

*Department of Computer Science
University of BATNA 2
Second Practical Work
2023/2024*

Program 1:

1. Run the following **C program** and then deduce the problem from it:

```
#include <stdio.h>
int main()
{
    int x=20,y=0;
    printf("\n The quotient of the Euclidean division is: %d",x/y);
    return 0;
}
```

2. LEARN HOW TO USE THE SIMPLE CONDITION

Run the following **C program** with **y** different from zero then with **y** equal to zero

```
#include <stdio.h>
int main()
{
    int x,y;
    printf(" Give tow integers \n");
    scanf("%d%d",&x,&y);
    if(y!=0)
    printf("\n The quotient of the Euclidean division is: %d",x/y);
    return 0;
}
```

3. LEARN HOW TO USE THE ALTERNATE CONDITION

Modify the program so that it displays the following message in the case $y=0$

```
Impossible to divide by zero
```

Otherwise displays the following 3 values :

```
-The quotient of the Euclidean division
-The remainder of the Euclidean division
- The real quotient of the division with 4 digits after the decimal point
```

Program 2: LEARN HOW TO USE THE IMBRICATED CONDITION

Write a **C program**

To enter a real value **X**
And display the real value **Y** in the following cases:

1. $Y = \text{pow}(X, 2)$ if $X \leq 10$
2. $Y = \text{sqrt}(X)$ if $10 < X < 100$
3. $Y = 5 * X$ if $X \geq 100$

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Program 3: LEARN HOW TO USE THE IMBRICATED CONDITION

Write a **C program**

That allows you to enter a student's **average** grade

And then display the student's **grade** according to the following cases:

1-Very good if $20 \geq \text{average} \geq 16$

2-Good if $16 > \text{average} \geq 14$

3-Quite well if $14 > \text{average} \geq 12$

4-Passable if $12 > \text{average} \geq 10$

5- Adjourned if $10 > \text{average} \geq 0$

Program 4: LEARN HOW TO USE SWITCH INSTRUCTION

Write a **C program**

That allows you to enter a **character**

And display its **type**

Uppercase letter

Lowercase letter

Number

Arithmetic operator

Relational operator

Punctuation mark

Using the multiple-choice instruction