

Border Crossing Vehicles 2

The table below is a **partial** capture of the border-crossing travelers in different types of transport mode at Champlain Rouses Point, New York at the US-Canada border for the 13-year period from 2000 to 2012.

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's selection, your program shall

1. Display the number of Bus Passengers crossing the border in 2006.
2. Of the user's selected type of the border-crossing transport (e.g., Buses), display
 - a) the mean number of the travelers in different types of transport mode for each of the two 5-year spans of 2004 to 2008 and 2006 to 2010.
 - b) the minimum number of travelers in different types of transport mode in each of the periods and the years that the minimum occurs.
3. Of the user's selected type of the border-crossing transport, find the mean number of travelers for the whole 13-year period. Display the travelers in different types of transport mode and the corresponding years that are lower than the mean value.
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 based on the quality of your program. Refer to the rubric for more information.

You **should not** use pandas for the project. However, you are allowed to use numpy or other python libraries/modules as needed.

Clarify any doubts about the requirements with your tutor.