**Practice Problem**

**Problem 1:**

For this problem, you will keep track of when your friend’s birthdays (e.g., 10/07/1995 (dd/mm/yyyy)) are, and be able to find that information based on their name. Create a list (dictionary for Python or array for Java) of names and birthdays. When you run your program it should ask the user to enter a name, and return the birthday of that person back to them.

Secondly, the program will ask whether I want to add any name and birthday to the exiting dictionary/array. If I type “yes” it will let me add the name and birthday of my friend and update the dictionary/array. If later, I query this particular name, it will return birthday.

**Problem 2:**

For this problem, you will do the same thing. But this time, you will store the value in a JSON file (<https://en.wikipedia.org/wiki/JSON>). You will read and write the record from the JSON file.

**Problem 3:**

In this problem, you will load the JSON file (put at least 20 records) and find out how many of your friends have birth day in the same month and print them. For example, January has 3 friends, and February has 2 friends etc.

**Problem 4:**

In this problem, you will draw bar graph to show which month has how many friend.

**Note:** Use Matplotlib library (<https://pythonspot.com/matplotlib/>) to draw graph (Python). For Java, you can use JavaFX Charts (https://docs.oracle.com/javafx/2/charts/bar-chart.htm) library or any other library.

**Problem 5:**

In this problem, find the mean and median age of your friends from their date of birth.

Hints: You have to first calculate the age of each friend from his/her date of birth (e.g., 10/10/1995 (dd/mm/yyyy)).