

# Cybersecurity

- Social media is a great way to connect to other security professionals in the **industry** ??????????????????????
- By **staying informed** about security trends, you can more effectively identify and **develop remediation strategies** to address a wide range of security challenges ?????(??)??
- engaging with the **security community** through various **security organizations** and conferences is a great way to stay up-to-date on current **security news** ???
- You don't have to know everything. You have **teammates** and other people that can help you with **areas that you're weak in** ??????????????????????????????
- I **take courses**, try to **get certificates if I can along the way** ??????????????????????????
- It's important to **continue to learn** in the field of cybersecurity because **things change all the time** ??????????????????????????????
- **always remember** not to click on **unexpected links** or attachments **sent from** unfamiliar users on social media. ?????????????????????????????????????
- **Be aware of** social engineering ???????
- it's also important to **be mindful** that hackers use social media to **trick** users **into** giving up private information ??????????????????????????????
- Are you interested in **forensic security** or data logging ??????????????????
- focus on **reacting to security incidents** or preventing them from happening ??????????????????????
- Security is a **constantly evolving** industry. As professionals in security, we must **evolve with** it by **seeking out** new information. ?????????????????????(??)????????????????????????????????
- A few **well-known** security websites and blogs to get you started are ???????????? blog ?
- will help you **stand out to hiring managers** and could give you an **extra edge over other candidates** ?????????????????????????????????????
- What **excites me about** the **security profession** is ??????????????????
- a few good resources for you to review **periodically**. ?????????????????
- As the industry **evolves**, it's **essential** to **stay up-to-date on** the latest **security trends and news** ?????????????????????????????????????
- As we **approach** the end of our program, ???/????????????????
- we'll share some ways to **become involved with** the security community. ?????????????????????
- we'll **identify** reliable security resources you can use to **stay up-to-date on** security news and trends. ?????????????????????????????????????
- how to **engage with** the security community, find jobs in the security field, create a resume, and **navigate** the interview process ?????????????????
- other stakeholders will be more focused on how **policies** and **procedures** are **working to prevent** cyber attacks ?????????????????????????????

- Juliana decides to **put together** a **detailed document** with **timelines** that clearly explain **what happened**????????????????????????????????
- Juliana's manager **has also been informed** that????????...?
- Juliana's visual dashboard makes it easier for the **high-level stakeholders** to review incident #1 and determine **a course of action**?Juliana ?????????????????????????????#1????????????
- Her dashboard will use charts and graphs **to relay** important information????????????????????
- she used her company's **escalation** policy to **properly escalate** the two incidents????????????????????
- escalation; escalate (??/????????/????)
- allow **decision makers** to determine how to address security issues that **put the organization at risk**????????????????????
- allow security team members to **convey essential information** to stakeholders????????????????
- Those stakeholders and the security team can then work together to determine **how to address the issue**????????????????????????????????/????
- **Based on** this information,????
- wants to know how many employees are often clicking on phishing emails. The goal is to **identify which five departments** click on those emails **most often**. ?????????????????????????????????????
- The audit gathered data showing **how many phishing emails** each department clicked **over the last five months**????????????????????
- **Other times** you might want to include **a document attachment** that **further elaborates** on a specific topic.????????????????
- Security is often **a team effort**.????????
- **Visuals** help provide these **decision-makers** with **actionable information** that can help them **identify** potential risks to the organization's **security posture**. ?????????????????
- An entry-level analyst might **communicate directly or indirectly** with these individuals.????????
- Create visual dashboards for **impactful** cybersecurity communications????????
- If you don't receive **a timely response** from a stakeholder, following up shows initiative.????????
- It's important **to stand out** in the **security profession**, especially if you don't have previous experience in the industry.????????
- It sounds simple, but a friendly call can often **prevent a major issue from occurring** ?????????
- When appropriate, **take the initiative to follow up with** a stakeholder if they haven't responded to an email **in a timely manner**.????????
- **Direct communication** is often better than waiting days or weeks for an email response to an issue that requires immediate attention.????????
- that sometimes a simple instant message or call **can help move a situation forward**. ?????????
- This means they may sometimes **miss an email**, or **fail to respond** in **a timely manner**. ?????????

