

07

Using Internet for Information and Communication



Nimal what is called as internet?



A computer network that consists of a large number of inter-connected computers.

7.1

Let's learn about the Internet

A network that consists of two or more computers can be considered as a computer network. The internet is an extra-large network with a large number of such computer networks. There are millions of computers on the internet.



Figure 7.1 - Computer Network

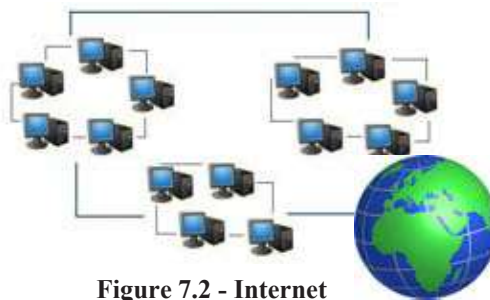


Figure 7.2 - Internet

At present, students can expand their knowledge by using resources like information, videos, images about any subject area by connecting to the internet.





They are many service rendered by the internet apart from providing educational knowledge. The ability to obtain information quickly on any incident in the world is one such service.

7.2 World Wide Web and Uniform Resource Location





A website is formed with many web pages. The world wide web is formed with many websites. There are millions of websites in the world wide web. The world wide web is also known as www.

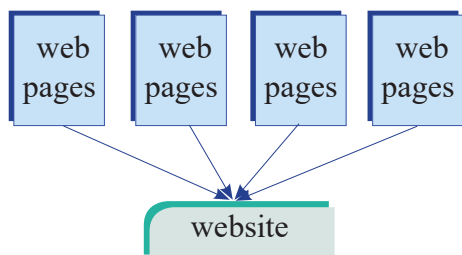


Figure 7.3 - How a website is created

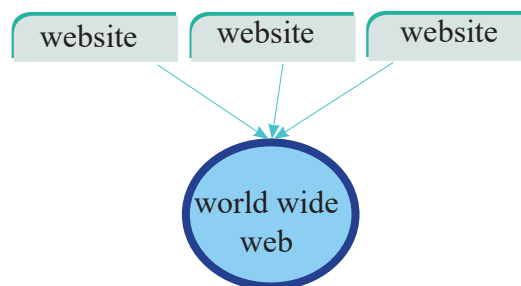


Figure 7.4 - How a world wide web is formed

7.3

Let's learn about Uniform Resource Locator



The uniform resource locator is the address used to identify one resource among the huge number of resources in the World Wide Web. The uniform resource locator is also known by its short name URL.

e:g: <https://www.moe.gov.lk>

Given above is the uniform resource locator or the address of the website of the ministry of Education.

With this website address, the Ministry of Education of Sri Lanka can be identified among many websites in the www.




7.3.1 Let's identify Secured and Unsecured Websites



In order to identify secured and unsecured websites separately different methods are used. The main two methods are given below.

The address of the website starts with https.

e:g:  <https://moe.gov.lk>

After logging in to a website  symbol is displayed on the address bar.

e:g:  <https://moe.gov.lk>

7.3.2 Video Conferencing



Video conferencing is known as conducting discussions using video technology on the internet between two persons or a two groups who are geographically located at a distance from each other.

Advantages of conducting video conferencing

- The initial cost of conducting conferences can be minimized.
- There is no need to travel to the location of the conference and therefore there is no transport cost or waste of time.
- It can be quickly arranged.

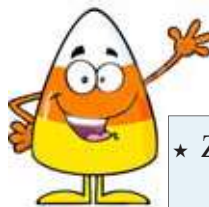


What are the software and hardware required to conduct a video conference?

- A computer
- A web camera
- Internet connection and a software to conduct a video conference are required.



Examples for software used for video conferencing



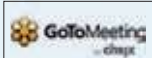
★ Zoom



★ Skype



★ GoToMeeting



★ Webex



Activity 1 : See workbook 7.1

7.3.3

E-mail

Brother, I need to send this letter to one of my friends. Can you post it?

It's easy if you send an e-mail.

What is e-mail?

E-mail means an easy way of sending a letter on the internet.



For free distribution

E-mail is electronic letters which are electronically exchanged between two people or among several people who have an e-mail address. Many things such as letters, photos, videos and documents can be sent as messages through e-mail.







