Your New 5 Year Plan-NG!

Well.. This is lazy, it is pretty much the same webcast as last time. But, here is the deal. I was half-dead last time. Some kind of 28 Days-like plague that took out half our intern pool. Thats OK… They were weak. No, that sounds awful. The interns were (mostly) fine. I just don't remember much of it. This is my attempt to do "better."

But seriously, if you were at the last one and you expect me to do better than when I was on 1 gallon of Nyquil.. Boy, are you about to be disappointed. People love me when I am high on cold medication. Which just further confirms that people, as a whole, generally make poor life decisions. Sometimes, they come up to me and I can tell if they are sniffing for Jagermeister-like desperation on my breath. Seriously, Jagermeister is almost exactly like Nyquil. Awful. Who thought that was a good idea? Really? Then they mixed it with Redbull and Vodka. So many bad ideas rolled into one.

Nothing like this webcast. No sir! This is nothing but a good idea that will never get off track.

Ever.

Did I mention we are going to do audience participation this time?

Nope, nothing will get us off track.

My Background

- College
- Accenture
- Northrup Grumman
- SANS
- BHIS

accenture

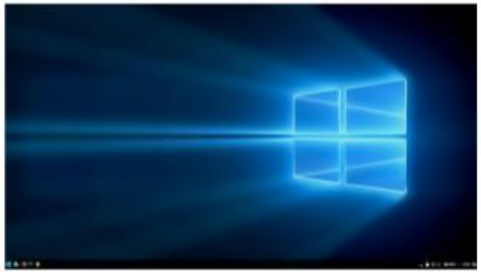
NORTHROP GRUMMAN

SANS

SANS SECURITY SEC408 (v2011)

What Kickstarted It All?

Year One



- Focus on core concepts
  - Windows
  - Linux
  - Networking
  - Python
- Also start looking at security standards
  - CIS
  - NIST 800 documents
  - Most of this is worthless
  - But, people will ask questions

python

CIS Benchmarks Examples:

ubuntu Windows iOS

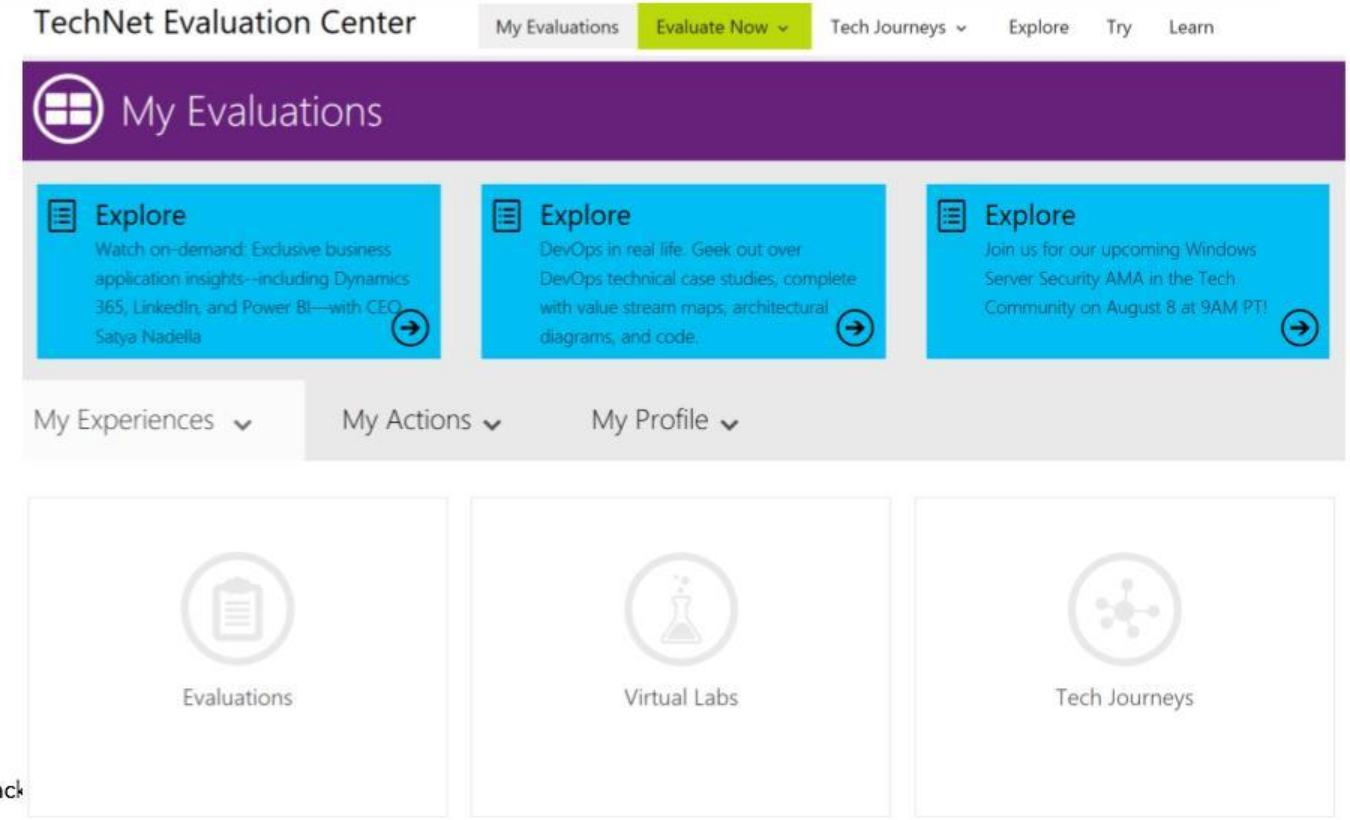
Download Free CIS Benchmark PDFs:

