

CSE 2010 || Secure Coding

Lab: 11

Name: M GOPI NANDAN REDDY RegNo: 19BCN7056

Download and install visual studio (recent edition)

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

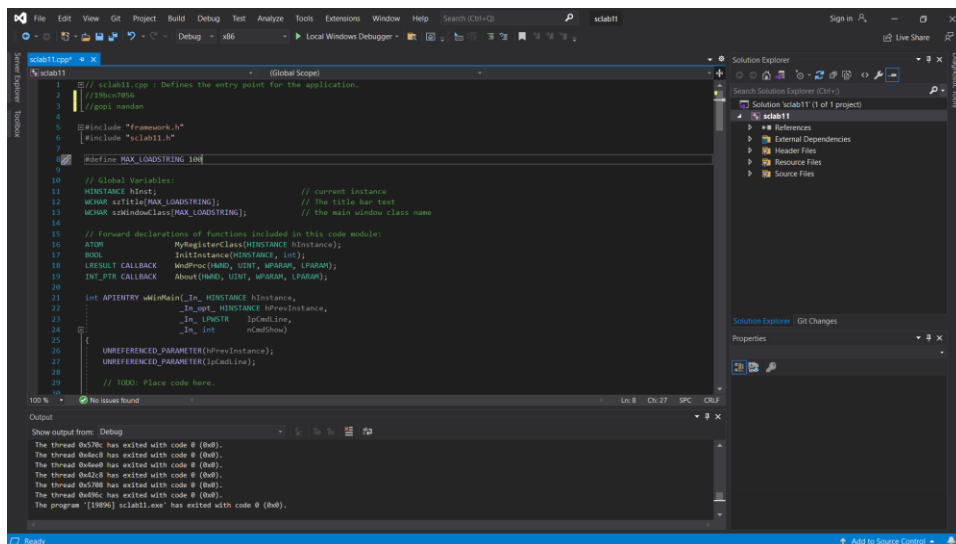
Download process explorer and verify the DEP & ASLR status

