



Hey Hackermans!

Here is where you'll learn how to become a



yourself!!



What are we learning today?

While this is a beginner introduction to cybersec... we want to first inspire you by what you can do in the field of cybersecurity

| | |
|-------------------------------------|--|
| Industry Roles | What can you do as a cybersec engineer? |
| Certifications and Resources | How you can learn/practice cybersecurity? (Certs, books, websites) |
| Web Vulnerabilities | OWASP Top 10 with examples |
| Hands-on Demo! | Exploit a command injection vulnerability (and win a \$20 gift card 🎁) |



How do you make money though?

01

SOC Analyst

Detect attacks even before they happen...

02

Bug Bounty

Rewarding public to find bugs for you??

03

Penetration Tester

Break through defenses before the hackers do

04

Malware Analyst

Analyzing and reversing malware samples

05

Forensics

Recovery and investigation!

Which one's your favorite?





01

SOC
Analyst





"an ounce of
prevention is
worth a pound of
cure"

- Benjamin Franklin





SOC Analyst



Identify attack vectors

Potential places an attack can happen in your software?



Response & Resolution

Oh! you found something sus... time to fix it :)



Monitoring infrastructure

Anomalies/suspicious activity over the network



SOC Analyst - Skills

SIEM

- Security Information and Event Monitoring Systems
 - Splunk
 - IBM QRadar
 - ArcSight

Network Security

- Firewalls
- Monitoring traffic

Threat Hunting

- Vulnerability assessments
- Penetration testing



02

Bug Bounty



Bug Bounties

- Get PAID to discover and report security vulnerabilities
- Payment can range anywhere from \$0 to thousands
- Some platforms:

hackerone





U.S. Dept Of Defense



Vulnerability Disclosure Program

Access policy page for scope

No bounty reward

● Response efficiency: 100%

[See details](#)



Yahoo!



Updated

Bug Bounty Program

Triaged by HackerOne, Retesting,
Bounty splitting

Other 58 Domain 6

Source co... 3 Android... 1 +1

🏆 Gold Standard

\$100 - \$15k

● Response efficiency: 95%

[See details](#)



AT&T



Bug Bounty Program

Triaged by HackerOne

Other 1

\$50 - \$2k

● Response efficiency: 97%

[See details](#)



Adobe



Bug Bounty Program

Triaged by HackerOne

Domain 85 Executable 32

Android... 6 Other 4 +2

See policy page for bounty

● Response efficiency: 100%

[See details](#)



MTN Group



Vulnerability Disclosure Program

Domain 293

No bounty reward

● Response efficiency: 61%

[See details](#)



IBM



Vulnerability Disclosure Program

Triaged by HackerOne

Other 3

No bounty reward

● Response efficiency: 98%

[See details](#)



Sony



Vulnerability Disclosure Program

Triaged by HackerOne

Other 1

No bounty reward

● Response efficiency: 97%

[See details](#)



Ford



Vulnerability Disclosure Program

Triaged by HackerOne

iOS: App St... 12 Android: PL... 11

Domain 5 Hardware/IoT 1

No bounty reward

● Response efficiency: 99%

[See details](#)



Uber



Bug Bounty Program

Triaged by HackerOne, Retesting,
Bounty splitting

Other 1

\$250 - \$15k

● Response efficiency: 99%

[See details](#)



Shopify



Bug Bounty Program

Retesting

Domain 12

Other 5

\$500 - \$200k

● Response efficiency: 96%

[See details](#)



IRL Examples!

Reddit Reflected XSS

132 #1051373 XSS Reflected on reddit.com via url path

Share: [f](#) [t](#) [in](#) [y](#) [...](#)

TIMELINE



criptex submitted a report to **Reddit**.
Hi I found a XSS-R

Dec 5th (2 years ago)

To reproduce the issue please click the poc link and then press the "verify email" button

PoC:

[https://www.reddit.com/verification/asd',%20alert\(document.location\),%20%27](https://www.reddit.com/verification/asd',%20alert(document.location),%20%27)

Impact

With the help of XSS an attacker can steal your cookies, in many cases steal sessions, download malware onto your system and send a custom request. Users can be socially engineered by the attacker by redirecting them from the real website to a fake one and there are many more attack scenarios that an expert attacker can perform with XSS.
It is also possible to inject html thus modifying the original page

1 attachment:

F1105408: PoC-Reddit.png



criptex posted a comment.

please copy the poc link and paste it into your browser, for some reason it doesn't work from the hackerone links

Dec 5th (2 years ago)



gunther_reddit **Reddit staff** updated the severity to High.

