

# Basic Algorithms and Programming

## Practice 2

4TPU140U

### List

#### Exercise 1: Management of experiments with lists

- Ask to the user how many experiments he wants to manage.
- Ask for each the `id` and store them in a list.
- Ask for each `id` the number of trials he does and store in another list.
- Display to the screen for each `id` the number of trials associated.
- Search the name of the trial which has the maximum of trials.
- Search the average value of trials number.
- Display the `id` of the trials which exhibits more trials than the average value.

### Dictionary

#### Exercise 2

- Ask to the user a set of user names and associate to them the number of experiments they did.
- For each user, add the number of success they have obtained.
- Display the name of the best researcher of your lab.

#### Exercise 3: Management of experiments with dictionary

Re-do the exercise 1 with dictionary data structure.

List of questions to treat.

- Ask to the user how many experiments he wants to manage.
- Ask for each the `id` and store them in a list.
- Ask for each `id` the number of trials he does and store in another list.
- Display to the screen for each `id` the number of trials associated.
- Search the name of the trial which has the maximum of trials.
- Search the average value of trials number.
- Display the `id` of the trials which exhibits more trials than the average value.