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[Date]

Assessment One

Develop ICT Solution

Wells International College

NATALIA 18171

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CONTENTS

All my assessments and working, could be found: https://luthiienn.github.io/ictby18171/

Assessment 1 – Presentation

Instructions:

You need to analyse a case scenarios and complete tasks mentioned after scenario.

You need to demonstrate your develop ICT solution ability to identify the solution, determine client support and manage the team in development an awareness of cyber security in workplace.

Duration:

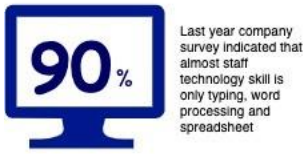
Trainer will set the duration of the assessment.

Evidence required:

Tasks	*Evidence*	*Submission*
Identifying issue and	A complete issue report and selected solution, including a presentation.	Presentation in front of the class and the trainer. Also, in printing

CASE SCENARIO

Established in 1999 with offices located throughout the western Sydney, Heaven Systems is a world-class, full-service provider of residential, commercial, and logistics-based transportation solutions for businesses and individuals. Many of the world's largest, most respected corporations rely on the company's unwavering commitment to innovation, quality, and customer service to move their employees, offices, and industrial facilities—domestically and internationally—anywhere in the world. Heaven Systems was experiencing an increase of phishing emails that were reaching employee inboxes and introducing the risk of a data breach. As phishing attacks increased, productivity slowed down while end users waited for IT to investigate the suspicious emails. "Phishing emails were getting more specific and sophisticated, and we worried that an employee might open one and cause serious damage," said David Potter, IT Director at Heaven Systems. While there are multiple layers of security to filter email as it enters Heaven Systems' network, it's still possible for some targeted phishing emails to slip through and get into employee in-boxes. For this reason, IT must rely on end users to determine whether an email is safe to open. But it's not always easy to tell. "For instance," said Potter, "one area of the company was getting phishing emails that looked legitimate. They appeared to come from a customer, but the attachment was malicious." Refer to employee background statistic show below:



To help employees identify phishing emails, IT holds annual training to show them what red flags to look for. Then, IT sends mock phishing attacks to test them. If a user clicks on a couple simulated phishing emails, they're required to take the security training again. Human nature being what it is, some users were ignoring legitimate email because they didn't want to make a mistake that would require them to take the training again. Others decided to play it safe and send every questionable email they received to IT to see if it was OK. While IT recognized the obvious threats, even they had to question some of the attachments. "You can imagine the amount of time we spent investigating emails," said Potter. "It took about an hour per email to copy the attachment to a USB drive and then spin up a machine to test the file off network," he explained. "That's valuable time that IT could spend doing other things."

You are work as an IT project manager assigned by Potter to handle this problem in the company. The company decide to use the system to detect a Spear-Phishing. To accelerate suspicious email analysis and response, Heaven Systems implemented MailMon, an automated phishing incident reporting and response service that empowers end users to report suspicious emails directly from the inbox. MailMon runs on Microsoft Exchange 2013 or newer and Office365; it is deployed to end users as an Outlook plug-in, including Outlook App for Android and iOS devices.

You and your friend are 10 years' experience staff in the company. After you evaluate the MailMon, it generates a report in the complex form, many of the staff including a current IT department are not familiar with the system. Potter approved on new project team recruitment, and HR organised 3 **new graduated** IT staffs joining your team. Potter would like your team to gain more awareness on this cyber security incidence.

