Module 12 Agenda

➢ Auditing
➢ Remediation
➢ Cyber Security Careers
Auditing
Auditing

- By definition, an audit is an inspection of an organization’s systems or its individual’s accounts.
- There are many different types of audits that can be performed. For example:
  - Internal audits
  - External audits
  - IRS tax audits
  - Financial audits
  - Operational audits
  - Pay audits
  - Compliance audits
  - Information Technology (IT) / cyber security audits
  - Payroll audits
Auditing

- As you may have guessed, we are going to focus on Information Technology/cyber security audits.
  - **Information Technology (IT) and cyber security audits** are performed in order to detect issues within computer systems and its software.
  - Audits help search computers for vulnerabilities that need to be patched.

*IT and cyber security audits differ from pen-tests because they are used to check what security controls are in place and if those said controls are working properly. Whereas pen-tests evaluate the entire risk level of the system.*
Auditing

What is it:

- **IT/cyber security auditing** is the examination of a computer system to make sure everything is clean and up to date.
  - It is essentially a checklist to help systems evaluate if they have the proper security measures in place.
Auditing

Why:

- With the internet rapidly expanding, cyber threats/attacks are becoming increasingly prevalent
  - Auditing helps find holes within cyber security infrastructure
  - Auditing can help monitor network security
  - Audits help the user maintain updated software to protect itself
Auditing

How it works:
- IT/cyber security audits are most often conducted by third-parties.
- The computer system’s encrypted data is sent to a auditing company to be evaluated.
  - It is compared to regulations and is given either a pass or fail report after completion
- The auditing company follows a security model to make sure data will not be exposed during the process.
Remediation
Remediation

Remediation is the process of taking some kind of action to prevent any further damage to an attacked system or to start the clean-up process after the damage has already been dealt.

What is it:
- For cyber security in particular, remediation is the process of stopping and treating a data breach.
- Detects and contains a breach before it grows and damages the entire system.
Remediation

Why:
- Security breaches are a major threat for companies and business.
  - They can expose sensitive data concerning the company and its customers
- Failing to detect breaches can put companies at greater risk

How it works:
- Detects and evaluates the cause of the breach
- Determine how to stop the harmful activity and how to patch the damage
Remediation

Breaches:

On your own time throughout the week, find time to read this article about how breaches happen, how to detect them, and how to fix them. *This will be very helpful for the CDC*

How To Detect Data Breaches:

Article
Jobs in Cyber Security
Jobs in Cyber Security

Being a junior security auditor is actually a career that cyber security students can pursue. Watch the video below that explains the job! :)  

https://youtu.be/iW7W_6stSh0
Jobs in Cyber Security

- Cyber security jobs are in high demand and offer competitive salaries
  - According to cybercademy.org
    - “3.5 million cyber security jobs are expected to open by this year”
    - “$83,000 is the national average salary for entry-level cyber security analysts”

- Cyber security offers a variety of careers
Jobs in Cyber Security

Cyber security students have a lot of options for careers. Including those listed below…

- Penetration Tester
- Incident Responder
- Cyber security Analyst
- Security Specialist
- Vulnerability Assessor

*We will be discovering what cyber security career is right for you in Activity 2*
Jobs in Cyber Security

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You'll find these jobs in
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- High tech
- Health care
- Manufacturing
- Finance
- Defense
- Intelligence
- and more!

What our students say about CyberStart America

Like all the different types of problem solving/programming solutions. Not only am I using Python but I'm decoding messages, which is really fun.

The course level was so welcoming. I never felt over my head even though I knew nothing about computer or programming.

I had no idea what I wanted to do with my life but thanks to CyberStart now I do. Thank you!

Don't miss out! Register at cyberstart.io/getstarted

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Jobs in Cyber Security

As mentioned in the previous video, basic cyber security skills include…

- Knowledge of operating systems like Windows, Unix, and Linux
- Programming skills in C, C++, Java, PHP, and Python (you can learn more about programming by completing the Smart-IT venue of IT-Adventures)
- Elementary concepts (firewalls, access controls, malware, etc.)
Jobs in Cyber Security

Cyber security skills can be developed through…

● Online programs/certifications
● College degrees in:
  - Software Engineering
  - Computer Science
  - Computer Information Systems
  - Business Information Systems
  - Information Assurance
To Do

- Complete Module 12 Activity 1
- Complete Module 12 Activity 2
- Read the following article: link
End of Module 12!

What questions do you have?

Final Module Topic:

Physical Security & Social Engineering
Questions?

Contact IT-Adventures support staff!

email:
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