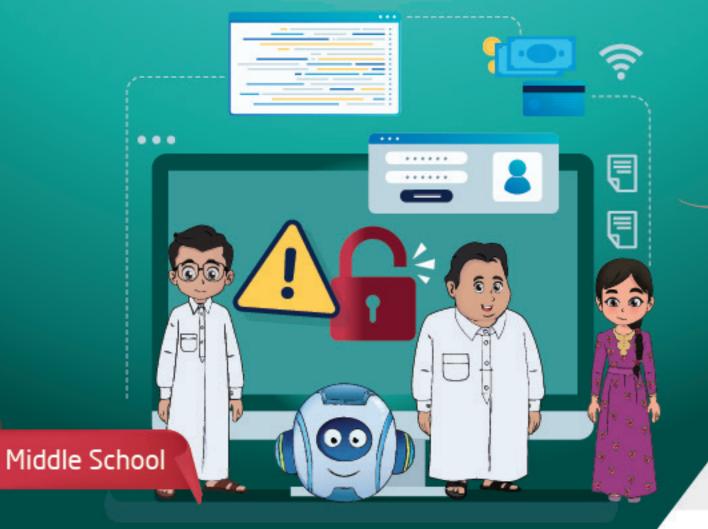
Forgery and online fraud

Presentation Slides

Training Kit









الوكالة الوطنية للأمن السيبراني National Cyber Security Agency

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December, 2023 Doha, Qatar

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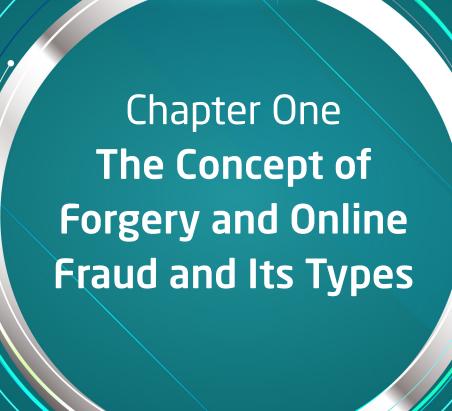
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Time Table for the Lecture

Content	Allocated Time
General introduction	5 minutes
The theoretical aspect	25 minutes
View Educational Videos	25 minutes
Short break	20 minutes
Implementation of Training games	25 minutes
Dialogue and discussion with students	15 minutes
Graduation project	5 minutes
Workshop duration	2 hours



First: The Concept of Online Fraud





Online fraud

A type of deception and tricks carried out over the internet, often occurring in chat rooms, via e-mail, on forums or websites (the web). The goal of these crimes is to defraud customers and users by stealing money, important personal information, and other purposes.



Information fraud:

A concept related to the concept of online fraud, and it means deception or fraudulent manipulation of information processing systems, with the intention of wrongfully gaining access to services, money, or specific assets.



Seizing others' money through deceitful means, often involving the use of computers.



Second: Reasons for falling victim to online fraud

1

Lack of awareness about using social media and internet platforms.

2

Misuse of internet websites and access to unsafe websites.

3

Sharing personal information on social media and online platforms.

4

Weakness of electronic systems of enterprises and companies.

5

Fake online stores leading to financial losses.

6

Digital fraudulent currencies platforms.

7

Theft of sensitive information about individuals from companies and organizations without the company's management knowledge.

Third Types and Forms of Online Fraud





E-mail

Among the more deceitful and cunning methods of online fraud is the act of sending a fabricated email that appears to originate from a friend or an official entity, whereas it's just a phishing attempt.



Smartphone

Installing pirated (hacked) or unidentified applications, as well as clicking on links from unknown source, leads to the compromise of personal data such as images and files.



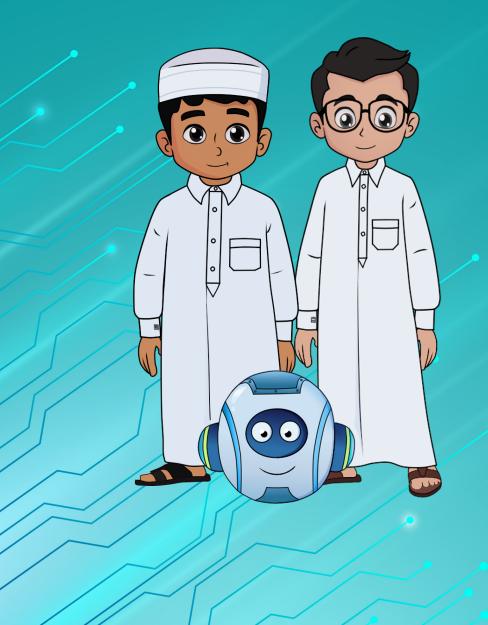
Computer

Hackers and scammers resort to infiltrating the computer using Malware and links, causing shutdowns, and then extorting victims to pay money to regain access.



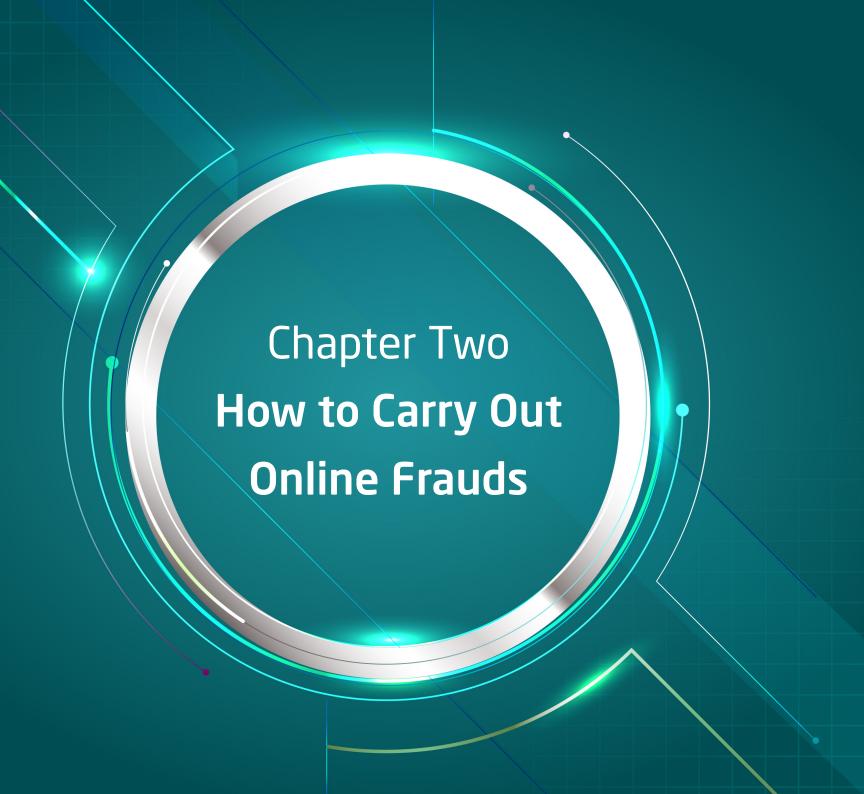
E- Commerce

Users can visit a fake website intending to purchase goods, only to become victims of fraud and online scams, paying money without receiving anything in return.



Exploiting Disasters:

During crises such as natural or health disasters like the "COVID-19 pandemic," cybercriminals organizing deceptive campaigns soliciting donations to aid victims. This deceit tricks individuals into disclosing private banking information, a clear instance of online fraud.



First vulnerabilities that help with online frauds





Definition of Security Bug

A 'Security Bug' is a term referring to vulnerabilities in computer operating systems and software. These weak points allow attackers to infiltrate the operating system, enabling them to modify it, leading to potential outcomes such as complete destruction, spying on the computer owner's private information, or what is known the victim's device.



Zero-Day vulnerability

One of the disadvantages of the electronic system. This describes a defect in software that can be taken advantage of by unauthorized individuals (hackers). Developers may be unaware of this vulnerability, haven't created a remedy, or have chosen to overlook it. This type of security flaw leads to a critical breach in cybersecurity.