- Be sure to follow the procedures outlined in your organization's playbooks????????????????
- Be mindful of the sensitive information contained in these types of communications. ??(??)????????
- we'll focus on various communication strategies that can help you engage with and convey key ideas to stakeholders????????????????
- The ability to communicate threats, risks, vulnerabilities, or incidents and possible solutions is a valuable skill for security professionals.????????????????????????????????
- Senior-level stakeholders might be more interested in the underlying risks, such as the potential financial burden of a security incident—as opposed to the details around logs????????????
- How do I explain the situation in a nontechnical manner????????????
- your immediate supervisor????
- how it impacts the organization, and possible solutions to the issue.????????
- It's essential that communications are specific and clear?...??...?
- Staying informed about security issues helps stakeholders do their jobs more effectively.?????... , ?????...?
- You don't want them to have to guess the reason for your email or why it matters to them.?????... , ?????
- keep those top-level stakeholders informed on the security measures??...????/??...?
- responsibilities; responsible for (??;?...??)
- there are certain stakeholders that the analyst will need to provide updates to (????????????????)
- the security measures and protocols in place (????????)
- A big part of what you'll do as a security analyst is report your findings to various security stakeholders. (????????????????????????????)
- the individuals who have a significant interest in those business operations: stakeholders. (????????????????)
- They're also tasked with creating security and business continuity plans. (????????????)
- CISOs are high-level executives responsible for developing an organization's (????)
- Another stakeholder with an interest in security is the Chief Information Security Officer, or CISO (??????; ???)
- They are concerned about security from a financial standpoint because of the potential costs of an incident to the business.(????/??)
- because the decisions made on a day-to-day basis by stakeholders will impact how you do your job (??/??;????)
- on a daily basis????
- the supervisor indicates that a data breach has occurred . This breach has impacted one of the manufacturing sites for the organization. ?????????????????????????????
- the incident may be increased or decreased to a high or low criticality level.????
- Suddenly, you notice there's been unusual log activity in an app that was recently banned from the organization.????????????????
- The internal compliance of an organization's data protection procedures. ?????
- Malware infections can cause a system's network to run an unusually low speeds .????????????????

- a few incident classification types to be aware of: **malware infection**, **unauthorized access**, and **improper usage** (????????????????????????????????)
- **Security incident escalation** is the process of identifying a potential security incident. (???????)
- you'll learn the importance of **escalating** security issues and the potential impact of **failing to escalate** an issue. (????????????;????????????)
- it has the potential to become a larger problem that **costs the company money**, **exposes sensitive customer data**, or **damages the company's reputation**. (??)
- From the **Chief Information Security Officer**, also known as the **CISO**, to the engineering team, **public relations** team, and even the **legal** team, every member of the security team matters. (???;???;???;???)
- it's important that you know how to **evaluate** and **escalate** incidents **to** the right individual or team when necessary. (????????????????????????????????)
- I enabled debug logs in the service so I could **observe** what was going on (??/??)
- Penetration testing (pen test) (????)
- security mindset, security awareness (????; ????)
  - Your security mindset allows you to protect all levels of assets.
  - So having a security mindset helps analysts defend against the constant pressure from attackers.
  - Having a strong security mindset can help set you apart from other candidates as you prepare to enter the security profession. (????)
  - using fictitious emails to evaluate security awareness at the company.
- should **be escalated to a supervisor**. (?????)
- how to **escalate incidents** to protect an organization's assets and data (????)
- happen
  - after a security incident has taken place
  - in case a security incident does occur
- The role of a **security professional** is to ensure a company's data and **assets** are protected from **threats, risks, and vulnerabilities**. (????????????????????????????????)
- business continuity and disaster recovery plans (????????????)
- Conduct **training** for the business continuity team (??...??)
- If you're **not sure of** the potential impact of an incident, **it's always best to** be cautious and report events to **the appropriate team members**. (???...; ??; ???????)
- When a security event results in a **data breach**, it is categorized as a **security incident**. (????; ????)
- if it was **compromised** (??????/??)
- Intellectual property (??)
- They can have a **significantly negative impact** on an organization if **leaked publicly**. (??????;????)
- Examples of confidential data include **proprietary information** such as **trade secrets**, **financial records**, and sensitive government data. (????;????;????)
- Access to confidential data sometimes involves the signing of non-disclosure agreements (NDAs)
- This data classification type is important for an organization's **ongoing business operations** (????)
- **Unauthorized access** to sensitive data can cause **significant damage** to an organization's finances and **reputation**. (????;????;??)

