

Name: _____ Section: _____

Exam2. Part1

Do NOT share this. As Friday may be all over the place, who knows who will end up with what version.

Vocabulary:

Answer the 30 multiple choice questions online. This is open resources as usual, except for search engines and any means of communications with other individual.

Coding: For credit, only use the knowledge used in class these past few labs and all semester.

Create the following function and submit the function by the end of the allocated time. Please ZIP your 1 function file before submitting the zip. There should only be 1 function file in the ZIP. **Penalties** will be given if a main code or/and an excel sheet is provided as well. Don't stress at the last minute, allocate enough time to peacefully zip 1 function file.

The function's purpose is to filter data related to 911 calls in New Orleans. Different files will be provided, but today you have 2011's data. Name the file appropriately to represent its purpose (5pts). The REQUIREMENTS for this function:

(5pts) It has 1 parameter: a raw data table, as a cell-array, unfiltered, as is from the original file.

(5pts) It has 3 return-values, specifically:

- (5pts) The type of call selected from the table – as a `char`. NO LONGER A CELL-ARRAY. (5pts)
- (5pts) A count of how many of those specific calls were made – as a `double`
- A table that now only contains the data related to the type of call chosen (5pts), and only 4 columns (5pts): the duration, the disposition taken, the latitudes and longitudes (in an order of your choice). The header also no longer appears in the table (3pts).

(5pts) The type of call is selected by the user from a `listdlg()`, after each possibility is made unique (3pts). The user should only be able to select one (3pts), and there is a string indicating a prompt to the user (3pts).

You are of course encouraged to test your function using whatever method you want. However, you will NOT provide me the main code, even if you write one. ☺ For testing purposes, here is what my workspace looks like when I am done testing my function. The raw data specified as the parameter is the result of uploading the data from the excel sheet directly. (I've hidden my variable names so you're not influenced by them.)



Name	Value	Size	Class
6	6	1x1	double
'ARMED ROBBERY WITH G'	'ARMED ROBBERY WITH G'	1x20	char
'Calls_for_Service_2011_03_55000_L...'	'Calls_for_Service_2011_03_55000_L...'	1x39	char
6x4 cell	6x4 cell	6x4	cell
55001x8 cell	55001x8 cell	5500...	cell

(7pts) The documentation of the function is fully expected, as well as commenting your code (5pts), suppressing all the results (5pts), spacing out the code (5pts), good variable names as usual (5pts), and no unnecessary indents (5pts). THERE ARE NO LOOPS OR IFS IN THIS CODE. PREFER HARDCODING A FAKE VALUE INSTEAD AS YOU WILL NOT GET POINTS USING LOOPS OR IF ANYWAYS – don't waste your time. MATLAB'S MUCH COOLER! ☺

(5pts) At the bottom of your FUNCTION CALL, and as comments, write the function call for this function. Harcode the name of the file as the argument, DO NOT USE `UIGETFILE()` as for testing, it is longer. 2 LOC.

By Wednesday, make sure this works as you will of course call it in a main code. Go ahead and start without me! Create a main, imagine what we could do with the data, code away! ☺

NO use of `uigetfile()`, NO loading excel IN the function, and NO crash (5pts)