Lab 7 Arrays

NOTE: Q2 and Q3 are available for testing on PASS.

Q-1. Write a program which define and initialize an array of 10 integers.

```
int num[10]={5,10,2,5,8, 8, 7,9, 1,5};
```

Q-1-a. Write a for-loop to print out the contents of the array, one element in one line.

Q-1-b. Modify the programs in question Q-1-a, such that it prints a bar chart for the values in the array as follows.

```
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```

Hint: *You may use nested for loops.*

Q-2. Write a program which read two sets of integer elements (10 elements for each set) and find the intersection of two entered sets.

Hint-1.

The elements of set A and B should be unique according to set properties.

Hint-2.

The intersected element is the common element in both sets.

Expected Outputs:

Example-1	**Example-2**
Enter 10 Elements of Set A: 1 2 3 4 5 6 7 8 9 10 Enter 10 Elements of Set B: 11 12 13 14 15 16 17 18 19 20 The Intersected Element of Set A and B are not Found.	Enter 10 Elements of Set A: 1 2 3 4 5 6 7 8 9 10 Enter 10 Elements of Set B: 1 2 3 4 5 6 7 8 9 10 The Intersected Elements of Set A and B are: 1 2 3 4 5 6 7 8 9 10
Example-3	**Example-4**

Enter 10 Elements of Set A: 1 2 3 4 5 6 7 8 9 10 Enter Elements of Set B: 1 3 5 7 9 11 13 15 17 19 The Intersected Elements of Set A and B are: 1 3 5 7 9	Enter 10 Elements of Set A: -1 -2 -3 -4 -5 -6 -7 -8 -9 -10 Enter Elements of Set B: -1 -3 -5 -7 -9 -11 -13 -15 -17 -19 The Intersected Elements of Set A and B are: -1 -3 -5 -7 -9

Q-3. Write a program which read the first name of a person as string (or array of characters) and print whether name is palindrome or not.

Hint-1. A palindrome is a word or any sequence of characters which reads the same backward or forward.
Hint-2. Entered words should be case sensitive. For example, Anna and anna are different names, because the first character of both names is different.
Hint-3. You can use the strlen() function to find the length of a string. For example, if st="Cityu" then strlen(st) will return 5.

Expected Outputs:

Example-1	**Example-2**
Enter the First Name: madam madam is palindrome	Enter the First Name: Madam Madam is not palindrome
Example-3	**Example-4**

Enter the First Name: ANNA ANNA is palindrome	Enter the First Name: mark mark is not palindrome