



**Everybody**

**Presented by:  
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**Subject Name: Cyber Security and Ethics**  
**Subject Code: 66675**

**Technology: Computer**  
**Semester: 7<sup>th</sup>**  
**Shift: 2<sup>nd</sup>**

Topic 1

# **Understand Cyber Security**

## Learning outcome:

**At the end of this session learner's will be able**

**To define the Cyber security.**

**To classify the Cyber security.**

**To distinguish between Information security  
and Cyber security.**

# Define is Cyber Security.

Cyber security refers to the body of technologies, processes, and practices designed to protect networks, devices, programs, and data from attack, damage, or unauthorized access.

Cyber security may also be referred to as information technology security.

# Classify Cyber Security.

1. Application Security
2. Information Security
3. Network Security
4. Operational Security

# Cyber Security.

**Network security** is the practice of securing a computer network from intruders, whether targeted attackers or opportunistic malware.

**Application security** focuses on keeping software and devices free of threats. A compromised application could provide access to the data its designed to protect. Successful security begins in the design stage, well before a program or device is deployed.

# Cyber Security.

**Information security** protects the integrity and privacy of data, both in storage and in transit.

**Operational security** includes the processes and decisions for handling and protecting data assets. The permissions users have when accessing a network and the procedures that determine how and where data may be stored or shared all fall under this umbrella.

# Describe the necessity and role of cyber security.

In today's connected world, everyone benefits from advanced cyberdefense programs. At an individual level, a cybersecurity attack can result in everything from identity theft, to extortion attempts, to the loss of important data like family photos. Everyone relies on critical infrastructure like power plants, hospitals, and financial service companies. Securing these and other organizations is essential to keeping our society functioning.

## Describe the necessity and role of cyber security.

- Everyone also benefits from the work of cyberthreat researchers, like the team of 250 threat researchers at Talos, who investigate new and emerging threats and cyber attack strategies. They reveal new vulnerabilities, educate the public on the importance of cybersecurity, and strengthen open source tools.

# Distinguish between Information security and Cyber security.

## CYBER SECURITY

It is the practice of protecting the data from outside the resource on the internet.

It is about the ability to protect the use of cyberspace from cyber attacks.

## INFORMATION SECURITY

It is all about protecting information from unauthorized user, access and data modification or removal in order to provide confidentiality, integrity, and availability.

It deals with protection of data from any form of threat.

## CYBER SECURITY

Cybersecurity to protect anything in the cyber realm.

Cybersecurity deals with danger against cyberspace.

Cybersecurity strikes against Cyber crimes, cyber frauds and law enforcement.

On the other hand cyber security professionals with cyber security deals with advanced persistent threat.

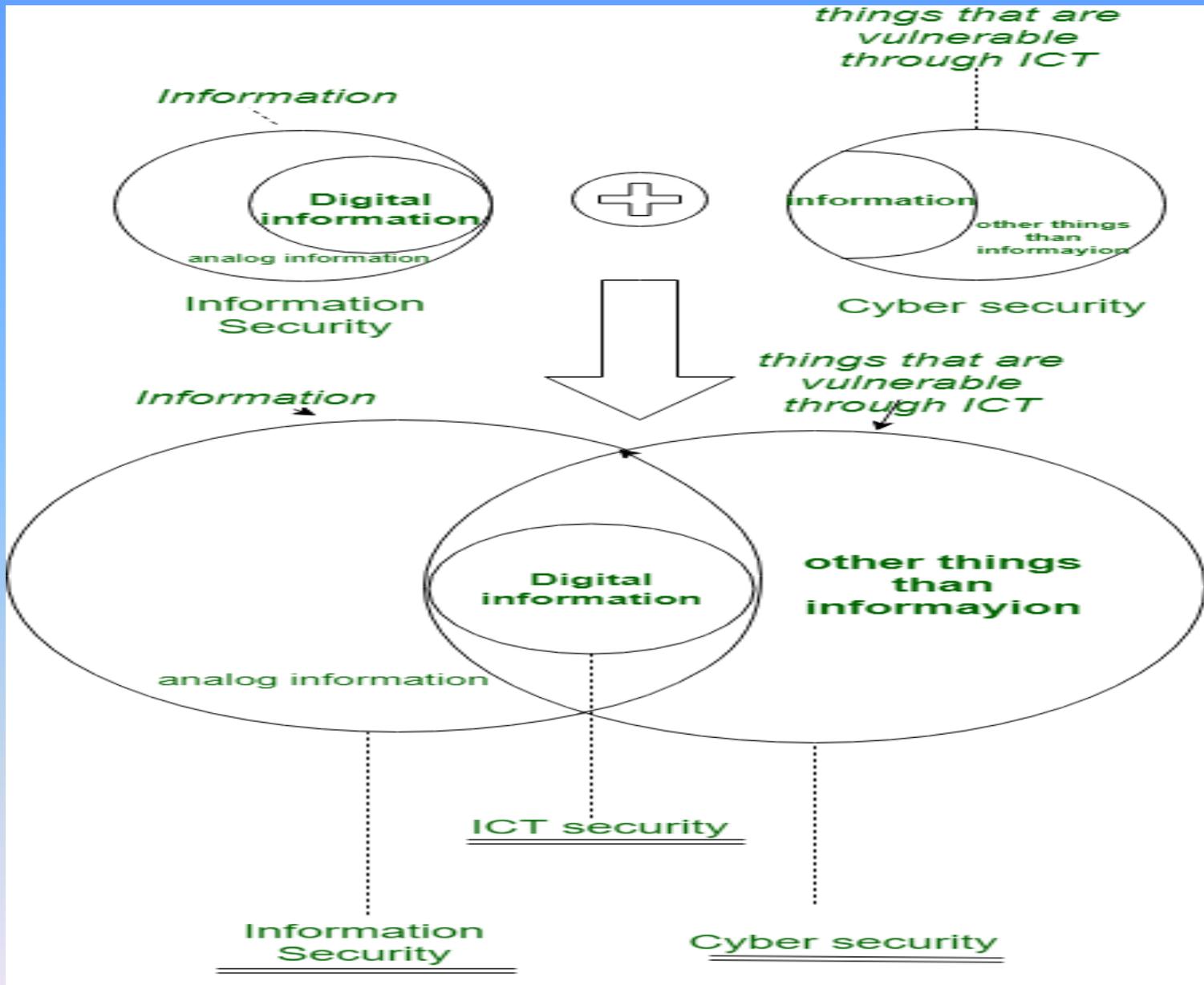
## INFORMATION SECURITY

Information security is for information irrespective of the realm.

Information security deals with the protection of data from any form of threat.

Information security strives against unauthorised access, disclosure modification and disruption.

Information security professionals is the foundation of data security and security professionals associated with it prioritize resources first before dealing with threats



Question?

A 3D rendered graphic featuring the word "Question" in a light grey, blocky font. The letters are slightly shadowed, giving them a three-dimensional appearance. To the right of the word, a large, vibrant red question mark is positioned, appearing to be part of the same 3D scene. The entire composition is set against a plain white background, which is itself centered within a larger blue gradient frame.

# Topic 2

## **Data and Evidence Recovery**

## Learning outcome:

**At the end of this session learner's will be able**

**To define data recovery.**

**To define file recovery.**

**To know about DiskGenius.**

# Data recovery and File recovery

**Data recovery** is the process of restoring **data** that has been lost, accidentally deleted, corrupted or made inaccessible. In enterprise IT, **data recovery** typically refers to the restoration of **data** to a desktop, laptop, server or external storage system from a backup.

**File recovery** is the process of rebuilding or **recovering** lost **files** from a disk or hard drive that is no longer operational or was damaged from unnatural causes.

# Forensic Toolkit or FTK

**Forensic Toolkit** or FTK is a computer forensics software made by AccessData. It scans a hard drive looking for various information. It can, for example, locate deleted emails and scan a disk for text strings to use them as a password dictionary to crack encryption.

The toolkit also includes a standalone disk imaging program called **FTK Imager**. This tool saves an image of a hard disk in one file or in segments that may be later on reconstructed. It calculates MD5 hash values and confirms the integrity of the data before closing the files. The result is an image file(s) that can be saved in several formats, including DD raw

# Data recovery techniques:

## Main DiskGenius data recovery techniques:

- Deleted **file recovery** and recycle bin **data recovery**.
- Formatted **file recovery**; reformatted **file recovery**.
- Raw **recovery**.
- **Hard drive partition recovery**.
- **Lost data recovery**.

DiskGenius data recovery techniques are very simple because it offers DIY data recovery software. Let's see how to recover lost data with DiskGenius data recovery techniques.

**Step 1 Download and install DiskGenius.**

Firstly, download and install DiskGenius on your computer. This software offers advanced data recovery techniques to help you recover lost data from any data loss disaster.

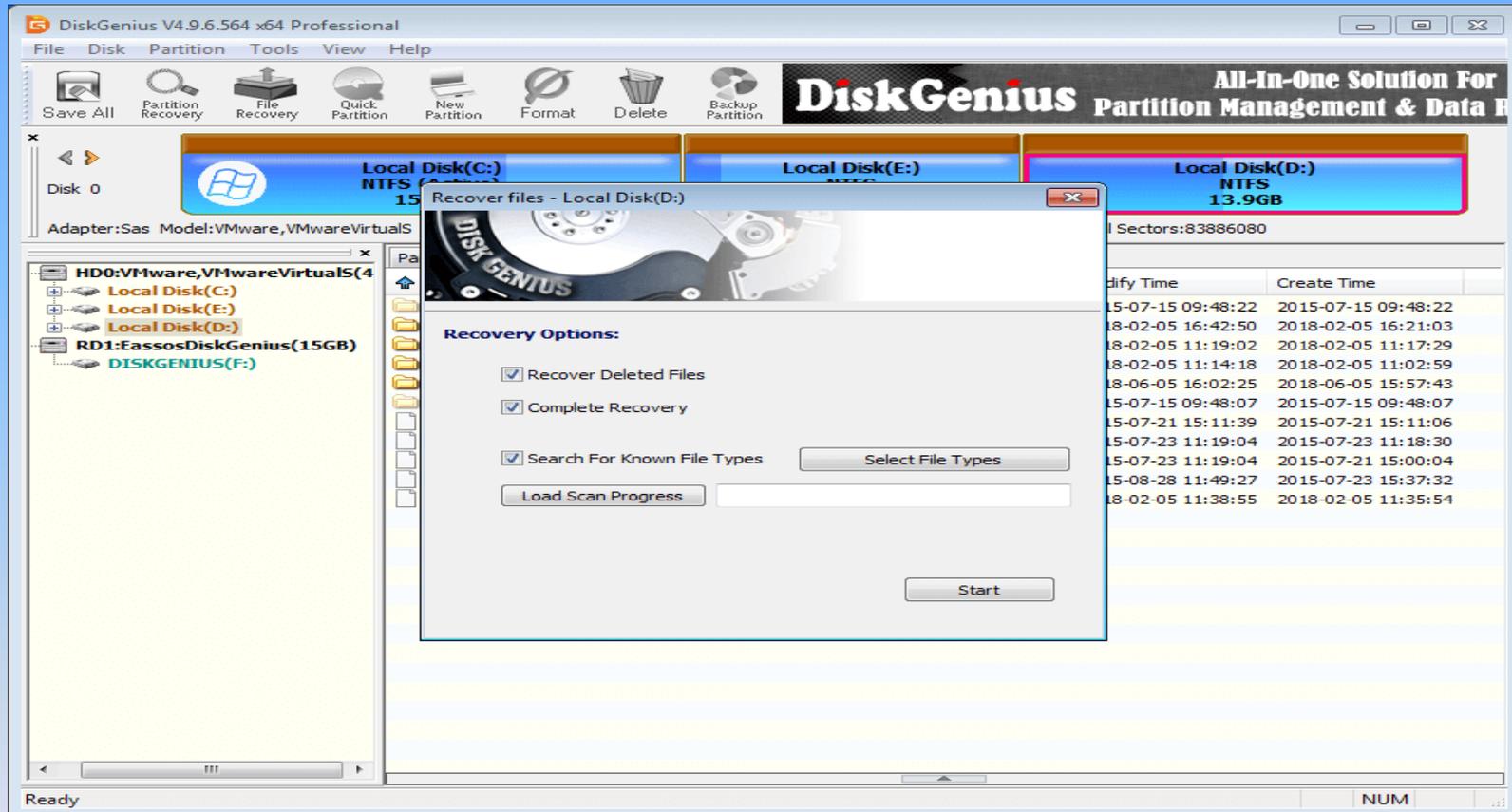
**Step 2 Choose hard drive where your data is lost.**

Just run DiskGenius on your computer, it will list all hard drives on your computer. Just select the hard drive where your data is lost.

Step 3 Scan the hard drive to find lost data.

Now, click "File Recovery". You will see a window to let you start to scan the hard drive. Just let it scan your hard drive to find lost data.

Step 4 Preview and recover lost data. After scanning, just preview and recover lost data easily.





# DiskGenius All-In-One Solution For Partition Management & Data Recovery

Disk 0

- Local Disk(C:) NTFS (Active) 15.6GB
- Local Disk(E:)
- Local Disk(Recover files)(D:) NTFS 13.9GB

Adapter:Sas Model:VMware,VMwareVirtualS Capacity:40.0

Partitions Files

Name: \*

- HD0:VMware,VMwareVirtualS(4)
  - Local Disk(C:)
  - Local Disk(E:)
  - Local Disk(Recover files)(D:)
    - Local Disk(Current)(D)
      - \$Extend
      - \$RECYCLE.BIN
      - debug1
      - DiskGenius
      - DiskGenius-new
      - photos
      - System Volume Inform
    - Recovered Types(1)
      - Photo Files
      - Graphic Files
      - Other Files
    - Local Disk(Recognize)
  - RD1:EassosDiskGenius(15GB)
    - DISKGENIUS(F:)

Preview(P)

- Copy To(S)...
- Copy To "Desktop"(D)
- Copy To "My Documents"(M)
- New Folder(N)
- Rename(R)
- Copy Files To Current Partition(W)
- Delete Files Directly(E)
- Delete Files Permanently(P)
- Go To File Data Sector
- Show Occupied Clusters List
- Show Root Directory's Clusters List
- Copy Text : "mmexport1478009917313.jpg"
- Select All(A)
- Unselect All(U)

Sectors:83886080

System  Duplicate Filter

| File Name                 | Modify Time     | Create Time         |
|---------------------------|-----------------|---------------------|
| mmexport1478009917313.jpg | -11-03 12:42:54 | 2018-06-05 15:57:53 |
| mmexport1478009917313.jpg | -11-03 12:42:54 | 2018-06-05 15:57:53 |
| mmexport1478009917313.jpg | -11-03 12:42:54 | 2018-06-05 15:57:53 |
| mmexport1478009917313.jpg | -11-03 12:42:54 | 2018-06-05 15:57:53 |
| mmexport1478009917313.jpg | -11-03 12:42:54 | 2018-06-05 16:01:37 |
| mmexport1478009917313.jpg | -11-03 12:42:54 | 2018-06-05 15:57:53 |
| mmexport1478009917313.jpg | -11-03 12:42:54 | 2018-06-05 15:57:53 |
| mmexport1478009917313.jpg | -11-03 12:42:54 | 2018-06-05 16:01:37 |
| mmexport1478009917313.jpg | -11-03 12:42:54 | 2018-06-05 15:57:53 |
| mmexport1478009917313.jpg | -11-03 12:42:56 | 2018-06-05 15:57:53 |
| mmexport1478009917313.jpg | -11-03 12:42:56 | 2018-06-05 15:57:53 |
| mmexport1478009917313.jpg | -11-03 12:42:56 | 2018-06-05 15:57:53 |
| mmexport1478009917313.jpg | -11-03 12:42:56 | 2018-06-05 15:57:51 |
| mmexport1478009917313.jpg | -11-03 23:00:10 | 2018-06-05 16:01:37 |



```

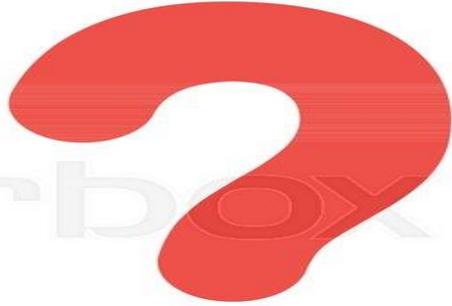
0000: FF D8 FF E0 00 10 4A 46 49 46 00 01 01 00 00 01 .....JFIF.....
0010: 00 01 00 00 FF E1 00 30 45 78 69 66 00 00 4D 4D .....0Exif..M
0020: 00 2A 00 00 00 08 00 01 01 31 00 02 00 00 00 0E .-*.1.....
0030: 00 00 00 00 1A 00 00 00 00 77 77 77 2E 6D 65 69 74 .....www.meit
0040: 75 2E 63 6F 6D 00 FF DB 00 43 00 01 01 01 01 01 u.com....C.....
0050: 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 .....
0060: 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 .....
0070: 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 .....
0080: 01 01 01 01 01 01 01 01 01 01 01 01 01 FF DB 00 43 01 .....C.....
0090: 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 .....
    
```

Copy currently selected files to a specified folder.

Selected: 80.6MB / 42 Files.

NUM

colourbox



**QUESTION**

# Topic 3

## **Cyber Crime**

## Learning outcome:

**At the end of this session learner's will be able**

**To define Cyber Crime.**

**To classify different types of Cyber Crimes.**

# Cyber Crime

**Cybercrime**, or **computer-oriented crime**, is a crime that involves a computer and a network. The computer may have been used in the commission of a crime, or it may be the target. Cybercrimes can be defined as: "Offences that are committed against individuals or groups of individuals with a criminal motive to intentionally harm the reputation of the victim or cause physical or mental harm, or loss, to the victim directly or indirectly, using modern telecommunication networks such as Internet (networks including chat rooms, emails, notice boards and groups) and mobile phones (Bluetooth/SMS/MMS)". Cybercrime may threaten a person or a nation's security and financial health.

There are many kinds of Cyber Crime like as Identity threats ,Cyber Bullying ,Phishing , Scamming etc.

### 1. Identity Threats :

Identity theft is when a cybercriminal gains access to your personal information to steal money or gain other benefits. Even if you think cybercriminals have only a small amount of information, it can still be enough to find more about you, including photos or information about your family. This can be used to create fake identity documents in your name or apply for real identity documents in your name, but with another person's photograph.

# Various types of Cyber Crimes

## 2.Cyber Bullying:

Cyberbullying is bullying that takes place over digital devices like cell phones, computers, and tablets.

Cyberbullying can occur through SMS, Text, and apps, or online in social media, forums, or gaming where people can view, participate in, or share content.

Cyberbullying includes sending, posting, or sharing negative, harmful, false, or mean content about someone else.

# Various types of Cyber Crimes

## 3. Phishing:

Phishing is the practice of sending fraudulent emails that resemble emails from reputable sources. The aim is to steal sensitive data like credit card numbers and login information. It's the most common type of cyber attack.

# Various types of Cyber Crimes

## 4. Cyber extortion:

Cyber extortion is an online crime in which hackers hold our data, website, computer systems, or other sensitive information hostage until we meet their demands for payment. Cyber extortion often takes the form of ransomware and distributed denial-of-service (DDoS) attacks, both of which could paralyze your business.

## Define Malware

“**Malware**” is short for “**malicious software**” - **computer** programs designed to infiltrate and damage **computers** without the users consent.

“**Malware**” is the general term covering all the different types of threats to our **computer** safety such as viruses, spyware, worms, trojans, rootkits and so on.

# Spyware

- **Spyware** is a software that aims to gather information about a person or organization, sometimes without their knowledge, and send such information to another entity without the consumer's consent. Furthermore, spyware asserts control over a device without the consumer's knowledge, sending confidential information to another entity with the consumer's consent, through cookies.

# Worm

A computer worm is a type of malware that spreads copies of itself from computer to computer. A worm can replicate itself without any human interaction, and it does not need to attach itself to a software program in order to cause damage.

# Trojan

A Trojan horse or Trojan is a type of malware that is often disguised as legitimate software. Trojans can be employed by cyber-thieves and hackers trying to gain access to users' systems.

# Ransomware

Ransomware is a type of malicious software. It is designed to extort money by blocking access to files or the computer system until the ransom is paid. Paying the ransom does not guarantee that the files will be recovered or the system restored.

Question?

A 3D rendered graphic featuring the word "Question" in a light grey, blocky font. The letters are slightly shadowed, giving them a three-dimensional appearance. To the right of the word, a large, vibrant red question mark is positioned, appearing to be part of the same 3D scene. The entire composition is set against a plain white background, which is itself centered within a larger blue gradient frame.

# Topic 4

## Hacking

## Learning outcome:

**At the end of this session learner's will be able**

**To define hacking and hacker.**

**To classify different types of hackings and hacker.**

# Hacking

## **Hacking:**

Hacking is an attempt to exploit a computer system or a private network inside a computer. Simply put, it is the unauthorised access to or control over computer network security systems for some illicit purpose.

# Hacking with its classification:

1. Website hacking
2. Network hacking
3. Email hacking
4. Ethical hacking
5. Password Hacking
6. Computer hacking

# 1. Website Hacking:

**Hacking** means carrying unauthorized access of a **website** or the **website** details. For example if someone opens another person's e-mail without knowing the password, then it is termed as **hacking**. **Hacking** a **website** means taking control from the **website** owner to a person who hacks the **website**.

## 2.Network Hacking:

In computer **networking**, **hacking** is any technical effort to manipulate the normal behavior of **network** connections and connected systems. A **hacker** is any person engaged in **hacking**.

