

EE103 Introduction to Programming

Homework Assignment #4

Due Date: Dec 09, 2014 (11:55pm)

Write a program that generates **N** random values of type integer within a range specified by **scanf** commands. These values should be stored in an array. The output of the program should be a graphical histogram such as the one shown in the example at the bottom of the page.

Your program should compute the number of occurrences for each possible value between **min_value** and **max_value** by checking values of the elements of array which stores the numbers. For each value within the specified range the character **'x'** should be appended as many times as the number of occurrence.

Note that both **N** and the difference between **max_value** and **min_value** should be less than 100. You will need to store numbers and occurrence counts in static arrays of size 100. If **N** or the **max_value - min_value** difference is over 100, your program should quit with a warning message.

Save and submit your program as instructed in the cms.iyte.edu.tr site.

Example run:

```
>Enter N Value (e.g. 100) : 100
>Enter Min Value (e.g. 0) : 0
>Enter Max Value (e.g. 10) : 10
>Histogram of the N=100 random numbers is as follows
>
> 0  xxxx
> 1  xxxxxxx
> 2  xxxxxxxxx
> 3  xxxxxxxxxxxx
> 4  xxxxxxxxxxxx
> 5  xxxxxxxxxxxx
> 6  xxxxxxxxxxxxxx
> 7  xxxxxxxxxxxxxx
> 8  xxxxxxxxxx
> 9  xxxxxxxx
>10 xxxxxx
>
>Exiting now...
```