- personally identifiable information (PII), sensitive personally identifiable information (SPII), and protected health information (PHI)
- Public data, Private data, Sensitive data, Confidential data
- If **an individual** gains **unauthorized access** to private data(??;???????)
- Private data is information that should **be kept from the public**. (????)
- threats, risks, and vulnerabilities that are **posed by social engineering** attacks, such as phishing (?????????...)
- such as **intellectual property, trade secrets**, PII, and even **financial information** (????;????;????)
- helps you **prepare for** the **worst-case scenario**, even if it doesn't happen(?...?????????)
- cybersecurity profession?????????
- cybersecurity professionals?????????
- cybersecurity field?????????
- **refine** your understanding of key security concepts???/???
- Writing code that assigns **security incident** tickets to the **appropriate** cybersecurity team based on its priority level. (????????????????????????????)
- This **results in** DNS resolvers sending large responses to (??)
- which can **lead to significant issues** like **unplanned downtime** (??; ????; ????)
- can access **restricted** information (????)
- Security professionals **are often tasked** with reviewing log files(???/???/????)
- Automate cybersecurity tasks with Python
- removing usernames that match **specific criteria** from an access list.??????
- Make sure your browser **is up to date with the latest version**(??????????????)
- it might be used to determine **whether or not to lock an account**. (??????)
- checks whether someone is allowed to **access a particular** file (??...; ??????)
- improve **efficiency**; allow it to work **effectively** (????; ????)
- use Python code to reduce the **manual effort** needed to manage an access control list(????; )
- **Throughout** this certificate you will use Qwiklabs and Jupyter Notebooks to complete **hands-on** activities??????????????
- Security analysts can access Python through **a variety of environments**??????
- The fast.log file is used for basic logging and alerting and **is considered** a **legacy** file format???...????
- The Network-based IDS application **inspects** network traffic from different devices on the network???/???
- When **suspicious** or **unusual** network activity is detected???????????
- IDS (Intrusion Detection System) is an application that monitors activity and **alerts on possible intrusions**.????????????????
- Detection requires data, and this data can come from **various** data sources.?????
- It's important to know how to read and **interpret** different log formats so that you can **uncover** the key details surrounding an event and **identify unusual** or malicious activity.????????????????
- logs provide key details about activities that **occurred** across an organization????
- logs record events that **happen** on a network, or system.????
- intrusion detection systems; intrusion prevent systems (IDS;IPS)
- investigating an alert involving a possible **network intrusion**??????
- When **an outage occurs** due to a **security incident**??????????????
- Business Continuity Plan?BCP ???????



- the three letters in the CIA triad stand for confidentiality, integrity, and availability  
????????????????????
- ensure that you complete a thorough analysis so that you have enough information to make an informed decision about your findings.????????????????
- you'll receive and assess the alert to determine if it's a false positive??????/??????
- which prioritizes incidents according to their level of importance or urgency  
.????????????
- Having previously investigated the file hash, it is confirmed to be a known malicious file.????????????????????
- The email body and subject line contained grammatical errors.??????
- Tedious, error-prone, or time-consuming tasks can be automated, while analysts can prioritize their time with other tasks.????????????????????...?
- It is an example of a non-automated playbook, which requires step-by-step actions performed by an analyst.????????????????
- This depicts the process for detecting a DDoS and begins with determining the indicators of compromise, like unknown incoming traffic.????????????
- Documentation must be regularly reviewed and updated to keep up with the evolving threat landscape. (????????????????????)
- Incident response plans standardize an organization's response process by outlining procedures in advance of an incident. (??????)
- If a malicious actor compromised a system, evidence must be available to determine their actions so that appropriate legal action can be taken. (??????????)
- You observe a known user successfully authenticate a new device using two-factor (???; ???)
- Security terms
  - malicious actors (?????)
  - malicious activity (????)
  - attackers (???)
  - security incidents?????;?????
  - security analysts?????; ??????
  - security professionals?????; ??????
  - security profession?????
  - security field?????
  - the suspicious IP address (???)
  - unusual processes (????)
- IoCs may be the result of human error, system malfunctions, and other reasons not related to security. (????; ????)
- baselines help establish a standard of expected or normal behavior for systems, devices, and networks. (??)
- A baseline is a reference point that's used for comparison. (baseline ?...)
- Once something unusual or suspicious is detected (??????????)
- How could the company prevent an incident like this from occurring again????????????????
- the stages of incident detection, investigation, analysis, and response????????????????
- analyze the contents of captured packets????????
- The app should be in compliance with PCI-DSS.???/???
- developers tend to focus on making their applications work correctly rather than protecting their products from injection.??????...????????

