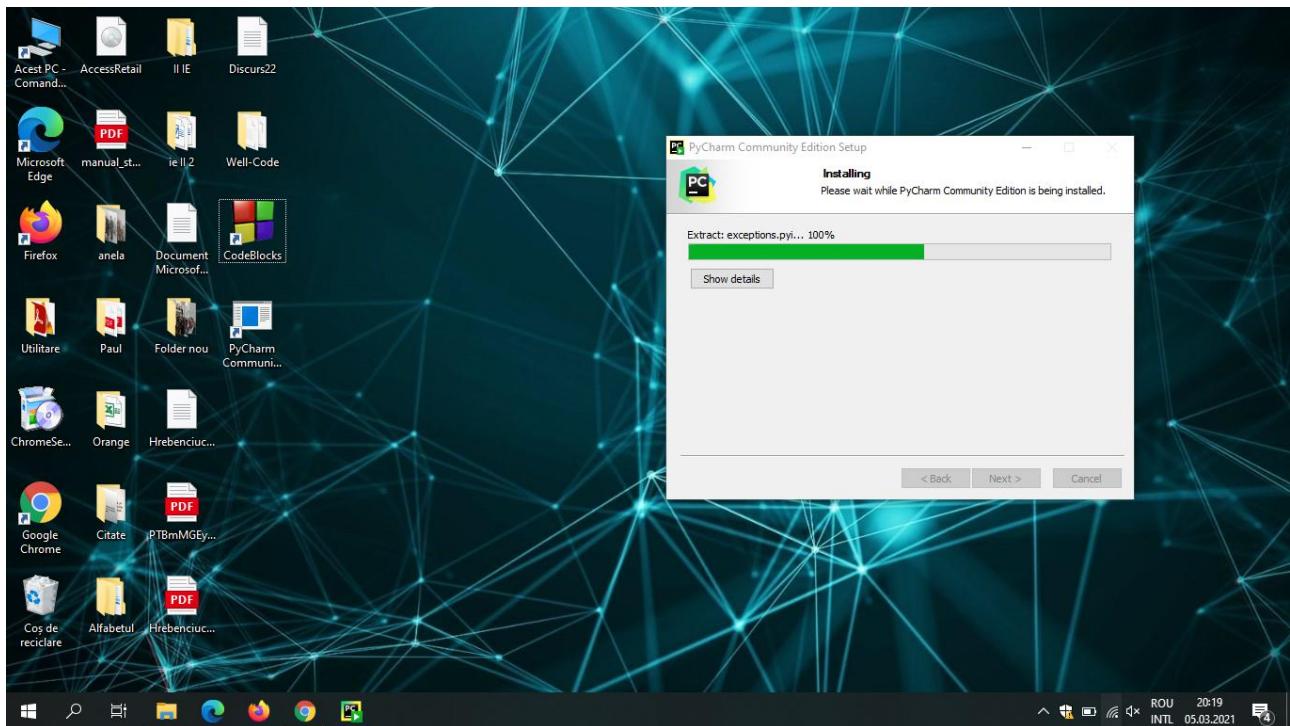
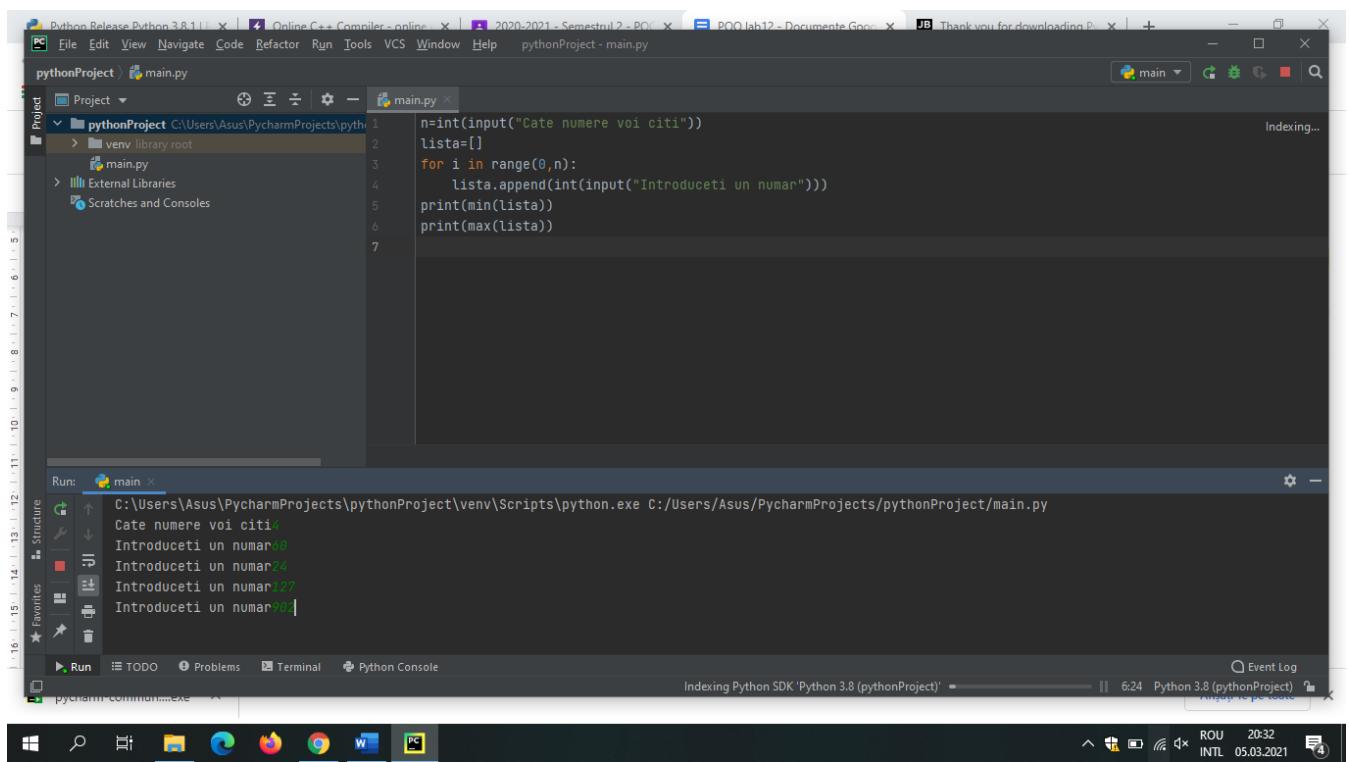
