

Singapore Dentists 2

The table below is a **partial** capture of number of active dentists in Singapore for the 12-year period from 2008 to 2019, ordered by category.

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

Year	Private Dental Specialists	Private General Dental Practitioners	Public Dental Specialists	Public General Dental Practitioners
2008	116	864	47	268
2009	180	863	74	246
2010	185	874	87	267
2011	199	961	77	241
2012	203	1012	86	271

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 dentists by category in 2012.
2. For a user selected sector (e.g. Public or Private),
 - a) display the average number of dentists in the 10-year span of 2010 to 2019.
 - b) display the maximum number of dentists in that period and the year in which it occurred.
3. For a user selected category, display the highest percentage change, year on year, and the year in which it occurred.
4. Make the following line plots
 - a) Total Dental Specialists (Public + Private) vs Year as a line plot.
 - b) Private General Dental Practitioners, Public General Dental Practitioners 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