

Faculty of Computers
BCOM CA I Semester -2020-21
FIT Practical record Solutions

1.Assembling computer with following units

- CPU
- Monitor
- Mouse
- Keyboard
- Printer
- Speakers

Procedure

Computer Assembly Steps

Step 1: Open Case

1. Remove the back screws
2. Take side cover off

Step 2: Mount Motherboard

1. Screw motherboard standoffs into the case
2. Punch out rear I/O plate from the case (if existing) and replace it with the motherboard I/O plate
3. Fasten the motherboard in place on top of the mounting standoffs

Step 3: Mount Processor (CPU)

1. Locate the CPU socket holder on the motherboard.
2. Open it by lifting the lever and place CPU inside the socket carefully.
3. Close the socket.

Step 4: Install CPU Cooler

1. Install CPU cooler directly to the back of the CPU.
2. Plug the power cable attached to the cooler fan into the motherboard connector.

Step 5: Install Power Supply (SMPS)

1. Mount the power supply with screws to the case mounting points
2. Plug the largest cabling connector from the power supply cabling into the motherboard power connector.

3. Plug the 8-pin cabling connector from the power supply cabling into the CPU power connector

Step 6: Mount Memory (RAM)

1. Press to open the clips at both ends of the RAM mounting slots
2. Place the RAM and press it firmly down into the slot.

Step 8: Mount Storage Drives

1. Fix the drive in case drive place with screws.
2. Connect the drive to the motherboard using a SATA cable
3. Plug in power cabling to the storage drive

Step 11: Close Case and Connect Peripherals

1. Place the side cover back on

Connecting Peripherals

Plug into USB ports:

- Keyboard
- Mouse

Plug into 2.5mm sockets:

- Speakers, microphone etc.,

Plug into ethernet ports:

- Internet connection
- Local area network (LAN) cables

Plug into display ports:

- Monitor / screens

Generally, peripherals are optional, and you can add new ones at any time; you don't have to add all peripherals during the initial setup of your computer.

2.a)create directory ,subdirectories in dos

- **Directory - course**
- **Sub directory- college**
- **Sub sub directory- year**

mkdir (md)

To create a directory in MS-DOS or the Windows command line (cmd), use the md or mkdir MS-DOS command

Procedure

Course directory creation

```
D:\> md course
```

The above command would create a directory called "course".

To create sub directory college we need to change our directory

CHDIR (CD)

To change working directory Displays working (current) directory and/or changes to a different directory.

```
D:\>cd course
```

```
D:\course>
```

```
D:\course> md college
```

Creating sub sub directory year

```
D:\course> cd college
```

```
D:\course\college> md year
```

b) Create Folder, sub Folder and windows.

Folder - Course

Sub Folder- Colleges

Sub Sub Folder- Year

Folder creation in windows

To create a new folder quickly, click Home from the folder's toolbar buttons and choose New Folder from the Ribbon: A folder appears, ready for you to type in its name.

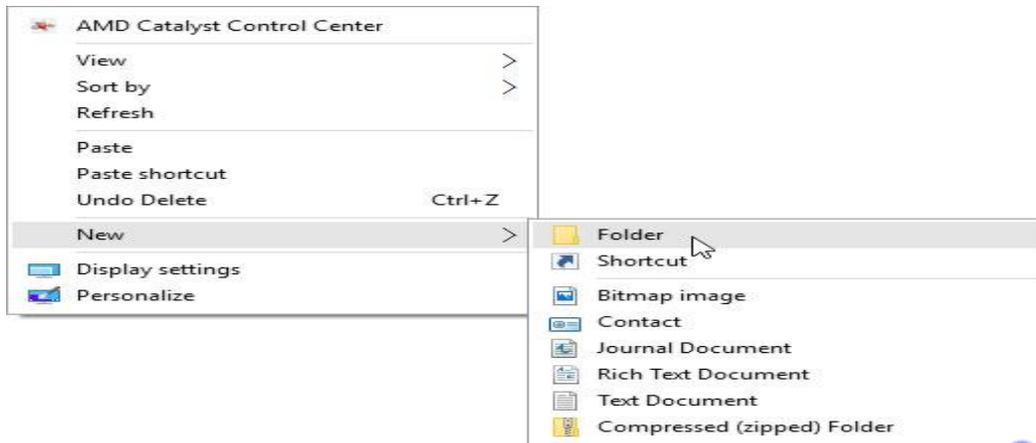
If the menus seem to be hiding, though, here's a quick and foolproof method:

Right-click inside your folder (or on the desktop) and choose New.