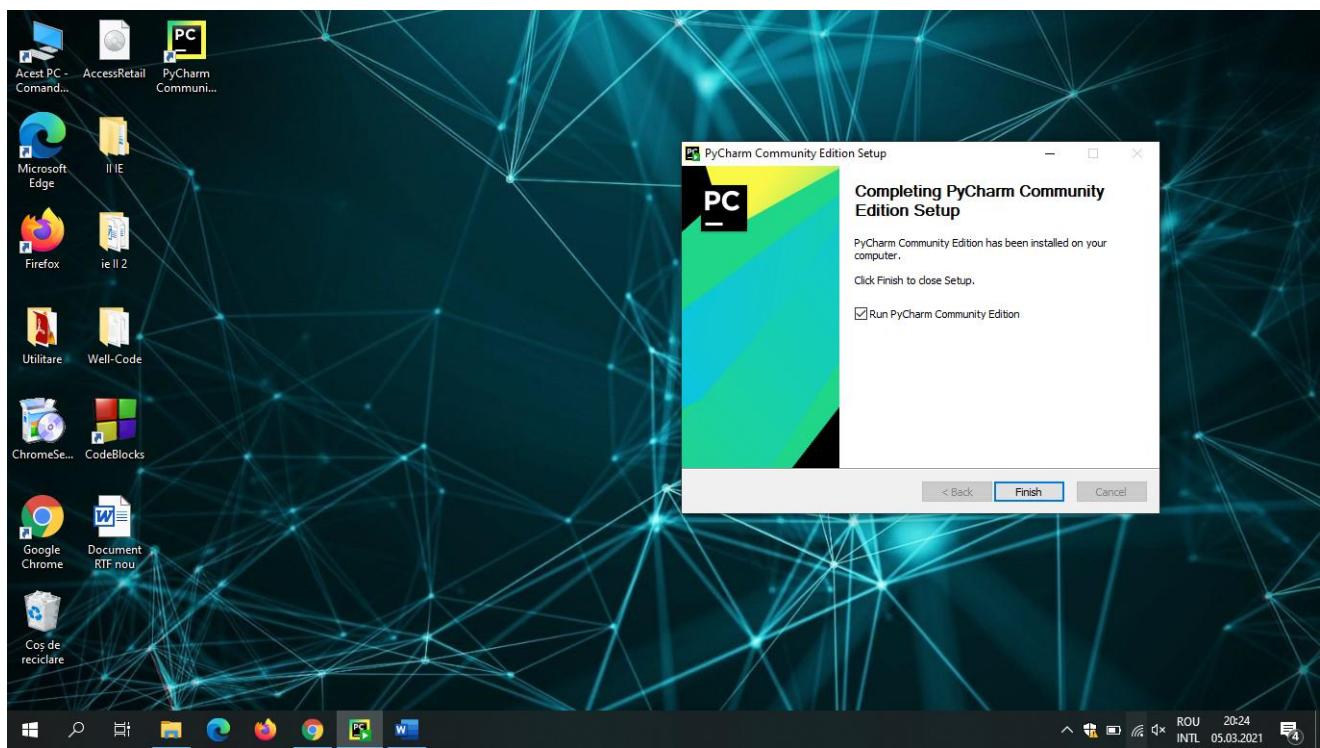


