

# CSE107 - Lab09 Task

TAs: Seydanur Ahi, Sibel Gulmez and Basak Karakas

4 December 2020

Write a C program that performs the task described below. Name your c file as nameSurnameId.c [ex: basakKarakas1850044026.c]

Upload your file to your section's submission page on moodle.

## 1 Task

In statistics, the mode is the most frequently observed value in a data set. In this task, you must compute the mode of a set of 100 elements. Firstly, build the set with integers between 1 and 10 that will be randomly generated. Then define and use the following functions to calculate the mode. Show how many of each element the set contains before showing its mode. The screenshot should look like the one below:

```
1 --> 7
2 --> 19
3 --> 15
4 --> 8
5 --> 11
6 --> 3
7 --> 10
8 --> 11
9 --> 9
10 --> 7
The mode is 2.
```

### Functions:

- **int find\_mode(int n, int arr[ ]);**  
*This function finds the mode of an array with n elements.*
- **int find\_number\_of\_x(int x, int n, int arr[ ]);**  
*This function finds how many x are in an array with n elements.*
- **int find\_max(int arr[ ]);**  
*This function finds the maximum element of an array with 10 elements.*

Good luck :)