

Name \_\_\_\_\_ Section \_\_\_\_\_

ALL SECTIONS have the same exam **topic**. DO NOT SHARE. There are no curves, even if the last section does better. KEEP IT FAIR FOR EVERYONE, including yourself, by replying "I can't say anything" to any question regarding this exam.

\_\_\_\_\_/30pts     Comprehensive Questions online. Go to BB. Select Exam. There is a link with the 30 questions. Read directions there.

\_\_\_\_\_/36pts     Create a folder named Exam3. A data file of cherry production in various states of the USA is provided online. Download it within that folder before starting to code. You are to write a function `loadFruits()` that uploads the data from the file, and lets the user pick which state and berry they would like to analyze. The requirements are as follows. Submit the zipped folder if you write a main code, or only the function if you do not write a main.

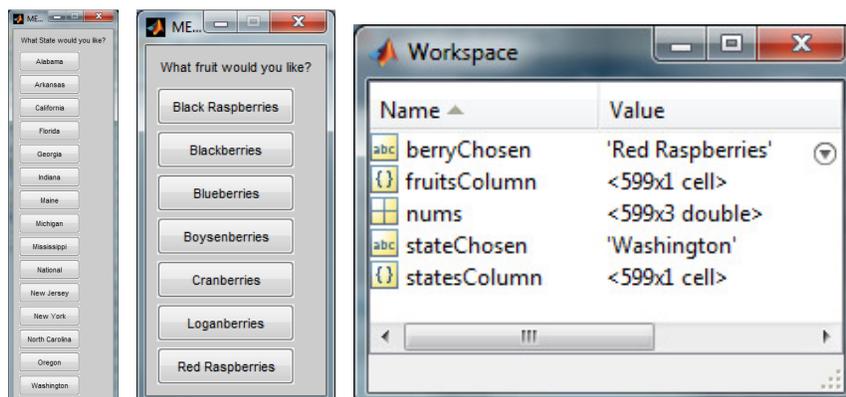
The function is responsible for loading the data from the data file (4pts). This function requires 1 parameter: a filename (2.5pts). The function returns 5 values (2.5pts). They are:

- (5pts) A **numerical** array with 3 columns where the first column contains the years, the second column contains the acreage, and the third contains the Value of Production (\$1000). Extract this data as is, from the original excel sheet.
- (2pts) A **cell-array** with the fruits, as they are in the file. However, the title (i.e. column header) should not be included in this cell-array.
- (2pts) A **cell-array** with the states, as they are in the file. However, the title (i.e. column header) should not be included in this cell-array.
- (6pts) Two **strings**: one that contains the fruit the user picked, another that contains the state the user wants to study. In order to do this, you will need to filter all the duplicate options from the cell-array of fruit and states (from above). This is easily done with the function `unique()`. This will create your database of fruits, which you can use as the 2nd argument of the `menu()` function to let the user make his selection. Extract and return the string chosen. Note: this string is no longer within a cell-array once done!

Either in a main code, or as a comment at the bottom of the function file, provide the function call that makes this function work with the specified given file. DO NOT USE `uigetfile()`, as there is no choice of file. DO NOT put a semicolon so I can see the result easily. (4pts) If you have main, please ZIP folder before submitting.

Don't forget the documentation and author (4pts). Spacing/comments. (4pts)

Some screenshots: this should help you see errors, when comparing your result to the workspace below, especially with data types and dimensions.



At this time, ALL states and ALL fruits possible are offered to the user in the menus. Nothing is filtered. Hint for Friday, determine if the fruit chosen exists in the state chosen.