How Zero-Day vulnerabilities attack works

Identifying security vulnerabilities.

Creating an exploitation code.

Search for systems affected by security vulnerabilities

4

Planning the attack.

Infiltration.

Launch of Zero-Day vulnerabilities.



Non-targeted attacks of Zero-Day vulnerability

Non-targeted zero-day attacks are commonly launched against a large number of home users (ordinary individuals) who use a vulnerable system, such as an operating system or browser. The attacker's primary aim is often to breach these systems and utilize them to build extensive botnets for executing larger cybercrimes later.

Second Personal Data Security and Online Fraud





Information security

Refers to a set of security measures and tools that widely protect sensitive information from misuse, unauthorized access, or disruption or destruction.



Data Theft

It is the act of stealing digital information stored on computers or mobile devices to obtain confidential information or violate privacy, such as bank account details, internet passwords, passport number, medical records, online subscriptions, etc.

In the realm of the internet, the term used for "theft" is often "data breach" or "data leakage."



Third: Digital Footprint and Online Fraud

The term "Digital footprint" or "Digital shadow" or Electronic footprint", refers to the trail of data and information left behind when using the internet. This encompasses the websites visited, the emails sent and received, and the information provided online.

For instance, actions like social media posting, subscribing to newsletters, leaving reviews online, or shopping online all contribute to the "Digital footprint".

There are two types of digital footprint; active and inactive

Inactive digital footprints



Generated when information is collected about the user without their awareness.

Active digital footprints



Intentionally sharing user information by posting or sharing on social platforms sites or online forums.

The Negative Effects of the Digital Footprint

It creates relatively permanent data that becomes available for public or partial access.

The digital footprint shapes individuals' online reputations, similar to what occurs in real life.

Words and images published by an individual online can be misinterpreted or altered, causing unintended offense.

Content intended for a specific group can spread beyond it, potentially damaging relationships between individuals.

Cybercriminals can exploit your digital footprint for purposes such as identity theft, accessing accounts, or creating fake identities using your personal data to deceive others.

Examples of Digital Footprint

Among the ways users contribute to their digital footprint are:

- Online shopping.
- Register to create an account on a specific website.
- Downloading and using applications.
- Signing up for newsletters from brands.
- Online banking services.
- Subscribing to printed and blogs.
- Using social media on your devices.
- Logging into other websites using social media credentials.
- Communicating with friends and contacts online.
- Sharing information, data, and images with acquaintances.
- Subscribing to online news sources.

Digital Footprint Protection

- Using search engines to verify the digital footprint.
- Reduce the number of information sources, for example, Websites may contain more information than one wants to display, such as phone numbers, address, and age, so users should remove personal information from them.
- Restricting the amount of data shared online.
- Check the privacy settings.
- Avoid over-sharing on social media.
- Avoid unsafe websites.
- Non-disclosure of private data on public Wi-Fi network.
- Deleting our old online accounts

- Creating strong passwords and using a Password Manager.
- > Avoiding logging into websites and applications using Facebook credentials.
- Regularly update programs.
- Reviewing mobile phone usage by setting a device passcode.
- Thinking twice before posting.
- Act quickly after a data breach.

Chapter Three
How to React When
Exposed to Online
Fraud

First: Guidelines for protecting against online fraud

1

Downloading applications from well-known app stores.

2

Regularly updating the phone.

3

Avoiding unknown source links.

4

Be cautious about transactions involving third parties.

5

Employing antivirus software. 6

Use strong passwords and change them regularly.

7

Refraining from shopping on unfamiliar websites.

Second: Data protection against online fraud

- **Description** Be vigilant for fraudulent activities when you are dealing with intrusive communications.
- If you've only met someone online, take the time to do additional research about them.
- Do not open suspicious texts, pop-up windows, or emails.
- > Secure your personal details, such as putting a lock on your mailbox.
- Keep your phone and computer secure by using a strong password, constantly updating operating systems, and maintaining a backup copy of content.
- Secure your Wi-Fi network with a password.
- Review your privacy and security settings on social media platforms.
- **Description** Be cautious about any requests for your details or money.
- Beware of any requests regarding your details or money.

- **Description** Be careful when shopping online, especially with overly enticing offers.
- **\(\)** Change your online passwords if you suspect your computer or phone has been hacked.
- Bookmark essential websites you frequently visit.
- Remember that legitimate error messages from Microsoft or other major tech companies will never include phone numbers for you to call.
- Remember: Microsoft and other legitimate tech companies will never call you to inform you of a problem with your device.
- If your screen suddenly fills with scary pop-ups windows, immediately shut down your computer.

Third: How to React When Exposed to Online Fraud

- > First: Do not engage with the scammer.
- Second: Close all active accounts upon receiving a warning message or if you suspect any of your accounts have been compromised, or upon receiving a threatening and extortionate message from an unknown source. Also, turn off the devices.
- Third: Retain the message sent, as it serves as evidence incriminating the intruder.
- **Fourth:** Report to a trusted individual, such as parents or a school authority.
- > Fifth: Do not comply with the intruder; they are skilled at intimidating others. Do not succumb to their demands, such as sending money, as happens in ransomware attacks.
- **Sixth:** Do not believe what the intruder says and do not let them manipulate your emotions.
- **Seventh:** Provide any information or specific details about the intruder or any messages received to trusted individuals who can then pass it on to the department of cybercrime control at the ministry of Interior.

Examples of the most famous online frauds



First Example Toyota Boshoku Company



In 2019, "Toyota Boshoku," a company involved in supplying Toyota cars and providing some equipment, fell victim to an online fraud operation amounting to approximately 37 million USD. Online fraudsters convinced the company's financial director to change the recipient's bank account information, enabling them to obtain these funds.

Second Example Digital Currencies

In 2017, many people lost thousands of dollars after losing digital currencies, specifically "Ethereum."

Hackers breached the currency wallets and transferred them to their own servers. Also in the same year (2017), the "WannaCry" virus, a ransomware attack, disrupted computers. To regain access, the hackers demanded a sum of money in (Bitcoin) to avoid detection and escape punishment.





Third Example Yahoo Inc



During the period between 2013 and 2016, Yahoo suffered a data breach affecting about 3 billion users. The intruders gained access to information and passwords that could be used to access other online services and accounts.



Fourth Example Money Theft in Russia

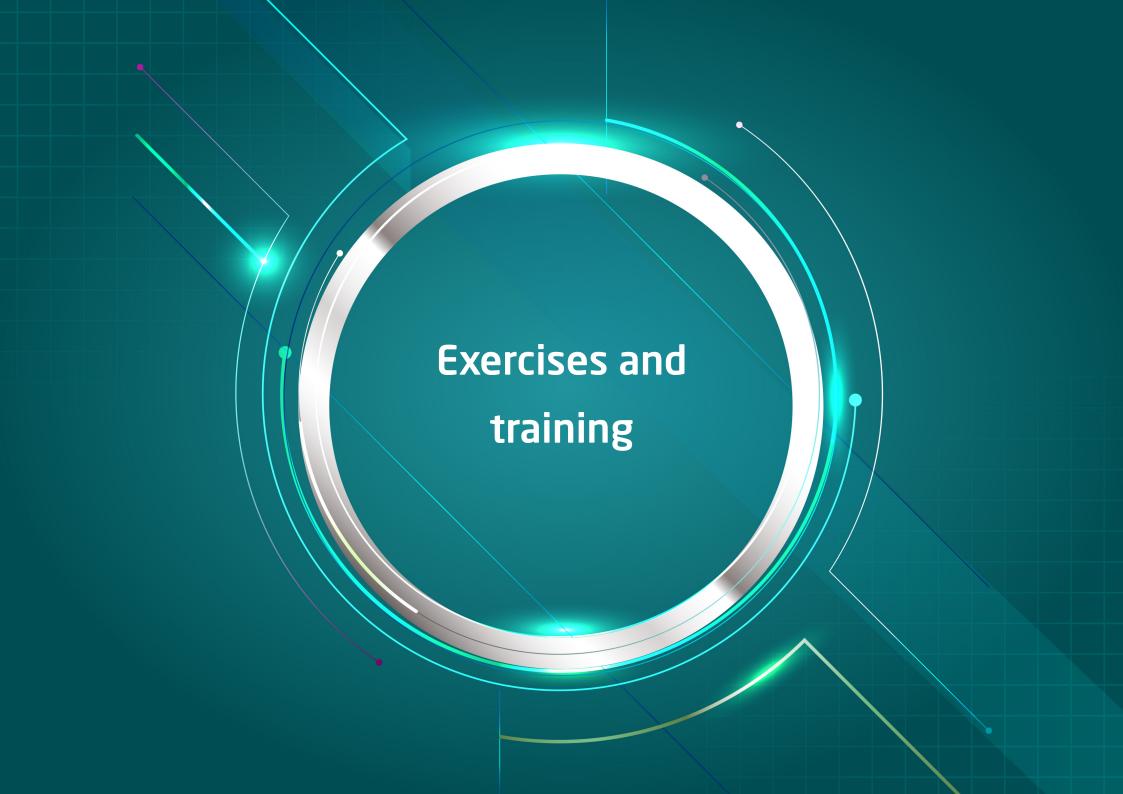
In Russia between 2013 and 2014, one of the most prominent online fraud methods, where a fraudster contacts his victim, impersonates an employee of the victim's bank, and asks him for information related to the debit card, under the pretext of stopping suspicious financial transactions. After obtaining the card information, the fraudster used it to steal and transfer funds to their accounts.