### **3. Email Hacking:**

**Email hacking is the unauthorized access to, or manipulation of, an email account or email correspondence.**

## 4.Ethical Hacking:

- An ethical hacker, also referred to as a white hat hacker, is an information security expert who systematically attempts to penetrate a computer system, network, application or other computing resource on behalf of its owners -- and with their permission -- to find security vulnerabilities that a malicious hacker could potentially exploit.

## 5. Password Hacking:

Password hacking, sometimes referred to as password cracking, is a method of recovering passwords from data transmitted by or stored on a computer.

## 6.Computer Hacking:

Computer **hacking**, on one hand, describes the activities practiced by individuals, organizations, and nations, in order to gain unauthorized access to computer and technology dependent systems. These activities may involve the modification or alteration of system's software and hardware in order to perform activities neither purposed by the creator nor in line with the creator's original intentions.

## Define Hacker

Skilled computer programmer who breaks (hacks) a password code, or otherwise gains remote access to a protected computer system, mainly for the thrill of it. Unlike a 'cracker,' a hacker may or may not also perform a criminal action such as alteration or stealing of data, or transfer of funds.

# Different type of Hackers

There are three main types of hackers:

- Black hat hacker;
- White hat hacker;
- Grey hat hacker.

# 1. WHITE HAT HACKER

The white hat hacker is a good guy, as ironic as it may sound. White Hackers, white hat hackers or ethical hackers are the people who test existing internet infrastructures to research loopholes in the system. They create algorithms and perform multiple methodologies to break into systems, only to strengthen them.

## 2. BLACK HAT HACKER

Black hat hackers are responsible for all that is wrong with hacking. These guys break into systems purely with negative intentions. From stealing credit card information, to altering public databases, a black hat hacker looks to gain fame or monetary benefits from exploiting the loopholes in internet frameworks. Famous black hat hackers have notoriously robbed banks and financial institutions of millions of dollars, and invaluable private data.

### 3.GREY HAT HACKER

A grey hat hacker usually has mixed intentions. As the color code implies, this hacker type does not have the good intentions of a white hat hacker, nor does he have the ill intentions of a black hacker. A grey hat would break into systems but never for his own benefit.

Famous grey hat hackers have exploited systems only to make the information public, and to bring to limelight vast datasets of information that contains wrongdoings.



# Topic 5

## The Basics of Security

## Learning outcome:

**At the end of this session learner's will be able**

**To define firewall.**

**To classify different types of firewall.**

# Firewall

A computer firewall is a software program that prevents unauthorized access to or from a private network. Firewalls are tools that can be used to enhance the security of computers connected to a network, such as LAN or the Internet. They are an integral part of a comprehensive security framework for your network.

# Different types of firewalls

**Packet Filter Firewall** controls the network access by analyzing the outgoing and incoming packets. It lets a packet pass or block its way by comparing it with pre-established criteria like allowed IP addresses, packet type, port number, etc. Packet filtering technique is suitable for small networks but gets complex when implemented to larger networks. It is to be noted that these types of firewalls cannot prevent all types of attacks. They can neither tackle the attacks that use application layers vulnerabilities nor can fight against spoofing attacks.

# Stateful Inspection

Stateful Packet Inspection (SPI), which is also sometimes called dynamic packet filtering, is a powerful firewall architecture which examines traffic streams from end to end. These smart and fast **firewalls** use an intelligent way to ward off the unauthorized traffic by analyzing the packet headers and inspecting the state of the packets along with providing proxy services. These firewalls works at the network layer in the OSI model and are more secured than the basic packet filtering firewalls.

# Proxy Server Firewalls

Proxy Server Firewalls are the most secured type of firewalls that effectively protect the network resources by filtering messages at the application layer.

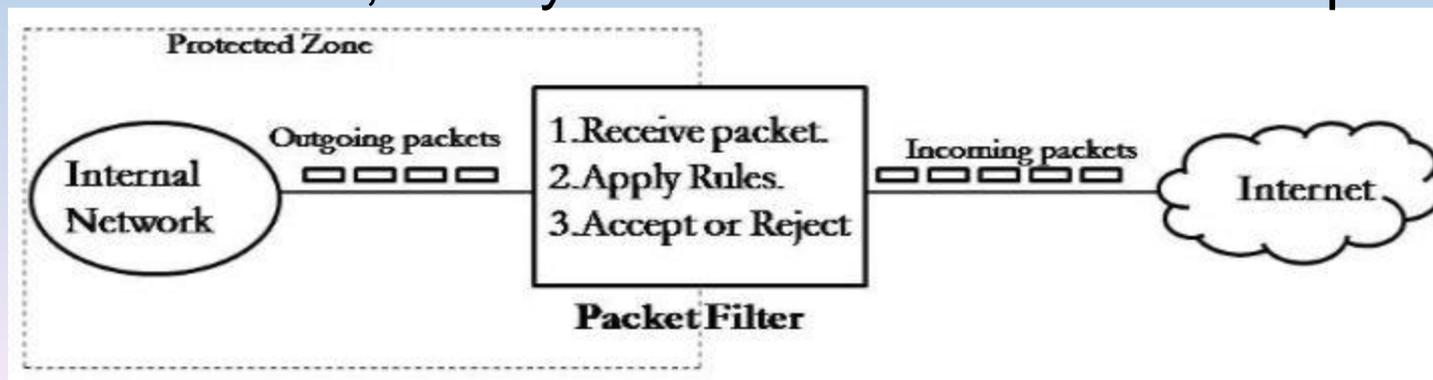
Proxy **firewalls** mask your IP address and limit traffic types. They provide a complete and protocol-aware security analysis for the protocols they support. Proxy Servers offers the best Internet experience and results in the network performance improvements.

# 1. Packet Filter:

A packet filter firewall (figure 1) examines packets up to the network layer and can only filter packets based on the information that is available at the network layer.

The information at this layer includes the source IP address, the destination IP address, the source port, the destination port, and the TCP flag bits. Such a firewall can filter packets based on ingress or egress, that is, it can have different filtering rules for incoming and outgoing packets.

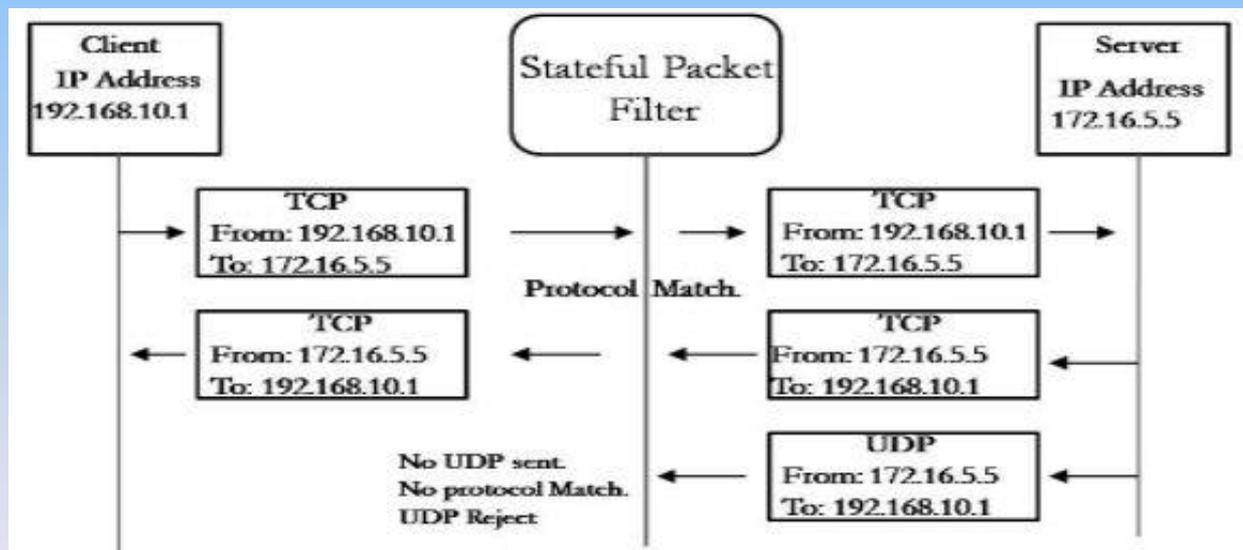
A packet filter receives packets and passes them through a set of rules, if they match the rules then accept or reject.



## 2. Stateful Packet Filter:

A stateful packet filter (figure 2) adds state to a packet filter firewall which means that the firewall keeps track of TCP connections and can remember UDP connections as well.

A stateful packet filter operates at the transport layer, since it maintains information about connections.

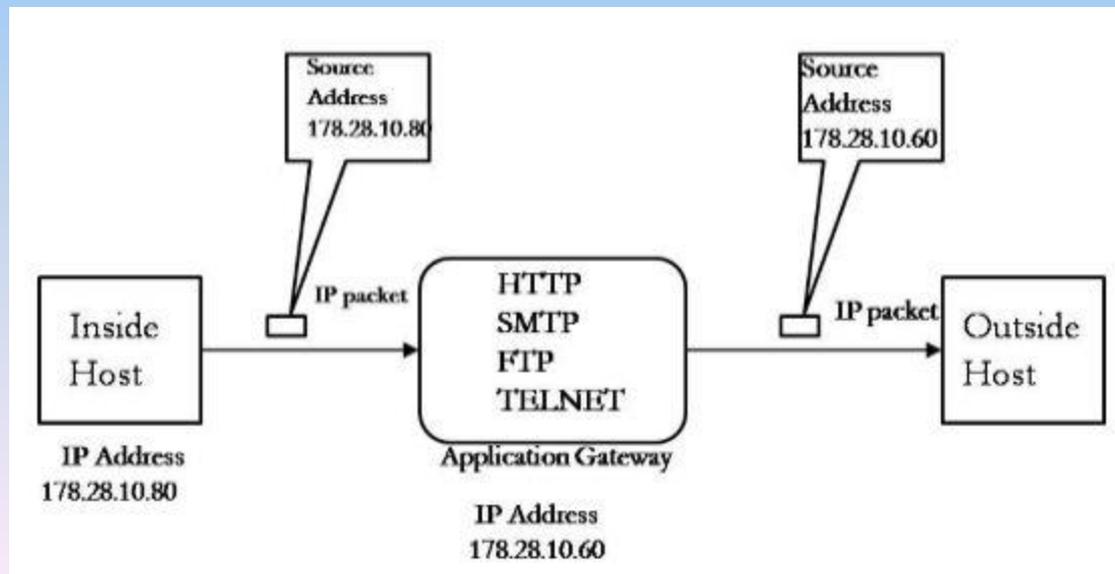


### 3. Application Proxy:

An application proxy firewall processes incoming packets all the way up to the application layer.

The firewall (figure 3) acting on your behalf then verifies the packet that appears to be legitimate and also verifies that the actual data inside the packet is safe.

One interesting feature of an application proxy is that the incoming packet is destroyed and a new packet is created in its place when the data passes through the firewall. This looks like a minor and insignificant but it is actually a security feature.





# Topic 6

## Cyber Ethics

## Learning outcome:

**At the end of this session learner's will be able**

**To define cyber ethics.**

**To know about Various laws of Bangladesh about cyber security.**

# Cyber Ethics

## Cyber Ethics:

Cyber ethics Moral Values in Cyber Space The Good, the Bad, and the Electronic.

Cyber ethics is the study of moral, legal, and social issues involving cybertechnology.

# Ethical hacking

**Ethical hacking** and **ethical hacker** are terms used to describe hacking performed by a company or individual to help identify potential threats on a computer or network. An ethical hacker attempts to bypass system security and search for any weak points that could be exploited by malicious hackers. This information is then used by the organization to improve the system security, to minimize or eliminate any potential attacks. The purpose of **ethical hacking** is to evaluate the security of and identify vulnerabilities in systems, networks or system infrastructure.

# Various laws of Bangladesh about cyber security

- *The **Information and Communication Technology (ICT) Act, 2006** came in force on 8 October, 2006. Subsequently, the government amended the Act in 2008 and in 2009. For the better application of the Act, the government passed Information Technology (Certificate Authority) rules in 2010. But these laws alone are not enough. To face the challenges growing in cyber space it is essential to amend the existing laws such as the Penal Code 1860, the Evidence Act 1872, the Contract Act 1872 etc. It is hoped that these Acts will be modified in accordance with the demand of time. However, there are some provisions in the ICT Act, 2006 which mention penalties for various cyberspace related crimes. For instance, section 54 (1) of this Act declares the offences concerning cyberspace. Then, section-54(2) says, “If any person commits offences under sub-section (1) of this section, he shall be punishable with imprisonment for a term which may extend to ten years, or with fine which may extend to taka ten lakhs, or with both”.*

# Various laws of Bangladesh about cyber security

If any person—

(a) with the intent to cause or knowing that he is likely to cause wrongful loss or damage to the public or any person, does any act and thereby destroys, deletes or alters any information residing in a computer resource or diminishes its value or utility or affects it injuriously by any means;

# Various laws of Bangladesh about cyber security

- (b) damage through illegal access to any such computer, computer network or any electronic system which do not belong to him; then such activity shall be treated as hacking offence;

# Various laws of Bangladesh about cyber security

- (c) whoever commits hacking offence under sub-section (1) of this section, he shall be punishable with imprisonment for a term which may extend to ten years, or with fine which may extend to taka one crore , or with both.”

We can see that law has taken the matter of cyber-crimes in consideration and there are some strict rules regarding it.



# Job no:01

**Name of the job:**

**Apply password to a computer system and various files such as Microsoft Excel, Microsoft Access etc.**

## Learning outcome:

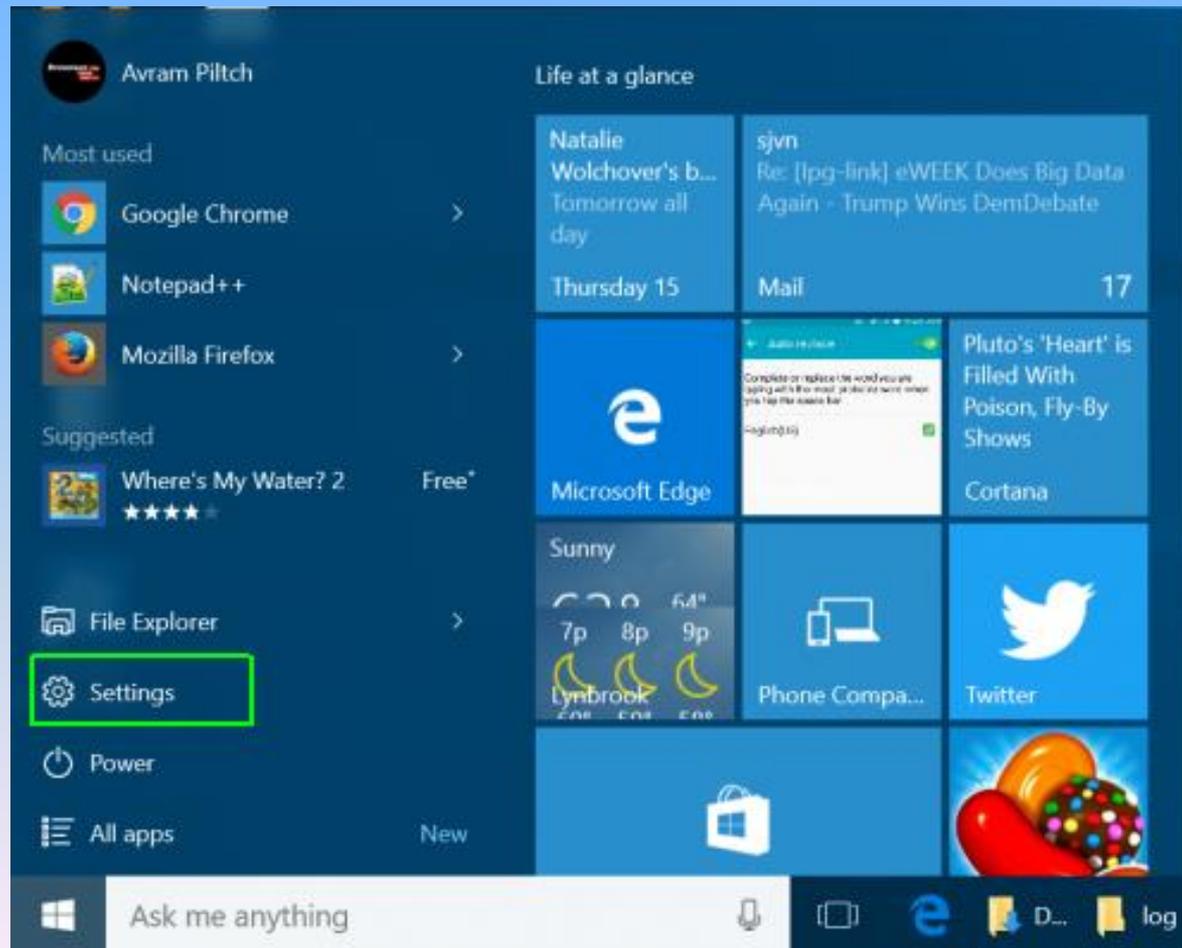
**After completion this job student will be able**

**To give password any file.**

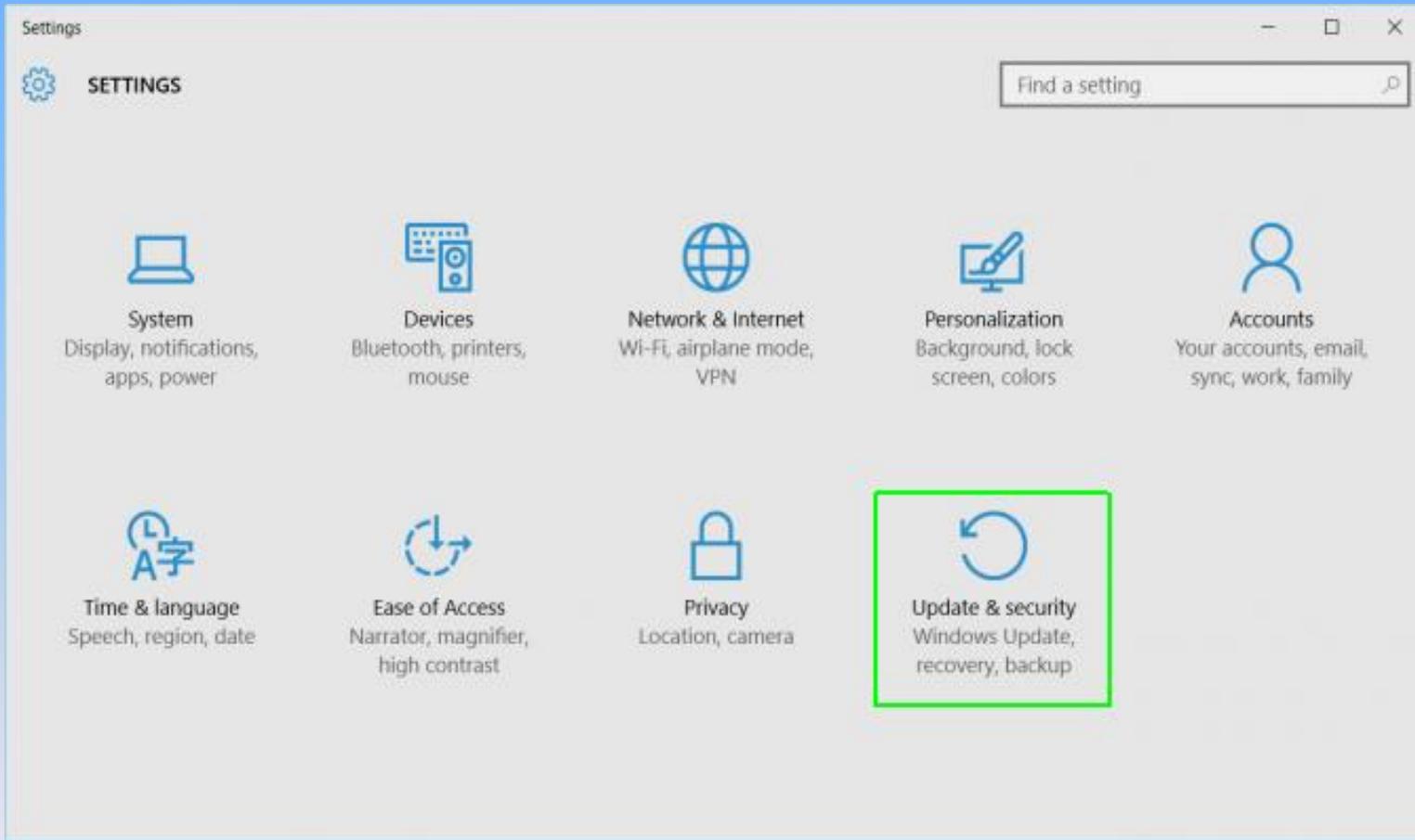
# Password

A password, sometimes called a passcode, is a memorized secret used to confirm the identity of a user. Using the terminology of the NIST Digital Identity Guidelines, the secret is memorized by a party called the claimant while the party verifying the identity of the claimant is called the verifier