E-mail Account

First, a suitable service providing website should be selected to create an e-mail account. In most cases such websites provided free e-mail accounts.



The characteristics of E-mail



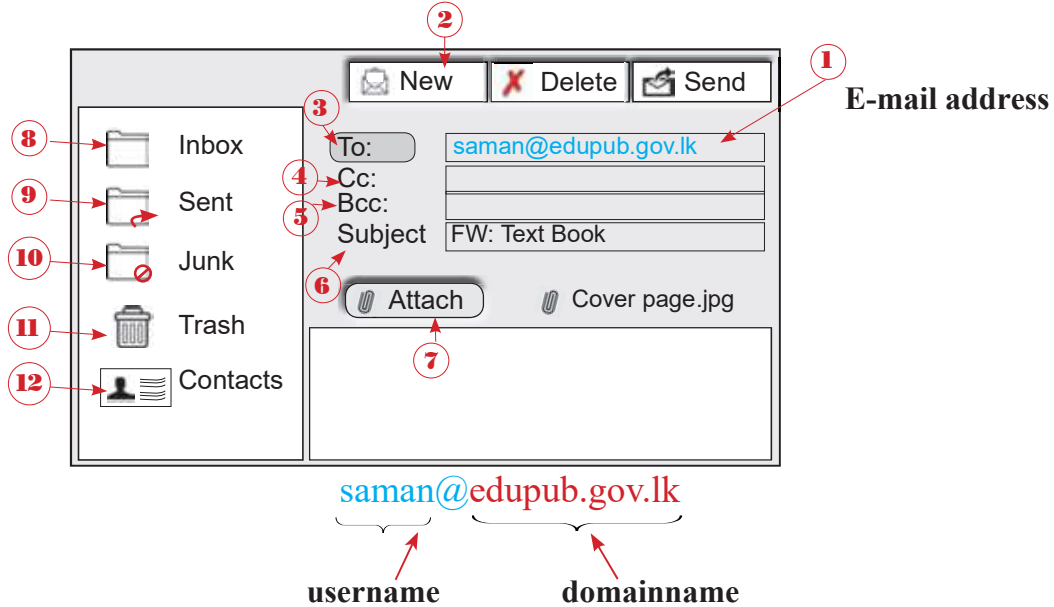
-  The ability to send copies of one e-mail message to several people at once.
-  When the letter couldn't be sent properly to the relevant e-mail account, it is notified with a reply message.
-  The ability to save e-mail addresses and retrieve them with the address book.
-  The time and date of the sent e-mail is automatically entered to the copy of the e-mail.
-  The ability to forward an e-mail message to another person.
-  The ability to attach data or information file easily into the e-mail (a photo, a document).



