Cybersecurity a nutshell

By: Hossam Hamdy

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[📖] Session Agenda

- Cyberspace and beyond.

- How to start in cybersecurity?

- Resources.

- Get hands-on exercises.

- Our vision.

- Who wanna get a gift 🎁.

Session@gdsc~# whoami

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[+] What/Why Cybersecurity?

Cyberspace and beyond.

[+] Cyberspace

the online world of computer's data, applications, devices, networks and especially the Internet. With the existence and development of cyberspace, the problems facing it have also become more dangerous, so we needed to secure everything related to cyberspace.

In order to secure these parts of the cyberspace, it was necessary to have controls and protocols that guarantee protection and security for these different parts. Therefore, new branches of computer science have been created that fall under Security.

[+] Cybersecurity

refers to the processes, and practices designed to protect networks, devices, applications, and data from attack, damage, or unauthorized access. Cybersecurity also covers other areas such as IOT, AI, Cloud and even Physical penetration testing.

Cyberspace and beyond.

- Red team

- Blue Team

- Purple team (None Physical)

Cyber Security Domains.

- Penetration testing
- Malware analysis
- Incident Response
- Red team operations
- Automotive Security
- Bug Bounty *
- SOC
- Digital forensics
- Cloud Security
- And more 😃

[!] Cyberwarfare

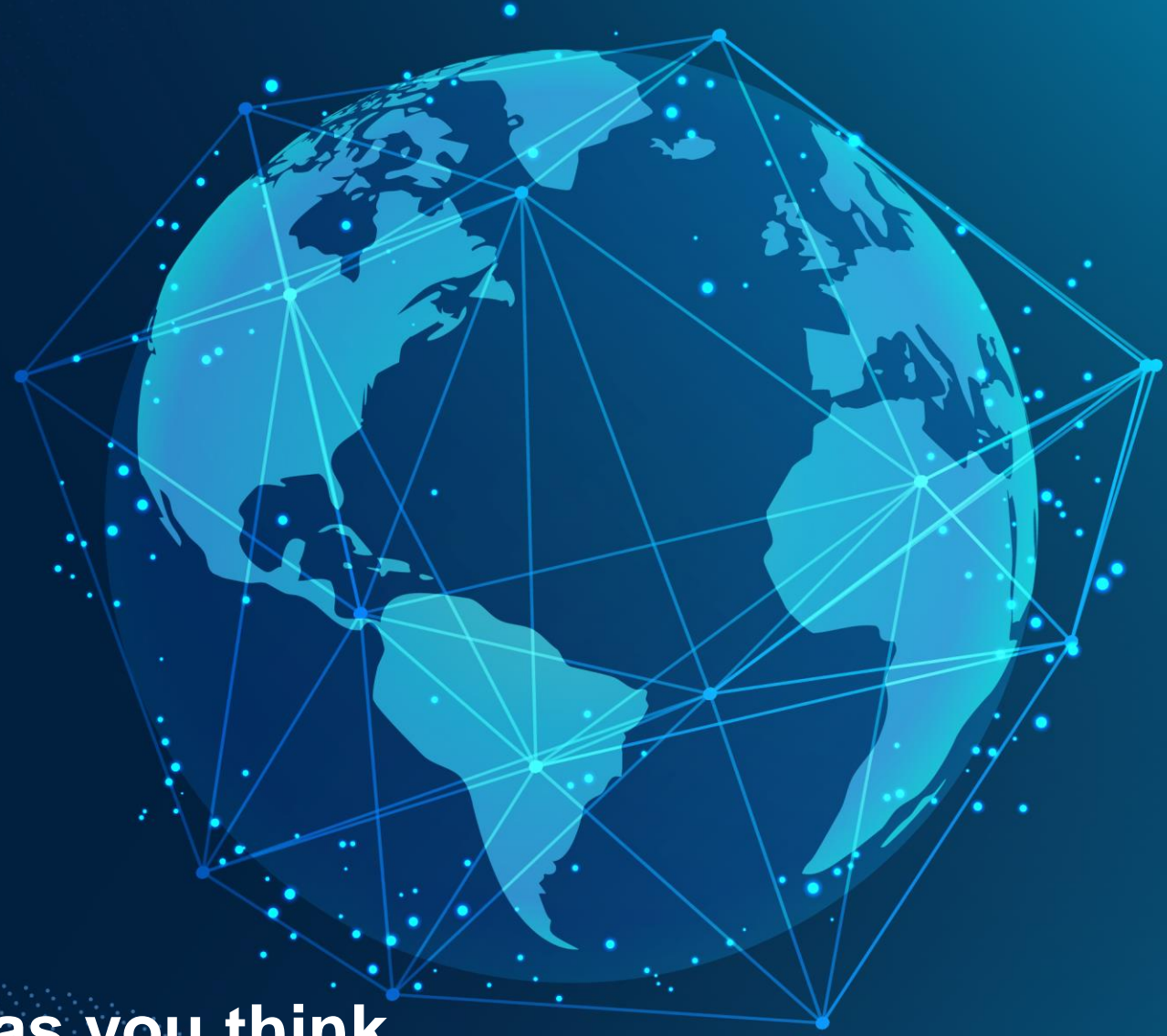[+] Stuxnet Example

Attack nuclear program of Iran.

By: USA and ✎.

The first software weapon.

[+] Moses Staff

[?] Search about Solarwinds attack

[?] Cyberspace isn't as quiet as you think

There are only two types of companies: those that have been hacked, and those that will be. Even that is merging into one category: those that have been hacked and will be again.

Robert Mueller

Director of the Federal Bureau of Investigation

[+] The Basics

[+] Networking

    - How do we communicate?

    - OSI Module.

[+] Operating systems

    - Windows

    - Linux

[+] Programming

    - Python/Ruby/Perl ...etc. (for Automation/Tooling)