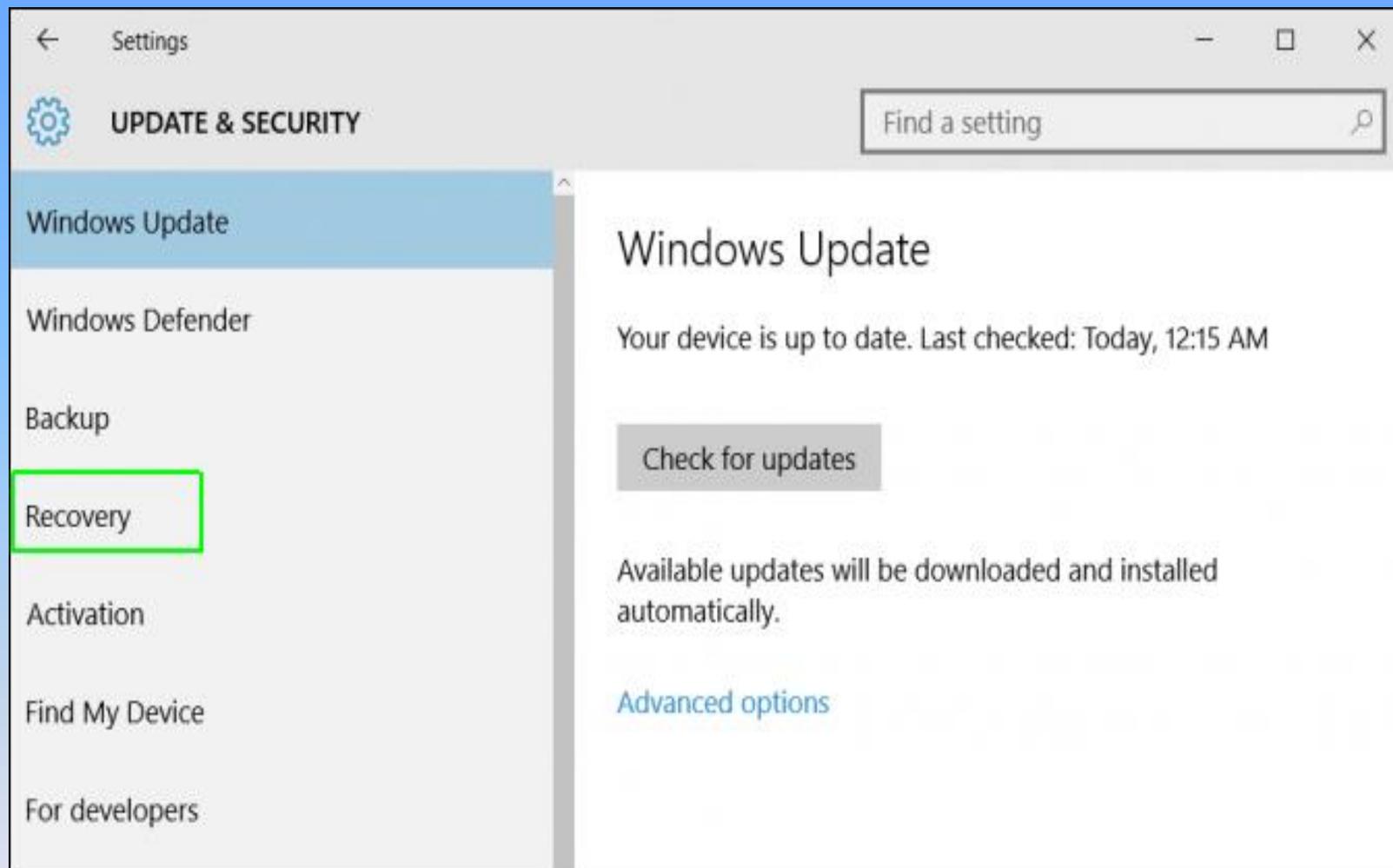
**How to Enter the BIOS on a Windows 10 PC Navigate to settings.** We can get there by clicking the gear icon on the Start menu.



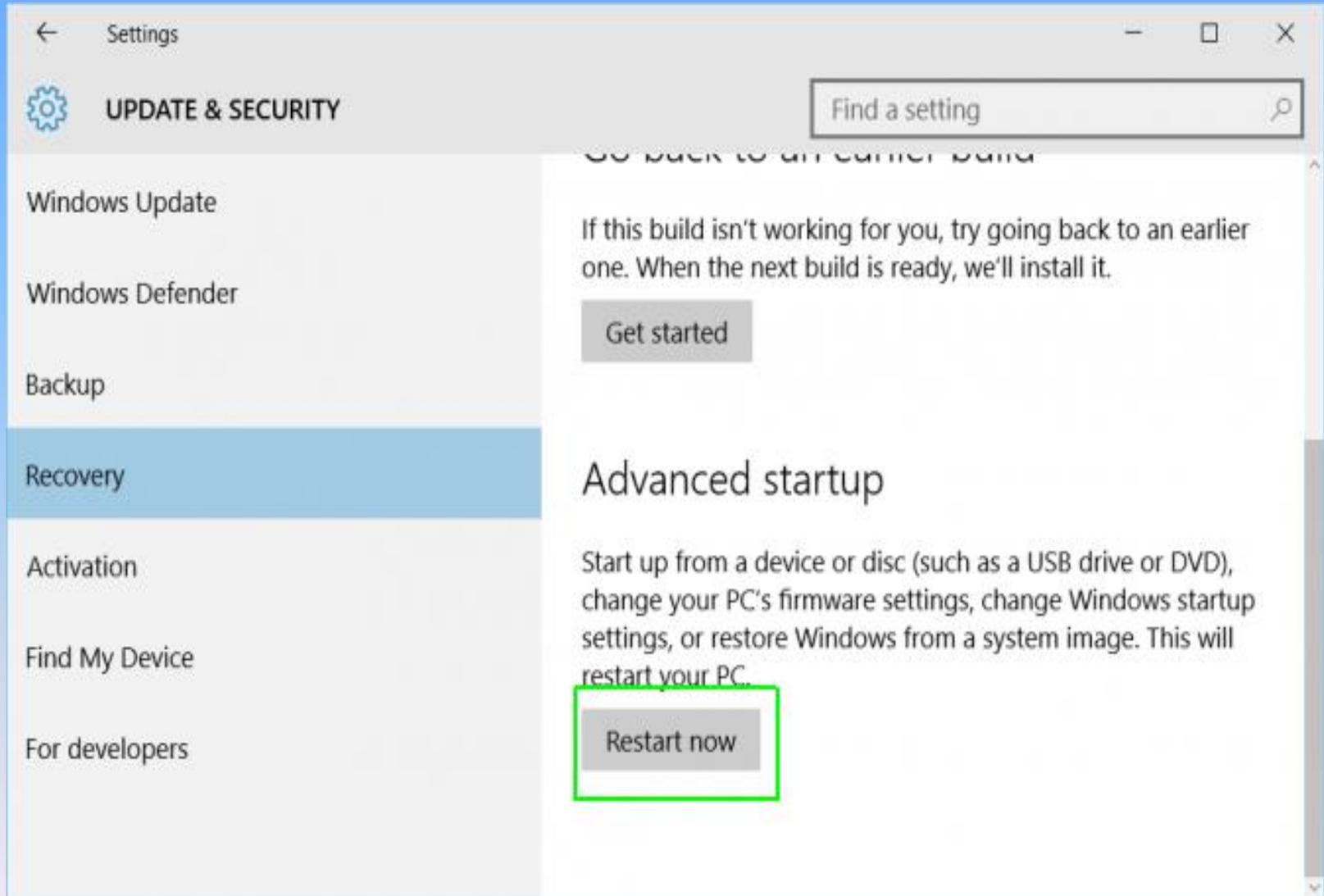
## 2. Select Update & security.



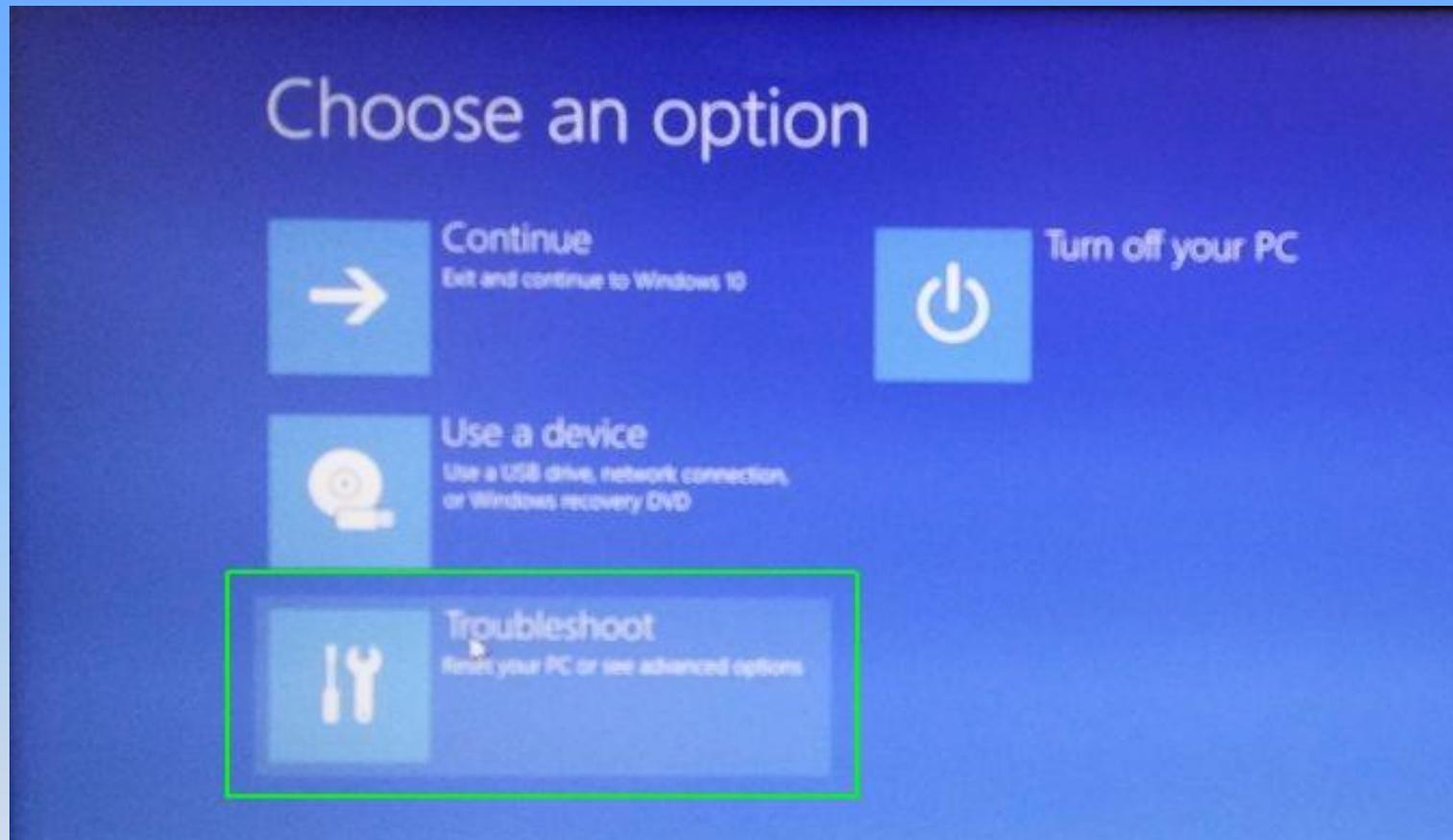
### 3. Select Recovery from the left menu.



4. **Click Restart Now** under Advanced startup. The computer will reboot to a special menu.



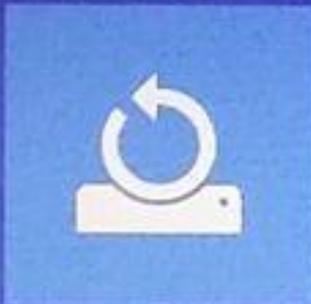
## 5. Click Troubleshoot.



## 6. Click Advanced options.

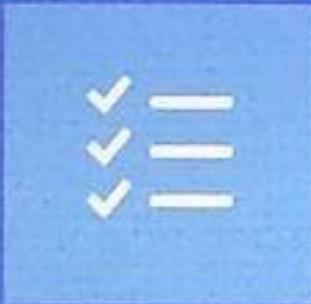


# Troubleshoot



## Reset this PC

Lets you choose to keep or remove your files, and then reinstalls Windows.



## Advanced options

**7. Select UEFI Firmware Settings.** If you don't see this icon, then press Startup Settings, instead. When your PC is restarting, tap F1 (or F2) to access the BIOS.



## 8. Click on Restart.



Our system will restart and take us to the BIOS.

Create an Ms Word file and save it with a password for open and edit.

- At first open Microsoft word program.
- Then Save file.

After Save the file then click on File Menu.  
Click on Protect Document

The screenshot shows the Microsoft Word application window titled "bios - Microsoft Word". The ribbon is set to "File", and the "Info" tab is selected in the left-hand navigation pane. The main area displays "Information about bios" for the file "D:\JAS\bios.docx".

The "Permissions" section is highlighted with a blue circle and a blue arrow. It contains the "Protect Document" button, which is also circled in blue. Below it, the text reads: "Anyone can open, copy, and change any part of this document."

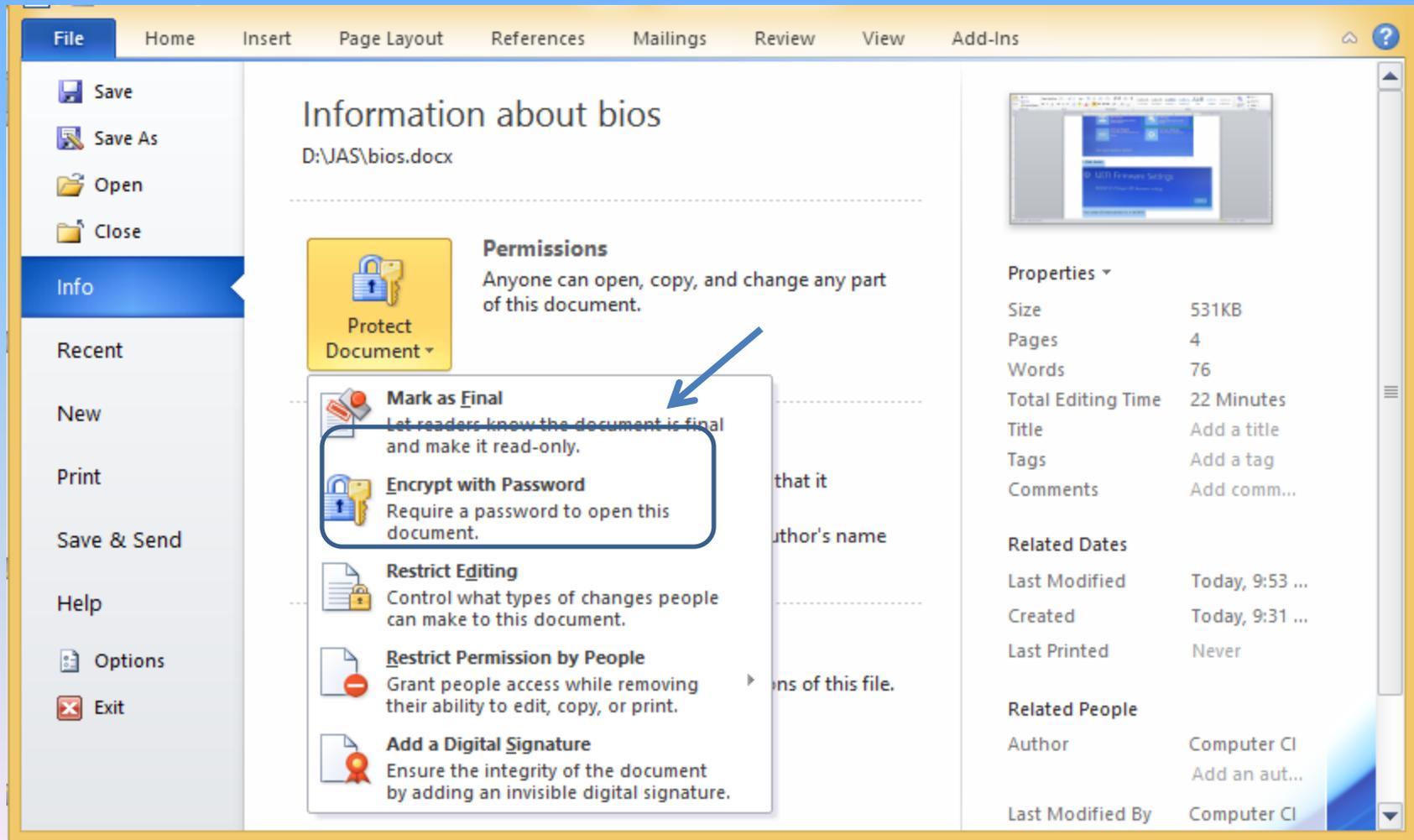
The "Prepare for Sharing" section is visible below, with the text: "Before sharing this file, be aware that it contains:" followed by a list item: "Document properties and author's name".

The "Versions" section is at the bottom, with the text: "There are no previous versions of this file."

The right-hand pane shows a preview of the document and a "Properties" section with the following details:

| Properties         |                 |
|--------------------|-----------------|
| Size               | 531KB           |
| Pages              | 4               |
| Words              | 76              |
| Total Editing Time | 22 Minutes      |
| Title              | Add a title     |
| Tags               | Add a tag       |
| Comments           | Add comm...     |
| Related Dates      |                 |
| Last Modified      | Today, 9:53 ... |
| Created            | Today, 9:31 ... |
| Last Printed       | Never           |
| Related People     |                 |
| Author             | Computer CI     |
|                    | Add an aut...   |
| Last Modified By   | Computer CI     |

# Click on Encrypt with password



The screenshot shows the Microsoft Word interface with the 'File' tab selected. The ribbon includes 'Home', 'Insert', 'Page Layout', 'References', 'Mailings', 'Review', 'View', and 'Add-Ins'. The left sidebar shows 'File' options: Save, Save As, Open, Close, Info (selected), Recent, New, Print, Save & Send, and Help. The main area displays 'Information about bios' for the file 'D:\JAS\bios.docx'. A 'Protect Document' dropdown menu is open, listing several options: 'Mark as Final', 'Encrypt with Password', 'Restrict Editing', 'Restrict Permission by People', and 'Add a Digital Signature'. A blue arrow points to the 'Encrypt with Password' option, which is also circled in blue. The right sidebar shows a preview of the document and a 'Properties' section with details like Size (531KB), Pages (4), Words (76), and Total Editing Time (22 Minutes).

**File** Home Insert Page Layout References Mailings Review View Add-Ins

Save  
Save As  
Open  
Close

**Info**

Recent

New

Print

Save & Send

Help

Options  
Exit

## Information about bios

D:\JAS\bios.docx

**Protect Document**

- Mark as Final**  
Let readers know the document is final and make it read-only.
- Encrypt with Password**  
Require a password to open this document.
- Restrict Editing**  
Control what types of changes people can make to this document.
- Restrict Permission by People**  
Grant people access while removing their ability to edit, copy, or print.
- Add a Digital Signature**  
Ensure the integrity of the document by adding an invisible digital signature.

**Permissions**  
Anyone can open, copy, and change any part of this document.

**Properties**

|                    |             |
|--------------------|-------------|
| Size               | 531KB       |
| Pages              | 4           |
| Words              | 76          |
| Total Editing Time | 22 Minutes  |
| Title              | Add a title |
| Tags               | Add a tag   |
| Comments           | Add comm... |

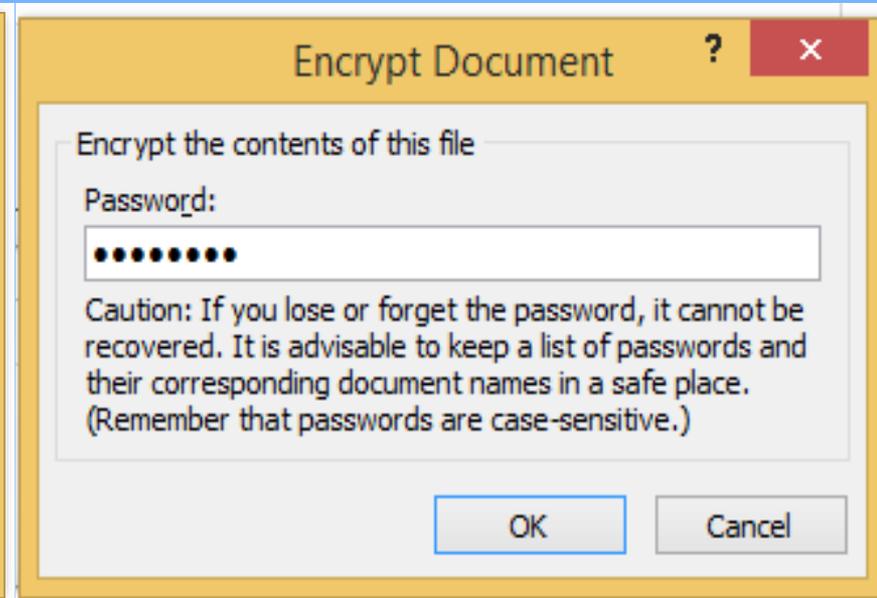
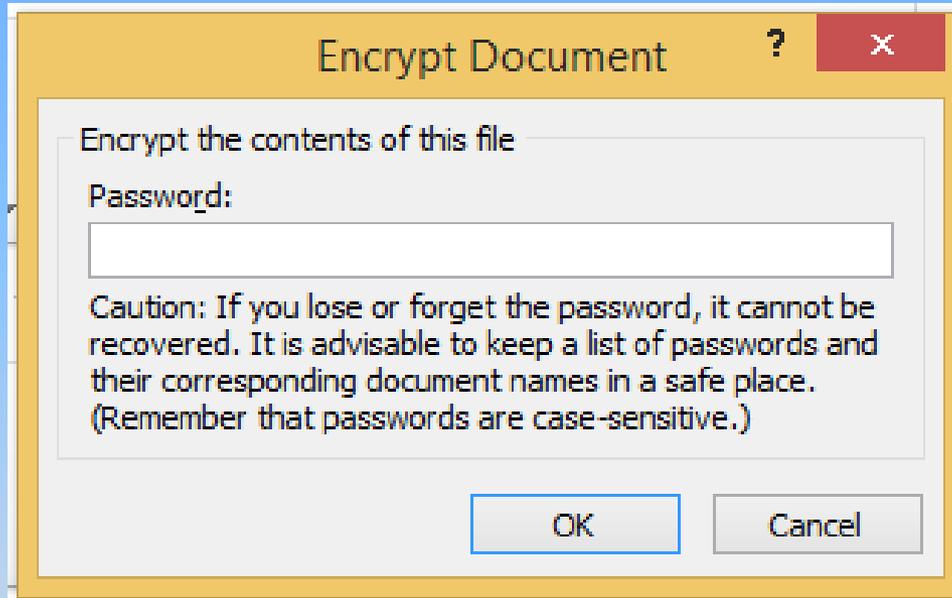
**Related Dates**

|               |                 |
|---------------|-----------------|
| Last Modified | Today, 9:53 ... |
| Created       | Today, 9:31 ... |
| Last Printed  | Never           |

**Related People**

|                  |               |
|------------------|---------------|
| Author           | Computer CI   |
|                  | Add an aut... |
| Last Modified By | Computer CI   |

# Password type then click on OK



Click on Confirm password then click OK

Confirm Password



Encrypt the contents of this file

Reenter password:

Caution: If you lose or forget the password, it cannot be recovered. It is advisable to keep a list of passwords and their corresponding document names in a safe place. (Remember that passwords are case-sensitive.)