The all-powerful right-click shoots a menu out the side.

Choose Folder.

When you choose Folder, shown here, a new folder quickly appears, waiting for you to type a new name



Right-click where you want a new folder to appear, choose New, and select Folder from the menu.

Type a new name for the folder as **course**.

A newly created folder bears the boring name of New Folder. When you begin typing, Windows quickly erases the old name and fills in your new name. Done? Save the new name by either pressing Enter or clicking somewhere away from the name you've just typed.

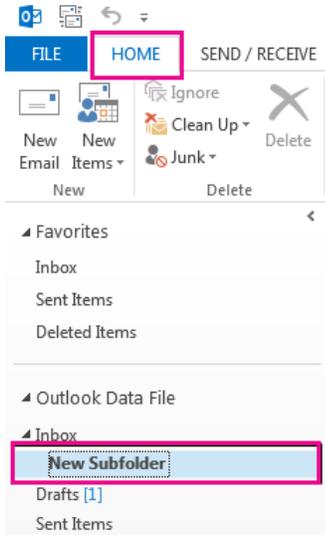
If you mess up the name and want to try again, right-click the folder, choose Rename, and start over.

Creating Sub-folders -college

Sub-folders are folders that are created inside of another folder.

To create a sub-folders follow the steps below:

1. Log in to your Windows computer.
2. Open the Start menu and type "windows explorer" into the search box at the bottom of the Start menu.
3. Press "Enter" to open Windows Explorer, then browse to the folder where you want to create a subdirectory.
4. Right-click in the folder, click "New," then click "Folder."
5. Type in a name for your new folder as **college**, then press "Enter" to finish the setup.

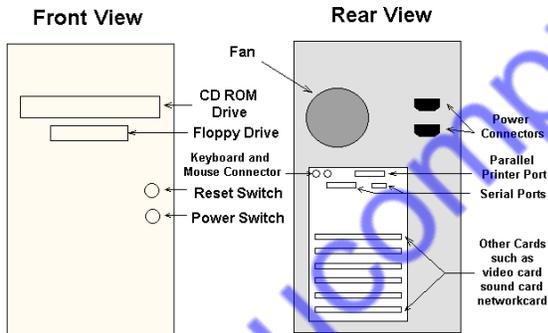


3.FRONT PANEL INDICATORS & SWITCHES AND FRONT SIDE & REAR SIDE CONNECTORS.

Computer with front, rear panel connectors

Tower Case:

A Typical Computer with Tower Case



Hard Drive Activity LED:

LED provides visual indication that data is being read from or written to the hard drive

Supporting the **reset** function requires, a momentary-contact switch that is normally open. When the switch is closed, the board resets and runs POST.

Power Switch:

Supporting the power on/off function requires, a momentary-contact switch that is normally open. The switch should maintain contact for at least 50 ms to signal the power supply to switch on or off.

Drive bays:

Drive bays are most commonly used to store disk drives, although they can also be used for front-end USB ports, I/O bays, card readers, fans, tool storage, and other uses. 3.5" - 3.5" bays, their actual dimensions are 4" wide by 1" high. Those with an opening in the front of the case are generally use for floppy or zipdrives

Front side connector



USB Connectors:

USB (Universal Serial Bus) is a way of setting up communication between a computer and peripheral devices. USB is intended to replace many varieties of serial and parallel ports. USB can connect computer peripherals such as mice, keyboards, PDAs, gamepads and joysticks, scanners, digital cameras, printers, personal media players, flash drives, and external hard drives.

Card Reader:

Card reader" is used to reads flash memory cards. It can be a standalone device that connects to a computer via USB or it may be integrated into a computer, printer, or multifunction device. Most card readers accept multiple memory card formats, including compactflash (CF), secure digital (SD), and Sony's Memory Stick.

Audio Jack:

A socket for plugging in an audio source, Audio jacks are found on many types of audio equipment and musical instruments that accept external sound sources.

Rear Side Connectors:



PS/2 Port:

The PS/2 standard, introduced by IBM in 1987, stands for Personal System/2. A PS/2 port is an electronic receptacle or plug found on computers. It accepts a PS/2 cable with a mini-DIN connector, and is most often used to plug in a keyboard or mouse. The connector is small with a diameter of about 1/3 inch (9.5mm). It features a metal sleeve that is notched to ensure proper alignment when inserting it into the PS/2 port. This protects the circular pins inside the DIN connector from becoming bent.

