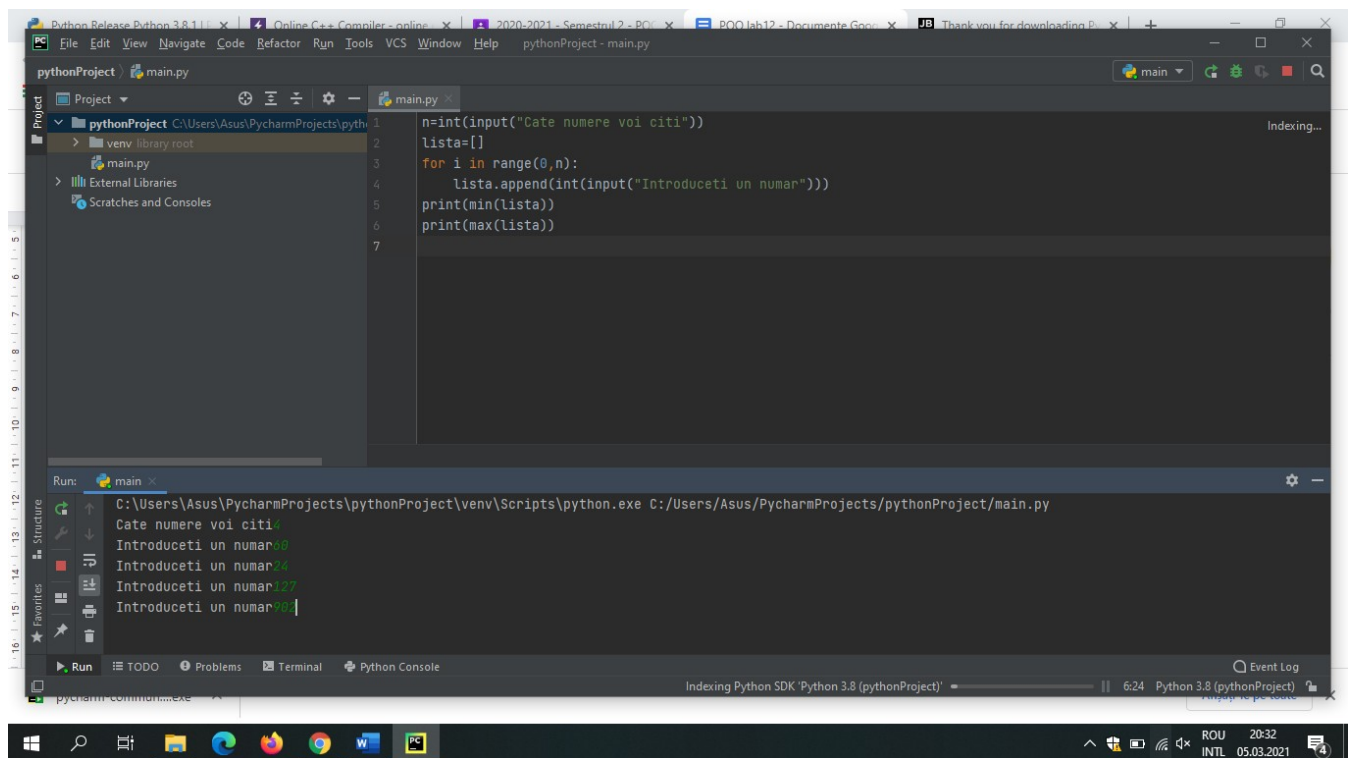