OK

Cancel

Confirm Password



Encrypt the contents of this file

Reenter password:

Caution: If you lose or forget the password, it cannot be recovered. It is advisable to keep a list of passwords and their corresponding document names in a safe place. (Remember that passwords are case-sensitive.)

OK

Cancel

Microsoft Excel and Microsoft Access  
File Password are same as Microsoft  
Word.

# Question

1. What is security?
2. What is password?

**Job no:02**

**Name of the job:**

**Practice to recover an e-mail forgotten password.**

## Learning outcome:

**At the end of this job learner's will be able**

**To define the Recovery file.**

**To sign in E-mail.**

**To change password or recovery password.**

1 **Go to <https://mail.google.com>**. Use the link or type the URL in a web browser. If your email or phone number isn't filled in automatically, type it into the labeled field and click on Next.

Google

Sign in  
to continue to Gmail

Email or phone  
wikihow.samples@gmail.com

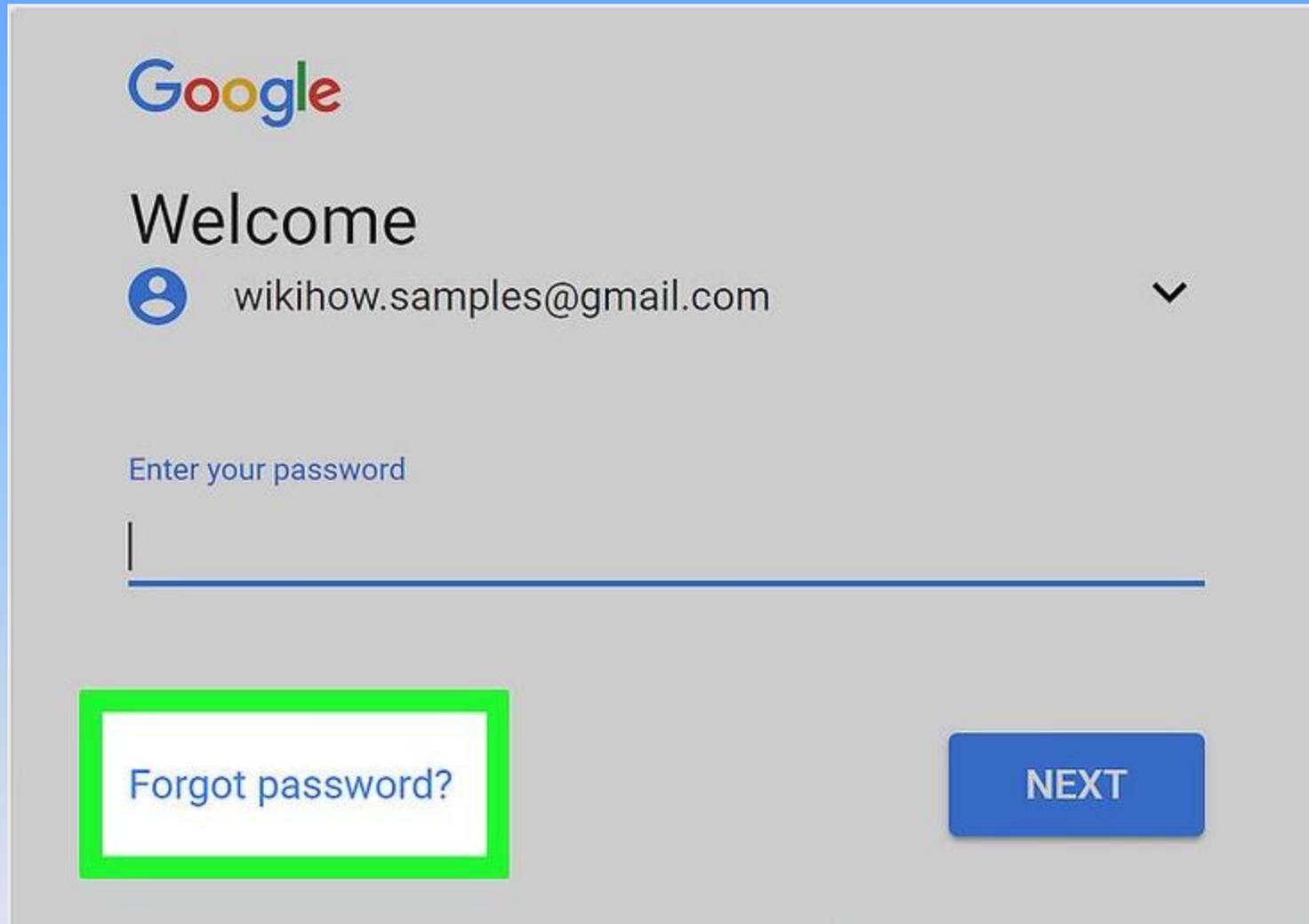
Forgot email?

More options

NEXT

wikiHow to Recover a Gmail Password

**2 Click on Forgot password? below the password field.**



The image shows a Google login interface. At the top left is the Google logo. Below it, the word "Welcome" is displayed. Underneath "Welcome" is a user profile icon and the email address "wikihow.samples@gmail.com". To the right of the email address is a downward-pointing chevron icon. Below the email address is a text input field with the placeholder text "Enter your password". The input field is currently empty. At the bottom left, there is a link that says "Forgot password?". This link is enclosed in a bright green rectangular border. To the right of the "Forgot password?" link is a blue button with the text "NEXT" in white capital letters.

3 Enter the last password you remember and click on Next.

If you don't remember any of the passwords you've used before, click on Try a different question at the bottom of the gray box. Continue clicking on Try a different question until you come across one that you can answer, answer it, then click on Next.

Answer the following to verify this account is yours.



Enter the last password you remember

Next

Try a different question

## 4 Follow the on-screen instructions.

You'll be asked to do one of the following: Confirm a text to the phone number associated with your Gmail account;

Confirm a message to the email associated with your Gmail account;

Confirm the email of your recovery email account if you've set one up; or

Enter an email that you can check immediately.

Answer the following to verify this account is yours.



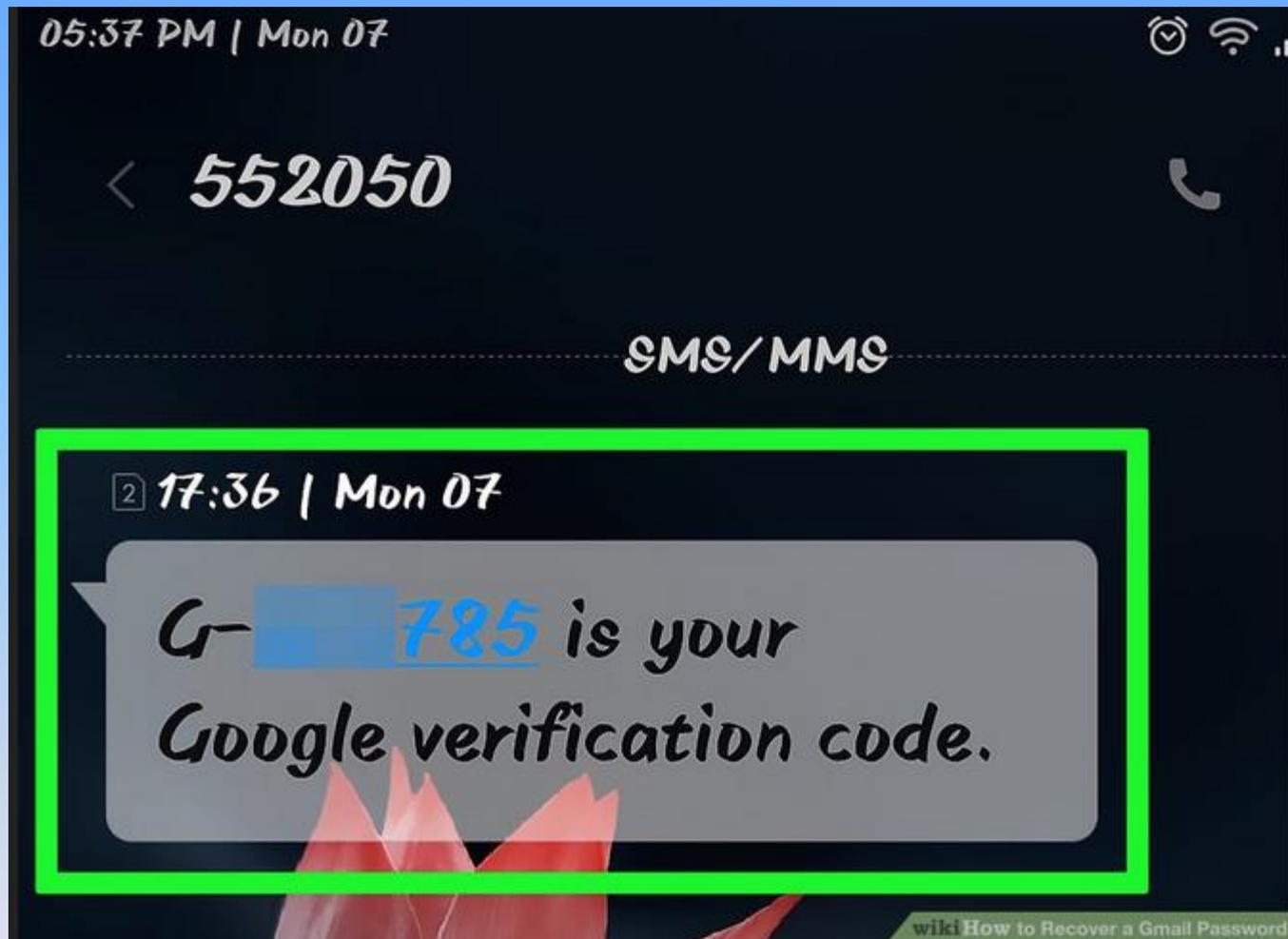
Get a verification code by text message  
at: ..... 06

Send text message

[Try a different question](#)

5

Open the applicable email or text message from Google.



6

**Enter the verification code in the message in the field on the screen.**

**Enter a verification code**

A text message with a verification code was just sent to [redacted] 06

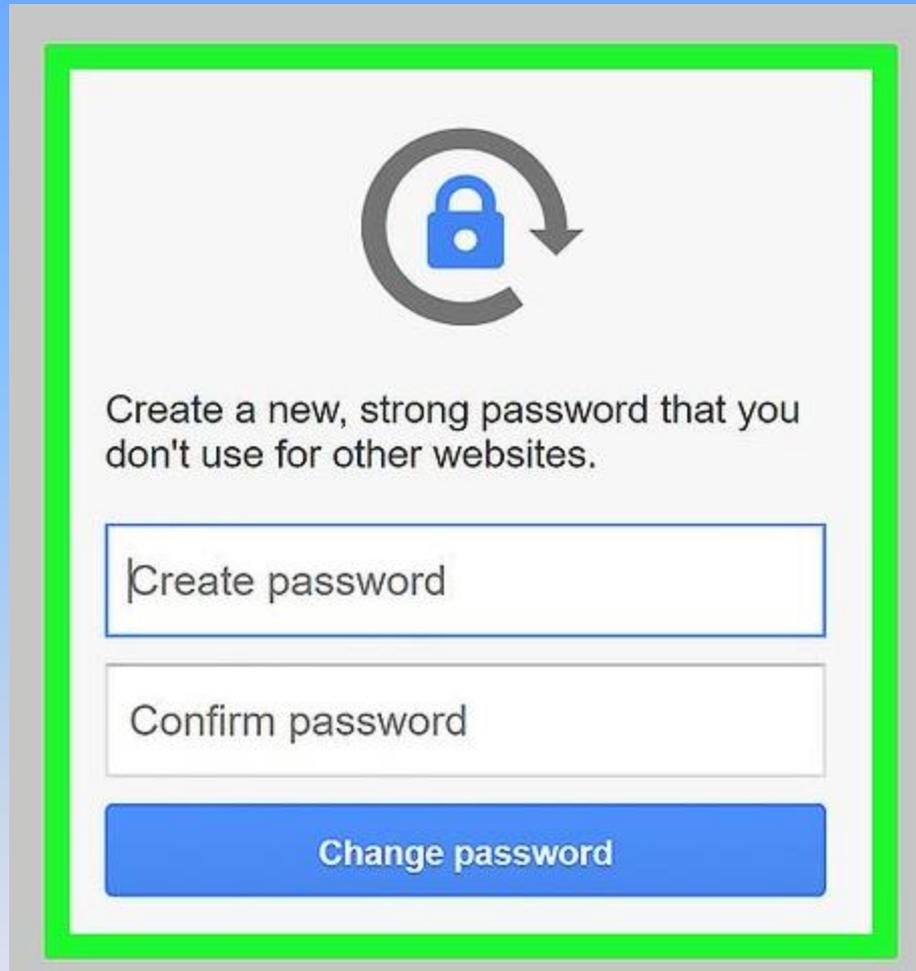
G- [redacted] 785

Next

[Try a different question](#)

7

**Enter a new password and confirm it in the labeled fields.**

A user interface for changing a password. It features a central icon of a blue padlock with a grey circular arrow around it, indicating a refresh or change action. Below the icon is a text instruction: "Create a new, strong password that you don't use for other websites." There are two input fields: the first is labeled "Create password" and the second is labeled "Confirm password". At the bottom is a blue button with the text "Change password". The entire form is enclosed in a light grey border with a bright green inner border.

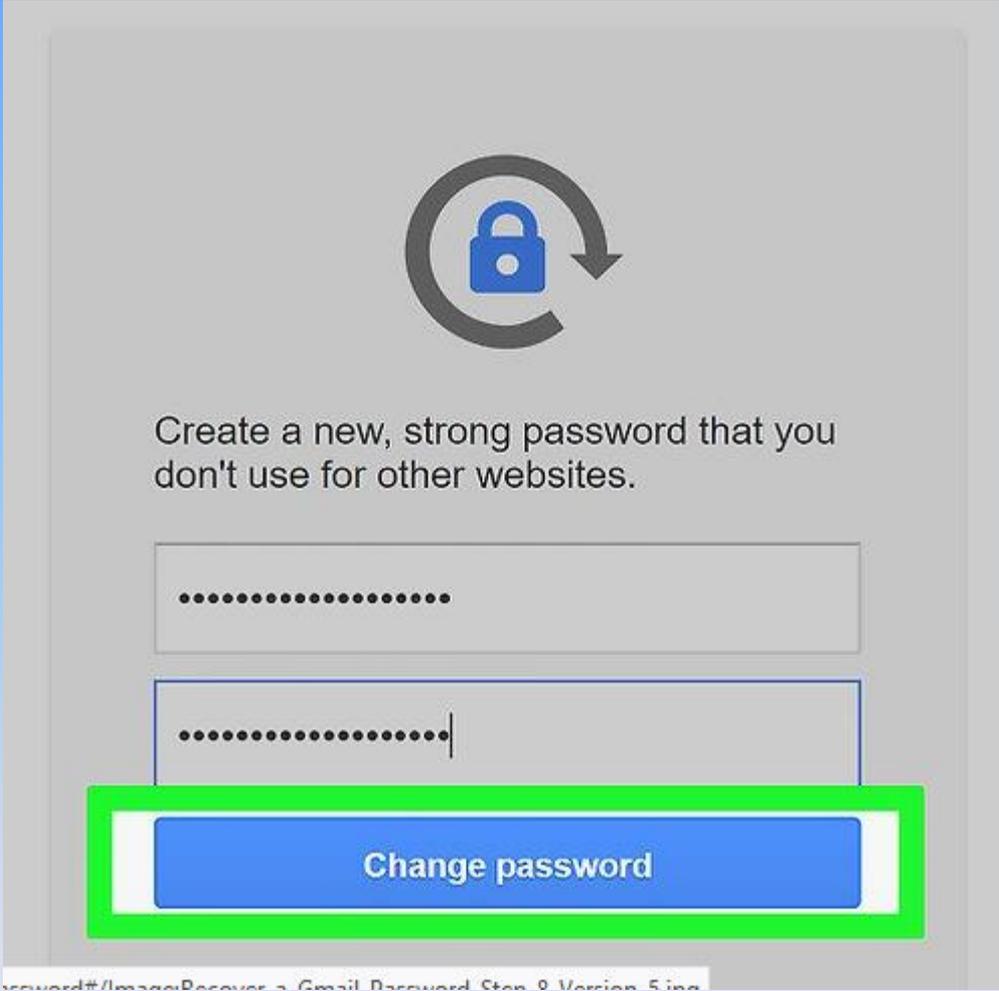


Create a new, strong password that you don't use for other websites.

[Change password](#)

## 8. Click on Change password.



The image shows a 'Change password' screen. At the top center is a circular icon with a blue padlock and a grey arrow pointing clockwise. Below the icon is the text: 'Create a new, strong password that you don't use for other websites.' There are two password input fields, each containing a series of black dots. The bottom field has a vertical cursor at the end. At the bottom of the form is a blue button with the text 'Change password', which is highlighted by a thick green rectangular border.

Create a new, strong password that you don't use for other websites.

.....

.....|

**Change password**

source#/ImageRecovery - Gmail Recovery Step 9 Version 5.jpg

# Question

- 1.What is E-mail?**
- 2.What is file recovery?**

Job no:03

Name of the job:

Apply Various Security Steps in E-mail

## Learning outcome:

**At the end of this job learner's will be able**

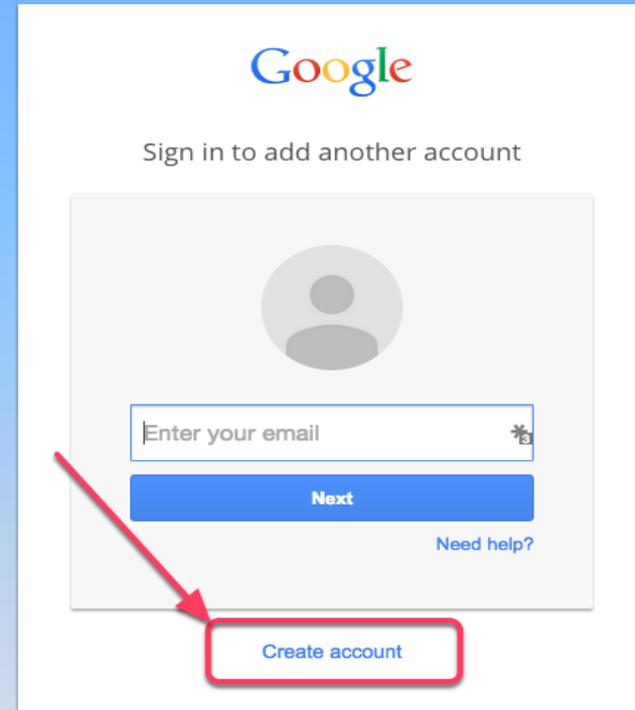
**To define the E-mail.**

**To sign in E-mail.**

**To change Various Security Steps in E-mail**

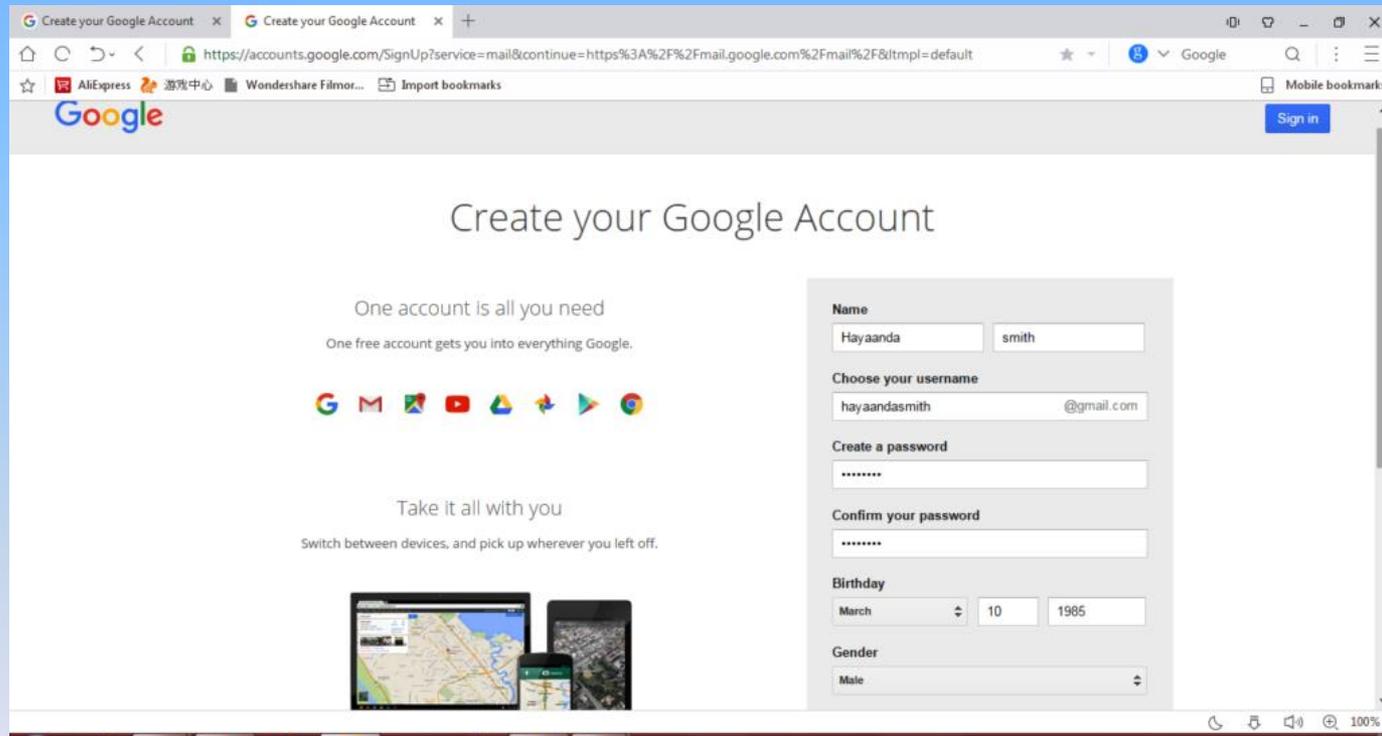
# Create An E-mail Account

Step 1 : First we have to open a browser and then we will visit [www.gmail.com](http://www.gmail.com) .



