Secure Coding Lab-11

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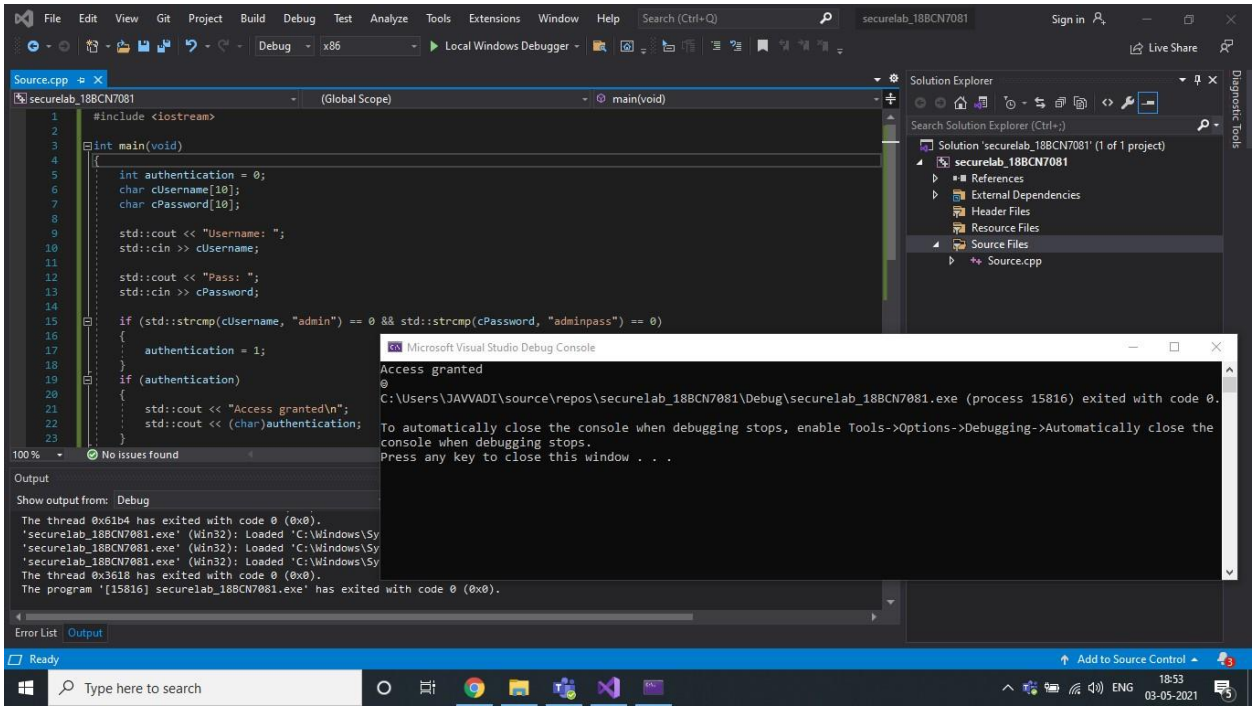
L39+L40