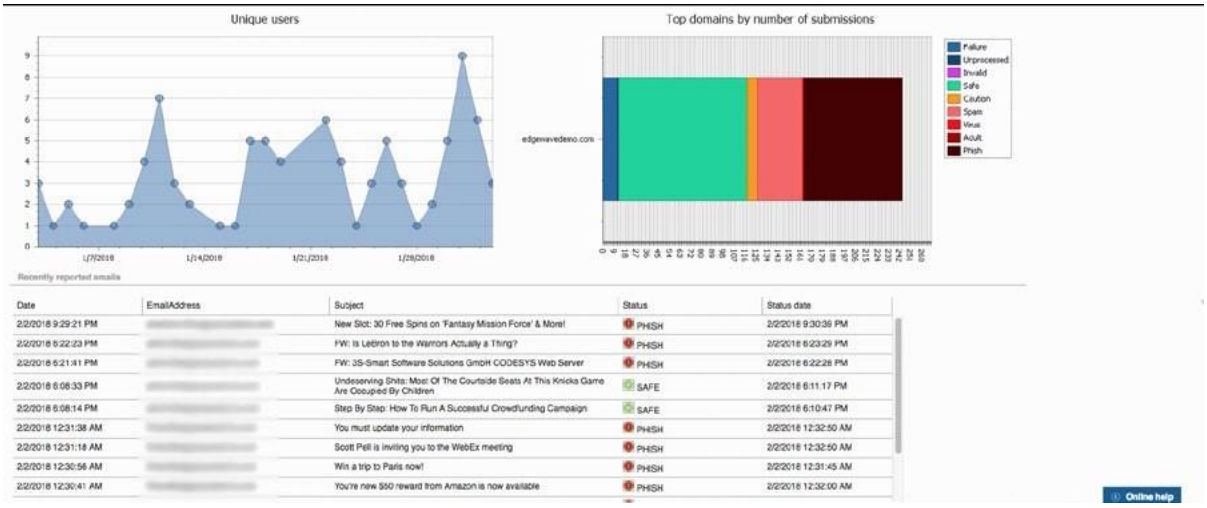


Figure: MailMon Monitoring Sample

HEAVEN SYSTEMS INTERNAL IT SERVICE AGREEMENT

Severity Level	Description	Target Response
1 (Outage)	Entire Company Server down	Immediately
2 (Critical)	Entire Department Server down	Within 15 Minutes
3 (Urgent)	Staff computer down	Within 1 hours
4 (Important)	Staff computer not work properly or potential for interrupt their routine work	Within 3 hours
5 (General)	Upgrade software Training request	Within 48 hours

TASK 1: SCOPE ISSUE

Now, in the mid of November, you are required to prepare the report for the management team on company security awareness. The report should indicate:

1. The company current issue:

   Heaven Systems was experiencing an increase of phishing emails that were reaching employee inboxes and introducing the risk of a data breach. As phishing attacks increased, productivity slowed down while end users waited for IT to investigate the suspicious emails.

   More ICT security issue attached in the end of this assessments

   The company faces the increase of phishing emails, but employees don't have enough ability to handle them.

   Phishing Methods

   Phishing attempts most often begin with an email attempting to obtain sensitive information through some user interaction, such as clicking on a malicious link or downloading an infected attachment.

   • Through link manipulation, an email may present with links that spoof legitimate URLs; manipulated links may feature subtle misspellings or use of a subdomain.

   • Phishing scams may use website forgery, which employs JavaScript commands to make a website URL look legitimate.

   • Using covert redirection, attackers can corrupt legitimate websites with malicious pop-up dialogue boxes that redirect users to a phishing website.

   • Infected attachments, such as .exe files, Microsoft Office files, and PDF documents can install ransomware or other malware.

   Phishing scams can also employ phone calls, text messages, and social media tools to trick victims into providing sensitive information.

   Types of Phishing Attacks

   Some specific types of phishing scams use more targeted methods to attack certain individuals or organizations.

   Email phishing:

   Scammers create emails that impersonate legitimate companies and attempt to steal your information. This is the type that the company Heaven Systems is having issues with.

Spear Fishing:

Spear phishing email messages won't look as random as more general phishing attempts. Attackers will often gather information about their targets to fill emails with more authentic context. Some attackers even hijack business email communications and create highly customized messages.

Clone Phishing:

Attackers are able to view legitimate, previously delivered email messages, make a nearly identical copy of it—or "clone"—and then change an attachment or link to something malicious.