Laborator 1

Instalare setup pentru Python.

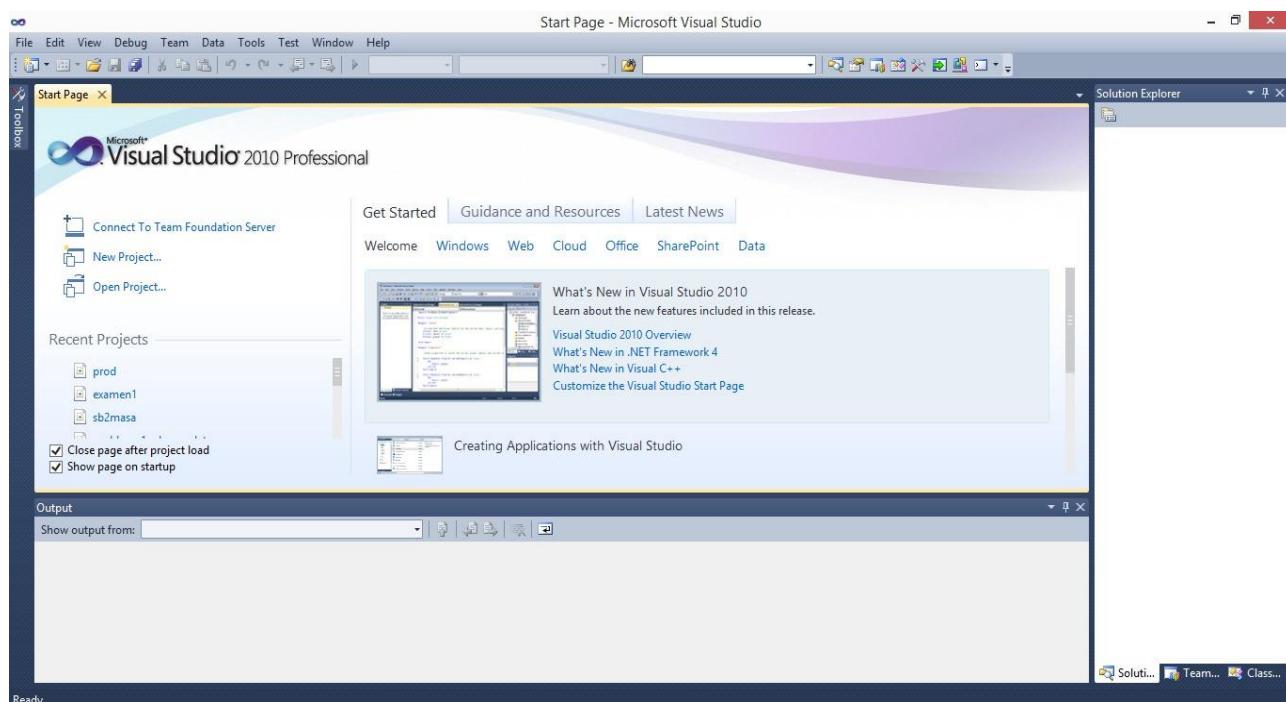
The screenshot shows the PyCharm download page on the JetBrains website. At the top, there's a navigation bar with tabs for Windows, macOS, and Linux. Below the tabs, there are two main sections: 'Professional' and 'Community'. The 'Professional' section is described as being for both Scientific and Web Python development, with support for HTML, JS, and SQL. It includes a 'Download' button and a 'Free trial' link. The 'Community' section is described as being for pure Python development, labeled as 'Free, open-source', and also has a 'Download' button. On the left side of the page, there's a large PyCharm logo and some version information: Version: 2020.3.3, Build: 203.7148.72, and Date: 27 January 2021. There are also links for 'System requirements', 'Installation Instructions', and 'Other versions'. A promotional banner at the bottom of the page encourages learning Python through JetBrains Academy. The browser's address bar shows the URL: [jetbrains.com/pycharm/download/#section=windows](https://www.jetbrains.com/pycharm/download/#section=windows).





