SECURE CODING CSE-2010 LAB ASSIGNMENT -11

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L25+26

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.

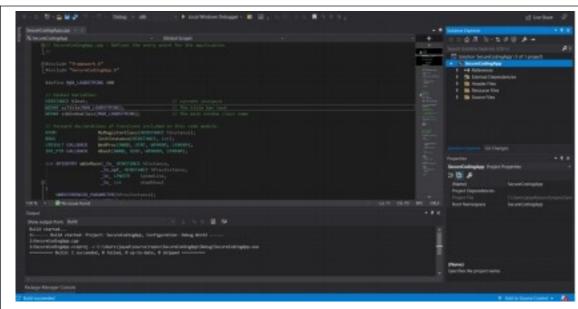
Download process explorer and verify the DEP & ASLR status

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

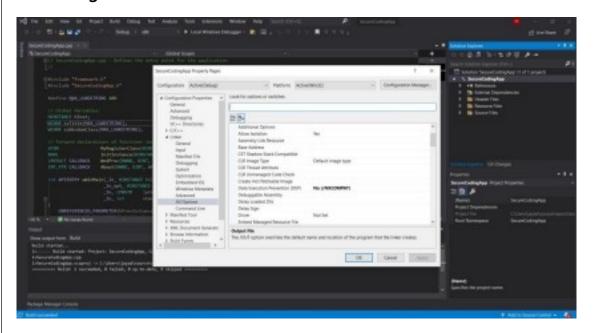
Again, verify the DEP & ASLR status in the process explorer

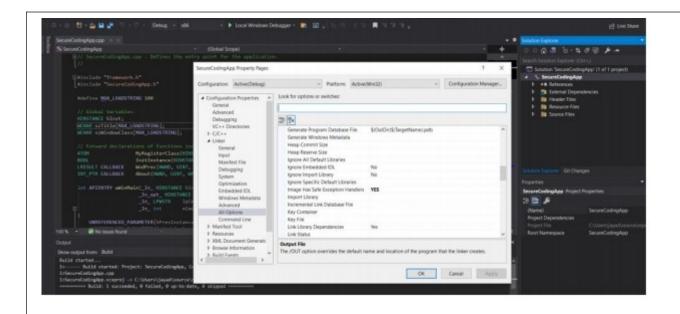
Report the same with separate screenshot - before and after enabling DEP & ASLR.