Fifth Example

\$600 Million Theft in a Massive Cryptocurrency Fraud Operation

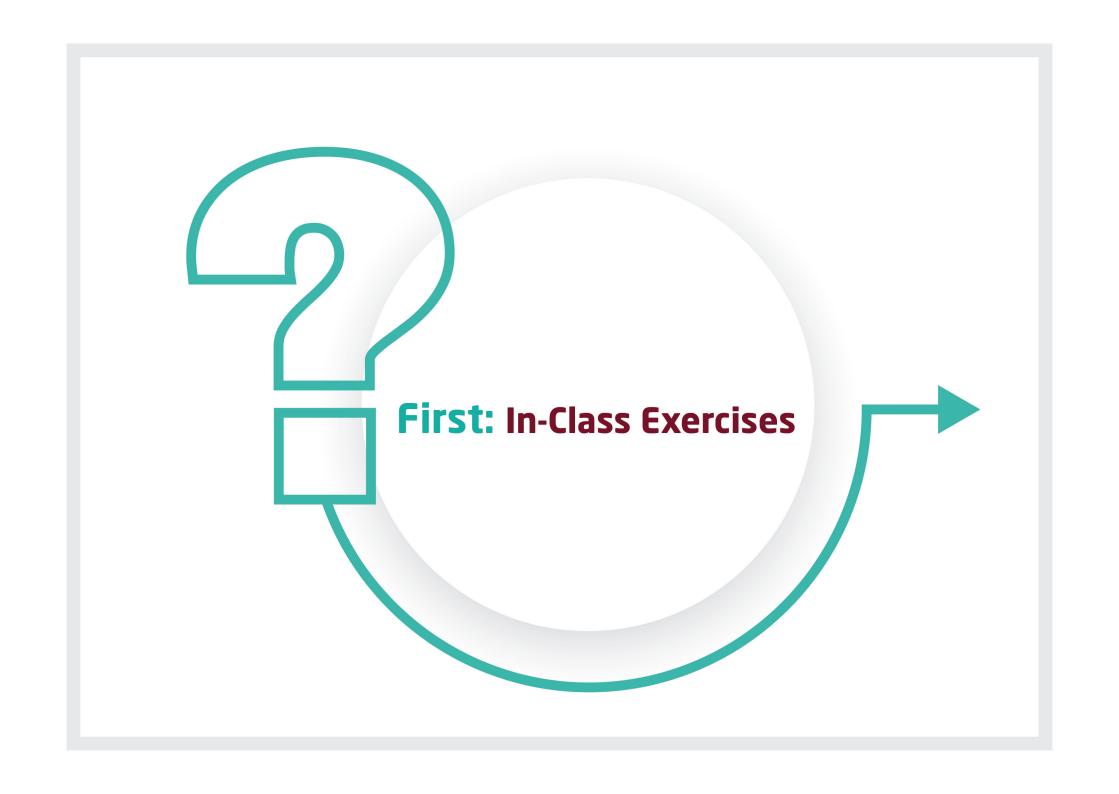
Cyber pirates stole approximately 600 million dollars, marking one of the biggest fraud operations in the history of digital currencies. They exploited a security flaw in the currency system to pilfer funds belonging to tens of thousands of cryptocurrency community members.



Online fraud

A type of deception and tricks carried out over the internet, often occurring in chat rooms, via e-mail, on forums or websites (the web). The goal of these crimes is to defraud customers and users stealing money, important personal information, and other purposes.

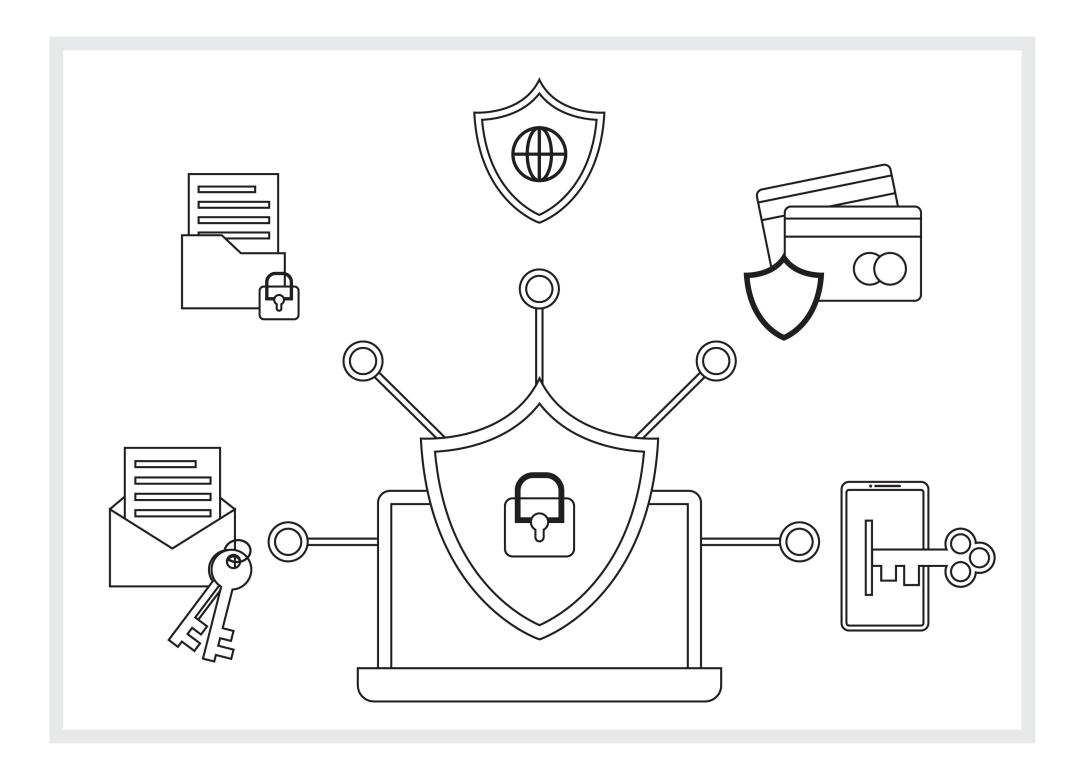




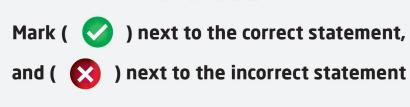


Do you know that...?

The majority of prizes and gifts received online for no reason are the beginning of an online fraud process.







Online fraud is a deliberate manipulation of information and data on the computer.



Instruction

Read the sentences below carefully, then determine whether the sentence is true or false. An example provided below. Online fraud is the authorized access in order to obtain information and data on the computer.