Step 2: Enter all the required information in the "Create an Account" online form:

We now need to start filling the form. Once we have entered first and last names, it is time to choose a login name. This is important as login name will decide the email address will get, and in case of a Gmail account.



The screenshot shows a web browser window with two tabs titled "Create your Google Account". The address bar displays the URL: <https://accounts.google.com/SignUp?service=mail&continue=https%3A%2F%2Fmail.google.com%2Fmail%2F&tmpl=default>. The page features the Google logo and a "Sign in" button. The main heading is "Create your Google Account". Below it, the text reads "One account is all you need" and "One free account gets you into everything Google." A row of icons represents various Google services: G, M, Drive, YouTube, Docs, Photos, Maps, and Search. Further down, it says "Take it all with you" and "Switch between devices, and pick up wherever you left off." with an image of a laptop, a smartphone, and a tablet. On the right side, there is a registration form with the following fields:

- Name:** First name: Hayaanda, Last name: smith
- Choose your username:** hayaandasmith@gmail.com
- Create a password:** [Redacted with dots]
- Confirm your password:** [Redacted with dots]
- Birthday:** Month: March, Day: 10, Year: 1985
- Gender:** Male

Step 3 : After Step Two, privacy and terms we have to accept the agreement.

www.allindiaroundup.com

## Privacy and Terms

By choosing "I agree" below you agree to Google's [Terms of Service](#).

You also agree to our [Privacy Policy](#), which describes how we process your information, including these key points:

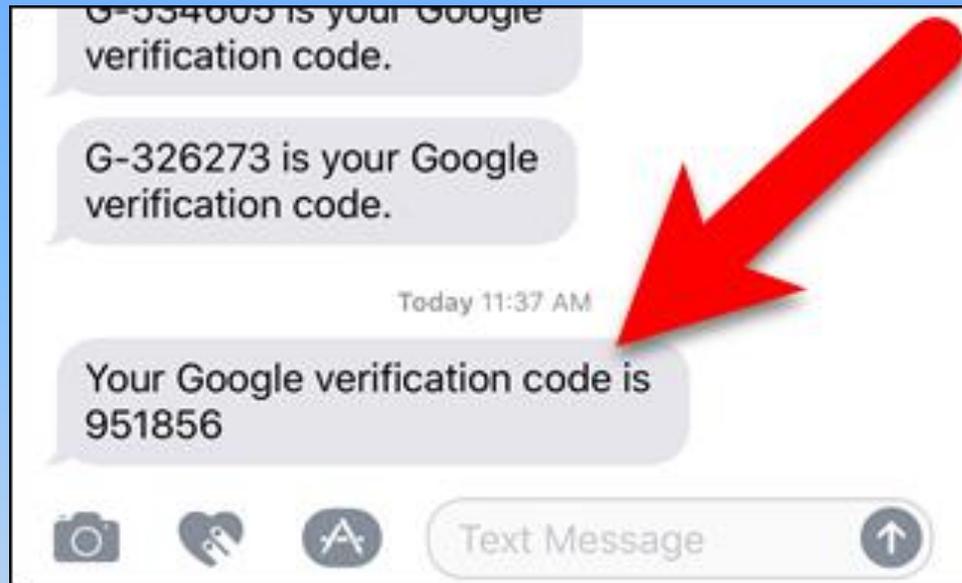
---

### Data we process when you use Google

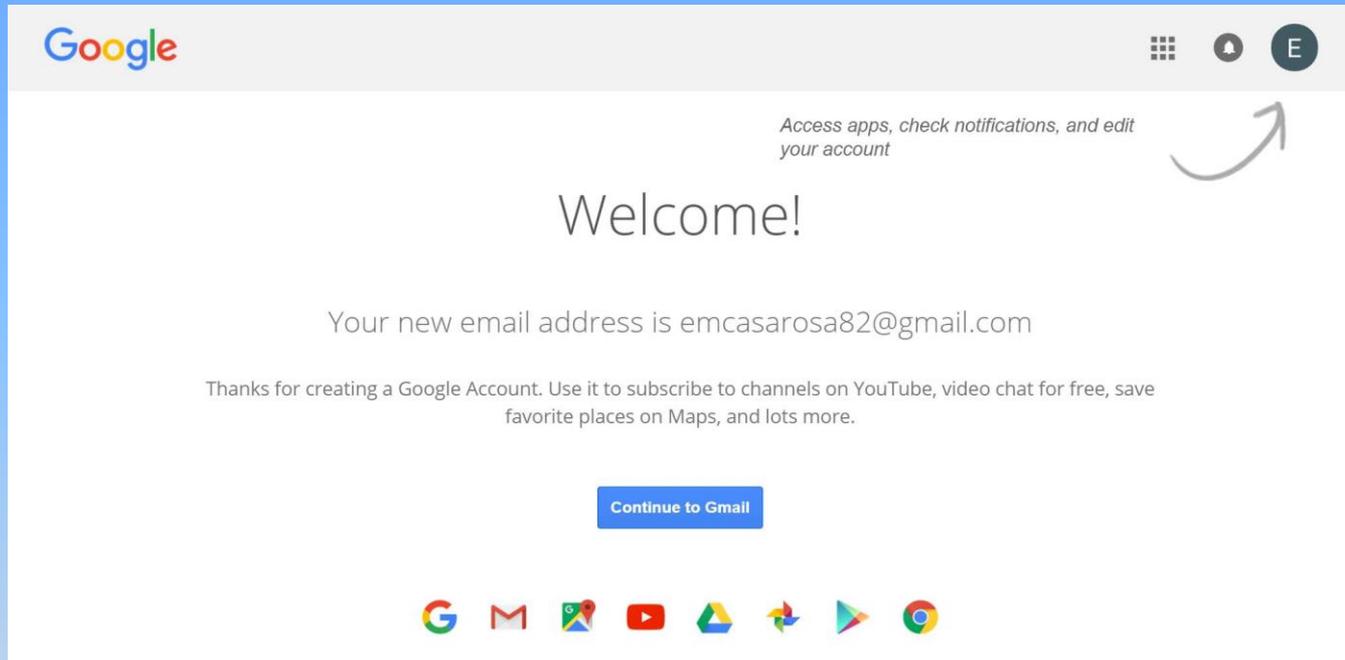
- When you use Google services to do things like write a message in Gmail or comment on a YouTube video, we store the information you create.
- When you search for a restaurant on Google Maps or watch a video on YouTube, for example, we process information about that activity.

CANCEL I AGREE

Step 4 :A verification code will be sent to your phone and you have to verify you phone number for your Google account .

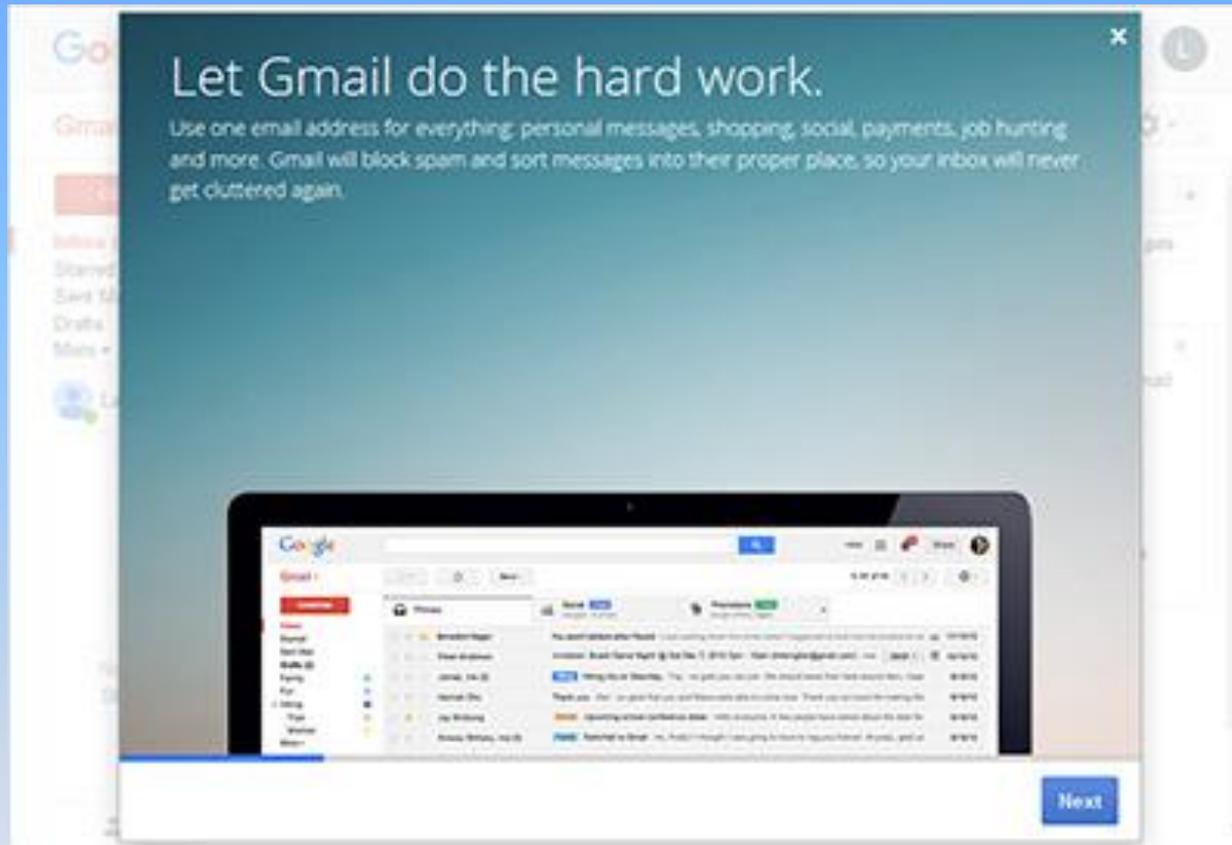


Step 5 : After verifying our Phone number, we will press the continue to Gmail .



Step 6 : Now we have to press the next button.

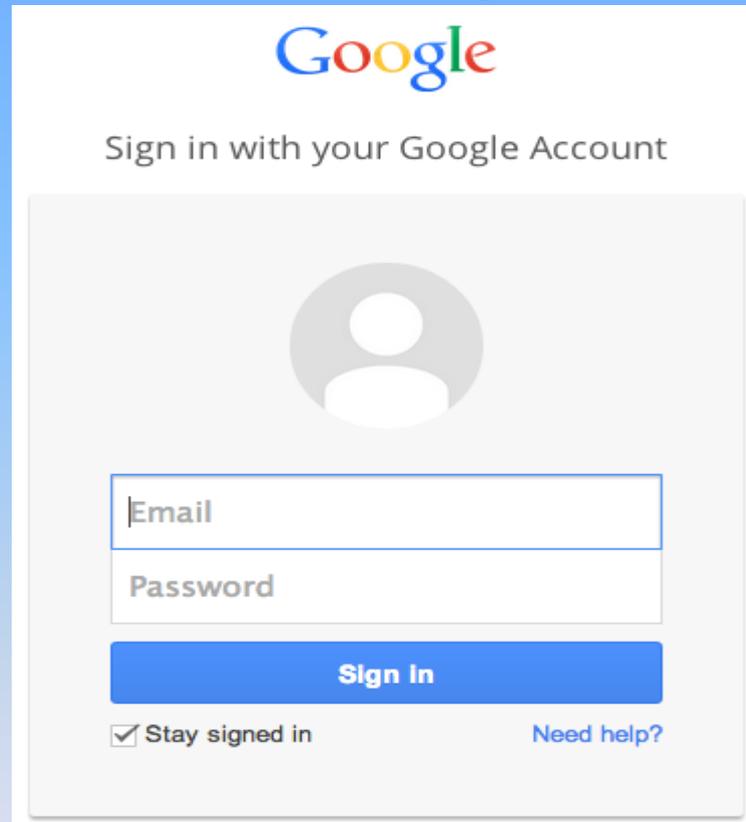
By this way we can create a gmail acoount and now we have to login



We have to log in to the gmail account and we will also know the all functions of a gmail .



We have to insert our email and password in the form and then we have to click on the sign in . If we don't give the right email address and password the email won't be logged . So Everyone must be careful when they enter their email account and password.



The image shows a Google sign-in form. At the top is the Google logo. Below it is the text "Sign in with your Google Account". In the center is a large, light gray circular icon representing a person's profile. Below the icon are two input fields: the first is labeled "Email" and the second is labeled "Password". Below these fields is a blue button with the text "Sign In". At the bottom left is a checkbox labeled "Stay signed in" which is checked. At the bottom right is a link labeled "Need help?".

Google

Sign in with your Google Account

Email

Password

Sign In

Stay signed in [Need help?](#)

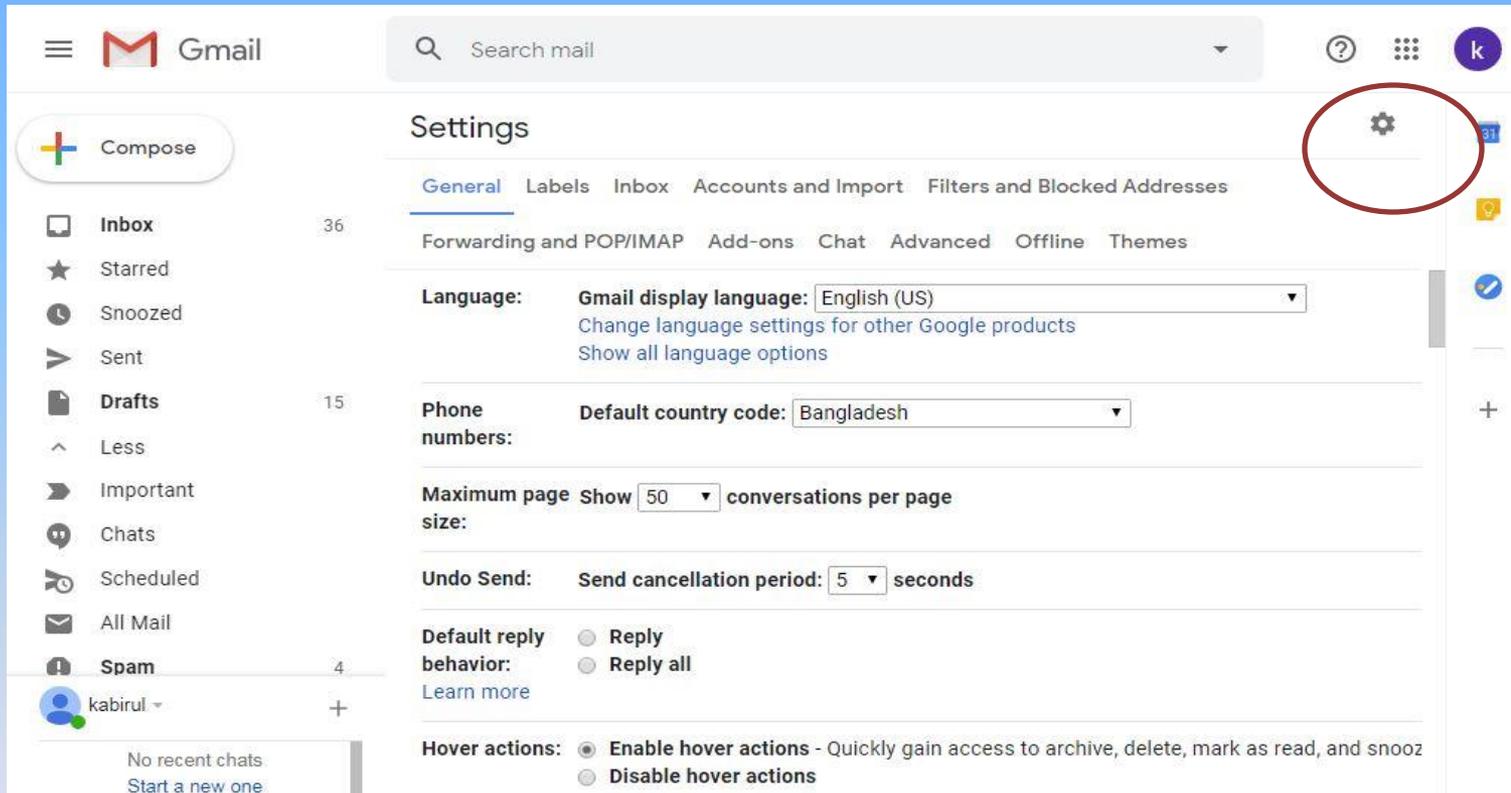
We will see some options just like above and these options are: Inbox, Starred, Snoozed, Sent, Drafts and More. Now let's see the description of these options/functions.

The screenshot displays the Gmail interface. On the left sidebar, the 'Inbox' folder is highlighted with a red bar and a '2' notification. Other folders include 'Starred', 'Snoozed', 'Sent', 'Drafts' (with a '26' notification), and 'More'. The main content area shows a list of emails. The first section is 'Important and unread' (1-2 of 2), containing two emails: 'mail to self - test' and 'It is time to change it up'. The second section is 'Starred' (1-4 of 4), containing four emails: 'Morning Reader', 'Sidebar', 'Beautiful Pixels', and 'theSkimm'. The 'Everything else' section is partially visible at the bottom (1-25 of 2,331).

| Category             | Count         |
|----------------------|---------------|
| Important and unread | 1-2 of 2      |
| Starred              | 1-4 of 4      |
| Everything else      | 1-25 of 2,331 |

| Category             | Sender               | Subject  | Date     |
|----------------------|----------------------|--|----------|
| Important and unread | me                   | mail to self - test                                  | 12/16/18 |
| Important and unread | Tobias van Schneider | It is time to change it up                           | 6/14/18  |
| Starred              | Morning Reader       | Technology News                                      | 9:00 AM  |
| Starred              | Sidebar              | Milanote, Vue 2.6, Burgas Map, HTML Slides, JAMstack | Feb 12   |
| Starred              | Beautiful Pixels     | Here's What's New on Beautiful Pixels Today          | Feb 12   |
| Starred              | theSkimm             | Daily Skimm: Let's rock, let's rock today            | Feb 12   |

First we have to open a browser and we have to login into the gmail account and then we will see a setting icon on the top left corner. Then we will click on that icon and the setting panel will come we can change the setting of the g-mail form here.



The screenshot shows the Gmail interface with the Settings panel open. The settings gear icon in the top right corner is circled in red. The Settings panel is titled "Settings" and has tabs for "General", "Labels", "Inbox", "Accounts and Import", "Filters and Blocked Addresses", "Forwarding and POP/IMAP", "Add-ons", "Chat", "Advanced", "Offline", and "Themes". The "General" tab is selected. The settings are organized into sections: "Language" with "Gmail display language" set to "English (US)", "Phone numbers" with "Default country code" set to "Bangladesh", "Maximum page size" set to "50 conversations per page", "Undo Send" with "Send cancellation period" set to "5 seconds", "Default reply behavior" with "Reply" selected, and "Hover actions" with "Enable hover actions" selected. The left sidebar shows the "Compose" button and a list of folders: "Inbox" (36), "Starred", "Snoozed", "Sent", "Drafts" (15), "Less", "Important", "Chats", "Scheduled", "All Mail", "Spam" (4), and a user profile for "kabirul" (+). The bottom of the sidebar shows "No recent chats" and "Start a new one".