Select Platform ▼ Download

Linux

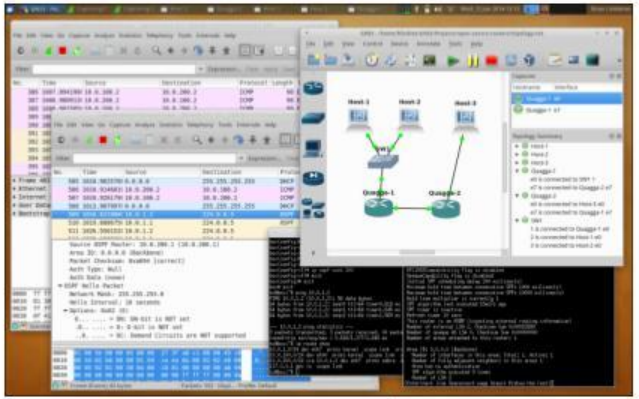
CISCO

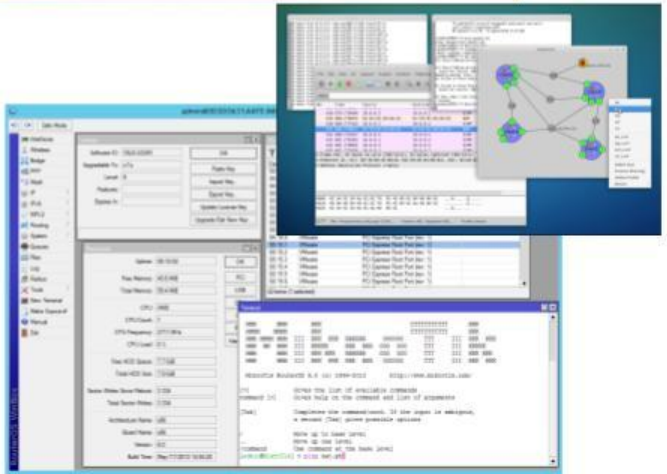
Windows TechNet Evaluation



Networking

- First, get your stuff at home to work
- Know what it is doing
- Next, get some simulators
  - http://www.brianlinkletter.com/open-source-network-simulators/
- Finally, get some gear
  - Old Cisco on ebay
  - MikroTik is cheap and very powerful
  - Full crazy router for ~ $60