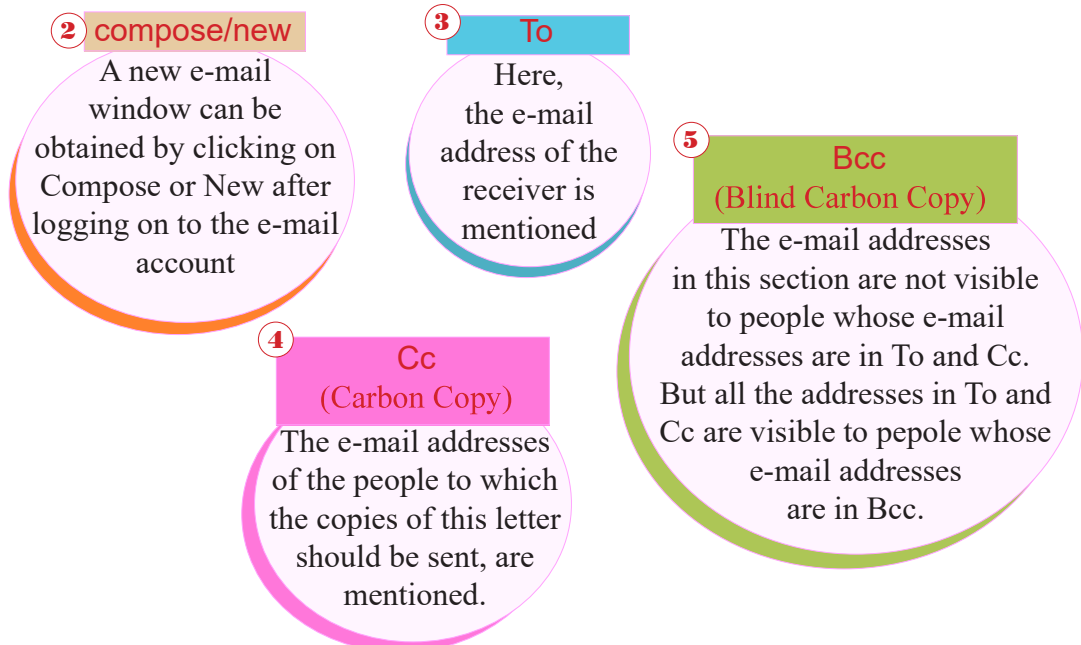
7.3.4

E-mail Window

Given below is a model of an e-mail window.



In the e-mail address saman@edupub.gov.lk, [saman](#) in the user name.
 @ symbol is used to connect the username to the other part.
[edupub.gov.lk](#) after @ symbol is the domain name.
[.lk](#) means it is an e-mail address in Sri Lanka.



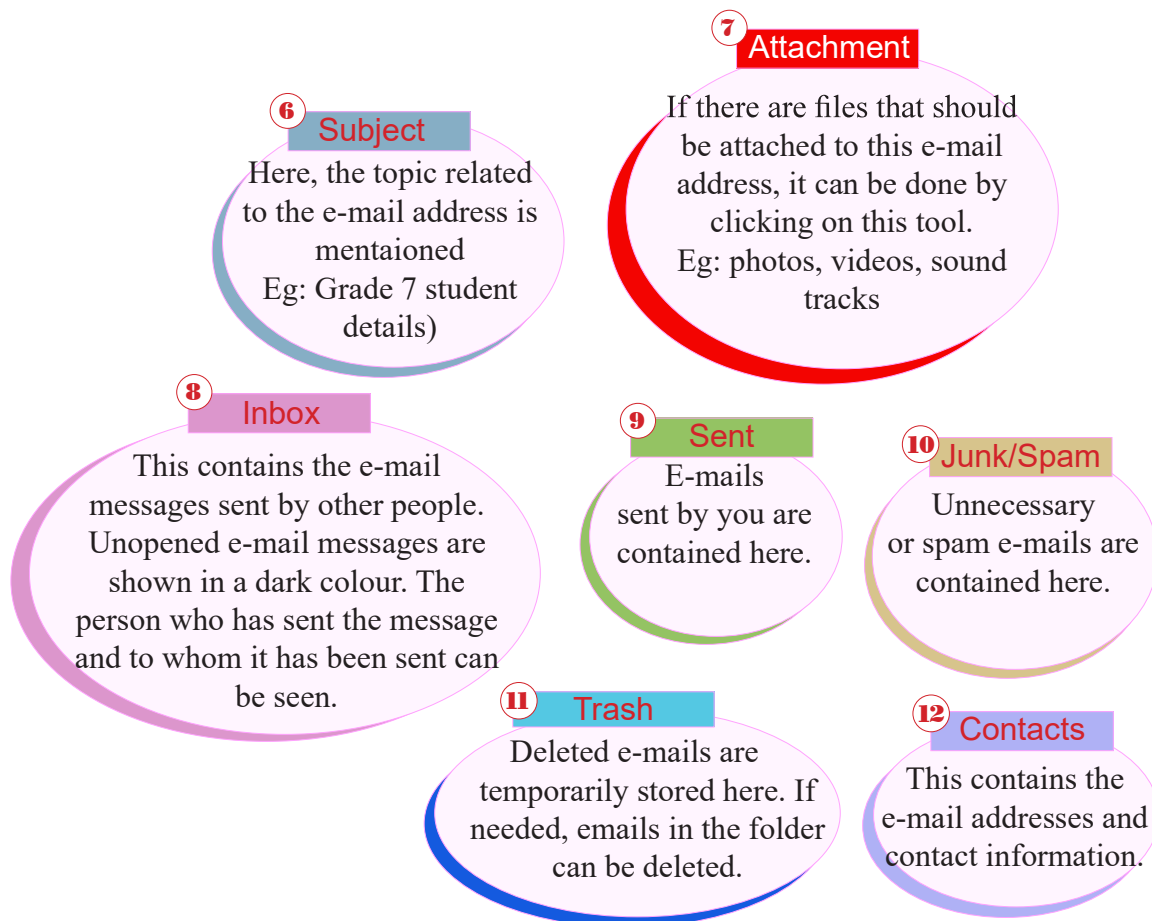
Examples

- ★ E-mail address of Amara - amara@yahoo.com
- ★ E-mail address Nayana - nayana@gmail.com
- ★ E-mail address Meena - meena@yahoo.com

Given below are e-mail addresses mentioned in To, Cc and Bcc of an e-mail message created to send a greetings message.