Parallel Port:

This interface is found on the back of older PCs and is used for connecting external devices such as printers or a scanner. It uses a 25-pin connector (DB-25).

Serial Port:

The serial port is used for peripherals such as mice, gaming controllers, modems, and older printers. It is sometimes called a COM port or an RS-232 port.

4. Identify external ports and interfaces

The Motherboard of a computer has many I/O sockets that are connected to the ports and interfaces found on the rear side of a computer. The external devices can be connected to the ports and interfaces.

Computer Ports

A port is a connection or a jack provided on a computer to connect external or peripheral devices to the computer, for example, you will need a port on your device to connect a keyboard, mouse, pen-drives, etc. So, it acts as an interface or a point of attachment between computer and external devices. It is also called a communication port, as it is the point where you plug in a peripheral device to allow data transfer or communication between the device and computer.

The various types of ports are given below:

Serial Port: To connect the external devices, found in old computers



Parallel port

Parallel Port: To connect the printers, found in old computers.

As the name suggests, a parallel port is an interface that allows communication or data transfer between a computer and a device in a parallel manner through more than one communication line. For example, a printer port is a parallel port.



USB Ports: To connect external devices like cameras, scanners, mobile phones, external hard disks and printers to the computer.

USB 3.0 is the third major version of the Universal Serial Bus (USB) standard to connect computers with other electronic gadgets as shown in Figure 3.13. USB 3.0 can transfer data up to 5 Giga byte/second. USB3.1 and USB 3.2 are also released.



Figure 3.13 USB 3.0 Ports

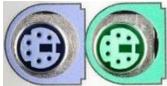
VGA Connector: To connect a monitor or any display device like LCD projector.



Audio Plugs: To connect sound speakers, microphone and headphones.



PS/2 Port: To connect mouse and keyboard to PC.



SCSI Port: To connect the hard disk drives and network connectors.

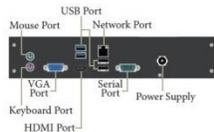


Fig 3.14 Ports and Interfaces

High Definition Multimedia Interface (HDMI)

High-Definition Multimedia Interface is an audio/video interface which transfers the uncompressed video and audio data from a video controller, to a compatible computer monitor, LCD projector, digital television etc.



Figure 3.15 HDMI Ports

Component Video:

This interface allows splitting video signals into three channels. The component video generally has three color-coded slots; Red, Blue, and Green. Each slot receives and then transmits a particular component of the video signal. It offers high-quality videos than composite video and can carry both analogue and digital video signals.



5. install an antivirus software on a computer and trouble shooting

Antivirus programs help prevent viruses and spyware from infecting a computer and therefore are one of the essential software programs each computer should have running at all times. There are thousands of viruses and spyware on the Internet, and any one of them can cause damage to personal files or the computer's operating system.

Instructions are provided for the following major antivirus vendors

- Norton Antivirus
- McAfee
- Trend Micro
- CA Antivirus

Steps to Install the antivirus program

To install an antivirus program on computer, follow the steps below.

- If you purchased the antivirus program from a retail store, insert the CD or DVD into the computer's disc drive. The installation process should start automatically, with a window opening to help guide you through the install process.
- If you downloaded the antivirus program on the Internet, find the downloaded file on your computer. If the downloaded file is a zip file, unzip the file to extract and access the installation files.
- Look for a file named setup.exe, install.exe, or something similar, then double-click that file. The installation process should start, with a window opening to help guide you through the install process.
- In the installation process window, follow the steps provided to install the antivirus program. The install process provides recommended options so the antivirus program will function properly, which in most cases can be accepted as is.
- The one exception is if the install process recommends to install any toolbars for Internet browsers or other helpful programs for your computer.
- If prompted to install other software with the antivirus program, uncheck all boxes or decline the install of those extra programs. No additional programs should be needed for the antivirus program to install and run successfully on your computer.
- When the install process is complete, close out of the install window.
- If used, remove the CD or DVD from the computer's disc drive.
- The antivirus program is now installed and ready to use. While it may not be required, we recommend restarting your computer so that any modified settings in the operating system can take effect correctly.

Update the antivirus program after installation

Out of the box, antivirus programs are not up-to-date and are missing the latest virus and spyware definitions. Without the latest definitions, the antivirus program will not know about the most recently created viruses and spyware, making your computer vulnerable to an infection.

After installing the antivirus program, we highly recommend you update it with the latest virus and spyware definitions. The updates allow the antivirus program to protect your computer from all viruses and spyware.