- Malware?????
  - Virus????
  - Worm????
  - Trojan????
  - Ransomware?????
  - Spyware?????
- analyzing the **suspicious** message?????
- the group managed to **gain access to** the organization's network and internal tools.????????...????
- **Threat actors** use many different **tactics** to **carry out** their attacks.????????????
- **unauthorized access** to **restricted systems**.????????; ?????
- specific type of attacks that **cybercriminals** commonly use. (????)
- using fictitious emails to evaluate **security awareness** at the company. (????)
- **Keeping** software **updated** requires **effort**. (????????????)
- Vulnerability scanners **are meant to be non-intrusive**. (??; ?????)
- Examples of **remediation** steps might include things like enforcing (??)
- We'll explore this step **in more details** (????)
- An employee reports that they **cannot log into** the payroll system with their **access credentials**. (????; ?????)
- **Symmetric** and **asymmetric** encryption (????????)
- keep private; keep safe (????; ?????)
- you'll review **the controls in place** to prevent data leaks. (????)
- **Periodically** auditing those accounts is a key part of **keeping** your company's systems **secure**.????; ??...???
- Score risks based on their **severity** (???)
- So much of the global marketplace has **shifted to** cloud-based services. (???)
- **As** the environment continues to transform, (?...??)
- Don't **get discouraged** now; Don't let anyone **discourage** you from cybersecurity. (????)
- **Suppose** you wanted to know what department the employee using ...????
- The **principle of least privilege** is the concept of granting only the minimal access and authorization required to complete a task or function. ????????
- we use u to **represent** the user, g to represent the group????; ???
- its output **indicates** that the working directory is logs ???; ???
- Although it **took some practice and time to get used to**, it has been one of the biggest tools ...????????????
- you'll **become much more familiar** with????????
- it **might happen** because we don't have the **appropriate** permissions to perform a command. (???)
- I **misspelled** the command????
- the bash shell is **the most commonly used** shell in the ...????????
- You might **examine** different types of logs to **identify what's going on in the system**. (??; ?????????)
- Almost everyone **learned on their own by experimenting** (??????)
- These **individuals** will **likely** already have experience using GUIs (???; ??)
- security analysts **commonly** use a CLI **in their everyday work** (??; ?????)
- using a GUI **is more like** ordering food from a restaurant. (??)
- Using virtual machines **can also be an efficient** and convenient **way** to perform security tasks. (????????????)

- One more **aspect** to consider is that (???????????)
- The OS **is responsible for** ensuring that **each** program **is** allocating and **de-allocating** resources. (??; ??)
- **A variety of** programs, tasks, and processes **are** ... (????)
- The OS handles resource and memory management to ensure the **limited capacity of the computer system** is used **where it's needed most**. (??????????; ??????)
- make sure all the resources of the computer are used **efficiently**. (???)
- Security analysts **should be aware of** vulnerabilities that **affect** operating systems. (????; ??)
- They run multiple applications **at once** (??)
- will be **an essential part of your job** as a security analyst. (??????)
- The **shared responsibility** model **states** that the CSP must take responsibility for... (??????????)
- **Brute force** attacks are a **trial-and-error** process of guessing passwords. (????; ????)
- up-to-date; out-of-date (??; ??)
- security hardening **involves** minimizing the **attack surface** or **potential vulnerabilities** and **keeping a network as secure as possible**. (????; ??/??; ????; ????; ??????????)
- refer to; referred to as (??...; ????)
  - Software as a service, **refers to** software suites operated by the CSP that a company can use remotely without hosting the software.
  - it is **referred to as** a hybrid cloud environment.
- Open-source tools and **proprietary** tools (??/????)
- **Analyst; Analysis; Analyze; Analytic**
  - like machine learning or data analytics
  - As a security analyst
  - Splunk is a data analysis platform
  - Splunk Enterprise is a self-hosted tool used to retain, analyze and search the log data to provide security information and alert in real-time
- **From there** I **managed** to get myself into a security vendor and learn security (?????, ?????????????????????)