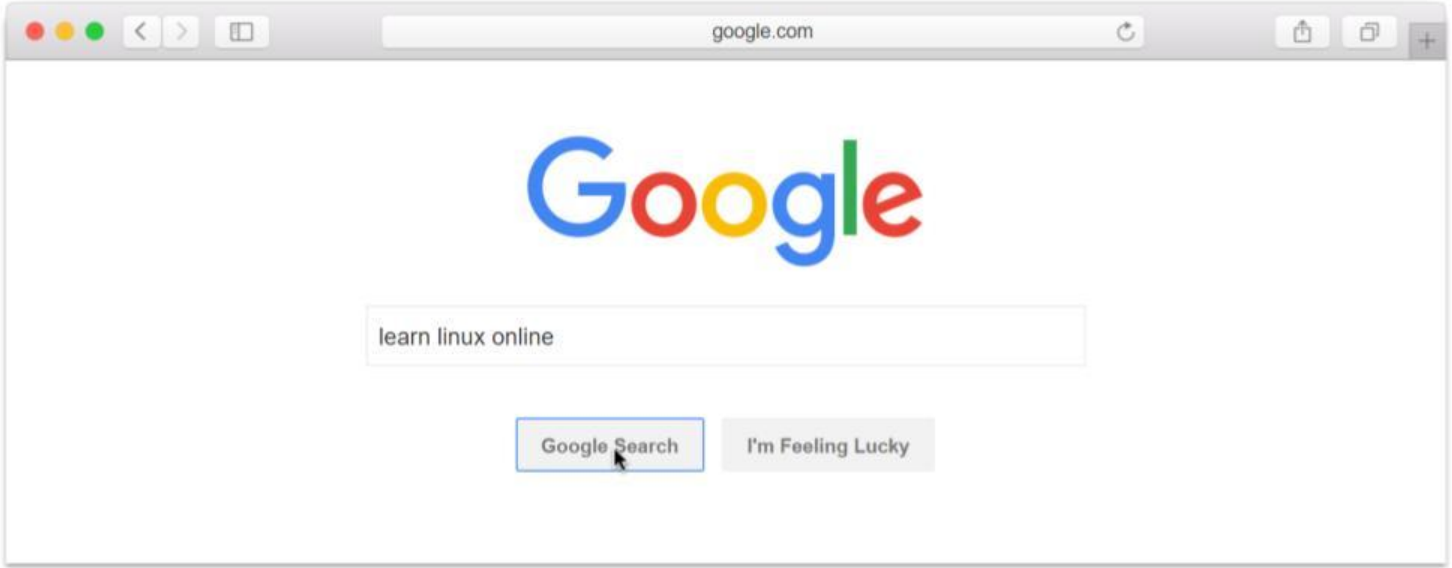
Linux – Install Everything... From Scratch

Step 1
Visit google.com

Step 2
Type your question.

Step 3
Click the button.

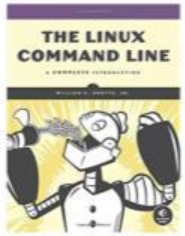
That's it!



The above is an illustration for educational purposes.

Let's Be A bit More Specific...

- Learn bash scripting
- There are other shells
- Bash is the only one that matters
- Anyone who tells you otherwise is not someone you want to hang with in parties
- They are also not your friend