    - Any programming language.

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[+] Full Guide

So, You Wanna Do Security ?

https://www.youtube.com/watch?v=i8rizLc4hc0

Mesh Ebrahem Hegazy: How to start?

https://www.facebook.com/Zigoo.eg/posts/4507591999276586

[+] Resources: Penetration Testing

[+] Courses:

- [SANS Cyber Aces](#) / [Technology Essentials](#).

- [The RedTeam Blueprint - A Unique Guide To Ethical Hacking.](#)

- [Applied Ethical Hacking and Rules of Engagement.](#)

- [Offensive Security Certified Professional (OSCP-Arabic)](#)

- OWASP top 10 and Learn about Web Security@ [Portswigger Academy](#)

[+] Books:

- Linux Basics for Hackers.

- Penetration Testing - A hands-on introduction to Hacking.

- Metasploit - The Penetration Tester's Guide.

- The Web Application Hackers Handbook. ([Portswigger Academy](#)).

[+] Be UpToDate

[+] Magazines

https://thehackernews.com/

https://www.darkreading.com/

https://www.csoonline.com/

https://www.helpnetsecurity.com/insecuremag-archive/

https://www.ethicalhacker.net/

[+] Communities

https://nakerah.net/community/

https://www.ethicalhacker.net/

https://www.facebook.com/groups/pentesting4arabs/

https://www.facebook.com/groups/961055997604329/

https://www.facebook.com/groups/NineHackers

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[+] Get hands-on exercises

CyberTalents

CTFPicko

RootMe

TryHackMe

Hack The Box (https://www.youtube.com/c/ippsec)

PintesterLab

[+] Our Vision

[-] It's not a complete cybersecurity course.

[+] You will learn the basics to start.

- Networking.*

- Operating systems.

- Python & Creating Your own tools.

- How To be more secure.

- Practice

- some of ~#

[-] Only learning sessions

[+] There will be guests in some sessions.

[+] Who wanna a gift?

- Security & Identity Fundamentals (Link)

- Build and Secure Networks in Google Cloud (Link)

- Secure and Rate Limit API calls with API Gateway (link)

- Ensure Access & Identity in Google Cloud (link)

- Secure Workloads in Google Kubernetes Engine (Link)

[+] You'll find this links in our WhatsApp group.

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Thank You