Whaling:

Whaling specifically targets high profile and/or senior executives in an organization. The content of a whaling attempt will often present as a legal communication or other high-level executive business.

Pop-up phishing:

Fraudulent pop-ups trick users into installing malware.

2. Brief for possible solution to identified issue. Each solution must be assessed on
    - commercial potential
    - suitability for the target audience or purpose
    - feasibility of implementing solution

Refer: learners guide, Phishing - scam emails | Cyber.gov.au

How to Prevent Phishing Attacks:

Organizations should educate employees to prevent phishing attacks, particularly how to recognize suspicious emails, links, and attachments. Cyber attackers are always refining their techniques, so continued education is imperative.

Some tell-tale signs of a phishing email include:

• 'Too good to be true' offers

• Unusual sender

• Poor spelling and grammar

• Threats of account shutdown, etc., particularly conveying a sense of urgency

• Links, especially when the destination URL is different than it appears in the email content

• Unexpected attachments, especially .exe files

Additional technical security measures can include:

• Two Factor Authentication incorporating two methods of identity confirmation—something you know (i.e., password) and something you have (i.e., smartphone)

• Email filters that use machine learning and natural language processing to flag high-risk email messages. DMARC protocol can also prevent against email spoofing.

• Augmented password logins using personal images, identity cues, security skins, etc.

• Check emails legitimacy by contacting the relevant business or organisation (using contact details sourced from the official company website).

• Stay informed on the latest threats

• Before you click a link (in an email or on social media, instant messages, other web pages, or other means), hover over that link to see the actual web address it will take you to (usually shown at the bottom of the browser window). If you do not recognise or trust the address, try searching for relevant key terms in a web browser. This way you can find the article, video or web page without directly clicking on the suspicious link.

• Do not open any email if you do not clear where it came from.

• Take time to confirm the relevant company email or web site address.

• Call or email follow the office site info to confirm true or false.

