

Exercise series N° 2 (Files)

Exercise 1 (TD) :

Write a program that reads n integers from the keyboard and writes them to a text file values.txt, one integer per line.

Exercise 2 (TP) :

Write a program that reads integers from values.txt (created in exercise 1) and print their sum.

Exercise 3 (TD) :

Write a program that appends a line to log.txt. The line must be:
Algorithm executed successfully.

Exercise 4 (TP) :

Define a record Student containing:

- id (int)
- score (float)

Write a program that:

1. reads n students from the keyboard,
2. stores them into students.bin (binary),
3. then reads them back and displays them.

Exercise 5 (TD) :

Using students.bin created in exercises 4, compute and display:

- the number of records
- the average score

Exercise 6 (TP) :

Read integers from values.txt and write only the positive integers to positive.txt (one per line).

Exercise 7 (TD) :

Write a program that reads an integer n and writes the multiplication table of n (from 1 to 10) into table.txt.

Exercise 8 (TP)

Write a program that reads a.txt and b.txt and writes their content into merge.txt in this order:

- content of a.txt

- then content of b.txt

Exercise 9 (TD):

A binary file students.bin stores records:

```
typedef struct {  
    int id;  
    float score;  
} Student;
```

Write a program that:

1. reads an integer k and a new score,
2. updates the k-th record in students.bin with the new score,
3. then reads that same record and displays it.

Exercise10 (TP):

A text file values.txt contains integers (one per line). Write a program that computes and displays:

- count of values
- sum
- minimum
- maximum
- average (as a real value)

If the file contains no integers, display “No data”.