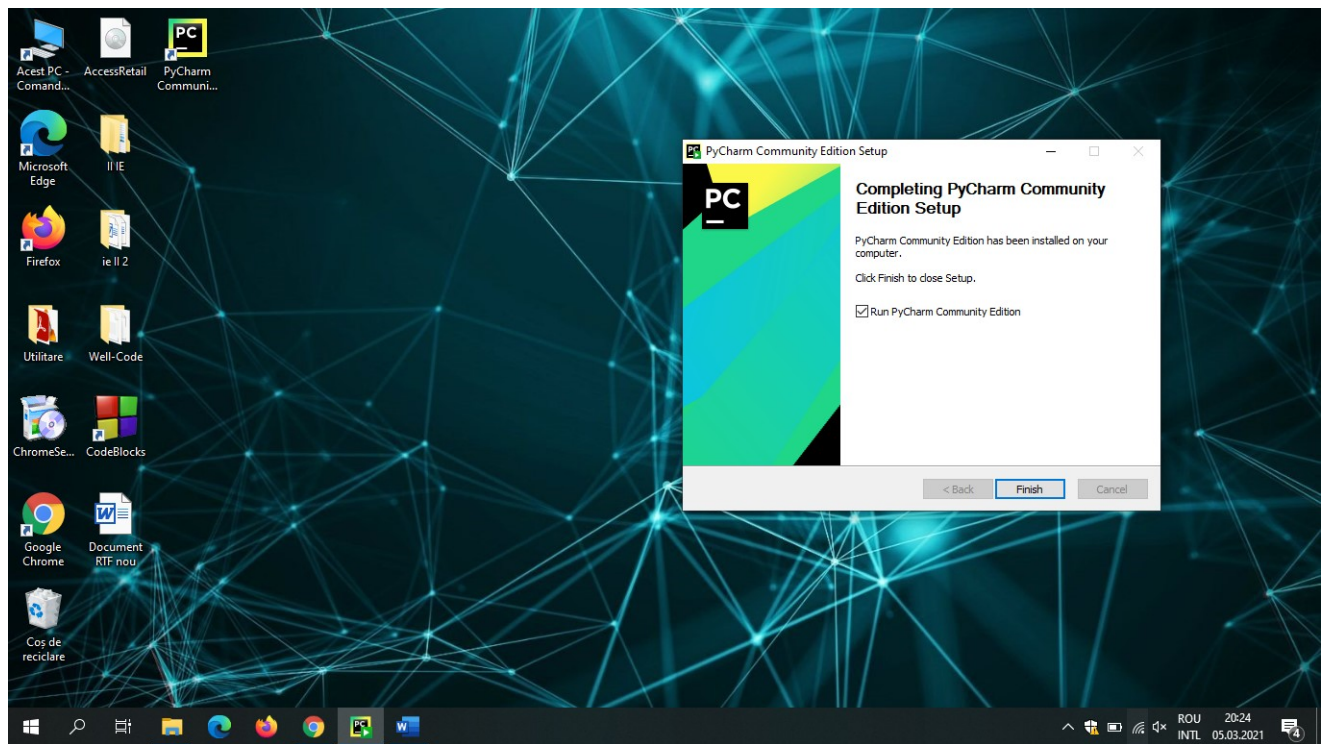