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



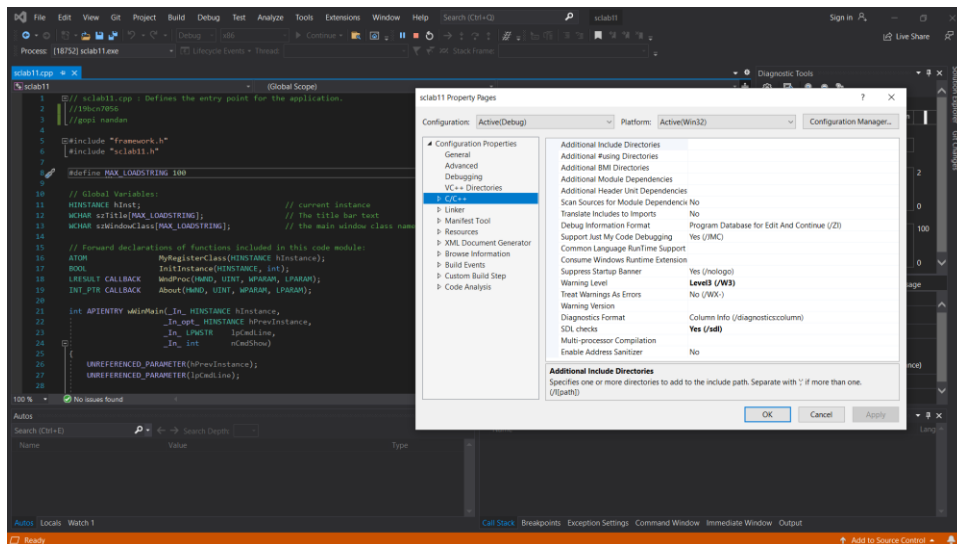
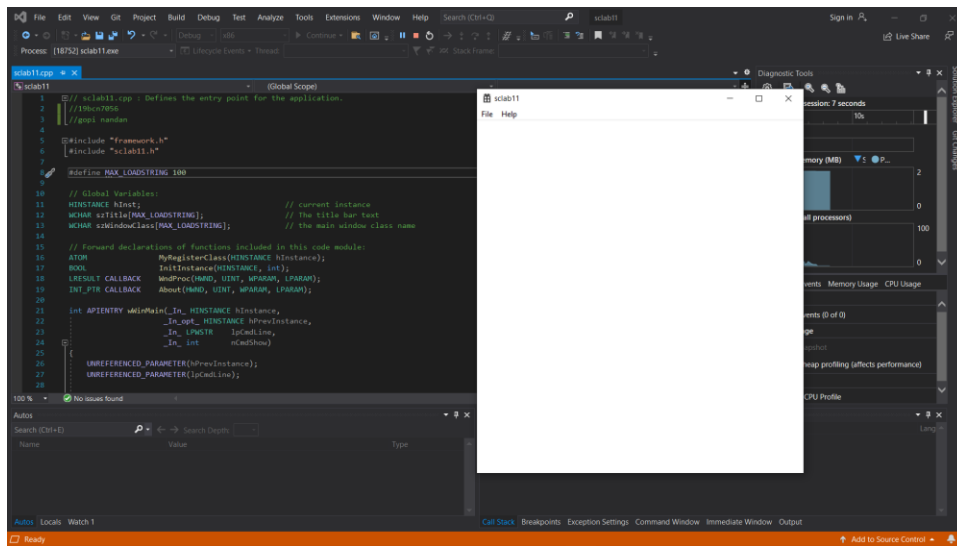
The screenshot displays the Visual Studio IDE interface. The main editor window shows the source code for 'scilab11.cpp'. The code includes standard Windows API headers, defines a window class 'MyWindow', and implements a 'wmain' function that registers the class and creates an instance. The program is compiled and executed, as shown in the 'Output' window at the bottom, which reports that the program '[11896] scilab11.exe' has exited with code 0 (0x0).

```
1 // scilab11.cpp : Defines the entry point for the application.
2 //
3 //
4 //
5 #include "framework.h"
6 #include "scilab11.h"
7
8 #define MAX_LOADSTRING 100
9
10 // Global Variables:
11 HINSTANCE hInst; // current instance
12 WCHAR szTitle[MAX_LOADSTRING]; // The title bar text
13 WCHAR szWindowClass[MAX_LOADSTRING]; // the main window class name
14
15 // Forward declarations of functions included in this code module:
16 ATOM MyRegisterClass(HINSTANCE hInstance);
17 BOOL InitInstance(HINSTANCE, int);
18 LRESULT CALLBACK WndProc(HWND, UINT, WPARAM, LPARAM);
19 INT_PTR CALLBACK About(HWND, UINT, WPARAM, LPARAM);
20
21 int APIENTRY wmain(_In_ HINSTANCE hInstance,
22                 _In_opt_ HINSTANCE hPrevInstance,
23                 _In_ LPWSTR lpCmdLine,
24                 _In_ int nCmdShow)
25 {
26     UNREFERENCED_PARAMETER(hPrevInstance);
27     UNREFERENCED_PARAMETER(lpCmdLine);
28
29     // TODO: Place code here.
30 }
```