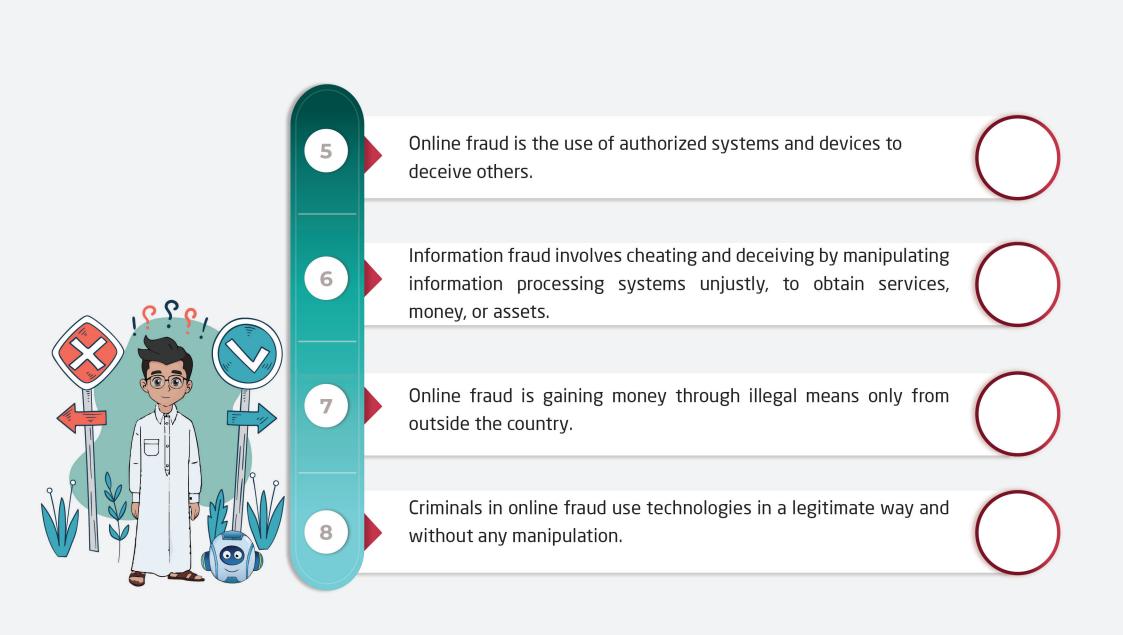
Unauthorized access to devices or systems to gain illegal profit or cause harm is a type of online fraud.





Modern technology assists online fraud perpetrators in committing crimes only on a local scale.





Cyber Fraud

Seizing others' money through deceitful means, often involving the use of computers.





Do you know that...?

Your digital footprint defines your online reputation, much like in real life.



Match the terms from column (A) with their corresponding from column (B):

Column (A)

SMS fraud

Ad fraud

Ransomware viruses

Traditional online fraud

Voice fraud

Online shopping fraud

Fundraising fraud

Shopping fraud

Column (B)

- A type of cyber fraud in which the victim is threatened with data destruction or payment of a ransom.
- It relies on deceiving others through voice alteration software to convince victims to share personal data and information.
- It occurs during the victim's shopping experience, where after paying for a product, they either receive nothing, or they might receive a wrong or counterfeit product.
- It exploits fake charitable organizations' names to obtain money by eliciting sympathy from others.
- A link is sent via text message, and once clicked, the fraud is initiated.
- It deceives the seller into thinking that the buyer has made the payment, but after sending the product, the money is not added to their balance.
- It involves purchasing credit card data and using it to buy products online.
- Malicious ads loaded with viruses are used to steal information and data.

Complete the sentences with the appropriate words:

Instructions:

Carefully read the sentences below and choose the suitable words to fill in the blanks, making the sentence meaningful.

An example provided below:

1	Identity theft is considered the most dangerous form of online fraud; where the criminal steals personal data, such as name, date of birth, address, banking account details, and all other important information.
2	This information is used to steal and the identity can be exploited to open a bank obtain cards or loans, or to register lines.
3	Online fraud criminals can steal personal to take over existing bank accounts of the person by using their personal
4	It is essential to avoid giving any personalto others, and you must delete any document or file containing confidentia or card numbers before disposing of it.

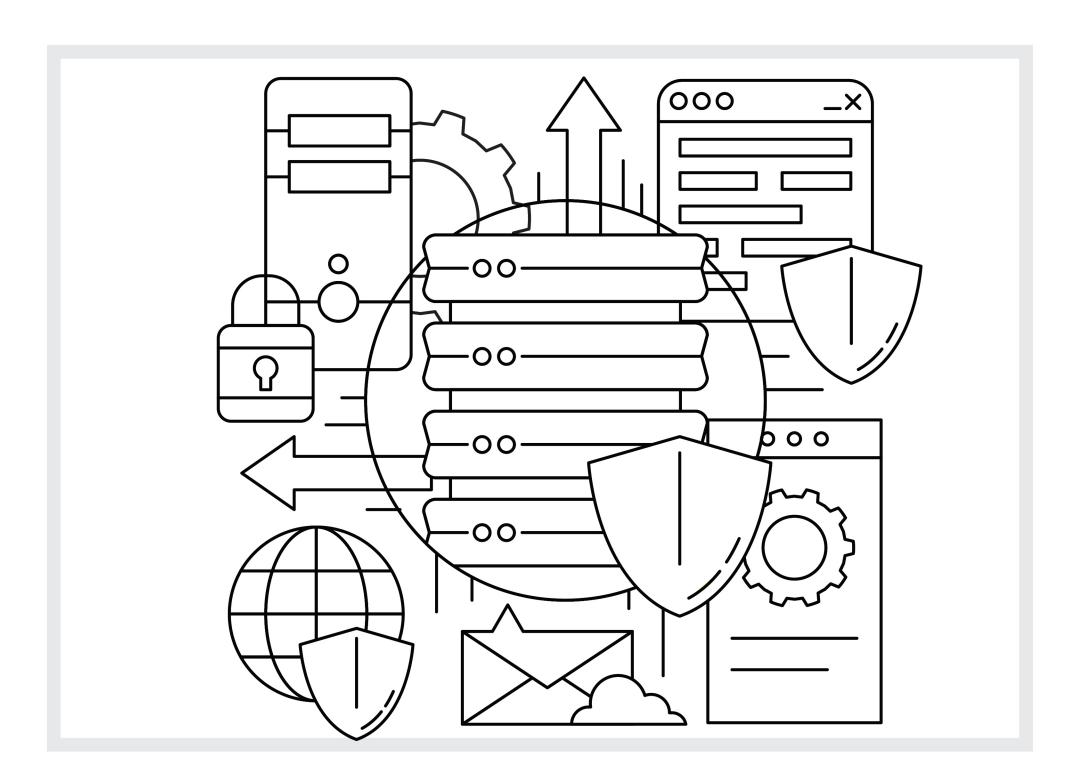
5	Ask your bank to send you a notification oryou in case there is any suspicion of unusual or unauthorized transaction on your bank
6	You must be very careful in your dealings with commercial, or with others, whether through the phone or, or the Internet in general, especially platforms.
7	Avoid opening any suspicious, and disable pop-up Ensure the authenticity of the of the person you are communicating with online.
8	Use a strongfor your phone and personal accounts, do not share it with others, and remember to keepof your data. Avoid using publicnetworks, especially when accessing any banking-related applications.
9	If you want to shop, you need to make sure that the store is trustworthy, read reviews and ratings from others, and it's better to deal with well-known and secure stores.

Information fraud

Deception or fraudulent manipulation of information processing systems, with the intention of wrongfully gaining access to services, money, or specific assets.