Troubleshoot Antivirus

McAfee

If we installed antivirus software from McAfee, please try the instructions below to make sure it is not blocking the APPS program.

To set the Personal Firewall to allow or block connections from specific programs, do the following:

- Start McAfee SecurityCenter
- On the McAfee SecurityCenter pane, click Internet & Network, then click Configure
- On the Internet & Network Configuration pane, under Firewall protection is enabled, click Advanced

- On the Firewall pane, click Trusted and Banned IPs
- On the Trusted and Banned IPs pane, select Trusted IP Addresses, and then click add
- Under Add Trusted IP Address Rule, do one of the following:
- Select Single IP Address, and then enter the IP address
- Select IP Address Range, and then enter the starting and ending IP addresses in the From IP Address and To IP Address boxes
- If a system services uses Internet Connection Sharing (ICS), you can add the following IP address range:192.168.0.1 to 192.168.0.255
- Optionally, select Rule expires in, and enter the number of days to enforce the rule
- Optionally, type a description for the rule
- Click OK
- On the Trusted and Banned IPs dialog, click Yes to confirm

6.Install Printer drivers for PC

A printer driver is software that your computer uses to speak to a physical printer, which may be connected to your computer or to another computer on your network

Steps

- Click on the Start button, select Devices and then, select Printers.
- Select Add Printer.
- From the Add Printer dialog box, click Add a Local Printer and select Next.
- Choose a Printer Port - You can select from a drop down of existing ports or use the recommended port setting that your computer selects for you. Click Next.
- Add your driver. From here, you can either add the disc that came with your printer or select the driver that you downloaded from the manufacturer's website.
- Name your printer.
- Click Finish.
- Run a test print.

7. Write about Following

a)Internet. b) WWW. c)browser. d) Website. e) blog

A)internet

The internet is the wider network that allows computer networks around the world run by companies, governments, universities and other organisations to talk to one another. The result is a mass of cables, computers, data centres, routers, servers, repeaters, satellites and wifi towers that allows digital information to travel around the world.

The Internet is a global network of billions of computers and other electronic devices. With the Internet, it's possible to access almost any information, communicate with anyone else in the world, and do much more.

b) WWW

The World Wide Web—usually called the Web for short—is a collection of different websites you can access through the Internet. A website is made up of related text, images, and other resources. Websites can resemble other forms of media—like newspaper articles or television programs—or they can be interactive in a way that's unique to computers.

The web is a way to view and share information over the internet. That information, be it text, music, photos or videos or whatever, is written on web pages served up by a web browser.

c) Browser

A browser is software that accesses and displays pages and files on the web. Browsers require a connection to the Internet (e.g., through a cable modem, a direct Ethernet connection, or Wi-Fi). Popular web browsers include Firefox, Internet Explorer, and Safari. Firefox is available for both Windows and Mac computers



d) Website

A website (also written as web site) is a collection of web pages and related content that is identified by a common domain name and published on at least one web server. Notable examples are wikipedia.org, google.com, and amazon.com. All publicly accessible websites collectively constitute the World Wide Web.

e) Blog

A blog is a type of website where the content is presented in reverse chronological order (newer content appear first). Blog content is often referred to as entries or “blog posts”.

Blogs are typically run by an individual or a small group of people to present information in a conversational style. However, now there are tons of corporate blogs that produce a lot of informational and thought-leadership style content.

The Difference Between Blog and Website

Blogs are a type of website. The only real difference between a blog and other types of website is that blogs are updated on a regular basis with new content, which is displayed in reverse chronological order (new blog posts first).

Typical websites are static in nature where content is organized in pages, and they are not updated frequently. Whereas a blog is dynamic, and it is usually updated more frequently. Some bloggers publish multiple new articles a day.

Blogs can be part of a larger website. Often businesses have a blog section where they regularly create content to inform and educate their customers.

8. Write about Following

a) Hub b) router c) switch d) modem

a) Hub

A hub is the connection point in a computer device where data from many directions converge and are then sent out in many directions to respective devices. A hub may also act as a switch by preventing specific data packets from proceeding to a destination.