To: amara@yahoo.com Cc: nayana@gmail.com Bcc: meena@yahoo.com

Here, Meena can see both e-mail addresses of Amara and Nayana. Nayana can only see the e-mail address of Amara. Similarly, Amara can only see Nayana's e-mail address.



Activity 2 : See Workbook 7.2



7.4

Let's develop Webpages using HTML

Sister, our teacher told that she would teach us how to create web pages in the next lesson.



For that, first you must know what html is.

What's html ?



Html is the language used to create web pages.

7.4.1

HTML Codes

HTML (hyper text markup language) is the language used to create web pages. It has its own codes and a webpage is created by using these codes. Given below are several basic codes used in html.



<html>	- Beginning of a web page
<head>	- The first part of the web page
<title>	- The topic of a web page
<body>	- The part in which the items that should appear on a web page are shown
 	- Go to the next line (break line)
<h1>	- Get larger font for the heading (heading 1)
<h6>	- Get smaller font for the heading (heading 6)
<center>	- Centering the letters on the page
<p>	- Start a paragraph
<bgcolor >	- Use a background colour in the web page
<background>	- Use a background images in the web page
	- Use an image in the web page
<A href>	- Link another file to the web page
	- Change the font style
	- Bold the font
<i>	- Italicize the font
<u>	- Underline text

7.4.2 Let's create a Simple Web Page

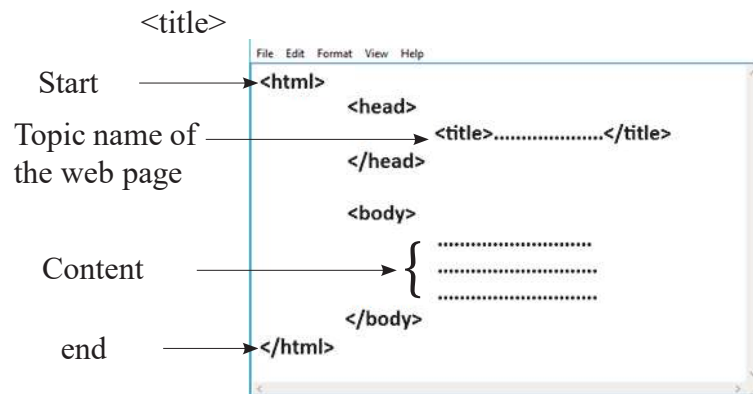
A simple text editing software could be used to enter html codes to create web pages.

E:g:. notepad



There are occasions where complex software is used to create web pages. Here, we will not focus on that.





Here, among the `<title>` codes, a suitable name for the web page should be used.

It appears on the title bar of the web page. Here what is mentioned in `<body>` _ `<body>` section is visible in the web page.

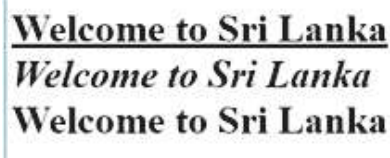



All codes should be written between '`<`' and '`>`' symbols. In most html codes, there is a beginning and an end. To indicate an ending code '`/`' symbol should be used.

e:g: `<title>` beginning end - `</title>`

The following table contains examples of how html codes are used to create a web page. The first column indicates the use of html codes and the second command indicates how it is visible in the web page.