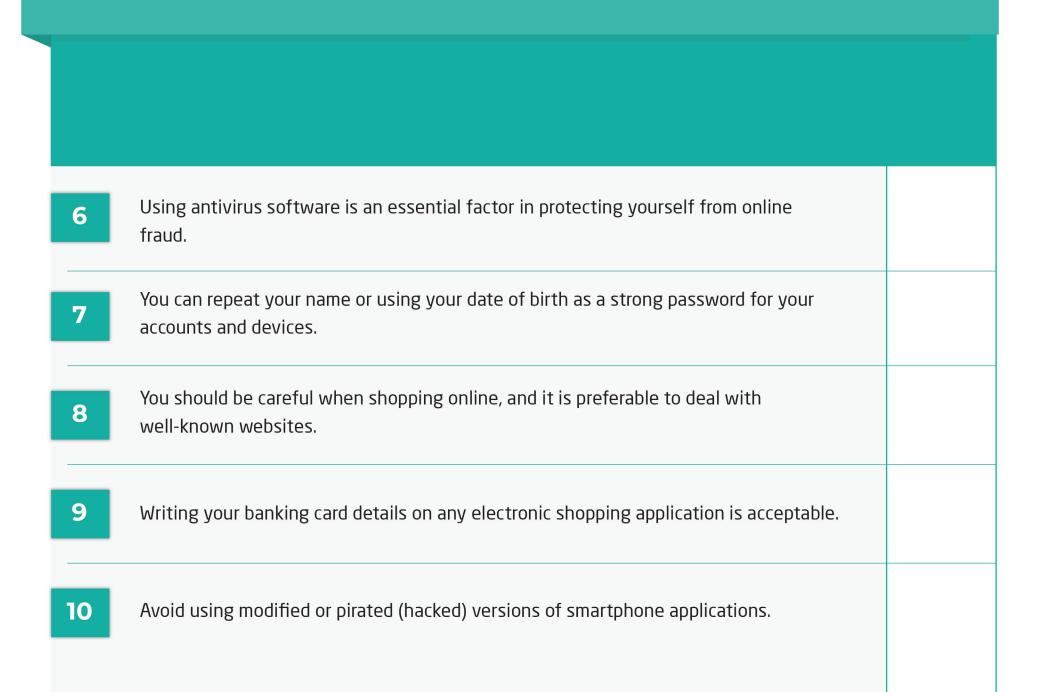


Put the word (true) or (false) in front of the phrases that are essential for protection against online fraud crimes:

Instructions:

Carefully read the sentences in the table and determine whether the sentences represent accurate information or misinformation in the field of online fraud protection. If the sentence is correct, place the word (true) next to it, if it's incorrect, place the word (false). An example provided below.

It is necessary to use legal versions of banking applications.	True
You can download applications from any website.	
You should not disclose your confidential information or personal details during phone calls.	
It's okay to click on any links sent by friends, whether in text messages or through email.	
Using a third party in financial transactions may expose you to fraud or money laundering.	



Reasons for falling victim to online fraud

- Lack of awareness about using social media and internet platforms.
- Accessing unsafe websites.
- Sharing personal information on social media and online platforms.
- Dealing with fake online stores.
- Impersonation of well-known personalities such as government employees, experts, executives, or technicians by hackers.
- Exploiting of emotions like during emergencies to attract the sympathy of targeted victims online.



Place the appropriate word in front of each sentence:





Instructions:

Carefully read the sentences in the table, 'think of a word or phrase that expresses the meaning of the sentence. And write it in the second column, an example provided below.

•	The impact you leave behind and the information you leave
	behind after each use of the internet.

Digital footprint

- Fraud and data theft using technology and the internet.
- Programs that help you protect your devices and fend off fraudulent attacks.
- A set of letters, symbols, and numbers used to secure your accounts.
- Using an intermediary to transfer money from one party to another.

Security Bug

A 'Security Bug' is a term referring to vulnerabilities in computer operating systems and software. These weak points allow attackers to infiltrate the operating system, enabling them to modify it, leading to potential outcomes such as complete destruction, spying on the computer owner's private information, or accessing the victim's device.





The Zero-Day loophole

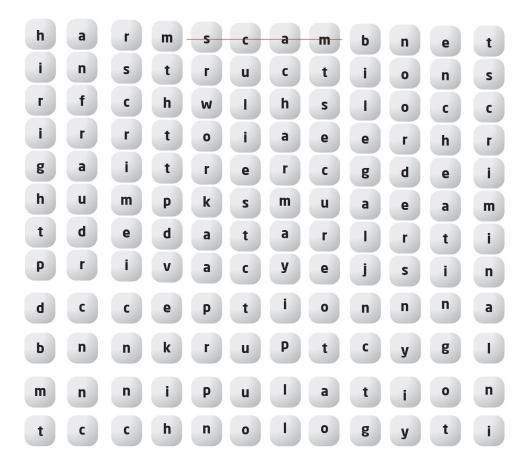
This type of security vulnerability is present in computer programs and can be exploited by hackers; these security vulnerabilities pose a high level of risk to cybersecurity.





Instructions:

Carefully read the words listed below and search the table for consecutive letters that form these words. Below is an example for the word "Thieve" and how its letters were found in the table:



Fraud - Scam - Manipulation - Data - Instructions - Orders - Technology - Harm - Http

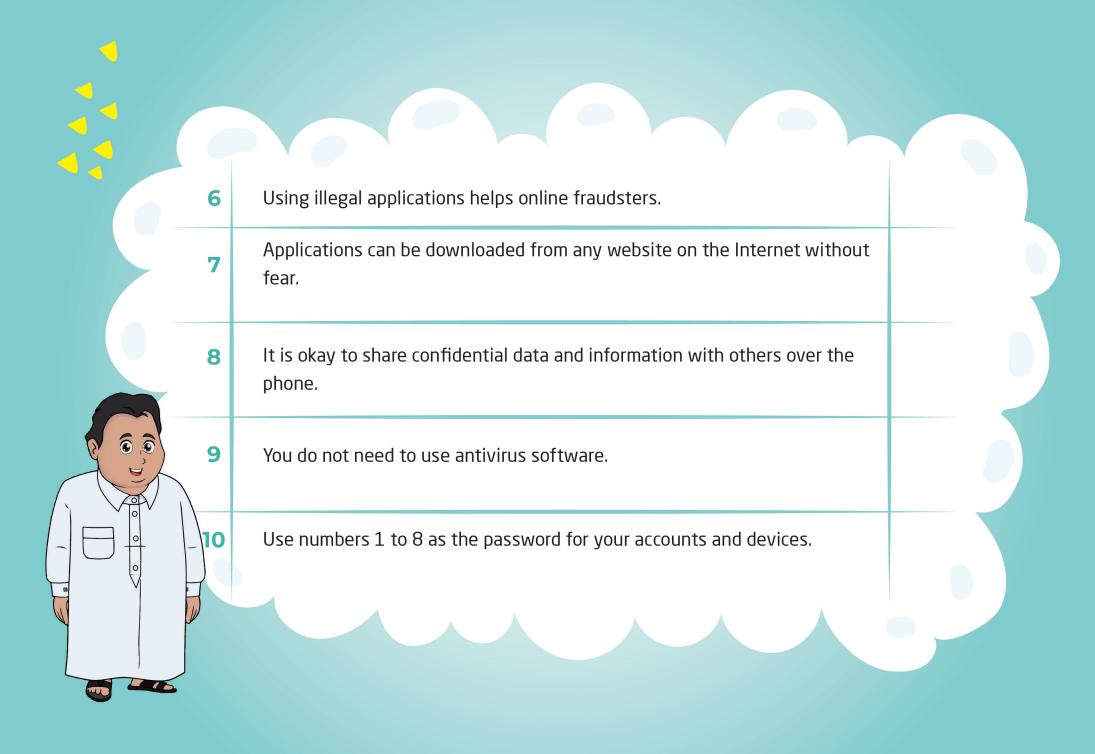
Criminal - Crime - Deception - Cheating - Bankruptcy - Right - Work - Privacy - Secure - Legal - Lie - net

