

# Offensive C#

## Introduction

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## C# Basics

- Environment Setup and Hello World
- Variables and Operators
- Reading User Input
- Loops
- Arrays
- Functions

## Python C2 Server

- Sockets and Multithreading
- Flask basics
- Linking Sockets and web interface
- Bidirectional File Transfer
- Multithreaded keylogger

## C # Reverse Shell

- Coding a reverse shell in C#

## LDAP Enumeration with Idapsearch

- Privilege Escalation
- Finding Unquoted Service paths
- Finding Writable Files

## Automating Active Directory Enumeration

- Finding ASREP Roastable users
- Finding Nested groups
- Finding DCSync capable users
- Finding Unconstrained Delegation users
- Kerberos Constrained Delegation Attack
- Resource based Constrained Delegation

## .Net Loader

- Simple .NET Loader

## Persistence

- AdminSDHolder Persistence via C#

### **WinAPI with C#**

- MessageBoxW and GetUserNameW
- Structures and Unions
- NetShareEnumW - Enumerating network shares
- GetTokenInformation - Checking our elevation privilege
- Listing All token privileges
- Enabling all assigned token privileges – AdjustTokenPrivilege
- Simple Shellcode runner
- Shellcode Injection in remote process
- Storing shellcode in .rsrc resources section
- DLL Injection
- Finding DLLs and their Base addresses in a process
- Checking if Process is attached to debugger or not
- Detaching the debugger from process using NtRemoveProcessDebug
- Backdooring PE Files
- Getting Screenshots
- Obfuscating Function names using Delegates

### **LSA API**

- Enumerating Logon Sessions
- PE file format
- DOS Header, DOS Stub, Signature, File Header
- Optional Header
- Section Headers
- Import Name Table and Import Address Table
- Parsing Exports in a DLL

### **Reflective PE64 Injection**

- Parsing Headers
- Mapping sections into memory
- Fixing Import Address Table
- Fixing Base Relocations
- Testing Metasploit payloads
- Adding a New Section via C#

### **Process Hollowing**

- Process Hollowing

### **DLL Injection via SetWindowsHookExA**

- SetWindowsHookExA DLL Injection

### **Shellcode Injection via Mapping Sections**

- Shellcode Injection via NtMapViewofSection
- DLL Hollowing
- Thread QueueAPC Code Injection

### **Evasion Techniques**

- Obfuscating Imports

### **AMSI Bypassing techniques**

- Patching AmsiScanBuffer in memory

### **API Hooking**

- Simple Function Hooking
- Local Function Hooking with EasyHook

### **API Hashing**

- Hashing the function names to avoid static analysis
- Walkthrough
- Hackthebox - SAUNA