Lesson 58 (Blood Test)

When you go to a lab for a blood test, they take a blood sample and then receive a report that contains everything related to the blood sample. In this lesson, we want to create a program that the user enters, analyze it, and display its results.

Is it negative, positive, zero, even or odd?

What does this number contain digits for example 123 contains 3 digits.

If the number is **primary** or not ? which is the number that is only divisible by itself and one.

1 - Is the number positive, negative, or zero?

```
int y;
if (y > 0)
printf("Positive\n");
else if (y < 0)
printf("Negative\n");
else
printf("Zero\n");
```

2 - Is the number even or odd?

```
if (y % 2)
printf("Odd\n");
```

```
else
printf("Even\n");
```

3- How many digits are there in the number?

```
int x, count = 0;
while (x) {
x /= 10;
count++;
}
return count;
```

4- If the number is primary or not ?

11 is primary because it's divisible only by 1 and 11.

```
#include <stdio.h>
void status(int y) {
printf(y > 0 ? "positive\n" : (y < 0 ? "Negative\n" : "Zero\n"));
printf(y % 2 ? "Odd\n" : "Even\n");
int digits(int x) {
int count = 1;
while (x /= 10) {
count ++;
}
```

```
return count;
}
int isPrime(int x) {
int i;
for (i = 2; i < x; i++)
if (x % i == 0)
return 0;
return 1;
/*
We started from 2 because all the number are divisible by 1
If the number is divisible by any number so it's not primary, we return 1
if it's primary return 0
*/
int main() {
int x;
printf("Enter a number: ");
scanf("%d", &x);
status(x);
digits(x);
isPrime(x);
printf(isPrime(x) ? "Prime\n" : "Not Prime\n");
}
```

input :

5

output:

positive

Odd

Prime

Try the code yourself : Click Here!