Dec 7th (2 years ago)



gunther_reddit **Reddit staff** changed the status to **Triaged**.

Dec 7th (2 years ago)

Checked this out, looks like a new experiment for email verification and we forgot to sanitize the token string before generating the interstitial page (as this only pops when you click the "Verify Email" button. Working with devs to add in validations/sanitization. There are two other "hidden" request parameters that get included in the renderer as well, so going to take care of those too.



criptex posted a comment.

Hi @gunther_reddit I re-analyzed the Issue and saw that it has been resolved, now I can't inject the xss.

Dec 8th (2 years ago)

kind regards

>>

Reported December 5, 2020 4:47pm -0500

criptex

Participants



State ● Resolved (1)

Reported to **Reddit** **Managed**

Disclosed September 27, 2022 12:04pm -0400

Severity ■ High (7 - 8.9)

Weakness Cross-site Scripting (XSS) - Reflected

Bounty \$5,000

Time spent None

CVE ID None

Account de... None

Snapshot IDOR

124

#1819832

Delete anyone's content spotlight remotely.

Share:



TIMELINE



prickn9 submitted a report to Snapchat.

Jan 1st (2 months ago)

Hello Snapchat,
Snapchat has viral video feature called spotlight which alone was the biggest trend and increase snapchat users and profit in millions. I found a way to delete anyone's spotlight remotely.

Please see the below poc:-

1. First go to <https://my.snapchat.com/myposts> and log in there.
2. You will see your posts .
3. Now turn burp suite and intercept. 4. Select any of your posts and click delete option.
4. Now capture the delete request. In delete request there is parameter of id

```
{
  "operationName": "DeleteStorySnaps",
  "variables": {
    "ids": [
      "██████████"
    ],
    "storyType": "SPOTLIGHT_STORY",
    "query": "mutation DeleteStorySnaps($ids: [String!]!, $storyType: StoryType!) {\n  deleteStorySnaps(ids: $ids, storyType: $storyType)\n}\n}"
  }
}
```

6. You just have to change this id parameter. You can easily get the id parameter. Now forward the request after replacing id with someone's else video id.

And the video of other user will get delete.

HOW TO GET ID PARAMETER

1. Whenever you share spotlight you can see the parameter in the url as: <https://story.snapchat.com/spotlight/██████████>

I have attached a video POC please check it out

Impact

Delete anyone's Content Spotlight. Imagine deleting video biggest influencers and content creators.



prickn9 posted a comment.

Updated Mar 6th (3 days ago)

I have further checked that spotlight once deleted are not eligible for crystal awards(mode of payment of snapchat). So people with large no. of views will not be eligible for payment. ██████████



bugtriage-jack posted a comment.

Jan 3rd (2 months ago)

Thank you for your report @prickn9,

>>

Reported January 1, 2023 11:06am -0500

prickn9

Participants



State ● Resolved ()

Reported to [Snapchat](#)

Disclosed March 6, 2023 4:32pm -0500

Severity ■ High (7 ~ 8.9)

Weakness None

Bounty \$15,000

Time spent None

CVE ID None

Account de... None

GitLab Command Execution

238

#1679624

Remote Command Execution via Github import

Share: [f](#) [t](#) [in](#) [y](#) [p](#)

TIMELINE



vakzz submitted a report to GitLab.

Aug 25th (7 months ago)

Summary

This is very similar to <https://about.gitlab.com/releases/2022/08/22/critical-security-release-gitlab-15-3-1-released/#Remote%20Command%20Execution%20via%20Github%20import> and allows arbitrary redis commands to be injected when imported a GitHub repository.