# Question

- 1.What is E-mail setting?**
- 2.What is g-mail?**

Job no:04

Name of the job:

Apply various security steps in social media such as facebook login.

# Learning outcome

**At the end of this job learner's will be able**

**To define the security.**

**To login in Facebook.**

# Facebook security

Open Facebook Account : Write down link of address bar.

<http://www.facebook.com>

# Facebook Log In

The image shows a screenshot of the Facebook website's login and sign-up interface. At the top, there is a navigation bar with the Facebook logo on the left and a search bar on the right. Below the navigation bar, there is a main content area. On the left side of this area, there is a promotional message: "Facebook helps you connect and share with the people in your life." This message is accompanied by a graphic of a globe with several orange person icons connected by dashed lines, representing a social network. On the right side of the main content area, there is a "Create an account" section. This section includes a sub-header "Create an account" and a sub-text "It's quick and easy." Below this, there are several input fields: "First name" and "Surname" (two separate fields), "Mobile number or email address", and "New password". There is also a "Birthday" section with three dropdown menus for day (17), month (Sept), and year (1994). Below the birthday section, there is a "Gender" section with three radio button options: "Female", "Male", and "Custom". At the bottom of the "Create an account" section, there is a green "Sign Up" button. Below the "Sign Up" button, there is a link: "Create a Page for a celebrity, band or business." At the very bottom of the page, there is a footer with a language selector showing "English (UK)" and a plus sign for more languages. Below the language selector, there is a horizontal menu with various links: "Sign Up", "Log In", "Messenger", "Facebook Lite", "People", "Pages", "Page categories", "Places", "Games", "Locations", "Marketplace", "Groups", "Instagram", "Local Fundraisers", "Services", "About", "Create ad", "Create Page", "Developers", "Careers", "Privacy", "Cookies", "AdChoices", "Terms", "Account security", "Login help", and "Help". At the bottom left of the footer, it says "Facebook © 2019".

Facebook - log in or sign u X +

www.facebook.com

Getting Started

facebook

Email or Phone Password Log In

Forgotten account?

Facebook helps you connect and share with the people in your life.

Create an account

It's quick and easy.

First name Surname

Mobile number or email address

New password

Birthday 17 Sept 1994

Gender Female Male Custom

By clicking Sign Up, you agree to our Terms, Data Policy and Cookie Policy. You may receive SMS notifications from us and can opt out at any time.

Sign Up

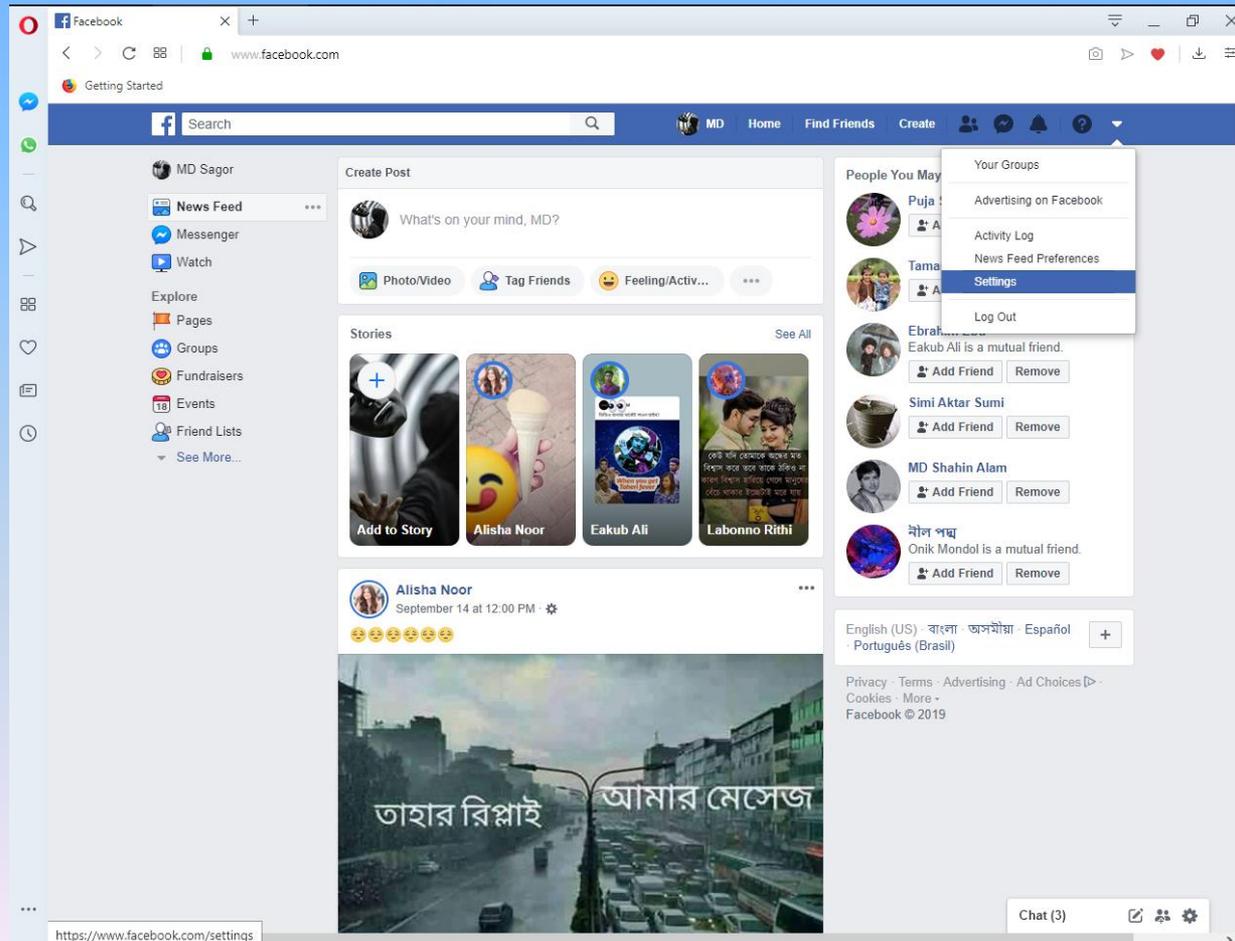
Create a Page for a celebrity, band or business.

English (UK) বাংলা অসমীয়া हिन्दी नेपाली Bahasa Indonesia العربية 中文(简体) Bahasa Melayu Español Português (Brasil) +

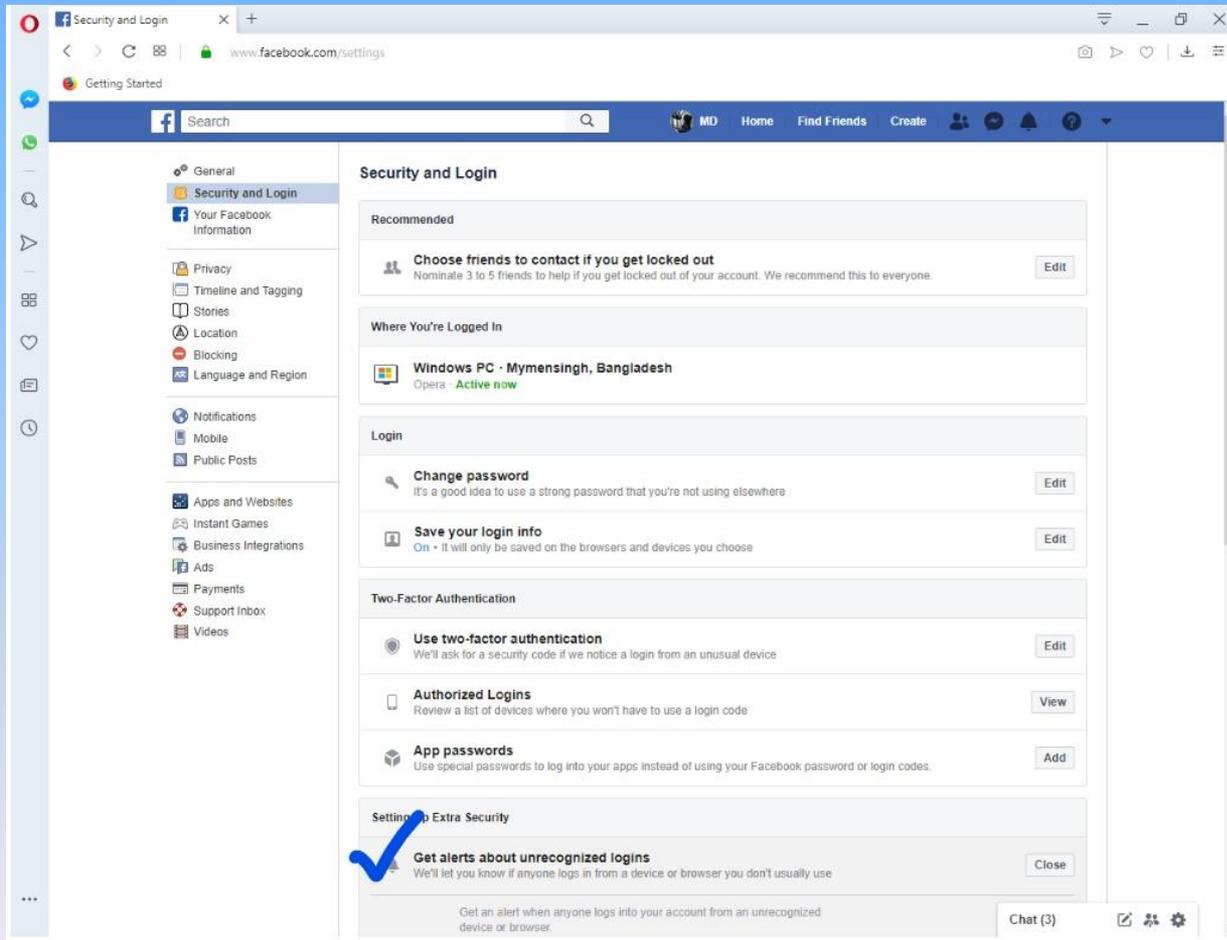
Sign Up Log In Messenger Facebook Lite People Pages Page categories Places Games Locations Marketplace Groups Instagram Local Fundraisers Services About Create ad Create Page Developers Careers Privacy Cookies AdChoices Terms Account security Login help Help

Facebook © 2019

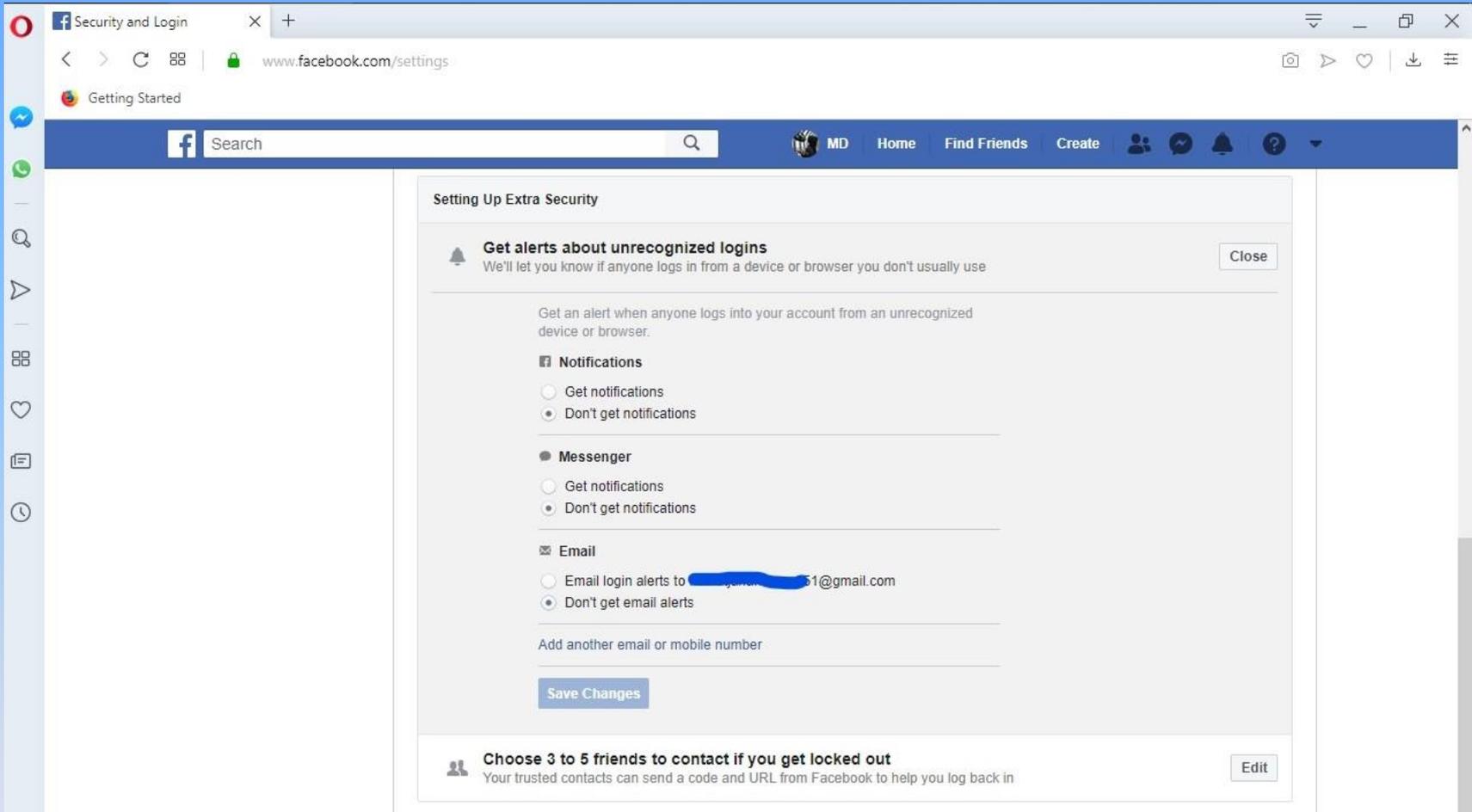
Go to its setting:  
Click on setting option. After that we will see the below window.



(3) Apply various security steps such as mobile number and e-mail address: After click on setting we get this interface Then click “Get alerts about unrecognized logins”



# Security “Get alerts about unrecognized logins”



The screenshot shows a web browser window with the address bar displaying 'www.facebook.com/settings'. The page title is 'Security and Login'. The main content area is titled 'Setting Up Extra Security' and features a section for 'Get alerts about unrecognized logins'. This section includes a 'Close' button and a description: 'We'll let you know if anyone logs in from a device or browser you don't usually use'. Below this, there are three categories of notification preferences: 'Notifications', 'Messenger', and 'Email'. Each category has two radio button options: 'Get notifications' and 'Don't get notifications'. The 'Email' option is currently selected. The email address shown is partially redacted with a blue highlight, ending in '@gmail.com'. A 'Save Changes' button is located at the bottom of this section. Below the main section, there is another section titled 'Choose 3 to 5 friends to contact if you get locked out' with an 'Edit' button. The browser's address bar shows 'www.facebook.com/settings' and the page title is 'Security and Login'. The browser's address bar shows 'www.facebook.com/settings' and the page title is 'Security and Login'.

Security and Login

www.facebook.com/settings

Getting Started

Search

MD Home Find Friends Create

**Setting Up Extra Security**

**Get alerts about unrecognized logins** Close

We'll let you know if anyone logs in from a device or browser you don't usually use

Get an alert when anyone logs into your account from an unrecognized device or browser.

**Notifications**

- Get notifications
- Don't get notifications

**Messenger**

- Get notifications
- Don't get notifications

**Email**

- Email login alerts to [redacted]@gmail.com
- Don't get email alerts

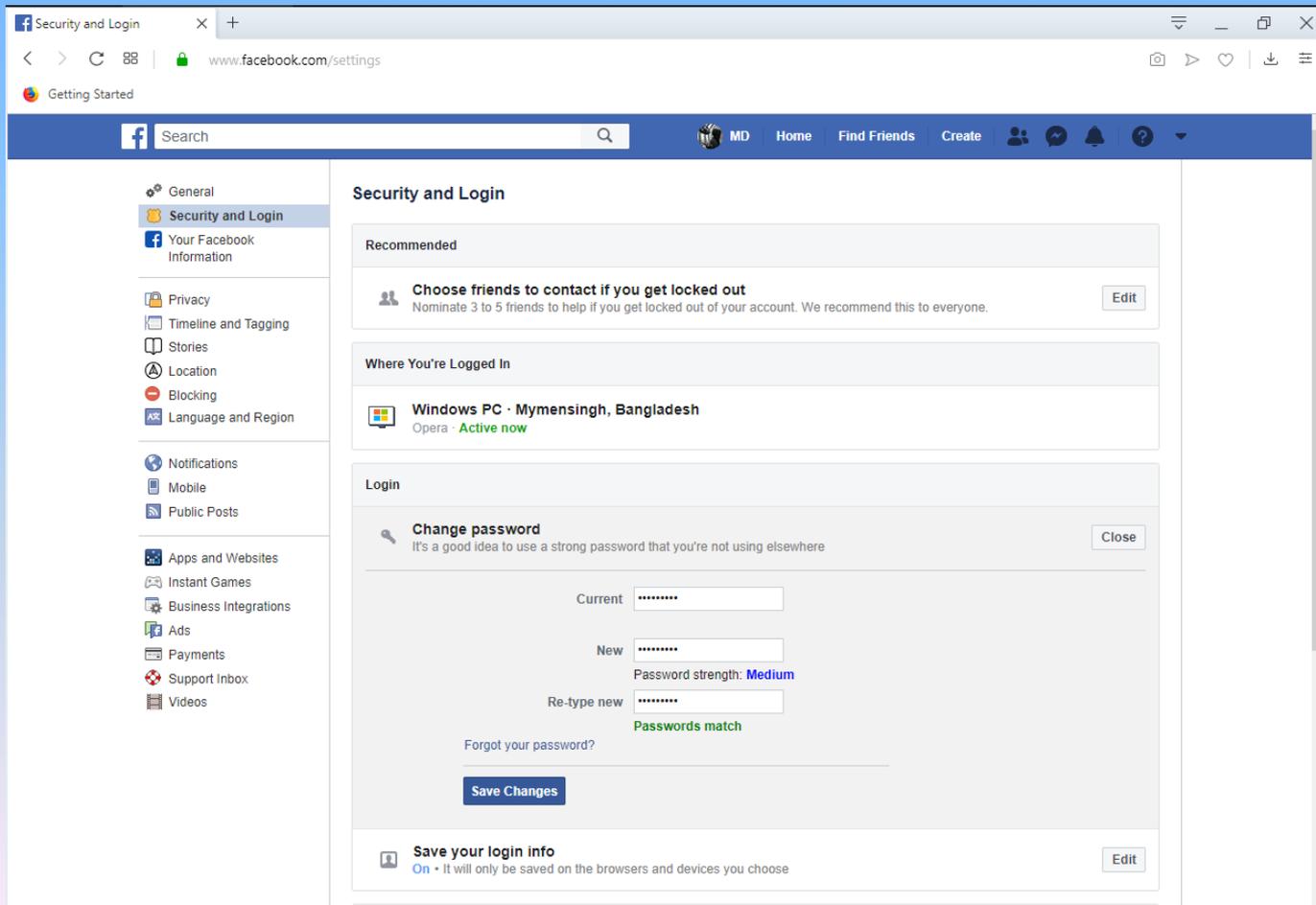
Add another email or mobile number

**Save Changes**

**Choose 3 to 5 friends to contact if you get locked out** Edit

Your trusted contacts can send a code and URL from Facebook to help you log back in

Try to change Facebook password by applying those security steps: “Security and Login” then Password change.



The screenshot shows the Facebook 'Security and Login' settings page. The left sidebar contains various settings categories, with 'Security and Login' selected. The main content area is titled 'Security and Login' and includes several sections:

- Recommended:** A section titled 'Choose friends to contact if you get locked out' with an 'Edit' button.
- Where You're Logged In:** A section showing 'Windows PC · Mymensingh, Bangladesh' with 'Opera · Active now'.
- Login:** A section titled 'Change password' with a 'Close' button. It contains three password input fields: 'Current', 'New', and 'Re-type new'. Below the 'New' field, it indicates 'Password strength: Medium'. A green message below the 'Re-type new' field says 'Passwords match'. There is a 'Forgot your password?' link and a 'Save Changes' button.
- Save your login info:** A section with a toggle switch set to 'On' and the text 'It will only be saved on the browsers and devices you choose', with an 'Edit' button.

# Question

- 1.What is social media?**
- 2.What is facebook?**

# Job no:04

Name of the job:

Install Antivirus Software and scan Computer System With the Software.

