

## Applied Databases

### Python I 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 1<sup>st</sup> array and populate the 2<sup>nd</sup> array with the doubled values.

When the 2<sup>nd</sup> 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.