When importing a GitHub repo the api client uses `Sawyer` for handling the responses. This takes a json hash and converts it into a ruby class that has methods matching all of the keys:

<https://github.com/lostisland/sawyer/blob/v0.9.2/lib/sawyer/resource.rb#L106-L110>

Code 414 Bytes

[Wrap lines](#) [Copy](#) [Download](#)

```
1 def self.attr_accessor(*attrs)
2   attrs.each do |attribute|
3     class_eval do
4       define_method attribute do
5         @attrs[attribute.to_sym]
6       end
7
8       define_method "#{attribute}=" do |value|
9         @attrs[attribute.to_sym] = value
10      end
11
12      define_method "#{attribute}?" do
13        !!@attrs[attribute.to_sym]
14      end
15    end
16  end
17 end
```

This happens recursively, and allows for any method to be overridden including built-in methods such as `to_s`.

The redis gem uses `to_s` and `bytesize` to generate the RESP command, so if a `Sawyer::Resource` is ever passed in that has a controllable hash it can allow arbitrary redis commands to be injected into the stream as the string will be shorter than the `$` size provided (see

»

Reported August 25, 2022 12:07am -0400

vakzz

Participants



State ● Resolved ()

Reported to [GitLab](#) [Managed](#)

Disclosed ● October 6, 2022 4:19pm -0400

Severity ■ Critical (9.9)

Weakness ● Command Injection - Generic

Bounty ● \$33,510

Time spent ● None

CVE ID [CVE-2022-2884](#)

Account de... ● None

How to Get Started: Certs

- HackTheBox Certified Bug Bounty Hunter (HTB CBBH)
 - \$210 exam, \$8 monthly student subscription
- OffSec Web Assessor (OSWA)
 - \$1599 Course + Exam



The image shows a promotional card for the HTB Certified Bug Bounty Hunter (CBBH) certification. On the left, there is a circular logo with the text 'HACKTHEBOX CERTIFIED BUG BOUNTY HUNTER' and a central bug icon. To the right of the logo is a stylized illustration of a purple and blue bug with a red target on its head. Below the illustration, the text reads 'CBBH HTB CERTIFIED Bug Bounty Hunter'. At the bottom left, it lists 'Related Job Role Path: Bug Bounty Hunter', 'Covers: 20 Modules', and 'Exam Vouchers Required: 1 Voucher'. At the bottom right, it says 'Get certified for \$490' with a green 'Learn More' button.



WEB-200: Foundational Web Application Assessments with Kali Linux
OSWA Certification



Penetration Tester



Penetration Tester/Ethical Hacker

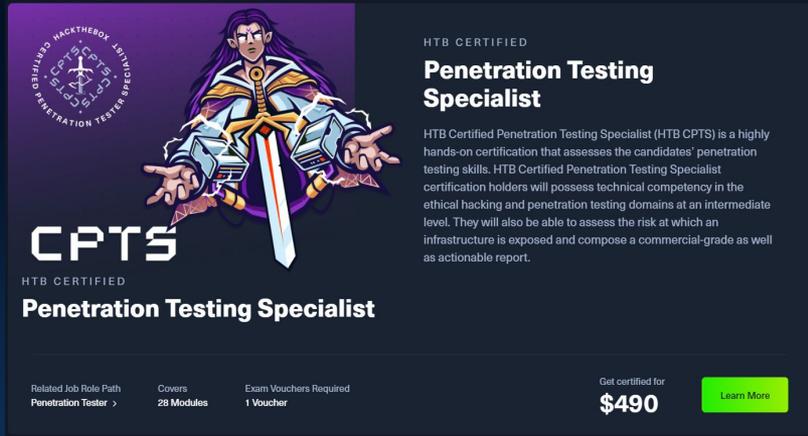
- Employed by a company to hack them
- Responsibilities:
 - Simulating cyber attacks for the purpose of identifying vulnerabilities
 - Produces reports with findings and any recommendations
 - May assist during remediation process

Bug bounty = freelance pentesting



How to become a pentester

- Get certified!
 - OffSec Certified Professional
 - HTB Certified Penetration Testing Specialist



CPTS
HTB CERTIFIED
Penetration Testing Specialist

HTB CERTIFIED
Penetration Testing Specialist

HTB Certified Penetration Testing Specialist (HTB CPTS) is a highly hands-on certification that assesses the candidates' penetration testing skills. HTB Certified Penetration Testing Specialist certification holders will possess technical competency in the ethical hacking and penetration testing domains at an intermediate level. They will also be able to assess the risk at which an infrastructure is exposed and compose a commercial-grade as well as actionable report.

