CENG241 Labwork 2

1. Write a C++ program in which the user enters an array of 26 letters and the program displays lengths of sequences of consecutive same letters.

```
Enter your letters: hhheeeellooooooowwooorllddd
Result: 3 4 2 6 2 3 1 2 3

Enter your letters: abcdefghijklmnopqrstuvwxyz
Result: 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Enter your letters: eeeeeeeeeeeeeeeeeeeeeeee
Result: 26

. . .
```

2. Write a C++ program in which the user enters 10 integers in an array and the program draws 10 top-aligned vertical bars, where the heights of bars are the numbers in the array, on screen.

```
Enter bar heights: 7 7 2 5 8 4 6 1 0 3
# # # # # # # #   #
# # # # # # #     #
# #   # # # #     #
# #   # # # #
# #   # #   #
# #     #   #
# #     #
        #
```

```
Enter bar heights: 1 10 2 9 3 8 4 7 5 6
# # # # # # # # # #
  # # # # # # # # #
  #   # # # # # # #
  #   #   # # # # #
  #   #   #   # # #
  #   #   #   #   #
  #   #   #   #
  #   #   #
  #   #
  #
```

3. Write a C++ program in which the user enters information about five first-year primary school classes and the program displays statistics about each classroom and school total. Define a **Classroom** structure for this purpose; which contains one character for classroom name, one integer for number of students in this classroom and one another integer for number of students who have learned to read.

```
Enter information for 1. class:
Letter: A
Total number of students: 35
Number of students who have learned to read: 29

Enter information for 2. class:
Letter: B
Total number of students: 32
Number of students who have learned to read: 30

. . .

Percentage of students who have learned to read:
Classroom 1-A: 82%
Classroom 1-B: 93%
Classroom 1-C: 87%
Classroom 1-D: 78%
Classroom 1-E: 92%
School total: 86%
```