Laborator 1

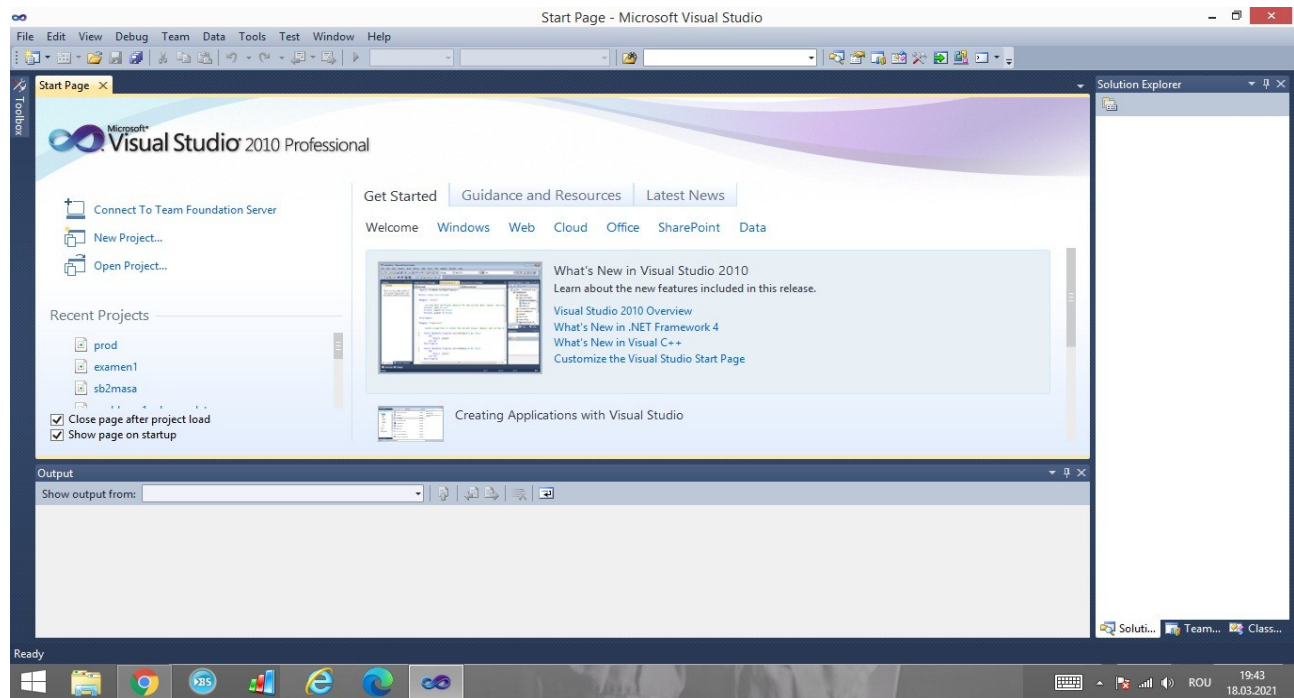
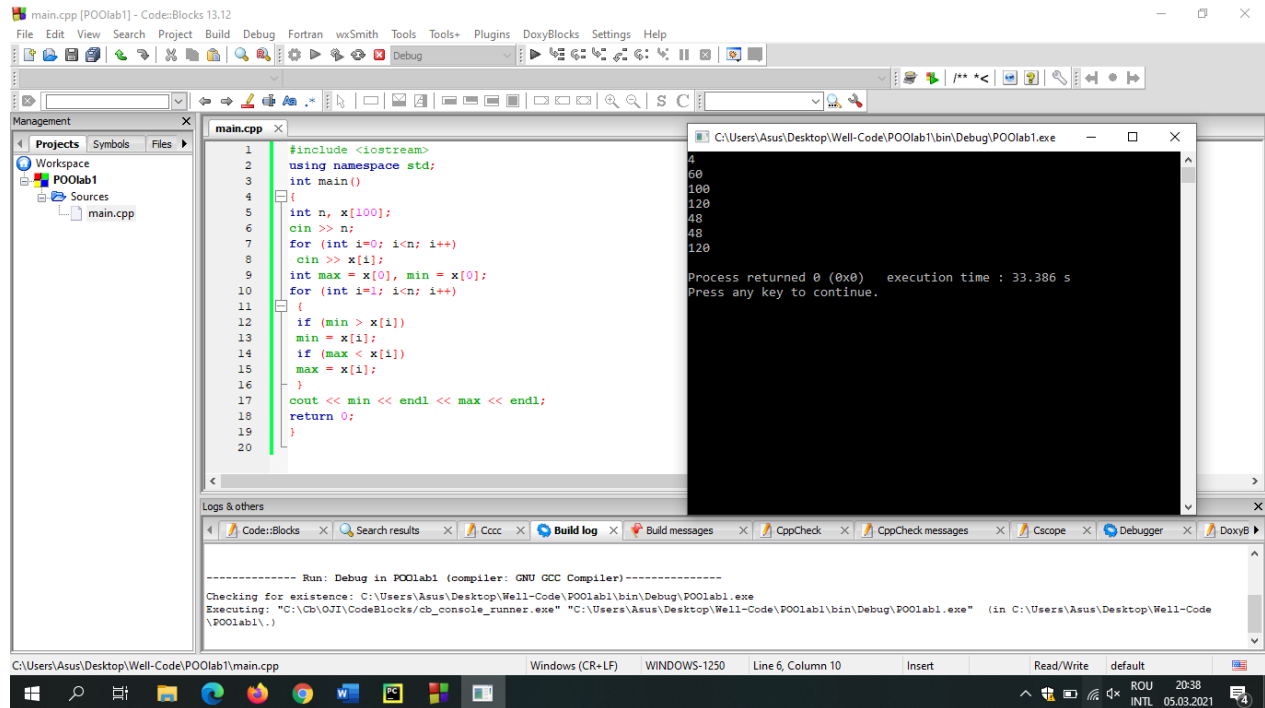
Instalare setup pentru Python.