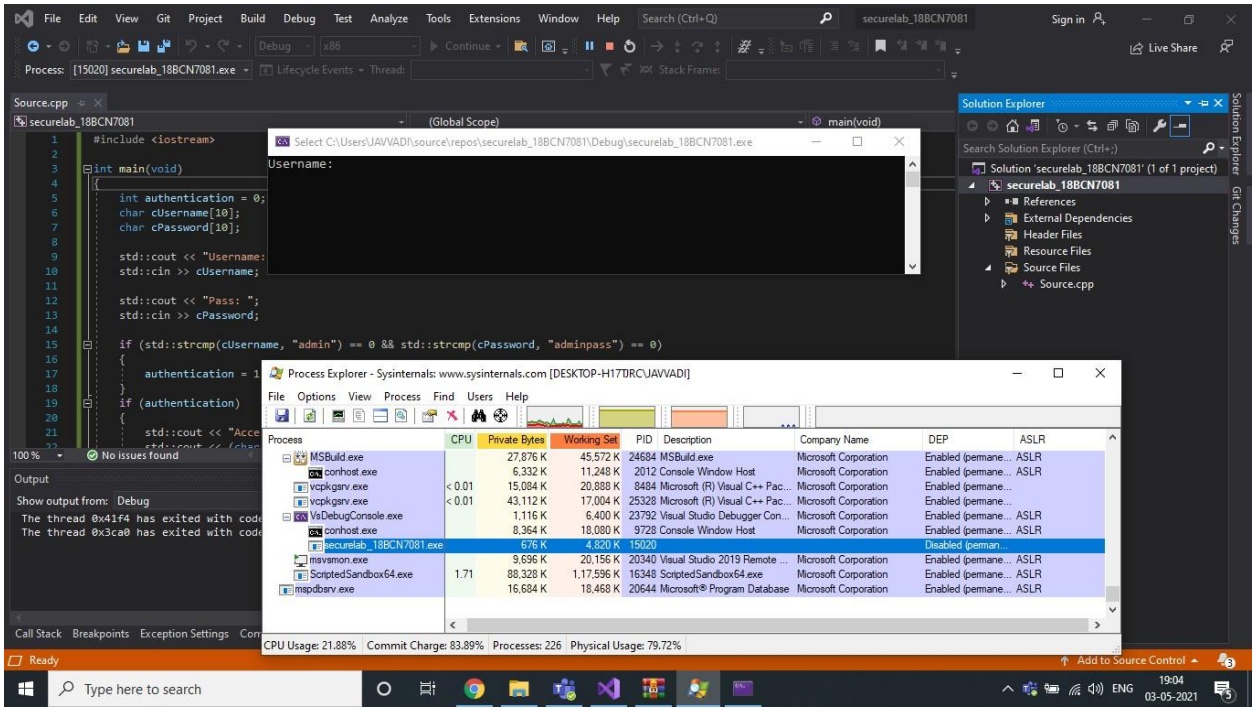
Lab experiment – Creating secure and safe executable

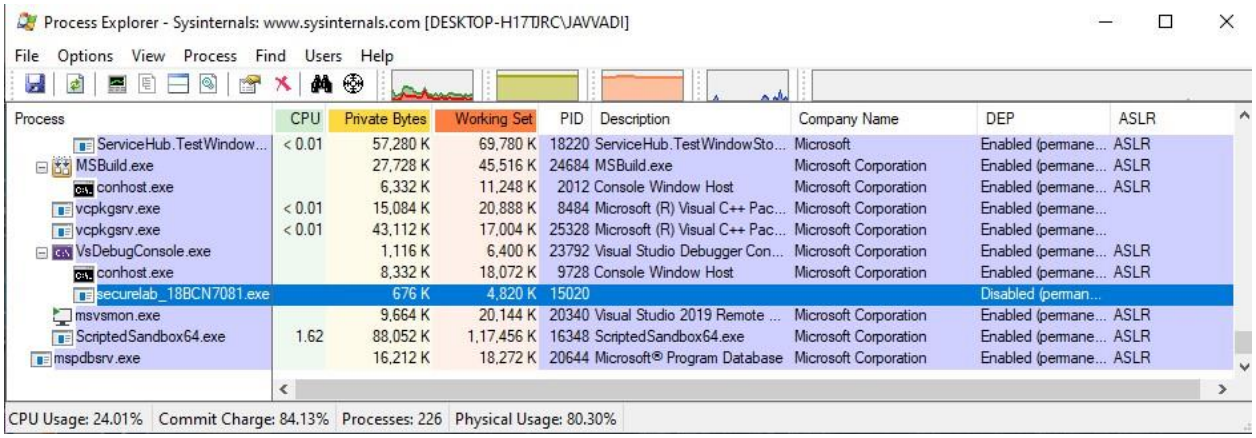
1) C++ Code & building the Executable

```
#include <iostream>

int main(void) { int
authentication = 0; char
cUsername[10]; char
cPassword[10];

     std::cout << "Username: ";
     std::cin >> cUsername;

     std::cout << "Pass: ";
     std::cin >> cPassword;

     if (std::strcmp(cUsername, "admin") == 0 &&
std::strcmp(cPassword, "adminpass") == 0)
     { authentication = 1;
     } if (authentication) { std::cout <<
     "Access granted\n"; std::cout <<
     (char)authentication;
     } else { std::cout << "Wrong username and
     password\n";
     } return

     (0); }
```



