Border Crossing Vehicles 1

The table below is a **partial** capture of the number of border crossings at Champlain Rouses Point, New York at the US-Canada border for the 13-year period from 2000 to 2012, ordered by type.

The complete table is available on the LMS as brdrxingusc_dataset.pdf and as brdrxingusc_dataset.csv.

Type	2000	2001	2002	2003	2004
Bus Passengers	317205	291421	282859	234620	277018
Buses	11728	10374	10415	11290	8345
Personal Vehicles	980130	1012592	1039135	999836	1001278
Loaded Trucks	432097	342618	323495	350893	351224

In this project, your Python program is required to:

- Initialise appropriate lists with the **full** data
- Show four different menu options plus a Quit option.

  Based on the user selection, your program shall
  1. Display the number of vehicles (i.e., excluding bus passengers) crossing the border in 2004.
  2. For a user selected type (e.g., Buses),
     a) display the mean of the number of border crossings for each of the two 4-year spans of 2002 to 2005 and 2008 to 2011.
     b) display the maximum number of border crossings in each of the periods and the years that the maximum occurs.
  3. For a user selected type, display the three lowest border crossing numbers and the corresponding years that they occur.
  4. Make the following plots
     a) Average number of Bus Passengers per Bus vs Year as a line plot.
     b) Number of Personal Vehicles, Loaded Trucks vs Year as a bar chart.

You will be awarded higher marks if you have the following features in your program:

- Retrieve the data from the CSV file and store them into lists
- Use numpy or 2D lists/arrays
- Plot the data with properly labelled titles, labels and legends
- Use functions that you define (and initialise lists for storing data if your program doesn't retrieve them from the CSV file) in a module called data.py