

SECURE CODING LAB 11

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L23+I24

Lab experiment – Creating secure and safe executable

Download and install visual studio (recent edition)

Write a C++ code of your own to build an executable and run the same.

Download process explorer and verify the DEP & ASLR status

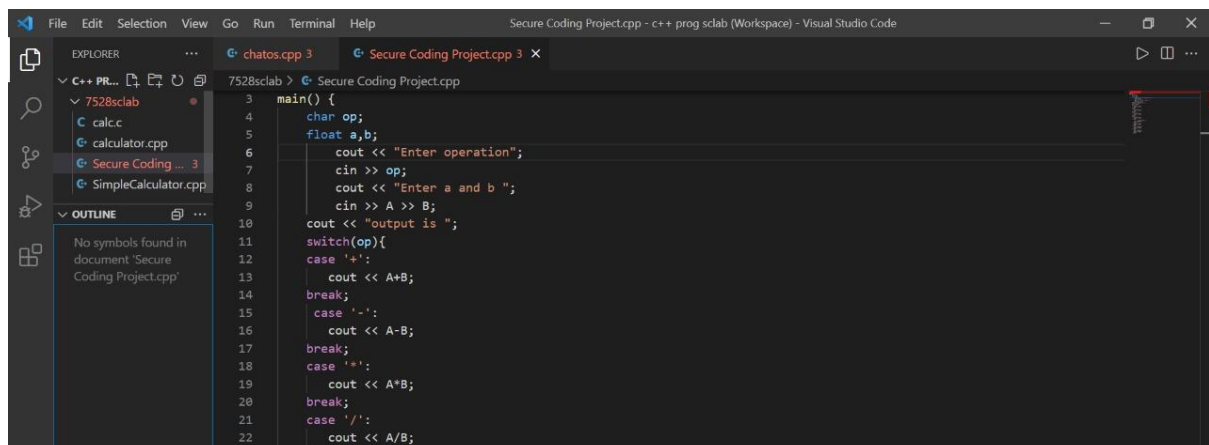
Enable software DEP, ASLR and SEH in the visual studio and rebuild the same executable

Again, verify the DEP & ASLR status in the process explorer

Report the same with separate screenshot - before and after enabling DEP & ASLR.

Happy Learning!!!

C ++ program:



```
File Edit Selection View Go Run Terminal Help Secure Coding Project.cpp - c++ prog sclab (Workspace) - Visual Studio Code
EXPLORER
  C++ PR...
  7528sclab
    calc.c
    calculator.cpp
    Secure Coding ... 3
    SimpleCalculator.cpp
  OUTLINE
    No symbols found in document 'Secure Coding Project.cpp'
7528sclab > Secure Coding Project.cpp
3  main() {
4      char op;
5      float a,b;
6      cout << "Enter operation";
7      cin >> op;
8      cout << "Enter a and b ";
9      cin >> A >> B;
10     cout << "output is ";
11     switch(op){
12     case '+':
13         cout << A+B;
14         break;
15     case '-':
16         cout << A-B;
17         break;
18     case '*':
19         cout << A*B;
20         break;
21     case '/':
22         cout << A/B;
```



The DEP and ASLR status in process explorer when the DEP and ASLR status has been disabled.

Secure Coding Project.exe	696 K	4,372 K	24280		Disabled (permane...
msysmon.exe	9,712 K	19,640 K	21592	Visual Studio 2019 Remote ...	Microsoft Corporation Enabled (permane... ASLR

The DEP and ASLR status in process explorer when the DEP and ASLR status has been enabled.

Secure Coding Project.exe	784 K	4,416 K	21480		Enabled (permane... ASLR
vcpgsrv.exe	< 0.01	43,108 K	16,588 K	21076 Microsoft (R) Visual C++ Pac...	Microsoft Corporation Enabled (permane...