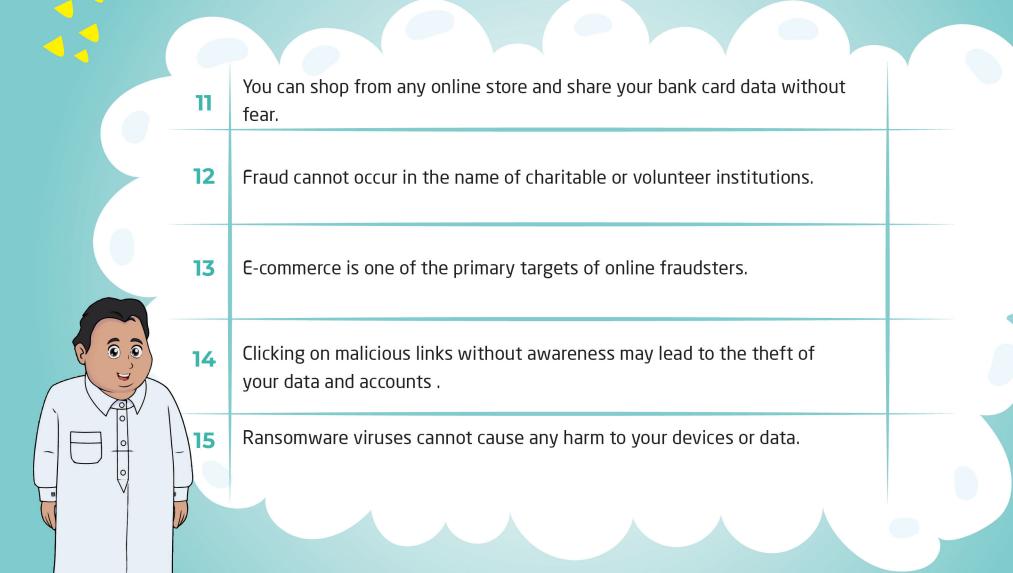
Determine the correct and incorrect statements:

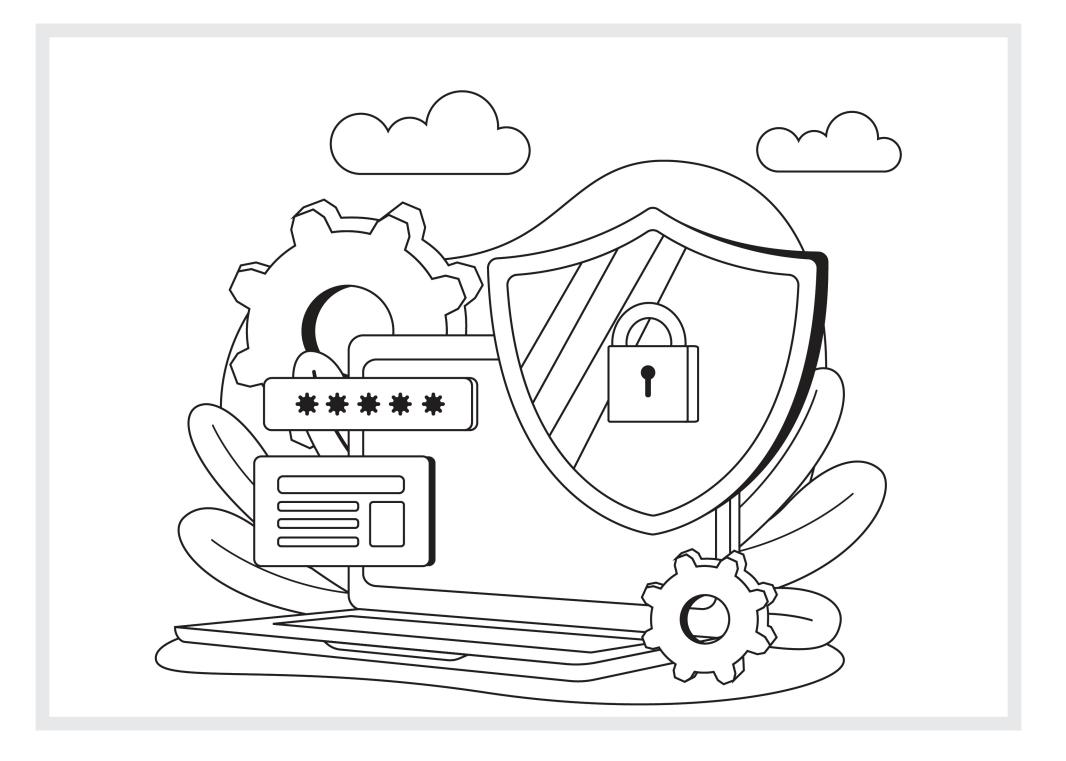
Instructions:

Read the sentences below carefully, and think carefully about whether the sentences are correct or incorrect. An example provided below.

	1	Online fraudsters exploit people's trust to steal their money and data.	Correct
	2	Cybercriminals study the victim to know their weaknesses; to gain trust before committing their crime.	
	3	Large companies are never exposed to any form of online fraud crimes.	
2 0	4	Online fraud crimes cannot enter into any other areas other than stealing money and data.	
	5	Online fraudsters seek only to obtain money.	







Complete the following sentences:

Instructions:

Carefully read the following sentences and proceed to fill in the blanks with the appropriate words to give the sentence a meaningful context. An example provided below.

- Digital footprint is the digital shadow and refers to the trail of data left when using the internet
- Digital footprintang includes visits to ______, messages from _____ and the information you are looking for.

The _____ digital footprint is when you deliberately share information about yourself by participating in _____ sites or forums.

The _____digital footprint occurs through gathering information about the user without their knowledge, either from their website visits or the information they search for and use with their _____address. The digital footprint is very important, especially since it is considered data, and it determines the _____reputation of the person. Some employers resort to tracking the digital _____ of potential employees and some words or shared online can be misinterpreted, affecting your reputation or digital





Do you know that...?

Using a strong password protects you from online fraud.



Exercise 4

How can you protect yourself from online fraud? Place a word true or false:

Instructions:

Carefully read the following sentences, and carefully consider whether the sentences are true or false, and an example provided below.

1.Downloading legitimate applications from official stores.	True
2.Using modified and leaked versions of mobile phone applications.	
3.Use anti-virus software and firewalls.	
4.Sharing personal data on social media platforms.	
5.Sharing data through phone calls.	
6.Shopping only from trusted stores.	
7. Avoid sharing bankcard information on websites.	
8.It's okay to click on links from unknown sources.	
9.Be careful of using third-party services during money transfer or withdrawal.	
10.Choose a strong password consisting of uppercase and lowercase letters, numbers, and some symbols.	



Hamad received an email with a gift of an iPhone 14. So he immediately opened the link provided but found nothing.



Hala received a message from an international number asking her to send her Facebook account password. Once she sent it, she couldn't access her account again. A bank customer service representative contacted Abdullah to verify the accuracy of his card and bank account information. After that, Abdullah received a message informing him of a withdrawal of 50,000 riyals from his account.