Instalare setup pentru C++.

The screenshot shows the Code::Blocks IDE interface. On the left, the 'Management' panel displays the 'Projects' tab with 'POOLab1' selected. The main workspace shows the code for 'main.cpp'. The code reads an integer 'n' from standard input, initializes arrays 'x' and 'min/max' with value 0, and then iterates through the array to find the minimum and maximum values. It then prints these values. The output window on the right shows the execution results: 'Process returned 0 (0x0) execution time : 33.386 s Press any key to continue.' Below the workspace is a 'Logs & others' tab bar with various logs like 'Build log', 'Build messages', and 'CppCheck messages'. The bottom status bar shows the current file path 'C:\Users\Asus\Desktop\Well-Code\POOLab1\main.cpp', encoding 'Windows (CR+LF)', line 'Line 6, Column 10', and date/time 'ROU 20:38 05.03.2021'.



```
#include "stdafx.h"
#include <iostream>

#include<conio.h>
using namespace std;

int main()
{
    int n, x;
    cout << "n= ";
    cin >>n;
    cout << "x=";
    cin >> x;
    cout << "8.1" << "\n";
    cout << "1)"<< n << "\n";
    cout << "2)"<< n/4 << "\n";
    cout << "3)"<< n*10 << "\n";
    cout << "8.2" ;
    if ( (n & 1) ==1)
        cout << "numar impar" << "\n ";
    else
}
```

Show output from: Debug
The thread 'Win32 Thread' (0xe60) has exited with code -1073741510 (0xc000013a).
The program '[2780] Lab1.exe: Native' has exited with code -1073741510 (0xc000013a).

Identificare IDE online

```
...
3 Welcome to GDB Online.
4 GDB online is an online compiler and debugger tool for C, C++, Python, Java, PHP, Ruby, Perl,
5 C#, VB, Swift, Pascal, Fortran, Haskell, Objective-C, Assembly, HTML, CSS, JS, SQLite, Prolog.
6 Code, Compile, Run and Debug online from anywhere in world.
7 ...
8
9 n=int(input("Cate numere voi citi"))
10 lista=[]
11 for i in range(0,n):
12     lista.append(int(input("Introduceti un numar")))
13 print(min(lista))
14 print(max(lista))
15 |
```

Command line arguments:

Standard Input: Interactive Console Text

RESERVED

C++

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

int main()
{
    int n, k;
    cout << "dati numarul dorit n: ";
    cin >> n;
    cout << "dati 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 complementeaza 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)
```