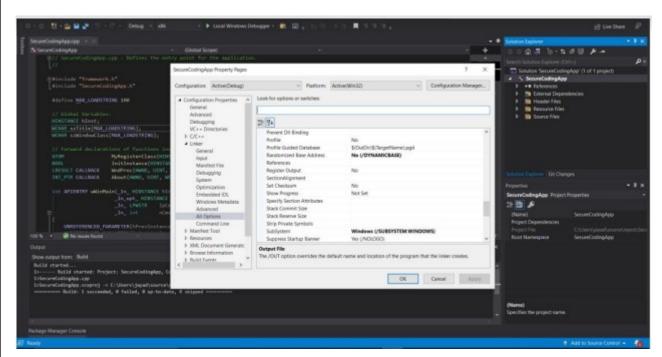
Generating .exe



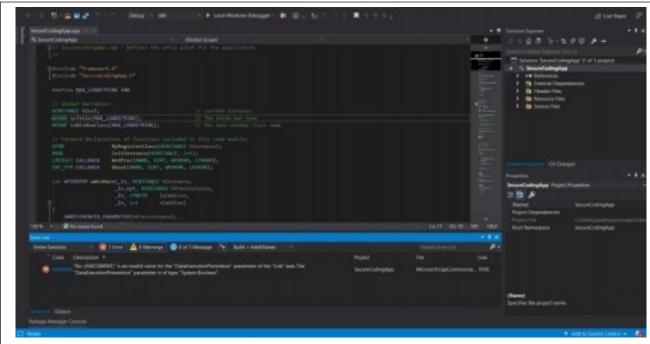
Disabling DER and ASLR



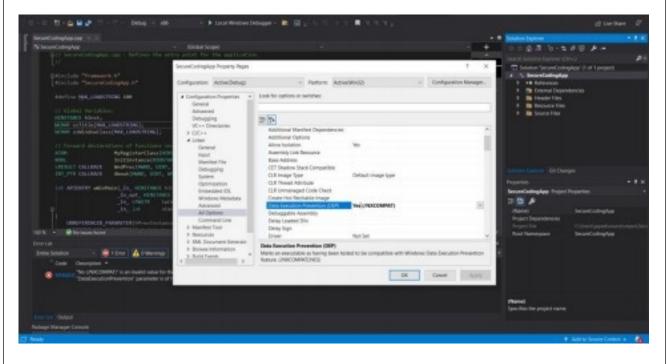


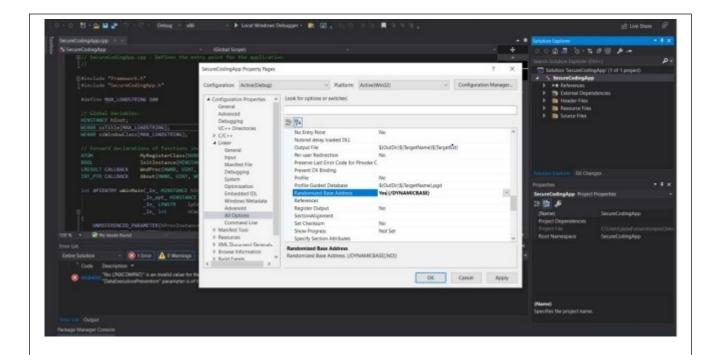


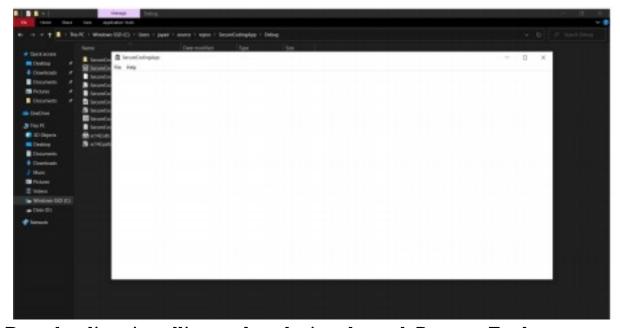
.exe file not created



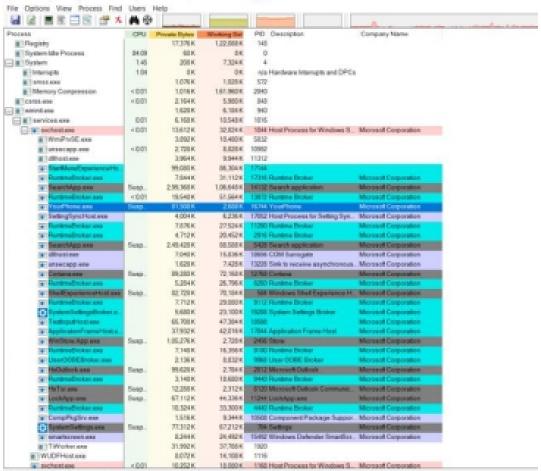
After enabling and running the app







Downloading, installing and analysing through Process Explorer



CPU Usage: 15.91% Commit Charge: 62.11% Processes: 241 Physical Usage: 72.04%

File Options View Process Find Users Help

Process	CPU	Private Bytes	Working Set	PID Description	Company Name
SearchProtocolHost exe		1,884 K	8,380 K	15976 Microsoft Windows Search Pr.	Microsoft Corporation
 svchostexe 		10,608 K	20,176 K	11992 Host Process for Windows S	Microsoft Corporation
SecurityHealthService.exe		3.872 K	13,648 K	9772 Windows Security Health Ser.	Microsoft Corporation
 svchostene 		2.456 K	10,872 K	11724 Host Process for Windows S	Microsoft Corporation
 svchostexe 		1,440 K	5,672 K	12016 Host Process for Windows S	Microsoft Corporation
w sychostexe		4,772 K	10,164 K	12088 Host Process for Windows S	Microsoft Corporation
 svchostene 	0.01	2.180 K	11.140 K	4908 Host Process for Windows S	Microsoft Corporation
 sychostese 		2.332 K	13,404 K	12404 Host Process for Windows S	Microsoft Corporation
 svchostexe 		6.864 K	20.236 K	13328 Host Process for Windows S	Microsoft Corporation
 svchostexe 		3.052 K	11,776 K	13648 Host Process for Windows S.	
w sychostexe		1.844 K	7,432 K	9172 Host Process for Windows S.	Microsoft Corporation
 svchostexe 		5.300 K	17.624 K	632 Host Process for Windows S.,	A STATE OF THE PARTY OF THE PAR
w sychostexe		6.036 K	22.632 K	13852 Host Process for Windows S	
 svchostese 		3.400 K	15.184 K	13884 Host Process for Windows S.	
- sychostese	<0.01	3,000 K	12:104 K	16352 Host Process for Windows S	Control of the Contro
SgrmBroker exe	-	6.372 K	8.332 K	14556 System Guard Runtime Monit.	
- sychostese		2.908 K	11,572 K	5340 Host Process for Windows S.,	
