

Name: _____ Section _____
Exam3

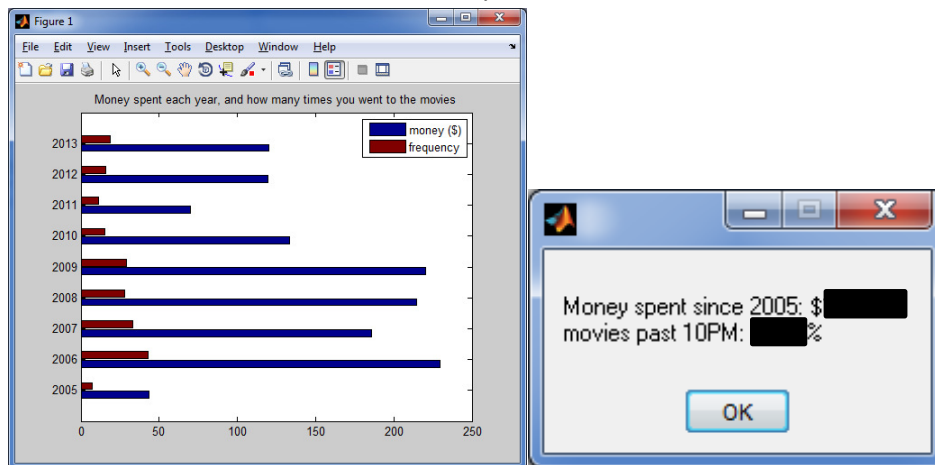
DO NOT SHARE, TALK, EMAIL anything related to this exam.

CONFIDENTIAL

_____/55pts (1hr + 15min overtime) Coding

This is the 2nd part of the 2-part exam. Today, you write 2 additional programmer defined function and the main code. WORK IN YOUR EXAM3 FOLDER. At the end of the class time today, submit the **ZIPPED FOLDER**. It must contain all the files needed for the program to run properly. You MUST have the excel sheet from Part1. If not, recreate a small one yourself. (-5 if files missing)

Objective: analyze the movie file and show the results visually.



These show the amount of money and how often I went to the movie each year in a horizontal bar graph. The total amount of money spent since 2005, and the percentage of time I went to the movies after 10PM is shown in a message box.

Reminder

You do not need to work in order! You may get stuck at some points, that is OK! Like I showed in class for Lab17, hardcode values and continue. Then, come back to fix it!

The main code (total 14pts) should in order:

- (3pts) call the programmer-defined function from the first part of the exam (Thursday's file). Hardcode the argument. **DO NOT USE** uigetfile(), as it takes more clicks to test. You do not have time, nor do I when I grade.
- (3pts) call the programmer-defined function analyzeData() described below.
- (3pts) call the programmer-defined function myGraphs() also described below.

Requirements for analyzeData():

- (1pt) It has 3 parameters: the 3 variables collected from the call from part1. (cover sheet online if needed)
- (1pt) It returns 4 variables:
 - (3pts) the total amount of money spent since 2005 (scalar)
 - (3pts) a **vector** containing the amount of money spent for each year (2005 to 2013)
 - (3pts) a **vector** containing how often I went to the movie per year (2005 to 2013)
 - (3pts) the percentage of time I went to the movies after 10PM (including 10PM).
- (2pts) Doc, author, comment, spacing

Requirements for myGraphs() are:

- (1pt) It has 4 parameters: the 4 return-values from the function analyzeData()
- (1pt) It returns nothing.
- (2pts) Doc, author, comment, spacing
- The function should represent visually the results using a horizontal bar graph, using the built-in function `barh()`. (3pts) This built-in function requires 1 argument: a 2D matrix with the money spent each year in column one, the counts of each year in the 2nd column.
- You must put a title (3pts) on the plot, a legend (3pts), and possibly change the Yticklabels (extra credit for the Yticklabel +3pts).
- The function should also create a message box as shown above (6pts).

DO NOT DO STEP 7c) TESTING. Run your code of course, but do not show proof. I will run when I grade.

HAPPY THANKSGIVING!!!