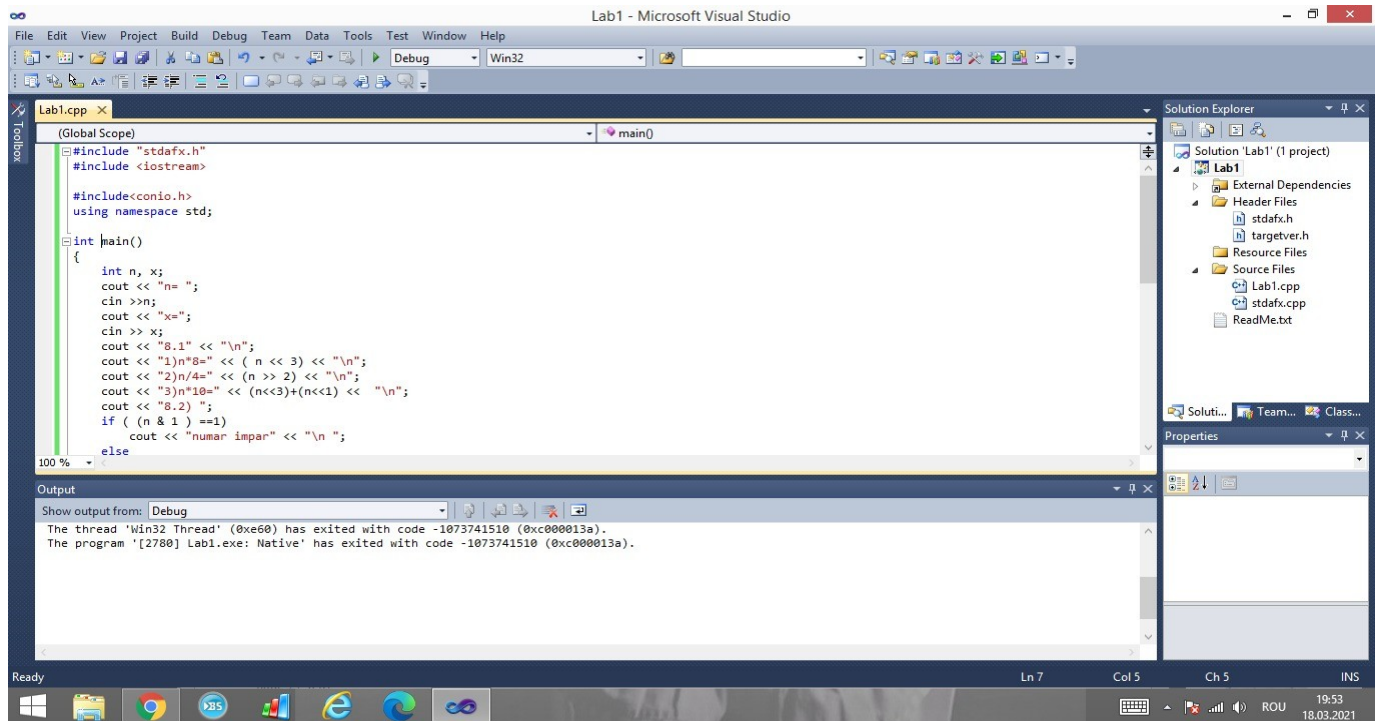
The screenshot shows the PyCharm download page for Windows. The browser's address bar displays the URL `jetbrains.com/pycharm/download/#section=windows`. The page features the PyCharm logo on the left, which includes the text "PC" inside a stylized hexagon. Below the logo, it lists the version as 2020.3.3, build 203.7148.72, and the date 27 January 2021. Links for "System requirements", "Installation Instructions", and "Other versions" are provided. The main heading is "Download PyCharm", with tabs for "Windows", "macOS", and "Linux". Under the "Windows" tab, there are two sections: "Professional" and "Community". The "Professional" section describes it as suitable for both Scientific and Web Python development, with support for HTML, JS, and SQL. It includes a blue "Download" button and notes it is a "Free trial". The "Community" section is for pure Python development, includes a dark grey "Download" button, and notes it is "Free, open-source". A banner at the bottom of the page promotes "Learning Python? Try JetBrains Academy!". The Windows taskbar at the bottom shows various application icons and the system clock indicating 20:34 on 05.03.2021.