Usage of html codes	How it appears on the web page
center a line (center) <code><center></code> <pre> <html> <head> <title> welcome</title> </head> <body> <h1> Welcome to Sri Lanka </h1> <center><h1>Welcome to Sri Lanka </h1></center> </body> </html> </pre>	
change size of text <code><h1></code> <code><h2></code><code><h6></code> <pre> <body> <h1> Welcome to Sri Lanka </h1> <h2>Welcome to Sri Lanka </h2> <h6>Welcome to Sri Lanka </h6> </body> </pre>	



<p>add underline, italic and bold</p> <p><code><u>,<i>,</code></p>	
<p>change font colour and font style</p> <p><code></code> හා <code></code></p> <pre> <h1> Welcome to Sri Lanka </h1> <h1> Welcome to Sri Lanka </h1> <h1> Welcome to Sri Lanka </h1> <h1> Y%S ,xldjg idorfhka ms,s.uq </pre>	
<p>add background colour</p> <p><code><bgcolor></code></p> <pre> <body bgcolor="Gold"> <h1> Welcome to Sri Lanka </h1> <h1> Welcome to Sri Lanka </h1> </body> </pre>	
<p>insert a paragraph</p> <p><code><p></code></p> <pre> <body> <h1> Web browser </h1> <p> A web browser is a piece of software that enables the user to access web pages and web apps on the internet. There are a range of browsers available, and they are usually free to download and install. </body> </html> </pre>	<p>Web browser</p> <p>A web browser is a piece of software that enables the user to access web pages and web apps on the internet. There are a range of browsers available, and they are usually free to download and install.</p>
<p>insert a background image</p> <p><code><background></code></p> <pre> <head> <title> welcome</title> </head> <body background="baby.jpg"> <h1> Web browser </h1> </pre>	



insert a picture

``



change the height and width of a image

`<center><h1> Baby Girl </h1>`

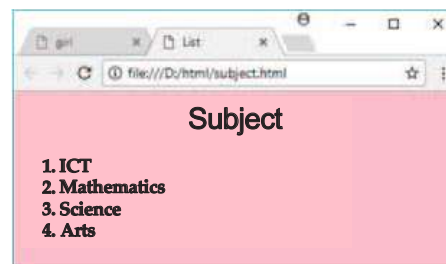
``



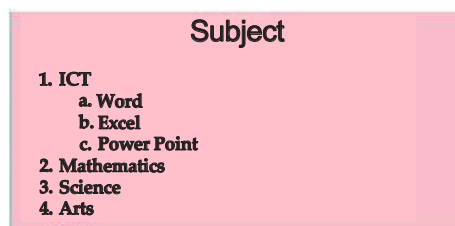
insert a numbered list

``

```
<body bgcolor="pink" >
  <center><h1> Subject </h1></center><h3>
  <ol>
    <li>ICT
    <li>Mathematics
    <li>Science
    <li>Arts
  </ol>
```



```
<ol>
  <li>ICT
  <ol type="a">
    <li> Word
    <li> Excel
    <li> Power Point
  </ol>
  <li>Mathematics
  <li>Science
  <li>Arts
</ol>
```



<p>insert a bulleted list</p> <pre> ICT word Excel Power Point Mathematics Science Arts </pre>	<div> <div>Subject</div> <ul style="list-style-type: none"> • ICT <ul style="list-style-type: none"> ◦ Word ◦ Excel ◦ Power Point • Mathematics • Science • Arts </div>
<p>link an external web page, website or a file</p>	<p>Office package</p> <p>MS-Word MS- Excel MS- Power Point</p> <p>For mare information Click here</p>
<p>click on the 'click here' to open the internet. html web site.</p> <pre><a href></pre>	<pre><body> office p ackage

 MS-Word
 MS-Excel
 MS-Power Point

 For mare information Click here </body></pre>



Activity 3 : See Workbook 7.3



7.5

Let's use the Internet Safely and ethically

7.5.1

Let's use the Internet safely

We obtain different advantages by using the internet. However, we must use the internet safely and carefully.










Can you explain that to me, brother?

Let's protect ourselves from hacking

Hacking is accessing data and information in a computer or in a computer network without permission.



-  Safeguarding the accounts on the internet by using usernames and passwords.
-  Protect the computer or the mobile phone used to enter the internet by using a username and a passwords.
-  Protect the files, folders and programmes by using passwords.
-  Encrypt the hard disk of the computer.
-  Service used to access internet should be protected by using a username and a password.
-  Keep back ups of data and information in the computer.
-  Update the facilities such as antivirus software used for safety.



Protection from Virus Attacks

A virus is a type of malware software. (Revise the facts you learnt about malware software in lesson three).



Computer viruses disrupt the activities in a computer. When a virus enters a computer, it duplicates the virus inside the computer. It reduces the efficiency of the computer. It also corrupts data and sometimes deletes them.



