

**CS1100**  
**Fall 2009**  
**Lab 4**

To complete this assignment you must submit an electronic copy to Blackboard by the due date.

Download the file **LabE4.xls** from the course web site. Submit this file to Blackboard when you have finished the assignment.

**Task for Sheet 1:**

In the first spreadsheet, sheet 1, we have data from Blackboard on former students in CSU101 sections. We have this information on 183 students. The data are found in B6:B188. Your job is to parse these data into three pieces of information: last name, first name, and middle initial. We then want to see the first character of the first name. Space is provided in the sheet in columns D, E, F and G for these answers, but you will need to use other columns for your calculations. The task is to be achieved by using suitable text functions to find the appropriate delimiters in each data value, and then use these delimiters to separate out the required parts. When you have a solution that works for the first and second cases, copy that solution into rows 8 through 188 in the appropriate columns. Make sure your solution works for someone without a middle initial, as well as with someone who has a middle initial.

You may assume:

- The last name is separated from the following parts of the name by a comma followed by a space
- If a middle initial is present, it is preceded by a space.

You may not assume:

- You may not assume that each name has a middle initial.

We now want to know the number of first names in our data that begin with each particular letter of the alphabet, “A” through “Z”. The answers begin at A200.

- First type “A” cell A201. Next add a formula in A202 that can be dragged to A226 such that the letters “B” through “Z” appear. Next assign the name *firstInitials* to the range F6:F188.
- Then in B201 place a function that will count the number of occurrences of the letter in A201 appearing in *firstInitials*. There are 22 first names beginning with “A” in the data, so if your function is correct, it should return a 22.
- Now copy this function into B202:B226. You now know the number of first names starting with each letter of the alphabet.

- Calculate the percent of the total that each of these numbers represents, by summing the numbers in B227 (cf. labeled cell), and using this total in your calculation of each percentage. 26 percents should be reported, one for each letter of the alphabet.

Next we want to know how many of the people represented in the data have a middle initial? What percent of the whole have one? The answers go in H199 and H200. Of course, these answers are to be computed from the data automatically.