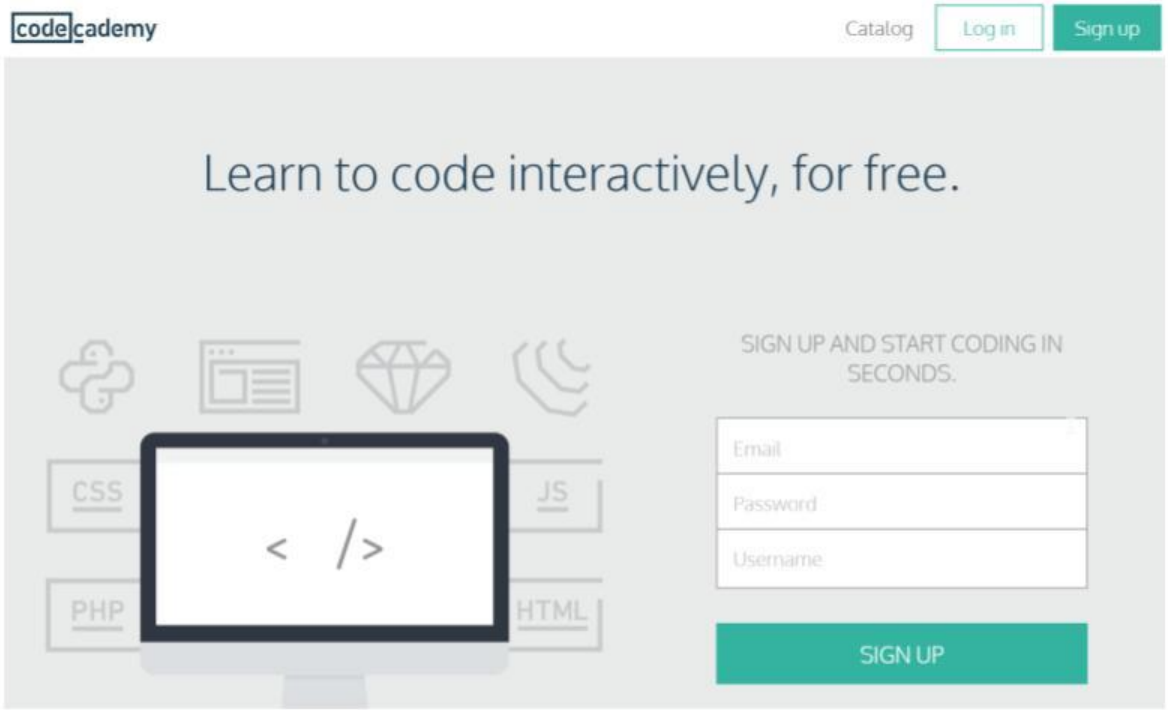


The Linux Command Line: A Complete Introduction Jan 11, 2012
by William E. Shotts Jr.
Paperback
$29.43 ~~$39.95~~ prime
Usually ships in 1 to 3 weeks
More Buying Choices
$18.79 (39 used & new offers)
Kindle Edition
$30.99
307
Trade in yours for an Amazon Gift Card up to $10.72

Linux Command Line and Shell Scripting Bible Jan 6, 2015
by Richard Blum and Christine Bresnahan
Kindle Edition
$26.29
66
Paperback
$11.07 to rent prime
$27.67 to buy prime
More Buying Choices
$20.91 (62 used & new offers)

Shell Programming and Bash Scripting: Ultimate Beginners Guide Book Nov 10, 2016
by Robert Collins
Kindle Edition
$0.00 kindleunlimited
Read this and over 1 million books with Kindle Unlimited.
$2.99 to buy
3
Paperback
$12.33 prime
Get it by Thursday, Aug 10
More Buying Choices

Learn Python Online



Year One.... NG

- 20 Critical Controls..

This stuff will make you an Infosec Trex.. Just like me.