-  Install antivirus software and update it regularly.
-  If the internet is used, use safe websites.
-  Refrain from using black listed websites shown by antivirus software.
-  Refrain from clicking on pop-up windows.
-  Refrain from opening suspected emails and attachments.



Protection from Software Piracy

Amal what is software piracy







That is obtaining pirate copies of software which do not have the right to be copied by the user.

Software Piracy

Software piracy is copying or keeping duplicate copies or selling them without legal permission.

(Here, we have paid our attention to several measures that can be taken when using software)



-  Study the licence agreement before installing a software.
-  When buying a software, purchase them from a trusted company.
-  If you download a software, use the website of the production.
-  Obtain the help and advice of a knowledgeable person when purchasing, downloading or installing a software.



7.5.2

Let's use the Internet ethically

Cyber bullying

Cyber bullying is releasing false information which can make a person or an institution uncomfortable and that which can cause harassment and insult.

Ways in which cyber bullying can be caused



- On websites such as Facebook, Instagram, Snapchat and Twitter.
- By short messages sent via SMS.
- Through instant messages : Applications and social media websites that provide instant message services.
- By e-mails



Cyber bullying caused by posting insulting photos, making comments on them, uploading videos are categorized under unlawful crimes.

Stealing data which shows the identity of a person

When using the computer we may have to face hazards such as stealing data that indicate the personal identify of a person. If you use the internet, that risk is high.

Examples for data that indicate the identity of a person.

Name	Address
Telephone	Brithday

When the internet is used most of these stealings are done by accessing the computer or the tasks done by the user without his or her permission.

Examples for the misuse of data related to personal identity.

Obtain the information related to the computer and the user without permission and use them for frauds.

Misuse the infromation provided when entering websites.
e:g: Use for business aims without permission.



7.5.3

Precaution on Online Security

Precaution is important when working online using the internet. Several measures that can be taken are given below and they are already discussed under different topics.



Update the antivirus software installed in the computer.



Install the latest edition of the web browsers and update them regularly.



Set the settings as to turn on automatic updates so that new updates of malware software and operating systems (windows 8 and 10) are enabled in the computer.



Use a strong password: A password with at least eight letters should be used. Here it's better to contain simple letters, capital letters, numbers and special characters, (\$, *, # ,@) eg: kanDY#4599



Protect the wifi router with a password to provide security to the internet connection.



Be careful about phishing attacks.



Phishing attacks are obtaining information on bank account details and e-mail account details by appearing to be trustworthy and cheating the users. To protect from those, we should refrain from clicking on suspected e-mail messages, pop-up messages and hyperlinks.



Activity 4 : See Workbook 7.4



Summary

- ★ The internet is a collection of networks formed by a large number of computer networks. By connecting to the internet, we can expand our knowledge by obtaining information on any subject area, and resources such as photos and videos.
- ★ Among the services provided by the internet, e-mails, video conferencing, world wide web, file sharing, search engine facilities and downloading videos, songs and photos are the most common.
- ★ The main service provided by the internet is world wide web.
- ★ The uniform resource locator is the method used to identify different resources in each web site separately.
- ★ A web browser is an application software used to make a web site visible on the computer screen.
- ★ Electronic mail or e-mail is a type of letters sent to a person or several people by a person who has an e-mail address by using the internet.
- ★ Software with which free e-mails can be created - Gmail, Yahoo Mail, Outlook Mail.
- ★ An email address is mainly divided into two parts; username and domain name.
- ★ E-mails can be divided into inbox, sent, draft, trash and spam.
- ★ HTML (hyper text markup language) is a basic language used to create web pages.
- ★ To change the font colour and style, , and codes are used. To use a background colour <body colour> code and to insert a picture code are mainly used.



- ★ Hacking is stealing information and data in a computer without permission.
- ★ Viruses duplicate in a computer. The memory time which is used to perform other activities is used for this and therefore the computer becomes slow.
- ★ Mainly viruses enter a computer through the internet, computer, networks, compact disks and USB drives.
- ★ Software piracy is obtaining unlawful copies of software which do not have the right to be copied by a user.
- ★ Cyber bullying is releasing negative and false information which can cause discomfort, harassment and insult to a person through social media, forums, computer games using digital tools.
- ★ Phishing attacks are obtaining information on bank account details and e-mail account details by appearing to be trustworthy and cheating the users.