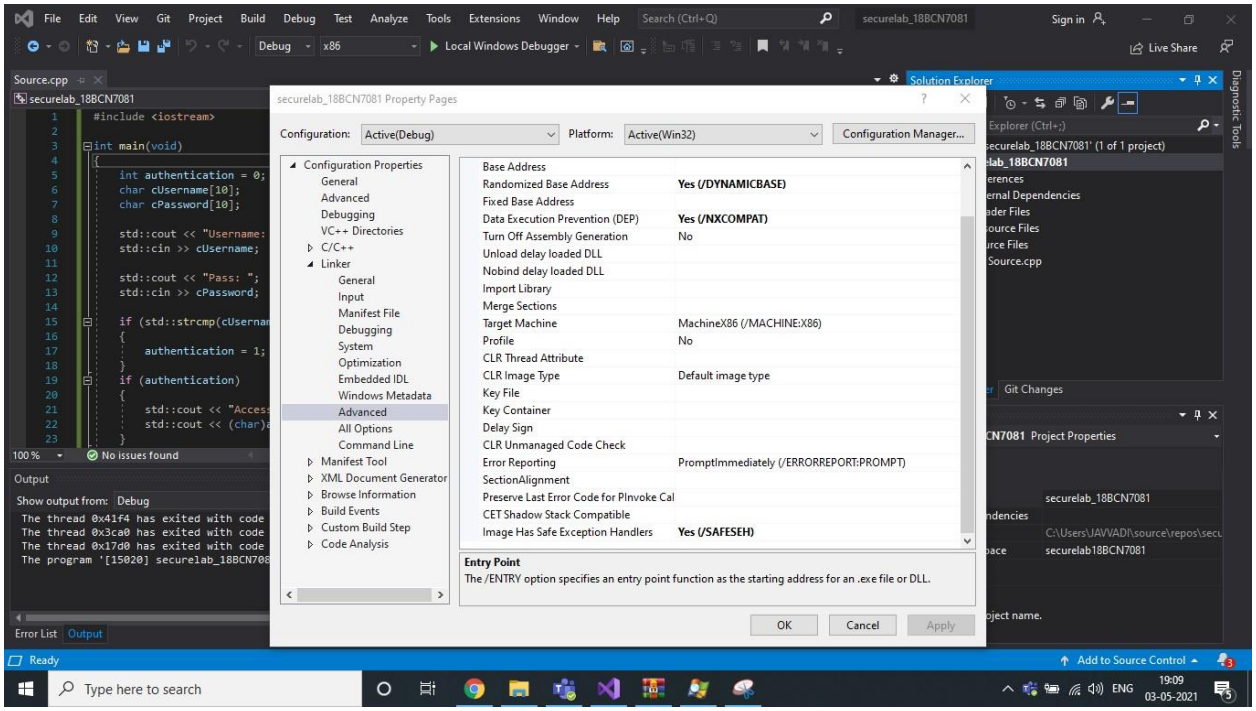
2) Verifying the DEP & ASLR status in Process Explorer