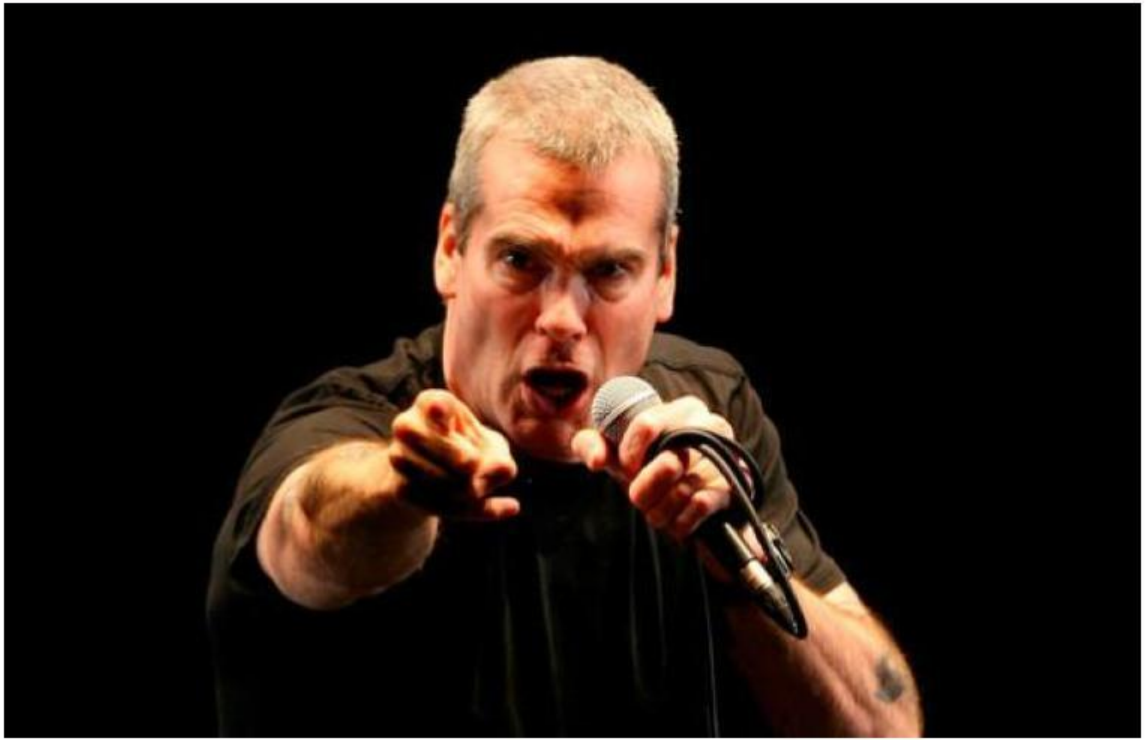
Year Two

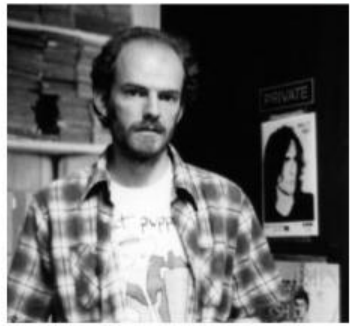
- Time to start projects
- It is possible you started some already
- That is fine
- You should also start the following:
  - Start a security group
    - At work
    - At school
  - Start learning PowerShell
    - This is going to take a while
- Keep up on security news

GitHub

Microsoft PowerShell

And... Henry Rollins...





