CSC 440/540	Assignment #1
Ruby Programming	**Due:** As indicated in Blackboard

The goal of this assignment is to force you to learn Ruby quickly. In this assignment, your program will read an input file in comma-separated value (CSV) format and print a report based on the data in that file. CSV format files consist of one record per line, with each record consisting of one or more comma-separated fields.

Write a Ruby program named **widgets.rb**, which can be run by typing **ruby widgets.rb** on a Linux system such as your Cloud9 system. The program will read a CSV-format input file named **widgets.csv**. Each record contains data about an employee, including the state code, plant (factory) code, department code, employee ID number, employee name, and a count of the widgets that the employee made. The data will look like this:

```
STATE,PLANT,DEPT,EMPID,NAME,COUNT
12,34,56,789,George Carter,4
12,34,56,799,Mary Clinton,6
12,34,57,639,Alfred Lincoln,8
12,40,57,710,Kim Kennedy,8
12,40,57,990,Jina Johnson,6
12,40,75,426,Ruby Roosevelt,10
12,40,75,551,John Washington,7
33,22,11,297,Hilda Hoover,10
33,22,11,428,Ted Truman,11
33,22,11,808,Nora Nixon,3
33,22,14,629,Mabel Bush,9
33,27,19,321,Chris Adams,5
```

The input data for this assignment will be a simple CSV file, so you do not have to worry about quoted values or any special cases, like names that contain a comma as part of the name.

The output of your program must look like the following. Be careful to follow the output format **shown**, including spacing **and column alignment**.

```
STATE PLANT DEPT EMPID COUNT NAME

  12    34   56   789      4 George Carter
  12    34   56   799      6 Mary Clinton

                          10 TOTAL FOR DEPT  56 *

  12    34   57   639      8 Alfred Lincoln

                           8 TOTAL FOR DEPT  57 *
                          18 TOTAL FOR PLANT 34 **

  12    40   57   710      8 Kim Kennedy
  12    40   57   990      6 Jina Johnson

                          14 TOTAL FOR DEPT  57 *

  12    40   75   426     10 Ruby Roosevelt
  12    40   75   551      7 John Washington

                          17 TOTAL FOR DEPT  75 *
                          31 TOTAL FOR PLANT 40 **
                          49 TOTAL FOR STATE 12 ***

  33    22   11   297     10 Hilda Hoover
  33    22   11   428     11 Ted Truman
  33    22   11   808      3 Nora Nixon

                          24 TOTAL FOR DEPT  11 *

  33    22   14   629      9 Mabel Bush

                           9 TOTAL FOR DEPT  14 *
                          33 TOTAL FOR PLANT 22 **

  33    27   19   321      5 Chris Adams

                           5 TOTAL FOR DEPT  19 *
                           5 TOTAL FOR PLANT 27 **
                          38 TOTAL FOR STATE 33 ***

                          87 GRAND TOTAL        ****
```

The input file widgets.csv file is included in the Blackboard drop box .

Deliverables

For this assignment, we will use our GitHub accounts and submit the URL as our formal submission to the Blackboard dropbox. Create two files in your GitHub repository:

- **widgets.rb**, your ruby source file.
- **widgets.out**, the plain-text output of your program when run with the provided widgets.csv file as input