TASK 2: SELECTED SOLUTIONS WITH PRESENTATION

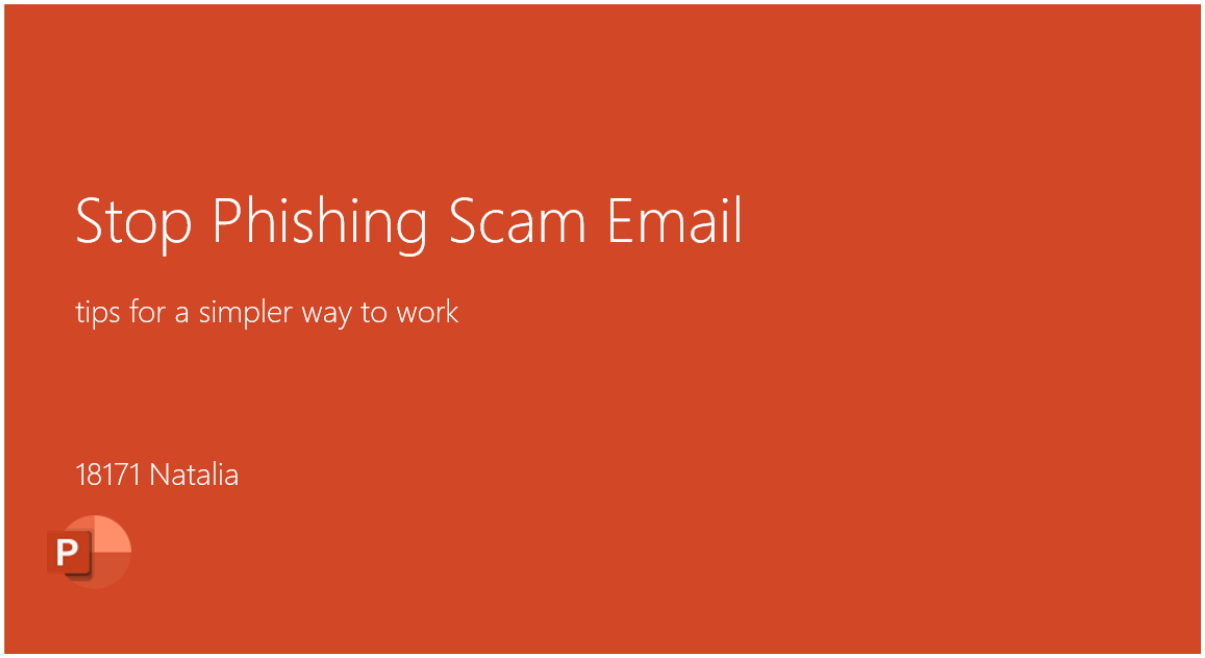
ACSC - What is Phishing on Vimeo

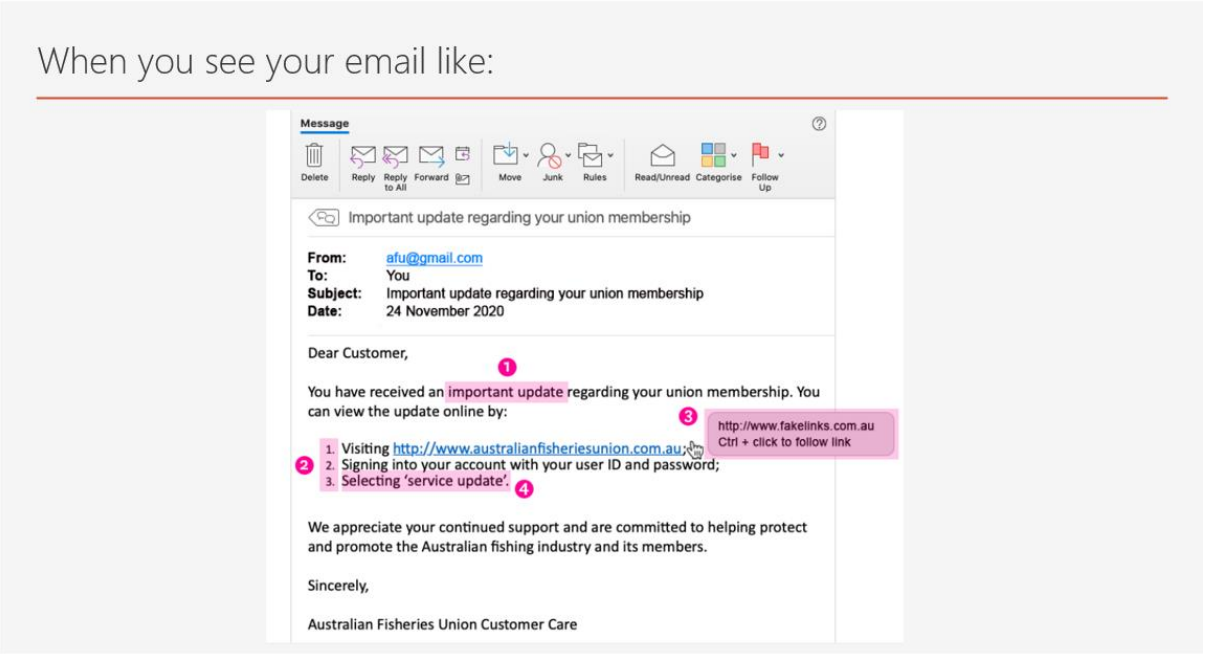
1. Conduct a brainstorm on identified issue
2. Compare an idea solution for identified issue
3. Selected the solution and communicate to stakeholder (Your trainer)
    a. **Prepare some (10-15) presentation slides** to present the following items to your trainer (All group members have to present equally)
        - Identified issue
        - Brainstorming evidence
        - Selected solution
4. Record feedback from your trainer and finalised the solution

PRESENTATION

You could use Google Slides to create your presentation.