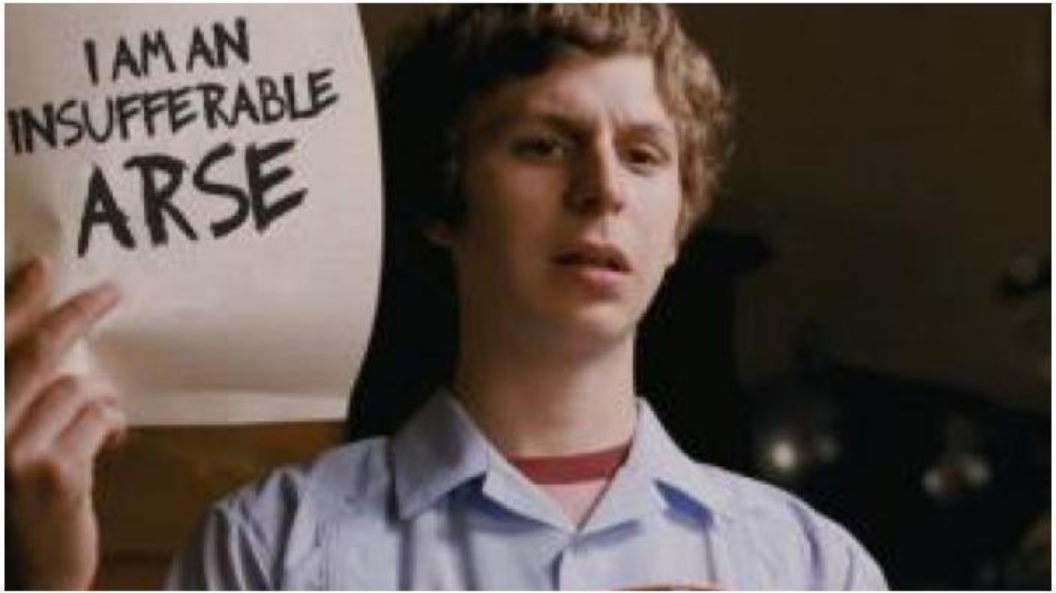
Year Two.. NG

This guy sucks at parenting!

“At least I don't let my kids watch American Idol”

That's better...

I am an arse...



"So, like, I don't have a TV and it frees me from the shackles of a consumerist capitalist society."

But....

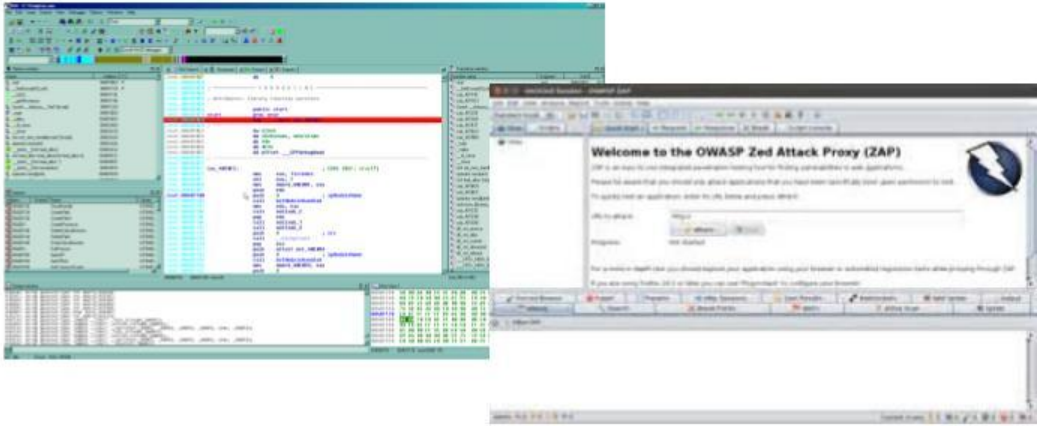
Holy Crap!! Dragons you guys!!

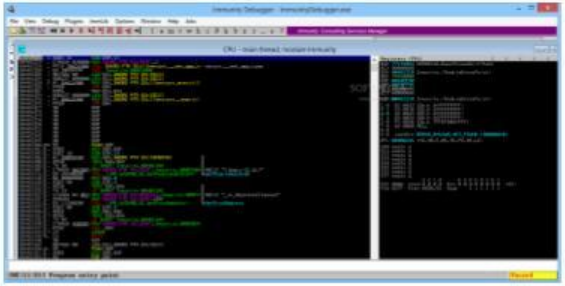
Year Three

- The year of web apps
- Start with PHP and ASP.NET
  - Don't get distracted with other crap just yet
- Feel free to branch out to networked iOS and Android Apps
- But develop something
- Learn to code badly
  - Trust me.. You will suck.

Year Four

- Time to start hacking stuff
- Learn IDA and Immunity Debugger
- Pick a protocol
- Understand that protocol
- Hit online challenges
- I know you would have played with Metasploit the whole time…
- ZAP from OWASP





DEBUGGER

Y4-NG Learn all of this...