The screenshot shows the "PyCharm Community Edition Setup" window during the installation process. The window title is "PyCharm Community Edition Setup" and the status is "Installing". A message states: "Please wait while PyCharm Community Edition is being installed." Below this, a progress bar shows the extraction of `exceptions.py` at 100%. A "Show details" button is located below the progress bar. At the bottom of the window, there are navigation buttons: "< Back", "Next >", and "Cancel". The background of the desktop is a dark blue network diagram. The Windows taskbar at the bottom shows the system clock indicating 20:19 on 05.03.2021.

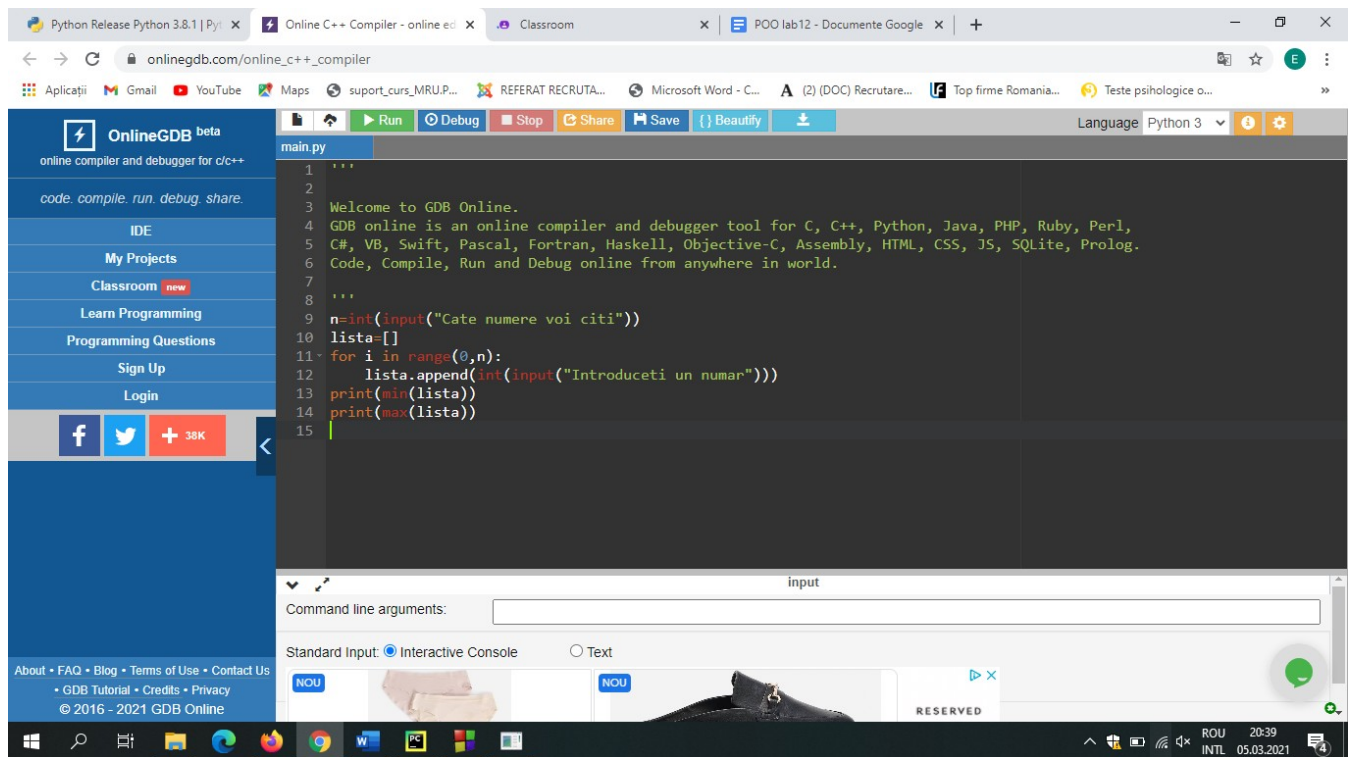


Instalare setup pentru C++.