Refer: https://www.youtube.com/watch?v=o7wvajrAxUQ

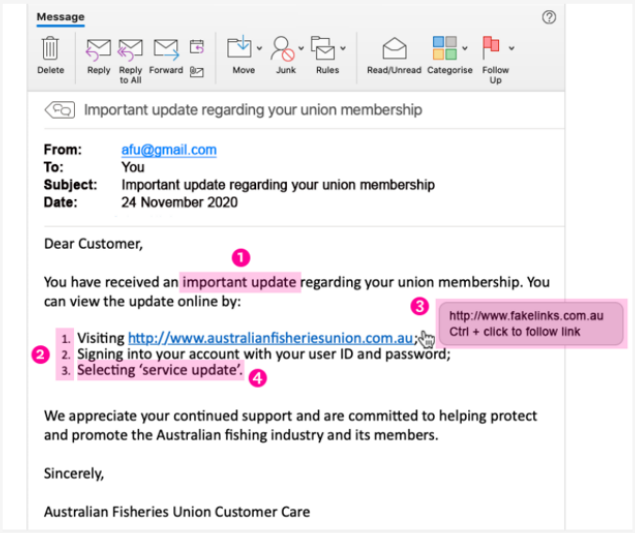




Phishing emails

1

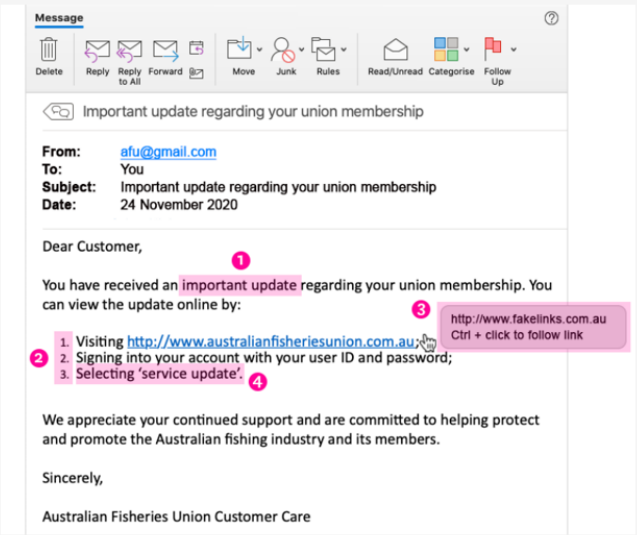
It is unexpected or creates a sense of urgency for you to do something – This might be by sending you an email that is unexpected so you don't know how to react (e.g. telling you that you have received a missed call and sending you to a website to hear it) or by creating a sense of urgency so that you don't have time to think about how to react (e.g. telling you that one of your accounts is about to be terminated unless you act quickly). In the example above, the scammer uses the wording 'important update' to create a sense of urgency for you to click on the link they have provided.



Phishing emails

2

It asks you to click a link, open an attachment or sends you to a website which asks you to enter your information – For the phishing attempt to be successful, the scammer needs you to perform an action. In the example above, the scammer asks recipients to click on a link and enter their union username and password combination.

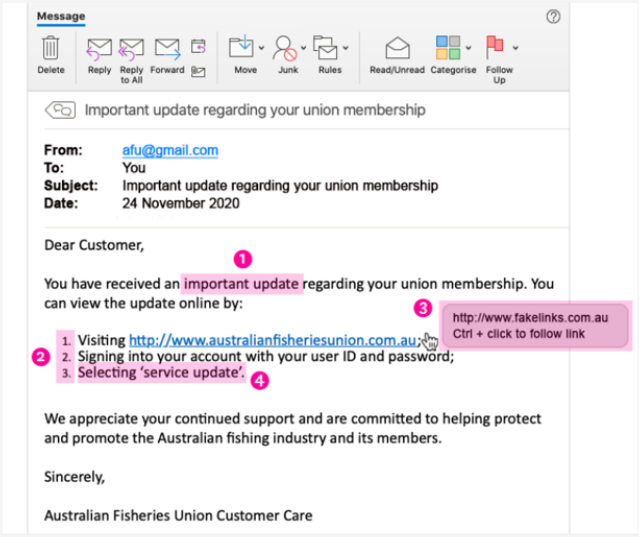


Phishing emails

3

The link suggests that it will take you to a legitimate website but, when you hover over the link, it shows that it is actually for a different website – In the example above, the link appears legitimate, sending recipients to australianfisheriesunion.com.au.

