

Applied Databases

Topic 8 Exercise Sheet

1. Write a Python program that has 2 arrays in the main function:
 - One containing several elements which are numbers.
 - The other empty.

Write another function which accepts a number as a parameter and returns the number doubled.

The main function should call this function for each element of the 1st array and populate the 2nd array with the doubled values.

When the 2nd array is full it should be printed out.

2. Download Q2.py from moodle and add code to it to make it behave as follows:

When run a main menu is shown as follows:

```
MENU
====
1 - Fill Array
2 - Print Array
3 - Find > in Array
4 - Exit
Enter choice:
```

If the user chooses:

- **1**
He/She should be prompted to keep entering numbers until -1 is entered. All numbers up to but not including -1 should be stored in an array:

```
Enter choice: 1
Enter Number: 9
Enter Number: 23
Enter Number: 14
Enter Number: 7
Enter Number: 14
Enter Number: 1
Enter Number: -1
```

- **2**
The contents of the array should be printed:

```
Enter choice: 2
[1, 9, 23, 14, 77, 14, 1]
```

- **3**
He/She should be prompted to enter a number.
Any numbers in the array greater than the number entered should be printed:

```
Enter choice: 3
Enter Number: 12
[23, 14, 77, 14]
```

- **4**
The program should end.
- **Anything Else**
The program menu should be displayed again.

The *main()* function should not be changed.

The definition of the functions *fill_array()* and *find_gt_in_array()* should not be changed.

The necessary code should be written in the functions *fill_array()* and *find_gt_in_array()* so that the program performs as described.