Level: 1st year of computer science **Course**: ADS1	**series TD/TP N° : 03**	**Academic year:**2023/2024 **Chapter 2** : I/O

Exercise 1 : (TD)
Write an algorithm that reads the name and birth year of a person, as well as the current year. Then, it displays the age of that person.

Display example:
Name: Said
Year of birth: 2005
Current year: 2023
Hello Said, you are 18 years old.

Exercise 2: (TP)
Write a C program that converts a lowercase letter into an uppercase letter.
N. B. : the letters are ordered such that: 'A'<'B'<…<'Z'<…<'a'<'b'<…<'z'

Exercise 3: (TD/TP)
Write an algorithm and its C program to calculate the average of the analysis module.

Exercise 4: (TD/TP)
Write an algorithm and its C program that receives an angle in degrees, then displays this angle in grades and radians.
N. B. : rad = deg° × π/180   gr=π/200 rad

Exercise 5: (TP)
Write a C program that reads the time in seconds and then displays it in hours, minutes and seconds.

Exercise 6: (at home)
Write an algorithm and its C program to calculate the area and perimeter of a rectangle.

Exercise 7: (at home)
Create an algorithm and its C program to convert degrees Celsius to Fahrenheit.
N. B. : $°F = \frac{9 \times °C}{5} + 32$

Exercise 8: (at home)
Write an algorithm that reads the length in centimeters and then displays it in yards (yd), feet (ft) and inches (in).
N. B. : yd= 91.44 cm   ft= 30.48 cm   in= 2.54cm

Exercise 9: (at home)
Here is the program in front.
Write (or copy) this program to your machine.
Run this program for a=8, then for a=33
What does this program do?
What happens if the value of "a" exceeds 64?

```c
#include <stdio.h>
int main() {
    int a, b, c=0,p=1;
    printf("enter a nbr < 64\n");
    scanf("%d", &a);

    b=a%8;
    a/=8;
    c+=b*p;
    p*=10;

    b=a%8;
    a/=8;
    c+=b*p;
    p*=10;

    printf("%d", c);
    return 0;
}
```