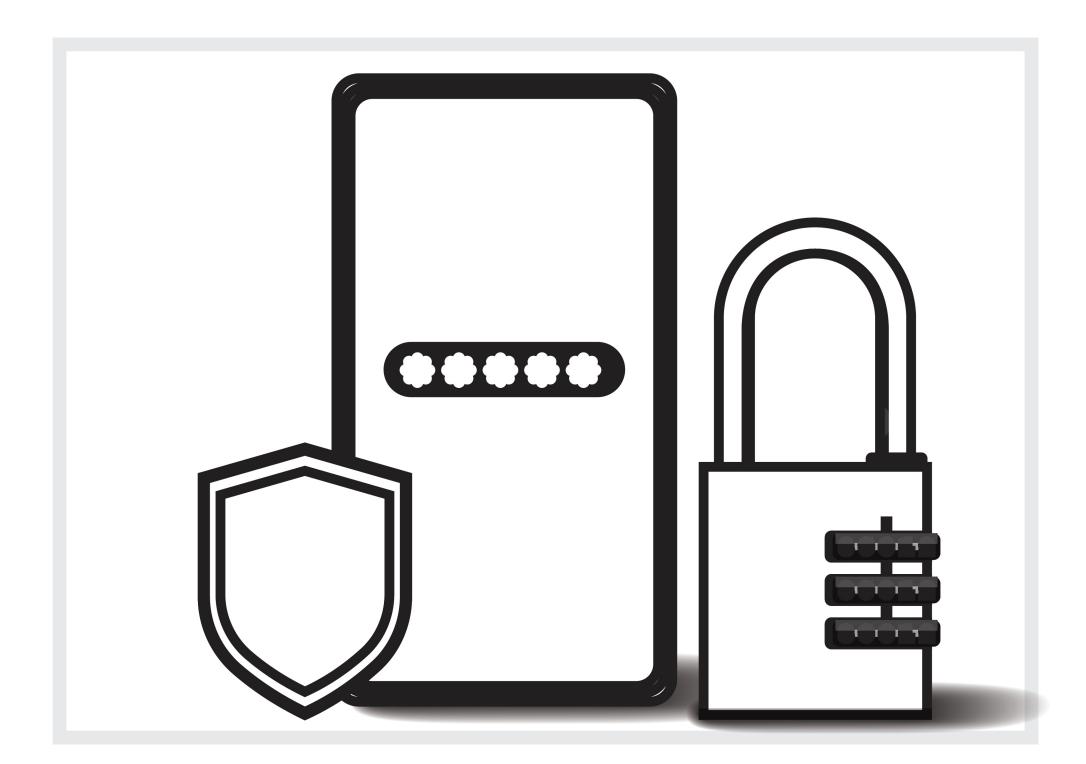


Mona saw a sponsored ad on Facebook for a charity collecting donations for Sudanese refugees. She sent them some money, and when she tried to confirm receipt of the amount, no one responded to her.

Do you know that...?

Logging into certain websites using your Facebook account details might expose you to online fraud.





The digital footprint is formed through

Online shopping.

Register to create an account on a specific website.

Downloading and using applications.

Using social media on your devices.

Logging into other websites using social media credentials.

Communicating with friends and contacts online.

Share information, data, and images with acquaintances.

Digital footprint protection methods

Verifying our information using search engines.

Removing personal information from websites.

Restricting the amount of data shared online.

Checking social media privacy settings.

5 Avoid unsafe websites.

Being cautious when using public Wi-Fi network.

7 Deleting our old online accounts.

8 Creating strong passwords.

Avoiding logging into websites using Facebook credentials.

Regularly update programs and applications.

Setting a password for the mobile phone.

Act quickly after a data breach.

Online fraud protection guidelines

Downloading applications from well-known app stores.

Regularly updating the phone.

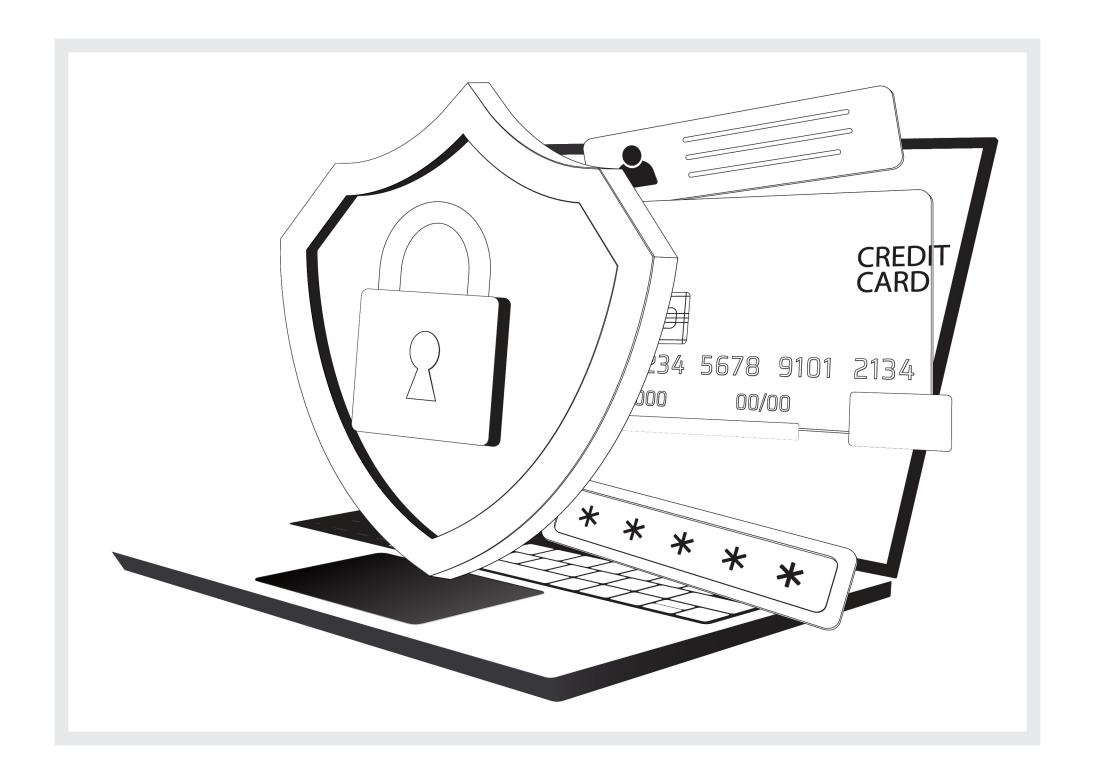
Avoiding unknown source links.

Be cautious about transactions involving third parties.

Employing anti-virus software.

6 Using complex passwords.

Refraining from shopping on unfamiliar websites.





pay attention!

Information security

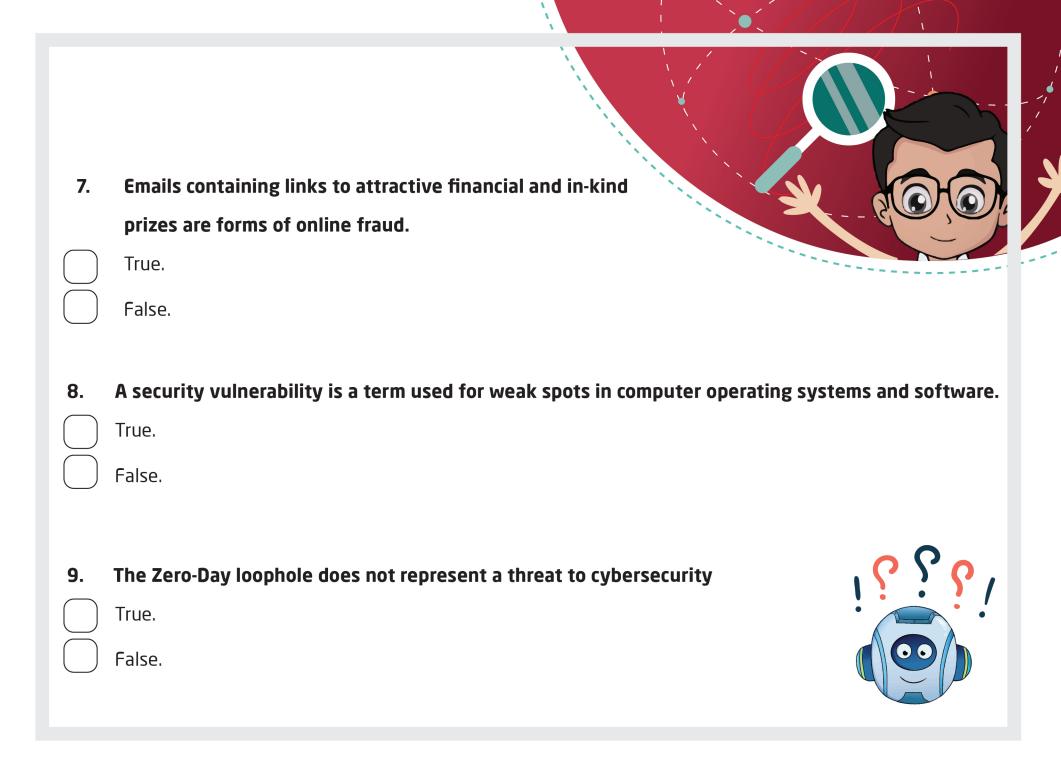
Refers to a set of security measures and tools that widely protect sensitive information from misuse, unauthorized access, or destruction.