# Learning outcome

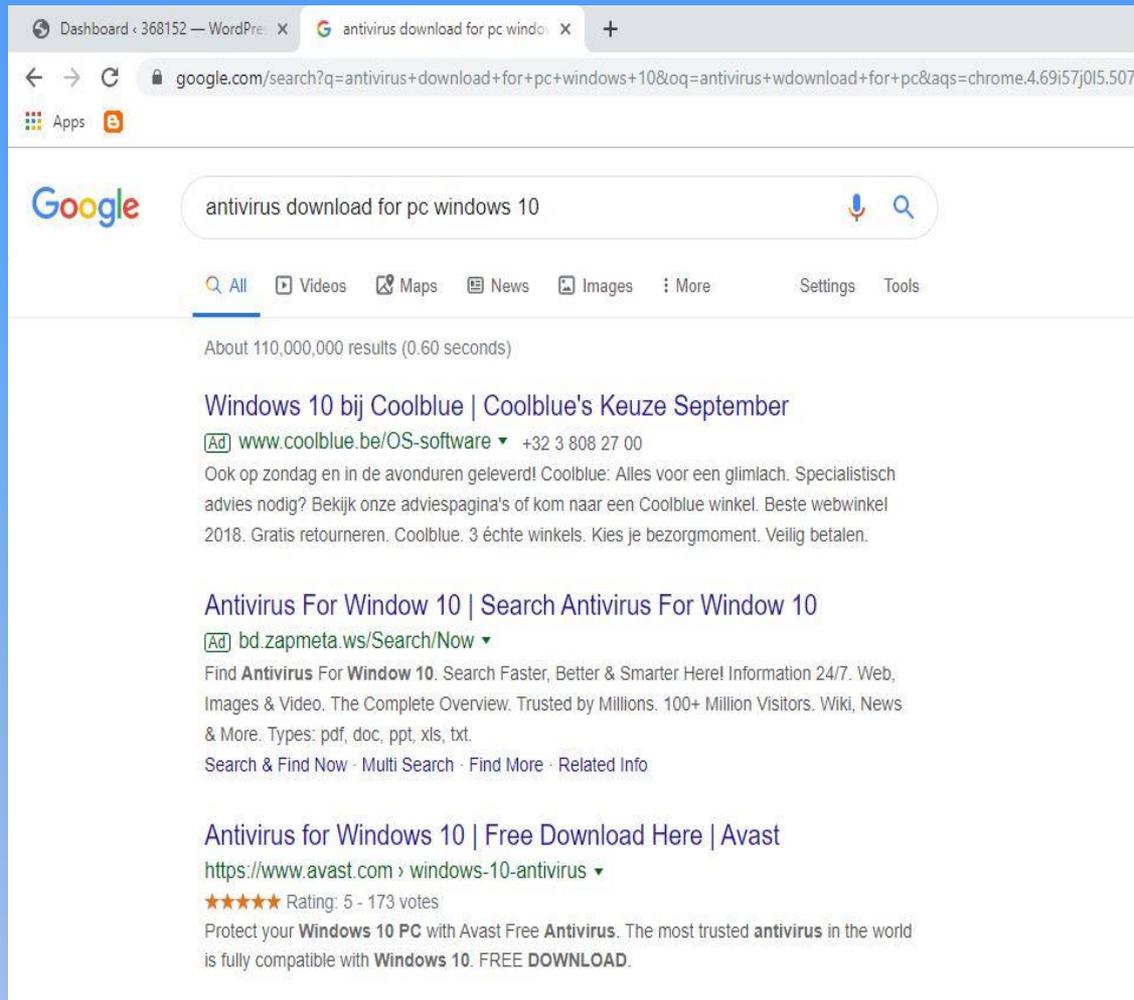
**At the end of this job learner's will be able**

**To define the Antivirus Software**

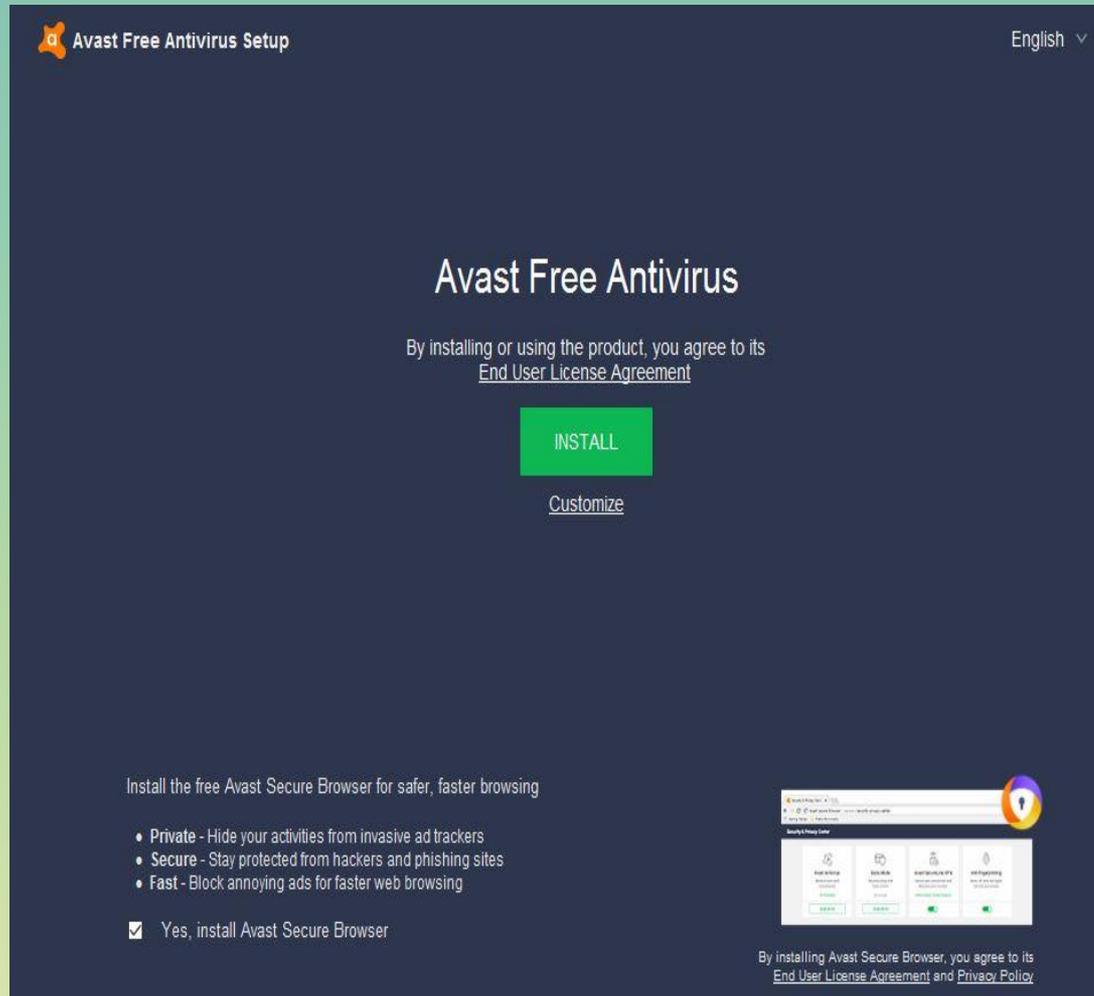
**To check error.**

**To scan Computer System With the Software..**

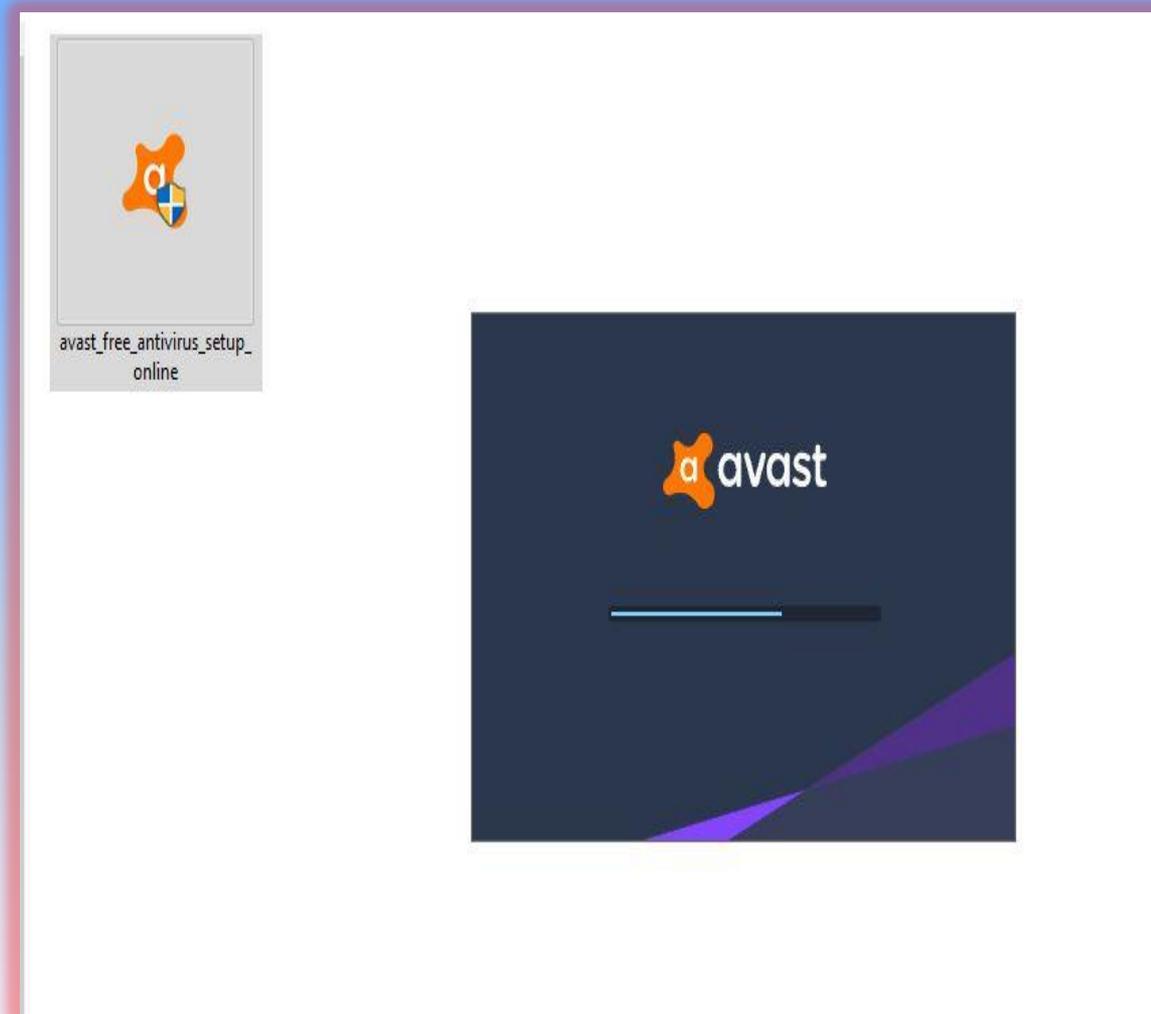
# At first Open Computer then free download antivirus software .



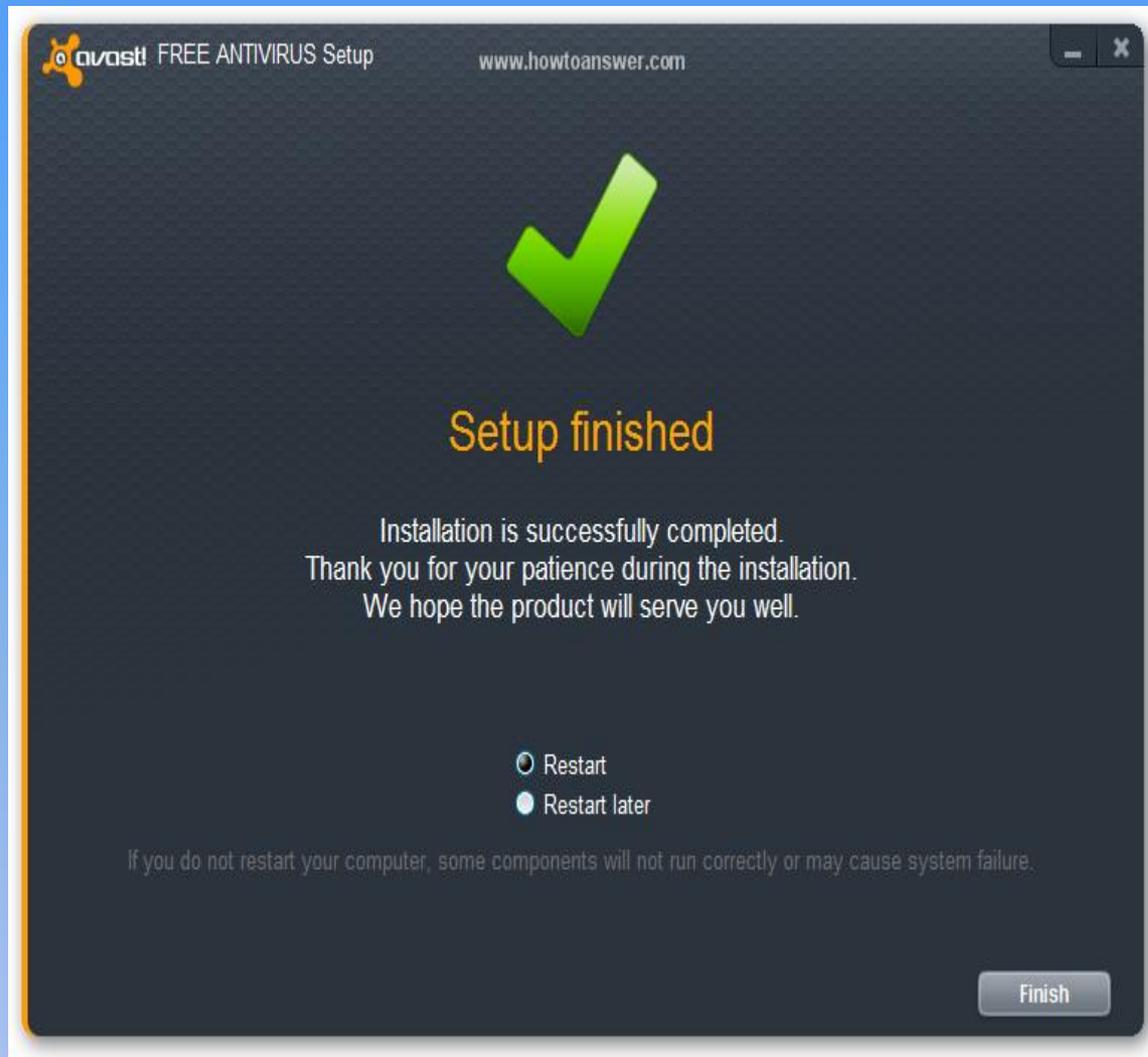
# Install the Antivirus software- Download and step by step install.At first click on Install. Then click on Next>Next>Finish.



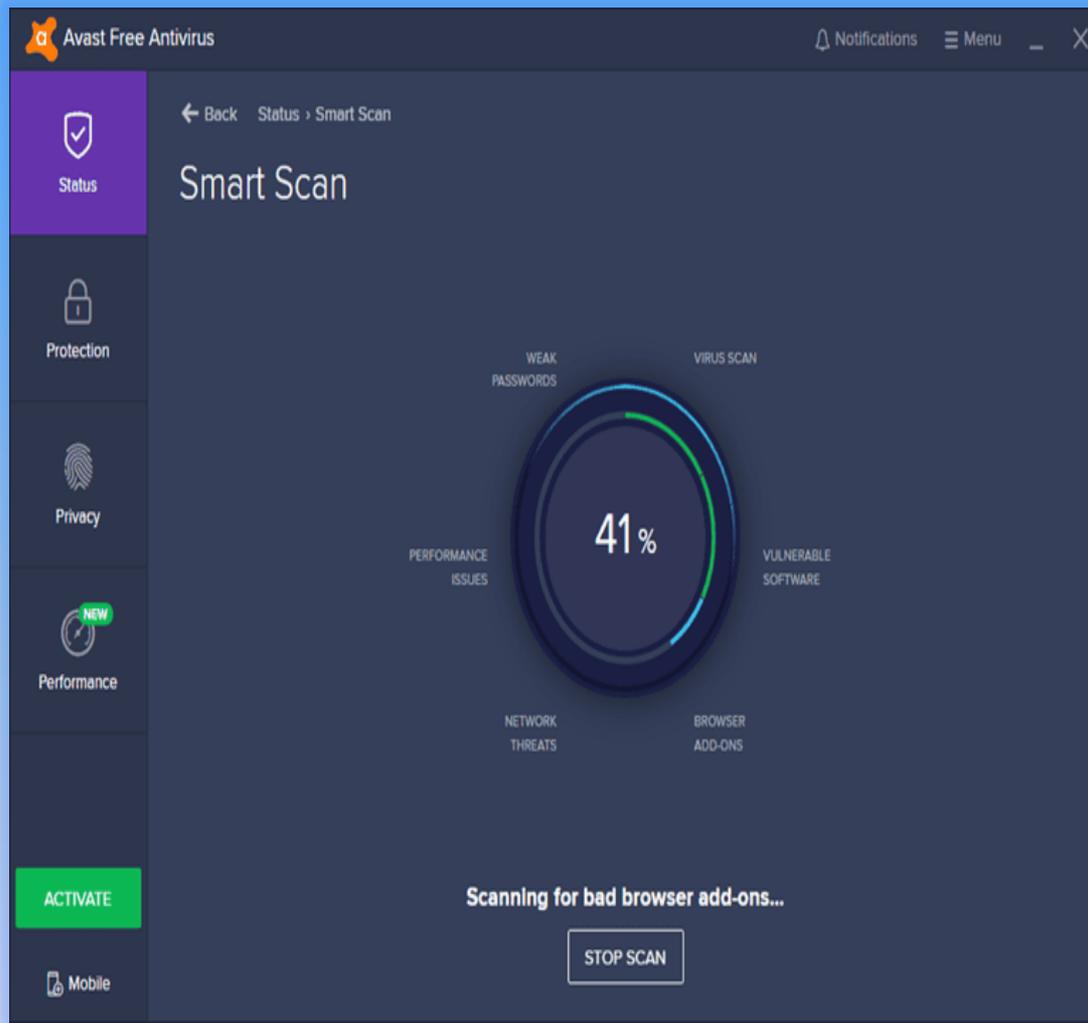
**When Installation process is running, this window show below.**



After complete the installation we will see the below window.



Then open Software  
Click on Start Quick Scan .Automatic start to Scan .



# Question

- 1.What is Antivirus Software ?**
- 2.How many types of antivirus?**

Job no:06

**Name of the job:**

**Install firewall to a computer system and prevent the computer system from Intruder.**

# Learning outcome

**At the end of this job learner's will be able**

**To define Firewall**

**To check error.**

**To scan Computer System With the Software..**

# Click on Control Panel >System and security> Windows Firewall.

The screenshot shows the Windows Firewall control panel window. The title bar reads "Windows Firewall". The breadcrumb navigation path is "Control Panel > System and Security > Windows Firewall".

**Control Panel Home**

- Allow an app or feature through Windows Firewall
- Change notification settings
- Turn Windows Firewall on or off
- Restore defaults
- Advanced settings
- Troubleshoot my network

### Help protect your PC with Windows Firewall

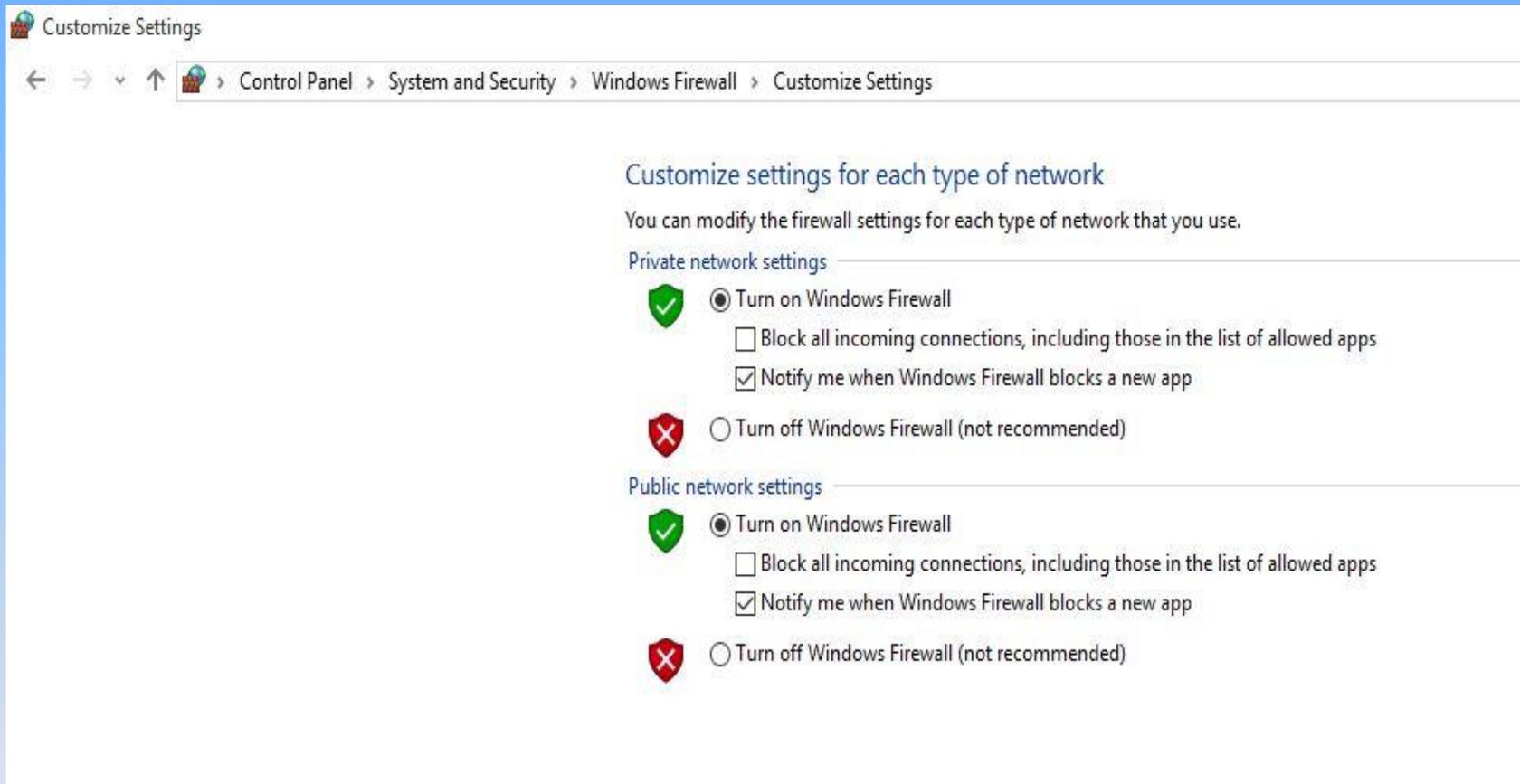
Windows Firewall can help prevent hackers or malicious software from gaining access to your PC through the Internet or a network.

|  |                          |               |
|--|--------------------------|---------------|
|  | Private networks         | Not connected |
|  | Guest or public networks | Connected     |

Networks in public places such as airports or coffee shops

|                         |  |
|-------------------------|--|
| Windows Firewall state: | On   |
| Incoming connections:   | Block all connections to apps that are not on the list of allowed apps |
| Active public networks: | None   |
| Notification state:     | Notify me when Windows Firewall blocks a new app                       |

# Customize settings



The screenshot shows the Windows Firewall Customize Settings window. The title bar reads "Customize Settings". The breadcrumb navigation path is "Control Panel > System and Security > Windows Firewall > Customize Settings".