Types of Hub

There are three types of the hub that are given below:

- Passive Hub
- Active Hub
- Intelligent Hub

Applications of Hub

- Hub is used to create small home networks.
- It is used for network monitoring.
- They are also used in organizations to provide connectivity.
- It can be used to create a device that is available throughout of the network.

b) Router

The router is a physical or virtual internetworking device that is designed to receive, analyze, and forward data packets between computer networks. A router examines a destination IP address of a given data packet, and it uses the headers and forwarding tables to decide the best way to transfer the packets. There are some popular companies that develop routers; such as Cisco, 3Com, HP, Juniper, D-Link, Nortel, etc



C) Switch

A switch is a device in a computer network that connects other devices together. Multiple data cables are plugged into a switch to enable communication between different networked devices

Switching concept is developed because of the following reasons:

Bandwidth: It is defined as the maximum transfer rate of a cable. It is a very critical and expensive resource. Therefore, switching techniques are used for the effective utilization of the bandwidth of a network.

Collision: Collision is the effect that occurs when more than one device transmits the message over the same physical media, and they collide with each other. To overcome this problem, switching technology is implemented so that packets do not collide with each other.

d)Modem

Modem is short for "Modulator-Demodulator." It is a hardware component that allows a computer or another device, such as a router or switch, to connect to the Internet. It converts or "modulates" an analog signal from a telephone or cable wire to digital data (1s and 0s) that a computer can recognize.

TYPES OF MODEM:

Modems can be of several types and they can be categorized in a number of ways.

• Categorization is usually based on the following basic modem features:

1. **Directional capacity:** half duplex modem and full duplex modem.
2. **Connection to the line:** 2-wire modem and 4-wire modem.
3. **Transmission mode:** asynchronous modem and synchronous modem.

8.Connecting PC to Internet using various tools

MOBILE

Many cell phone and smartphone providers offer voice plans with Internet access. Mobile Internet connections provide good speeds and allow you to access the Internet.

WIFI HOTSPOTS

Wifi Hotspots are sites that offer Internet access over a wireless local area network (WLAN) by way of a router that then connects to an Internet service provider. Hotspots utilize WiFi technology, which allows electronic devices to connect to the Internet or exchange data wirelessly through radio waves. Hotspots can be phone-based or free-standing, commercial or free to the public.

DIAL-UP

Dial-up connections require users to link their phone line to a computer in order to access the Internet. This particular type of connection—also referred to as analog—does not permit users to make or receive phone calls through their home phone service while using the Internet.

BROADBAND

This high-speed Internet connection is provided through either cable or telephone companies. One of the fastest options available, broadband Internet uses multiple data channels to send large quantities of information. The term broadband is shorthand for broad bandwidth. Broadband Internet connections such as DSL and cable are considered high-bandwidth connections. Although many DSL connections can be considered broadband, not all broadband connections are DSL.

DSL

DSL, which stands for Digital Subscriber Line, uses existing 2-wire copper telephone line connected to one's home so service is delivered at the same time as landline telephone service. Customers can still place calls while surfing the Internet.

CABLE

Cable Internet connection is a form of broadband access. Through use of a cable modem, users can access the Internet over cable TV lines. Cable modems can provide extremely fast access to the Internet, making a cable connection a viable option for many.

Create labels

""

9. Create an Email ID for an organization

For a company or nonprofit organization, aligning with the .org domain is an excellent way to clearly establish organization's social-good identity and desire to make a difference in the world.

Once we have selected the .org domain, it's a great idea to set up a custom email using .org domain name to provide additional credibility to email communications and create a clear and consistent online identity.

The following steps outline how to set up a custom email address.

1. Register domain

If you don't already have a .org domain registered for your organization, you'll need to do this first.

2. Choose email plan

Once you've registered your .org domain, next you'll want to evaluate your email needs. Plans that offer flexibility and scalability are helpful for when you need to expand the number of emails you are sending due to growing constituent or donor lists. You'll also want to assess your storage needs, and whether you often send emails with large attachments or embedded multimedia files. For any organization using email to regularly conduct communication with stakeholders, it's a good idea to start with ample storage space.

3. Create custom email address

The Office 365 email alignment with your .org domain name is quick and simple once you've purchased the package that is right for your needs. You will be prompted to set up your email address, and clicking the button to create your account will bring up a simple form. Simply fill out the required fields and click the "Create" button. If your domain and email services are both set up through GoDaddy, the automated system will take care of the rest of the setup process, and you'll receive an email notifying you once your new custom email address is ready. Your custom email address is typically ready within minutes.

Aligning a custom email address with your .org domain is a simple way to add additional credibility to your online identity. For marketing purposes, this alignment can provide clarity and

confidence to stakeholders who you are communicating with online. It also adds a level of security against digital identity theft. A custom email address leveraging the .org domain shouldn't be considered frivolous – it can be an important tool when it comes to marketing and protecting your organization.

