not open correctly') % disp error
else % else statement
    y = 0; % create variable for 0
    file = fgetl(x); % create variable for the file name


???
```