Windows ATT&CK for Enterprise Matrix

Initial Access	Execution	Persistence	Privilege Escalation	Defense Evasion	Credential Access	Discovery	Lateral Movement	Collection	Exfiltration	Command and Control
Drive-by Compromise	CMSTP	Accessibility Features	Access Token Manipulation	Access Token Manipulation	Account Manipulation	Account Discovery	Application Deployment Software	Audio Capture	Automated Exfiltration	Commonly Used Port
Exploit Public-Facing Application	Command-Line Interface	AppCert DLLs	Accessibility Features	BITS Jobs	Brute Force	Application Window Discovery	Distributed Component Object Model	Automated Collection	Data Compressed	Communication Through Removable Media
Hardware Additions	Control Panel Items	AppInit DLLs	AppCert DLLs	Binary Padding	Credential Dumping	Browser Bookmark Discovery	Exploitation of Remote Services	Clipboard Data	Data Encrypted	Connection Proxy
Replication Through Removable Media	Dynamic Data Exchange	Application Shimming	AppInit DLLs	Bypass User Account Control	Credentials in Files	File and Directory Discovery	Logon Scripts	Data Staged	Data Transfer Size Limits	Custom Command and Control Protocol
Spearphishing Attachment	Execution through API	Authentication Package	Application Shimming	CMSTP	Credentials in Registry	Network Service Scanning	Pass the Hash	Data from Information Repositories	Exfiltration Over Alternative Protocol	Custom Cryptographic Protocol
Spearphishing Link	Execution through Module Load	BITS Jobs	Bypass User Account Control	Code Signing	Exploitation for Credential Access	Network Share Discovery	Pass the Ticket	Data from Local System	Exfiltration Over Command and Control Channel	Data Encoding
Spearphishing via Service	Exploitation for Client Execution	Bootkit	DLL Search Order Hijacking	Component Firmware	Forced Authentication	Password Policy Discovery	Remote Desktop Protocol	Data from Network Shared Drive	Exfiltration Over Other Network Medium	Data Obfuscation
Supply Chain Compromise	Graphical User Interface	Browser Extensions	Exploitation for Privilege Escalation	Component Object Model Hijacking	Hooking	Peripheral Device Discovery	Remote File Copy	Data from Removable Media	Exfiltration Over Physical Medium	Domain Fronting
Trusted Relationship	InstallUtil	Change Default File Association	Extra Window Memory Injection	Control Panel Items	Input Capture	Permission Groups Discovery	Remote Services	Email Collection	Scheduled Transfer	Fallback Channels
Valid Accounts	LSASS Driver	Component Firmware	File System Permissions Weakness	DCShadow	Kerberoasting	Process Discovery	Replication Through Removable Media	Input Capture		Multi-Stage Channels
	Mshta	Component Object Model Hijacking	Hooking	DLL Search Order Hijacking	LLMNR/NBT-NS Poisoning	Query Registry	Shared Webroot	Man in the Browser		Multi-hop Proxy
	PowerShell	Create Account	Image File Execution Options Injection	DLL Side-Loading	Network Sniffing	Remote System Discovery	Taint Shared Content	Screen Capture		Multiband Communication
	Regsvcs/Regasm	DLL Search Order Hijacking	New Service	Deobfuscate/Decode Files or Information	Password Filter DLL	Security Software Discovery	Third-party Software	Video Capture		Multilayer Encryption
	Regsvr32	External Remote Services	Path Interception	Disabling Security Tools	Private Keys	System Information Discovery	Windows Admin Shares			Remote Access Tools
	Rundll32	File System Permissions Weakness	Port Monitors	Exploitation for Defense Evasion	Two-Factor Authentication Interception	System Network Configuration Discovery	Windows Remote Management			Remote File Copy
	Scheduled Task	Hidden Files and Directories	Process Injection	Extra Window Memory Injection		System Network Connections Discovery				Standard Application Layer Protocol

SANS Ultimate Pentest Poster

- https://www.sans.org/security-resources/posters/pen-testing

Year Five... Present.

In Closing

- Feel free to do the following….
  - Indulge in distractions
  - Stick to my plan
  - Ignore my plan
  - Develop your own plan
  - Get good at just one thing
  - Get a degree
  - Don’t get a degree
  - Get certifications
  - Don’t get certified

- Do not do the following….
  - Sink into video games
  - Waste your time figuring out the cube
  - Binge watch shows on Netflix
  - Use Bing for anything
  - Just barely learn Metasploit to impress women/men
  - Spend more time on the hacker “look” than learning
  - Get angry
  - Blame others