### Customize settings for each type of network

You can modify the firewall settings for each type of network that you use.

#### Private network settings

- Turn on Windows Firewall
  - Block all incoming connections, including those in the list of allowed apps
  - Notify me when Windows Firewall blocks a new app
- Turn off Windows Firewall (not recommended)

#### Public network settings

- Turn on Windows Firewall
  - Block all incoming connections, including those in the list of allowed apps
  - Notify me when Windows Firewall blocks a new app
- Turn off Windows Firewall (not recommended)

# Question

1. What is security?
2. What is Firewall?

**Job no:07**

**Name of the job:**

**Use a hashing program to verify the integrity of data with HashCalc program.**

# Learning outcome

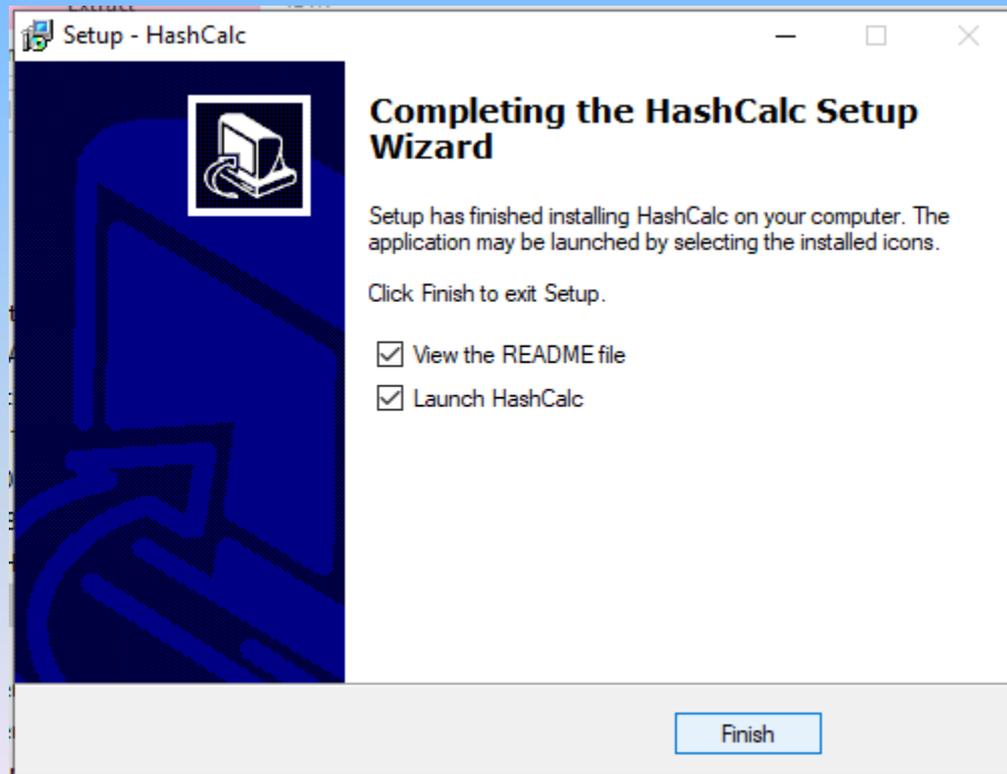
**At the end of this job learner's must be able**

**To use HashCalc Program.**

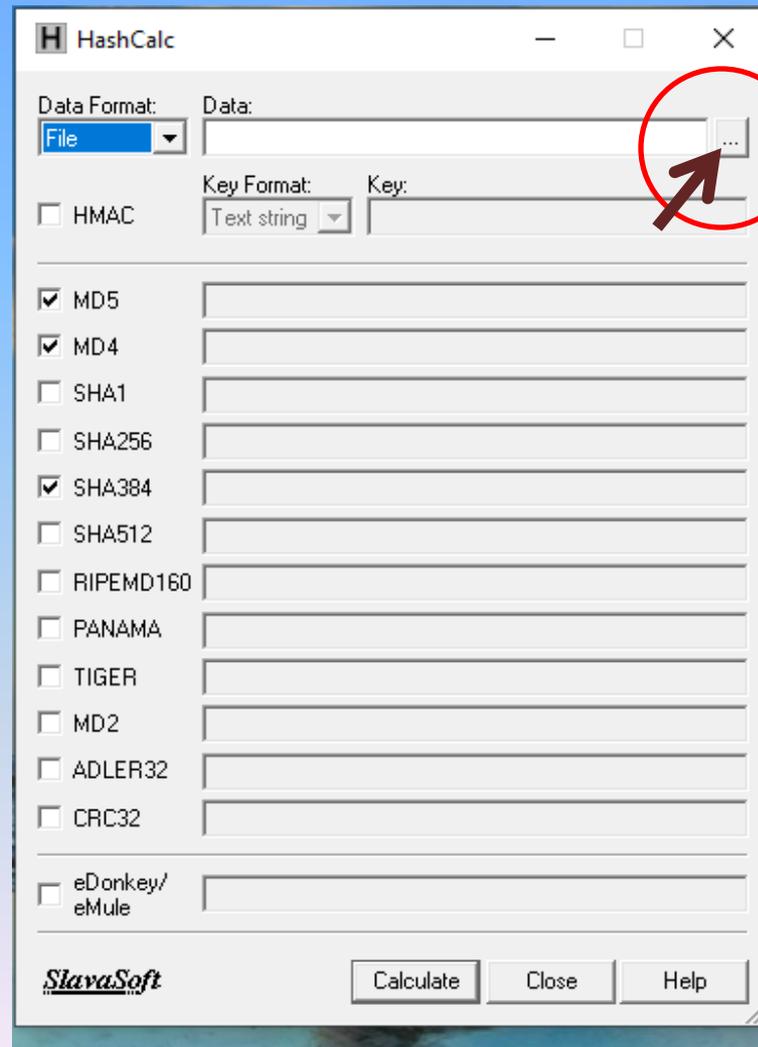
**To define data integrity.**

At first Open Computer then free download Hashcalc software .

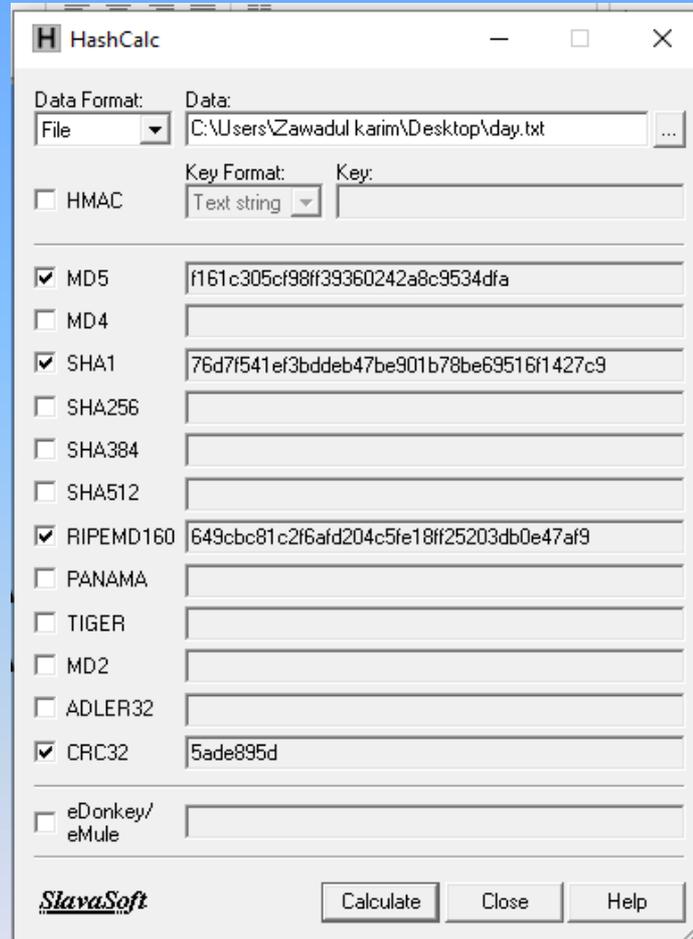
Then install HashCalc software.



Open Hashcalc program. Click on  for file select then click Calculate.



We see the calculating value after select the file.



# Question

1. What is data integrity?
2. What is HashCalc?

**Job no:08**

**Name of the job:**

**Practice to sending Confidential information  
over E-mail utilizing WinZip**

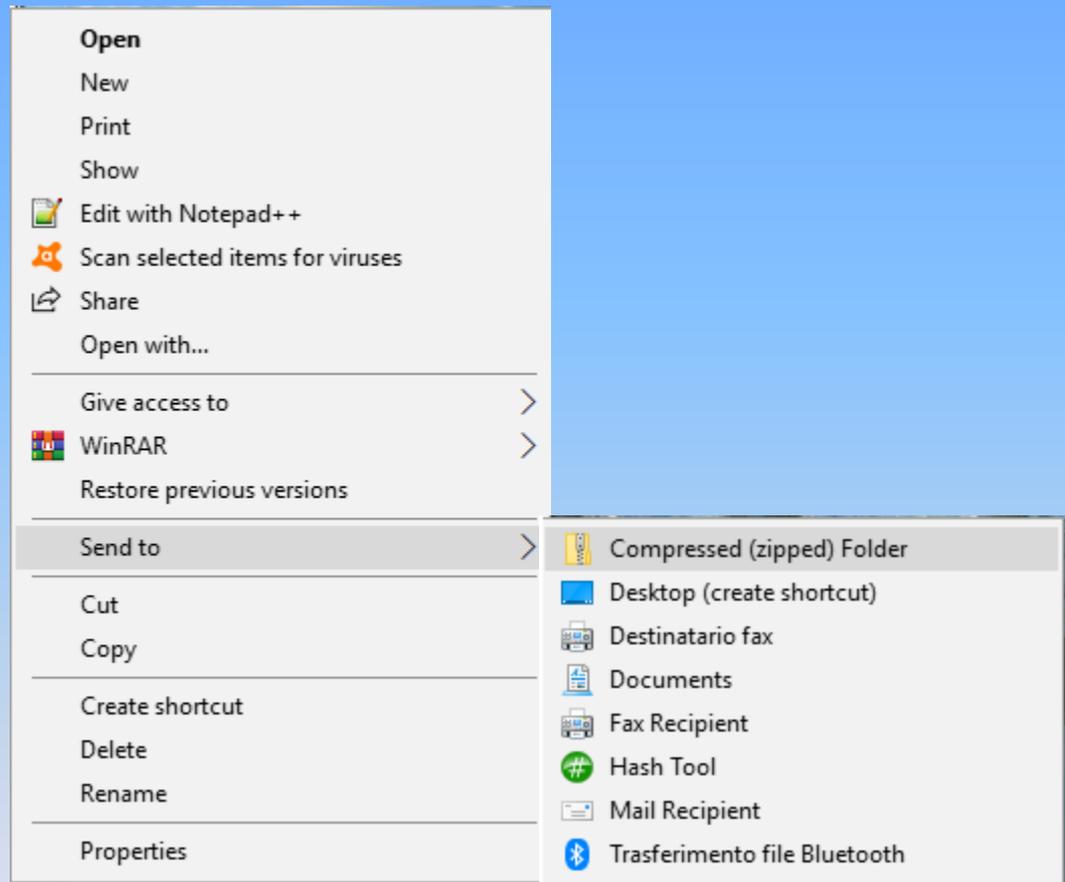
# Learning outcome

**At the end of this job learner's must be able**

**To create WinZip file.**

**To send E-mail with Confidential information .**

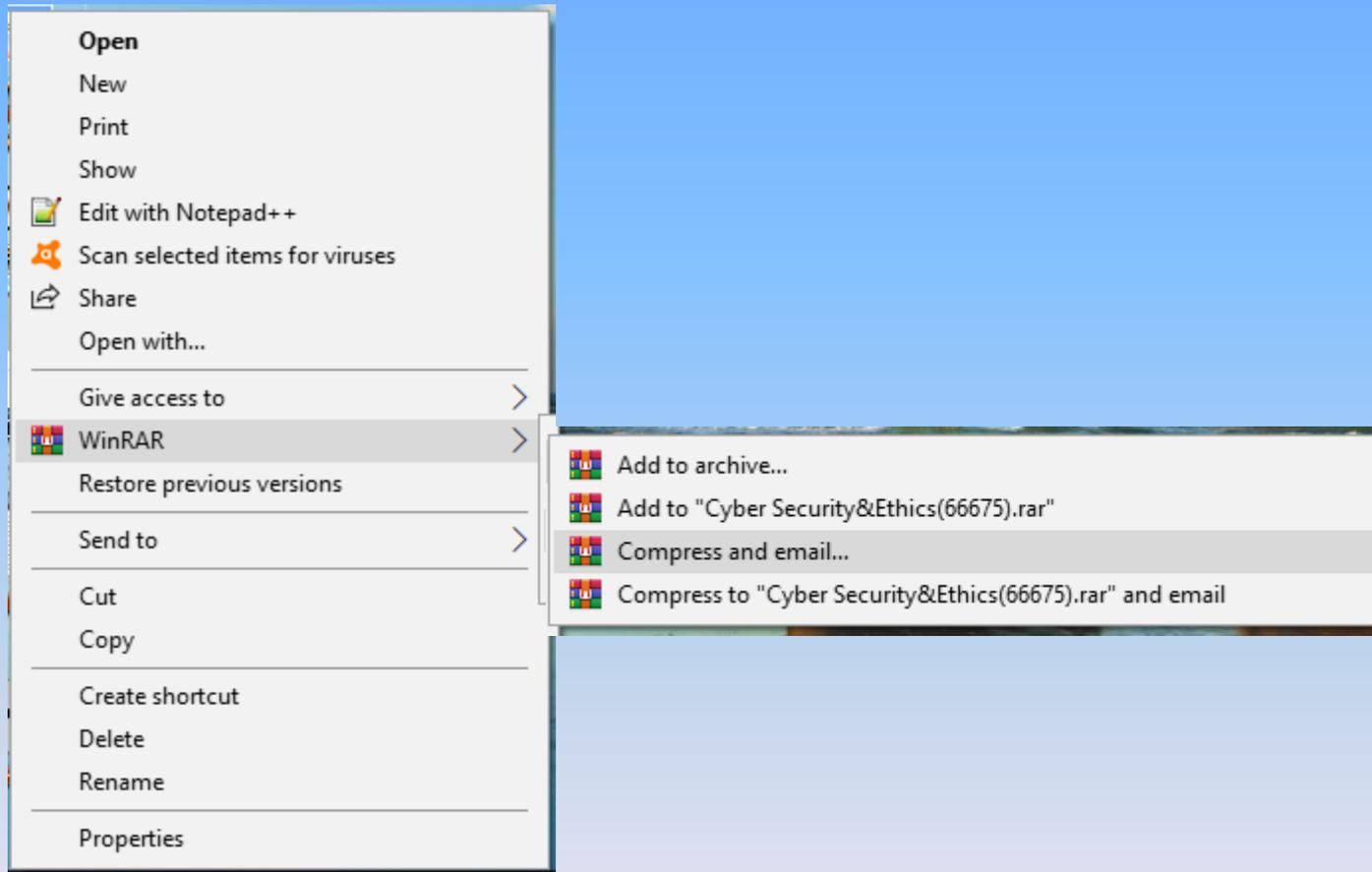
At first select the file. Click on mouse right button .Click on Compressed(Zipped) Folder.



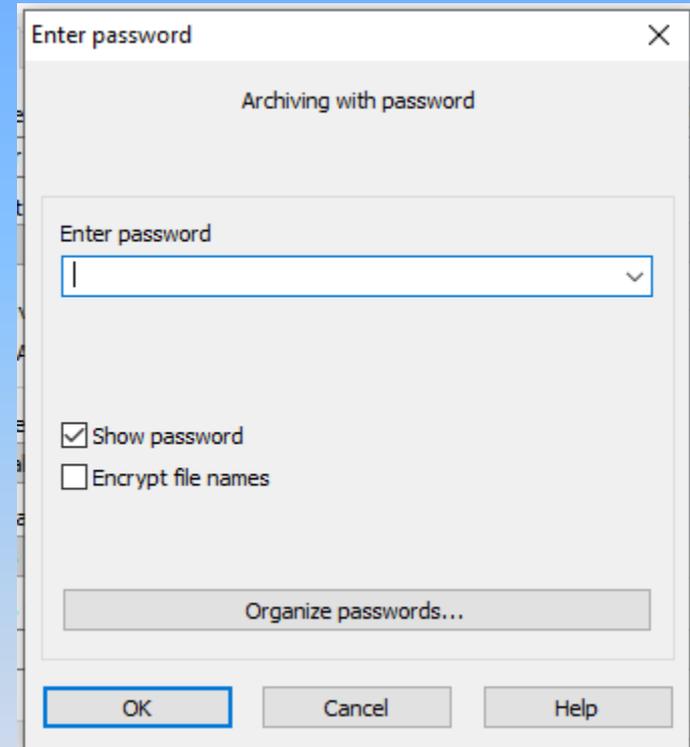
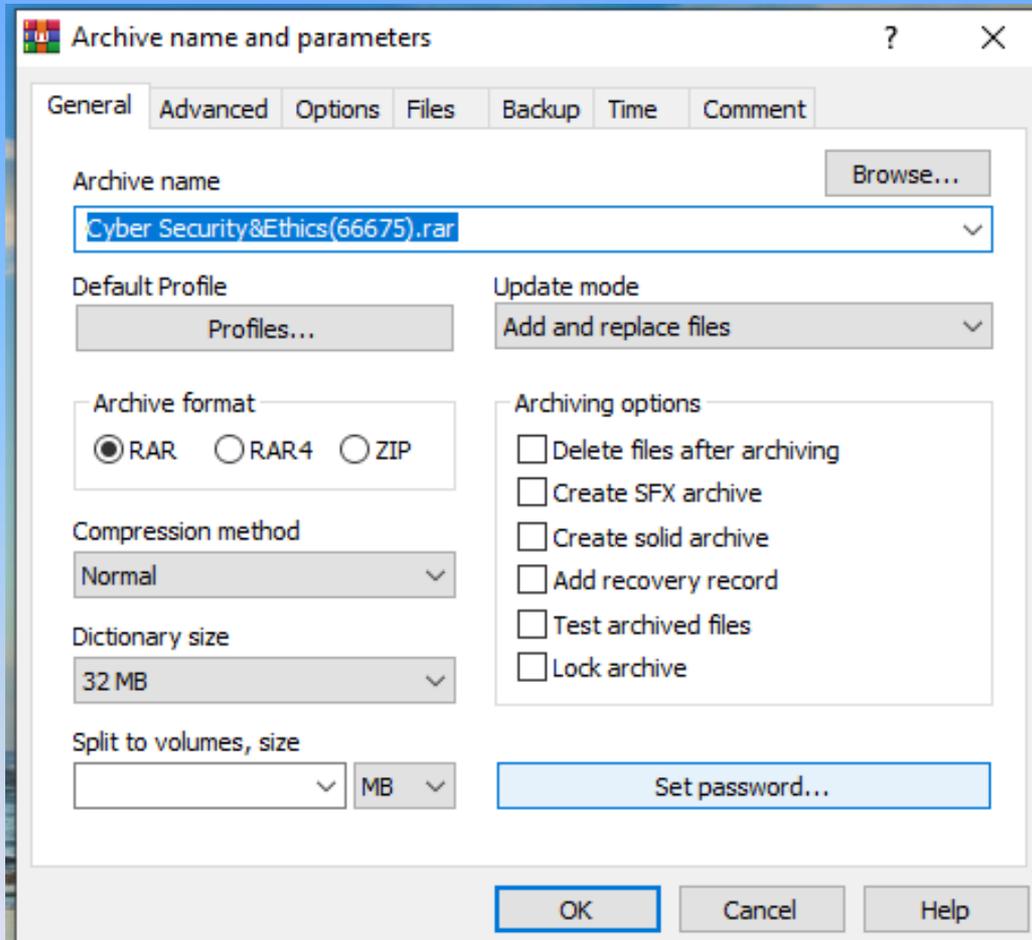
# Zip File and UnZip file



# Another Way to Zip File



Click on Set Password and Enter password. Then click OK again OK.



# Question

- 1.What is WinZip file?
- 2.Why we use it?
- 3.Advantage of WinZip file.