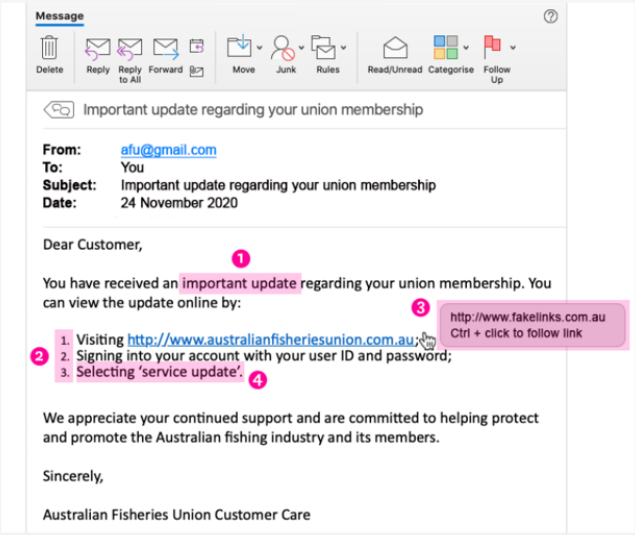
However, recipients who hover over the link will see that if they click on it, it will actually send them to a different website at www.fakelinks.com.au.



Phishing emails

4

It asks for information that the real or legitimate sender would not necessarily need to know – In the example above, the scammer would send the recipient to a fake website where they would ask them to enter their real username and password combination that the recipient uses for their union membership.



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WHAT STEPS CAN ORGANISATIONS TAKE TO PROTECT AGAINST PHISHING ATTACKS?

1

Include security awareness in your organisation's culture.

By raising awareness of the signs and dangers of phishing attacks, employees will be able to identify them; be less likely to fall for them; or at least be able to flag an issue and report it to you so you can take timely steps to contain the incident.

2

Use spam filters or secure email gateways to block deceptive emails from reaching employees.

Spam filters and secure email gateways monitor incoming emails for unwanted or fraudulent content. Once identified, they prevent them from ever reaching a employee's inbox.

WHAT STEPS CAN ORGANISATIONS TAKE TO PROTECT AGAINST PHISHING ATTACKS?

3 Enable multifactor authentication (MFA) and anomaly login policies.

Even if an employee provides information to a scammer, these measures decrease a scammer's ability to gain access to the employee's work account and increase your ability to detect and respond to incidents in a timely manner.

4 Report phishing attempts

You should report phishing attempts the IT department. You can also report it to bigger authorities like to the Victorian Government Cyber Incident Response Service by emailing cybersecurity@dpc.vic.gov.au who can help you respond to the incident. You should also report security incidents to OVIC by emailing a copy of our incident notification form to incidents@ovic.vic.gov.au or contacting us at privacy@ovic.vic.gov.au for privacy advice.

WHAT STEPS CAN EMPLOYEES TAKE TO PROTECT AGAINST PHISHING ATTACKS?

1 **Watch out for fake links or attachments.**

Where you suspect an email to be a phishing attempt, contact your IT team. Do not open any attachments, click any links or forward the email to another device.

2 **Do not provide information to unverified sources.**

If you are unsure about whether you should be providing your information, check with your Privacy Officer or IT team. If the email is from someone familiar but the contents appears surprising or suspicious, contact them on the phone number you already hold to verify if they actually sent it.

3 **If you receive a phishing email, notify your IT department.**

If you think you have fallen for a phishing attempt or notice suspicious activity on your device, immediately disconnect from the internet and notify your IT team. Do not shut down or restart your device.

SEARCH INDEX

REFERENCE:

Please visit my site: https://luthiienn.github.io/ictby18171/