Identificare IDE online



Laborator 2

C++

```
#include <iostream>
#include<math.h>
using namespace std;

int main()
{
    int n, k;
    cout << "da-ti numarul dorit n: ";
    cin >> n;
    cout << "da-ti numarul dorit k: ";
    cin >> k;
    cout << "8.1.1 " << endl << " n*8 = " << n * 8<<endl;
    cout << "8.1.2 " << endl << " n/4= " << n/4<<endl;
    cout << "8.1.3 " << endl << " n*10 (pe biti)= " << n * ((1 << k) + 2) << endl;
    cout << "8.2 " << endl;
    if ((n & 1) == 0)
        cout << " nr par";
    else
        cout << " nr impar ";
    cout << endl << "8.3 ";
    int x, y;
    cout <<endl<< " se citesc cele doua numere x si y: ";
    cin >> x >> y;
    cout<<" Afisare bit y din x: "<< (x >> y & 1)<<endl;
    cout << "8.4.1" << endl;
    cout << " setare la valoarea 0: " << (x & (255 ^ (1 << y))) << endl;
    cout << "8.4.2" << endl;
    cout << " setare la valoarea 1: " << (x | (1 << y)) << endl;
    cout << "8.4.3"<<endl;
    cout << " se sterge bitul y: " << (x & ~(1 << y));
    cout << endl << "8.4.4" << endl;
    cout << " se complementeaza bitul y: " << (x ^ 1 << y)<<endl;
    cout << "8.5.1 " <<endl;
    int a, b;
    cout << " a = ";
    cin >> a;
    cout << " b = ";
    cin>> b;
    a = a + b;
    b = a - b;
    a = a - b;
    cout <<" " << a << " " << b<<endl;
    cout << "8.5.2" << endl;
    a = a ^ b;
```

```

b = a ^ b;
a = a ^ b;
cout << " " << a << " " << b << endl;
cout << "8.6" << endl;
if (n == (1 << k))
    cout << " Este ";
else
    cout << " Nu este ";
cout << endl << "8.7" << endl;
int m, p, q, r;
cout << " se citesc numerele m, p, q, r: ";
cin >> m >> p >> q >> r;
m = m % (int)pow(2, r);
p = p % (int)pow(2, q);
p = p << r;
m = m | p;
cout << " noua valoare a lui p este: " << p;
}

```

Phyton

```

n = int(input("n="))
k = int(input("k="))
print("8.1.1. n*8 = ", n*8)
print("8.1.2. n/4 = ", n/4)
print("8.1.3. n*10 (biti)= ", n*((1<<k)+2))
if (n & 1) == 0)
print("8.2. Nr par")
else
print("8.2. Nr impar ")

x = int(input("x="))
y = int(input("y="))
print("8.3. Afisare bit y din x: ", x >> y & 1)
print("8.4.1. Setare la valoarea 0: ", x & (255 ^ (1 << y)))
print("8.4.2. Setare la valoarea 1: ", x | (1 << y))
print("8.4.3. Se sterge bitul y: ", x & ~ (1 << y))
print("8.4.4. Se completeaza bitul y: ", x ^ 1 << y)

a = int(input("a="))
b = int(input("b="))
print("8.5.1")
a = a + b
b = a - b
a = a - b
print(a,b)
print("8.5.2")
a = a ^ b
b = a ^ b
a = a ^ b

```

```
print(a,b)
print("8.6")
if (n == (1 << k))
print("este ")
else
print("nu este ")

print("8.7")
m = int(input("m="))
p = int(input("p="))
a = int(input("a="))
q = int(input("r="))
m = m % (int)pow(2, r)
p = p % (int)pow(2, q)
p = p << r
m = m | p
print(p)
```