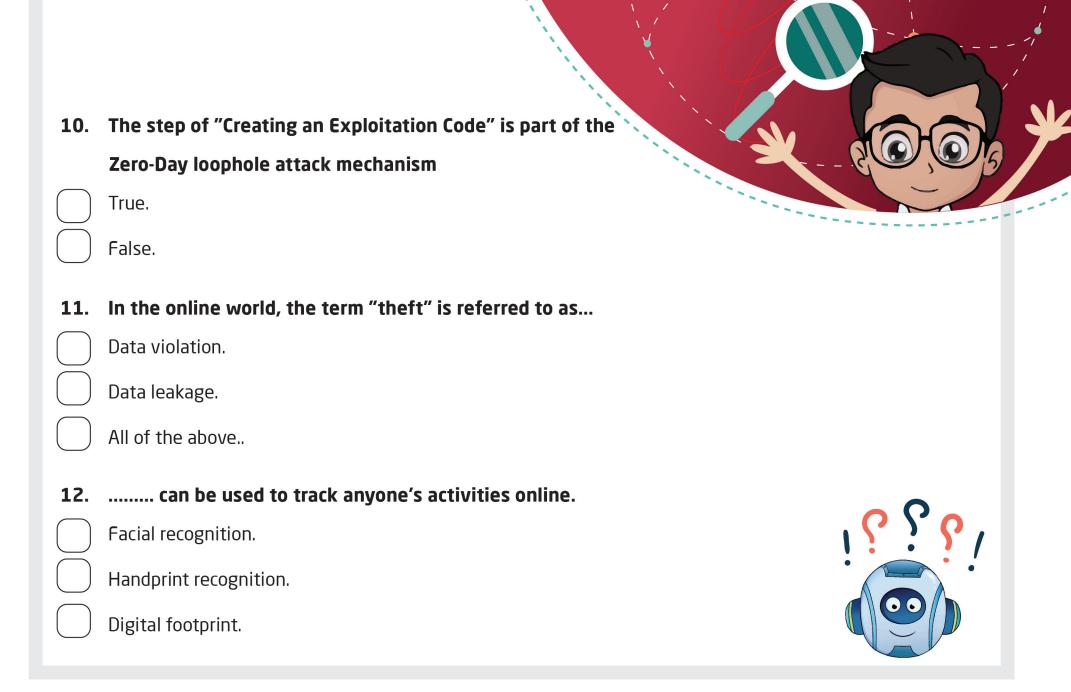


Choose the correct answer

1. Which of the following is an example of an active	HE
digital footprint	
Posts on social media platforms.	
Applications using geolocation.	
Websites installing cookies without user notifying.	
2. One of the most important sources of personal information is the identification	
links related to applications and websites.	
True.	
False.	
3. Online fraud is usually carried out when individuals visit websites, chat rooms, online stores blogs or smart applications.	99,
True.	
False.	







Find the matching item

Match the sentences from column (A) with the corresponding ones from column (B)

Column (A)

Causes of online fraud

Fake e-mail messages

Examples of online fraud crimes

One of the security vulnerabilities that infects software

A set of security measures and tools that protect sensitive information from misuse

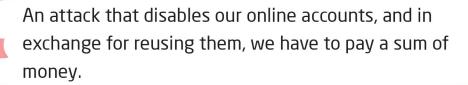
Theft of digital information stored on computers or phones for the purpose of privacy violation

A synonym for the word "theft" in the internet

Column (B)

- Exploitation emergencies such as the COVID-19 pandemic
- One form of online fraud
- Cryptocurrency theft in recent years, such as Bitcoin
- Zero-Day
- Information security
- Data theft
- Data breach

Place the word or phrase synonymous with the following sentences:



Fake messages offering financial rewards and gifts arrive via email or messenger with the aim of deceiving and stealing our data.

Vulnerable areas that lead to infiltrating our devices, whether computer or phone, putting us at risk.

Tools that safeguard our sensitive information from unauthorized access, disruption, or destruction.

A specific type of theft targeting our personal data online, punishable by law.

Online footprints used by attackers to exploit sensitive information and deceive both us and others.

It consists of 12 letters, symbols and numbers, and aimed at protecting us online.

Complete the following sentences with the correct answers:



- digital footprint refer to intentional sharing of user information.
- digital footprint involve collecting user information without their knowledge.
- Cybercriminals can exploit digital _____ for purposes like identity theft.
- 4 Among the ways users add to their digital footprint is by downloading
- Restricting _____ is among the methods of safeguarding the digital footprint.



6	Verifying privacy settings is a way to protect

- Avoiding clicking on ______ is among the guidelines for protection from online fraud.
- In case of exposure to an online fraud, it's advisable to report it to

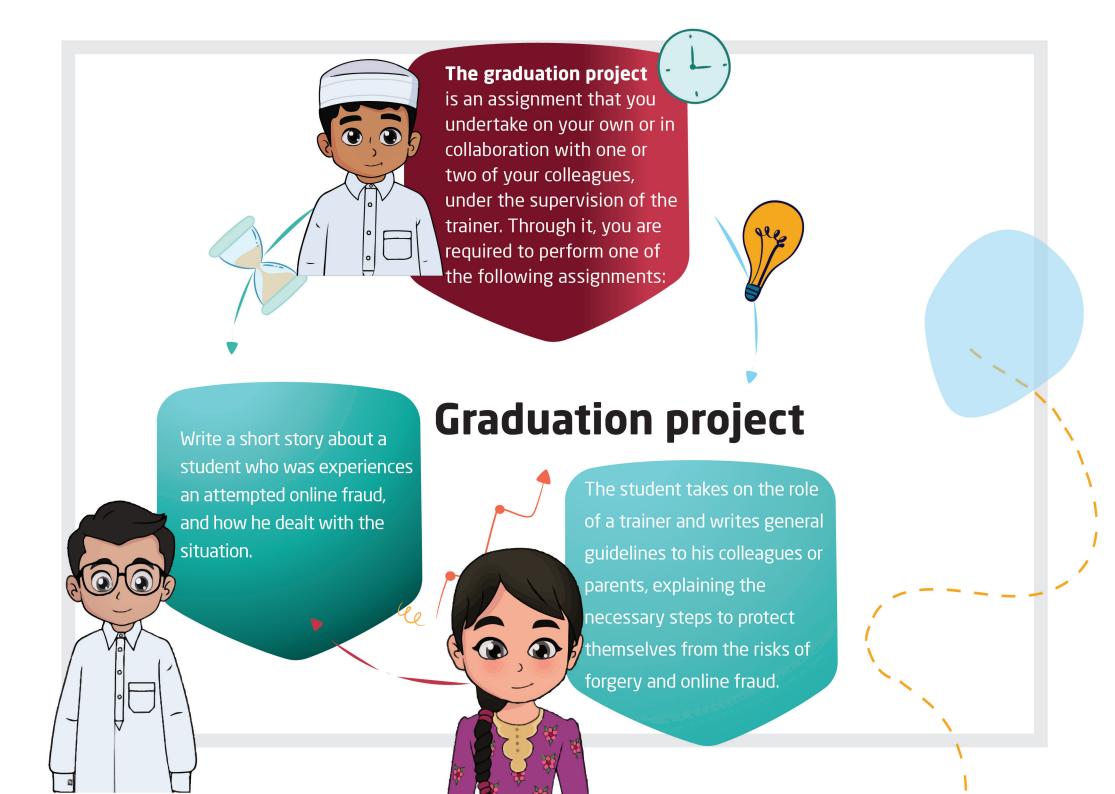
10 If your screen suddenly fills with creepy pop-ups windows, then ______

pay attention!

Digital footprint

Refers to the trail of data and information left behind when using the internet. This encompasses the websites visited, the emails sent and received, and the information provided online. The digital footprint shapes individuals' online reputations, similar to what occurs in real life.









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