10. Composing a mail and organizing of Labels in your GMAIL Account?

Email

Nowadays Email has become an important form of communication. It helps you communicate with your friends, colleagues and businesses, it is faster, cheaper, and convenient. You can send a mail through a computer, mobile app, smartphone or tablet. There are many free email providers but one of the best is Gmail. Here are some basic steps you need to follow to know, how to create and send a Gmail message quickly

How to send an email via computer

Step 1: Open your computer, select a browser.

Step 2: Login your Gmail account, using Id and password.

Step 3: On the new page, click Compose (In the top left).

Step 4: A box appears on the screen, here in the To field, add recipients email id. (If you want, you can also add recipients in the Cc and Bcc fields)

Step 5: After that add a subject.

Step 6: In the body, write your message.

Step 7: At the bottom of the page, there is a send option-click Send to send mail.

Note: To add individual recipients and groups of contacts you created with labels to your email, click To:.

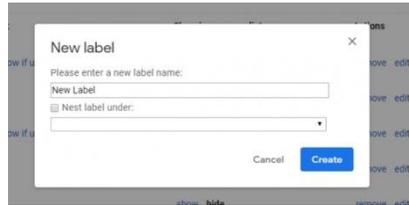
Create a label in gmail:

1. Go to Gmail settings and choose Settings.

2. Choose the Labels tab.



3. Create a new label that defines the content of the emails you are categorizing (think clients or specific projects).



4. Create a filter from the Filters tab.

5. Create the new filter and then apply it to all matching conversations.

By adding labels and using filters, Gmail will automatically apply the label to both old conversations that match your criteria, and any future emails that arrive in your inbox

Organizing Your Gmail Labels

Labels in Gmail allow for an almost-infinite number of customizations. Here are a few ways that you can utilize them to help you achieve that elusive Inbox Zero.

To rename labels, follow these steps:

Step 1. Click on the arrow next to the label you need to rename.

Step 2. Click Edit to edit the name of the label from the pop-up.

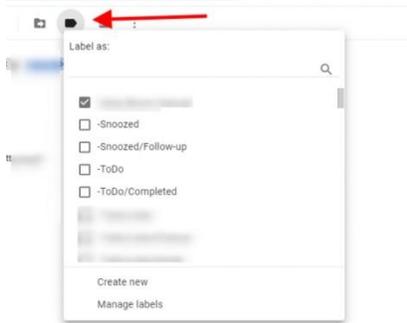


Removing Gmail Labels

To remove Gmail labels, do the following.

Step 1. Open an email that has the label you need to remove.

Step 2. Click on the tag icon.



Step 3. Uncheck the label you need to remove.

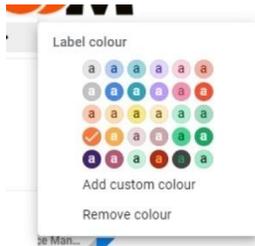
Alternatively, just click the “x” on the label that you want to remove, which is much faster.

Color-coding Gmail Labels

Step 1. Click on the arrow of the label.

Step 2. Choose Label Color from the menu.

Step 3. Choose whichever color you prefer.



Apply labels to email:

- In your inbox, check the boxes next to the email you want to apply a label to.
- Click Labels Label.
- Check the boxes next to the labels you want to add and click Apply.

You can use your username and password to sign in to Gmail and other Google products like YouTube, Google Play, and Google Drive. Follow the steps, create your Gmail account and start sending emails.

Step 1: Visit Google account creation page, accounts.google.com

Step 2: Click on **Create account**.

Step 3: The sign-up form will appear. Enter your **first** and **last name**.

Step 4: Choose a **Username** for your account. (Here you can also use an existing email address)

Step 5: After choosing a username, **enter a password**. Type the password again to confirm.

Step 6: At last tap on **Next**. (Right corner of the screen)

Step 7: On the next page enter **your phone number** to verify your account. (It is a two-step verification process for security)

Step 8: On the given mobile number you will receive a text message from **Google** with a verification code. **Enter the verification code** and tap on **Verify**.

Step 9: On the next page enter your **DOB** in the specified fields.

Step 10: Choose a **Gender**.

Step 11: Tap on **Next**.

Step 12: Read, Google's Terms of Service and Privacy Policy will appear on the screen and click on **I agree**.

Congratulations! your account has been created.

www.sucomputersforum.com