Related Job Role Path
Penetration Tester >

Covers
28 Modules

Exam Vouchers Required
1 Voucher

Get certified for
\$490

[Learn More](#)





PEN-200: Penetration Testing with Kali Linux
OSCP Certification



04

Malware Analyst



Malware Analyst

- Takes apart malware to determine how the attack was deployed
- Determines what the attacker was trying to gain from the malware
- Dissect the exploit and identify the key vulnerability that was exploited which is then fixed by the developers



Malware Analyst - Skills

- Understanding of:
 - Operating Systems
 - Networking
 - Memory analysis
- Reverse Engineering
 - Assembly, Debugging, Analyzing code
- Malware analysis tools
 - Volatility, IDA, Ghidra





05

Forensics



Analyze

Conduct analysis of log files, evidence, and other information

Identify

Confirm what is known about an intrusion and discover new information

Report

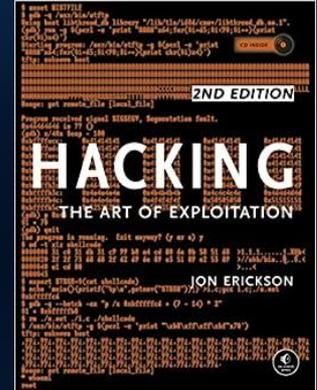
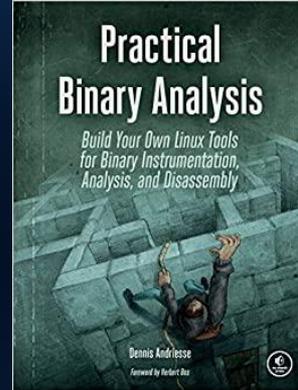
Report any detected and identified details about the intrusions

Tools used



Learning Resources

- Multiple Websites:
 - Hackthebox.eu
 - tryhackme.com
 - picoCTF
 - pwn.college
- Textbooks --
 - Practical Malware Analysis
 - Practical Binary Analysis
 - Hacking: The Art of Exploitation!!
- Infosec course -- CSC347 and CSC427 at UTM



Certifications

Offensive Security

Industry standard

Penetration Testing



PEN-200: Penetration Testing with Kali Linux (OSCP)



PEN-210: Foundational Wireless Network Attacks (OSWP)



PEN-300: Advanced Evasion Techniques and Breaching Defenses (OSEP)

Web Application



WEB-200: Foundational Web Application Assessments with Kali Linux (OSWA)



WEB-300: Advanced Web Attacks and Exploitation (OSWE)

HackTheBox Academy

Affordable



Prelude: OWASP Top 10

Open Web Application Security Project

1

Broken Access Control

2

Cryptographic Failures

3

Injection

4

Insecure Design

9

Security Logging & Monitoring Failures

10

Server-Side Request Forgery

5

Security Misconfiguration

6

Vulnerable & Outdated Components

7

Identification & Authentication Failures

8

Software and Data Integrity Failures



OWASP Top 10
2021



Hands-on Demo!

EZ Linux Reference

- pwd - print working directory
- ls - list files in current directory
- cd [path]- change current directory
 - cd .. - go up one level
 - cd / - go to root directory
 - cd - go to home directory
- cat [filename] - print contents of file

Connecting to the Demo

- Visit your assigned <http://34.130.93.18:port/> site (make sure you're using http, not https)
- If you find the flag hosted on the server, enter it in the discord server stage chat so we know who won, we'll contact you with your prize!



Thanks!

Do you have any questions?



@gdscutm
@utmmcss

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