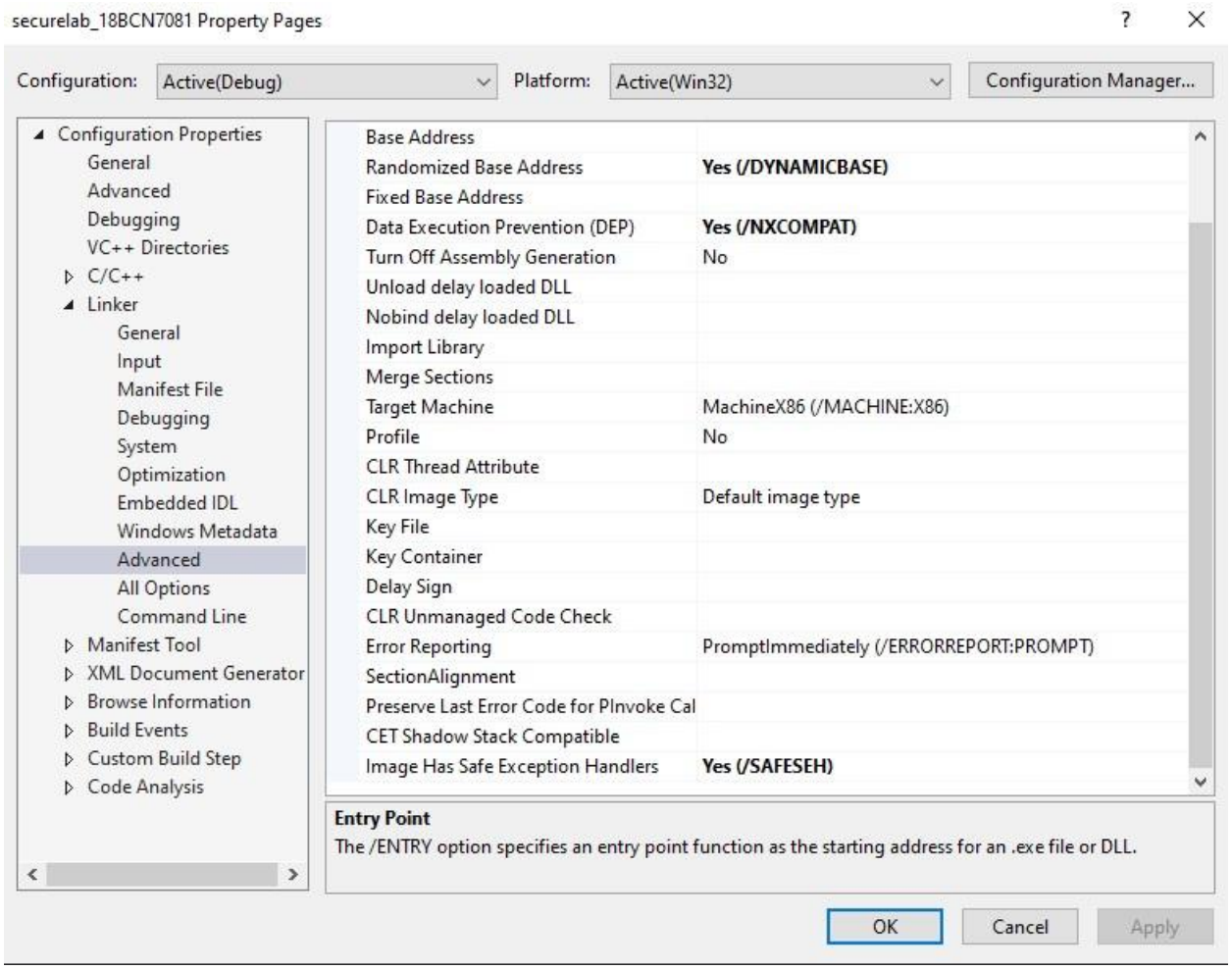




You can see DEP disabled & No ASLR.

3) Rebuilding the same executable After enabling DEP & ASLR





As you can see, I have enabled DEP, ASLR, SEH above.

I have Rebuilded my project and run the same and we can verify the status of DEP, ASLR, SEH.

4) Verifying the DEP & ASLR status in Process Explorer after enabling