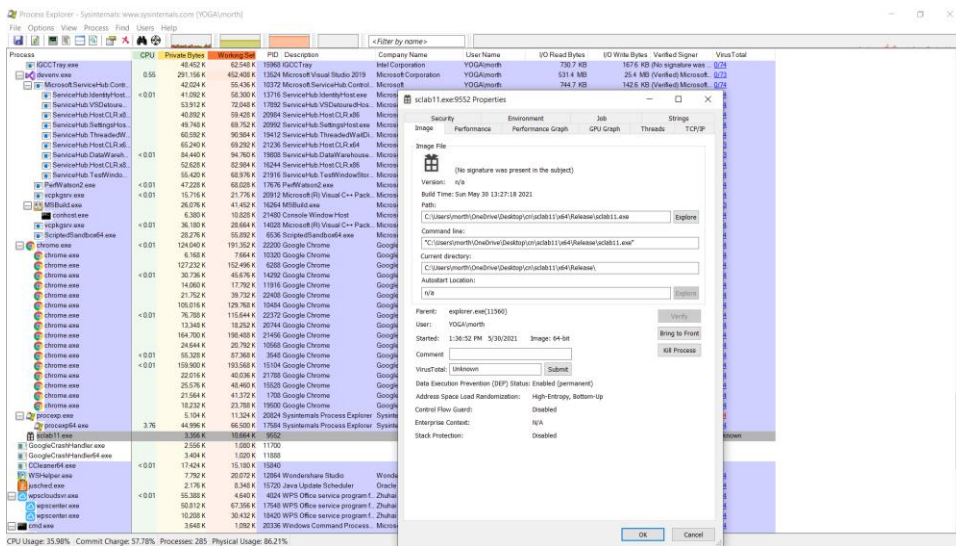
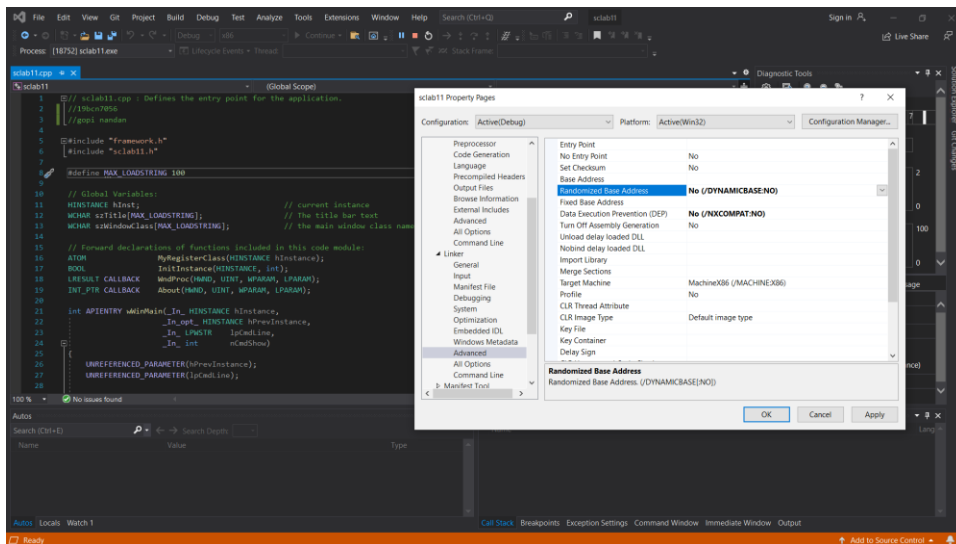
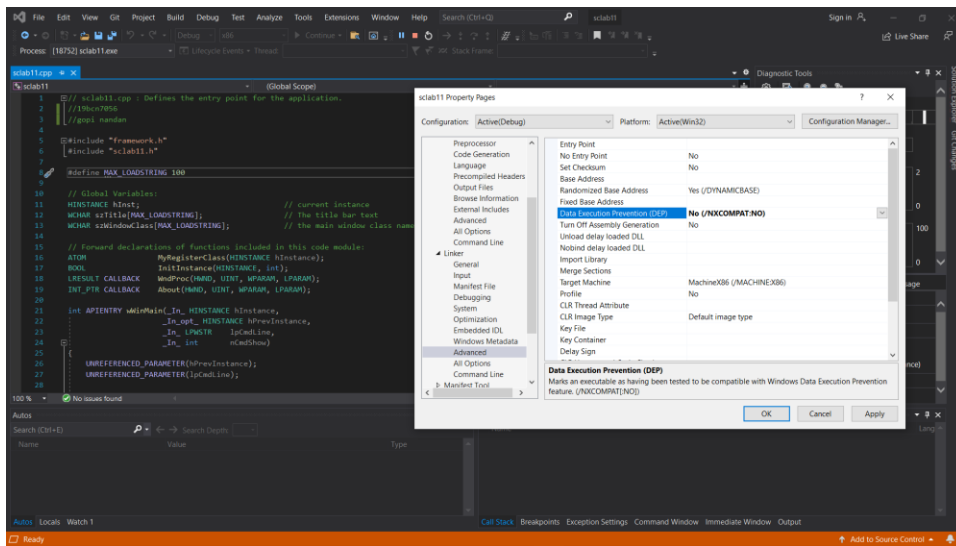
Output

Show output from: Debug

The thread 0x57b0 has exited with code 0 (0x0).
The thread 0x4c80 has exited with code 0 (0x0).
The thread 0x4d00 has exited with code 0 (0x0).
The thread 0x42c0 has exited with code 0 (0x0).
The thread 0x4190 has exited with code 0 (0x0).
The thread 0x4000 has exited with code 0 (0x0).
The program "[11896] scilab11.exe" has exited with code 0 (0x0).



Now disabling Visual Studio DEP & ASLR, as they are enabled by default.



As we have seen through the above pictures and we can say that its automatically enables on its own as in default even after force disabling it. From this we can say that Windows is programmed to enable the services by default.