wchostess		5.088 K	22.012 K	13560 Host Process for Windows S	
w sychostese		3.366 K	11.348 K	2216 Host Process for Windows S	
- sychostese		4.328 K	15,316 K	12964 Host Process for Windows S.,	
wchostene		1.784 K	7.768 K	8804 Host Process for Windows S	
suchostese		3,500 K	11,672 K	22336 Host Process for Windows S.	CONTRACTOR CONTRACTOR
Tana exe		9.044 K	22.072 K	1016 Local Security Authority Proc.	
■ I fontdryhost exe		1,468 K	2.576 K	1036	microson corporator
winlogon.exe		2.688 K	11.656 K	1196	
■ I fontdryhost exe		4.224 K	7.076 K	1292	
II I dam exe	0.27	1,24,336 K	67,652 K	1360	
py explorer and	0.04	2.71.424 K	2.31.028 K	7856 Windows Explorer	Microsoft Corporation
(Security fealth Systray, exe	0.04	1,984 K	9,256 K	1596 Windows Security notification	
■ RBAudLService64 exe		2.348 K	10.144 K	2208 Realtek HD Audio Universal	
₹ vgtrav exe	< 0.01	1,340 K	6.492 K	4388 Vanguard tray notification.	Riet Games, Inc.
OneDrive one	0.01	41,268 K	50,800 K	12308 Microsoft One Drive	Microsoft Corporation
atility.exp		3.392 K	13.352 K	13056 This utility controls special ke.	
MNWORD EXE		1.32.916 K	1,30,800 K	2928 Microsoft Word	Microsoft Corporation
WINWORDEXE	0.01	1.26.296 K	1.12.372 K	2724 Microsoft Word	Microsoft Corporation
De Seveny exe	0.51	3.15.116 K		18045 Microsoft Visual Stadio 2019	Microsoft Corporation
Tai: PerfWatson2 exe	0.02	48.936 K	69.794 K	11292 PerfWatson2 erre	Microsoft Corporation
Microsoft ServiceHub Contr.	0.02	42.568 K	57.976 K	2624 Microsoft ServiceHub Control	
ServiceHub IdentityHost	< 0.01	75,132 K	83,920 K	13432 ServiceHub.IdentityHost.exe	Microsoft
ServiceHub.VSDetoure	- wat	1.43.924 K	78.512 K	13744 ServiceHub VSDetouredHos.	
ServiceHub SettingsHos		1,51,612 K	1,05,912 K	17728 ServiceHub SettingsHost exe	
ServiceHub Host CLR x8.	< 0.01	78.456 K	65.744 K		Microsoft
ServiceHub ThreadedW		95.324 K	91,528 K	6732 ServiceHub ThreadedWaitDi.	
ServiceHub Host CLR x8.		1.85.880 K	91,520 K	6056 ServiceHub Host CLR x86	Microsoft
ServiceHub TestWindo	< 0.01	62,640 K	73.420 K	864 SeniceHub TestWindowStor	

