

IT Support & Hardware Maintenance

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This Report Presented in Partial Fulfillment of the Requirements for the Degree of Bachelor of Science in Computer Science and Engineering.

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APPROVAL

This Internship titled **"IT Support & Hardware Maintenance"**, submitted by Husney Mubarak Hasib, ID No: 151-15-4665 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 4th may 2019.

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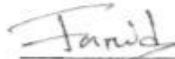
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DECLARATION

I hereby declare that this internship report has been prepared by me, under the supervision of **Ms. Zakia Zaman**, Lecturer Department of CSE, Daffodil International University. I also declare that neither this internship report nor any part of this internship report has been submitted elsewhere for award of any Degree or Diploma. I also declared that I collect all information from CREATIVE IT Soft.

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First of all, I express my heartiest thanks and gratefulness to "**Almighty**" for his special blessing to give me the capability to complete this internship successfully in due time.

Then I feel grateful and wish I profound my indebtedness to **Ms. Zakia Zaman**, Lecturer, Department of CSE, Daffodil International University, Dhaka. She guided and helped me to finish this task successfully. Her infinite patience, thoughtful suggestion, regular supervising, valuable advice, reading many inferior drafts and correcting them at all stage have made it possible to complete this internship report.

I would like to thank **Dr. Syed Akhter Hossain**, Professor and Head of the Department of CSE, for his kind help to finish my internship report and also to other faculty member and the staff of CSE department of Daffodil International University.

I would also like to express my gratitude to employees of CREATIVE IT SOFT, for supporting and helping me to prepare this report.

I also thank my parents for giving me their love and support, affection and inspiration.

ABSTRACT

The aim of my internship is to provide hardware maintenance. This report is about roles and responsibility and what I have learned in my internship period. I had an internship on “**IT Support & Computer or Laptop Hardware Maintenance**” at an IT company named **Creative IT Soft**. There I had many responsibilities like Device Setups, install all version of Microsoft office, operating system, application software and troubleshooting, networking and overall internet fundamentals. Especially I work there for hardware maintenance. In my internship report basically, I tried to show that how I had managed those things and how efficient I was there in the time of internship. Moreover, I tried to present whether my internship was a successful or not. Solving real life problems was another key issue. This report takes me through all the details of every knowledge and experience gathered during this internship period.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Modern technology depends on hardware, rather than software. The more powerful hardware supports a company can buy the more software support they will get. In order to complete my bachelors, I had to attend an internship at Creative IT Soft. I am a realistic person so I like hardware more than software. So, I chose It support and Hardware implementation and maintenance as a profession.

I got a chance to work at CRATIVE IT LTD to enhance my ability at hardware. I consider myself to get a chance to take a deep look. We know computer hardware is the main part of Modern life. It is upgrading through generation day by day. I got an opportunity as junior technician. I faced a lot of adventure during my internship time.

1.2 Motivation

From the very childhood I was passionate about electrical parts and mechanical mechanism. So, I get a chance to practice a hardware maintenance, I grabbed the chance. Computer and Laptop hardware is all about practice. The more you practice, the more you will learn. Connecting chipsets and configuring mother board is so easy when you practice over and over.

In my future life I want to build up my carrier as an IT Engineer in a corporate organization. That's why I am very interested about IT support. Bangladesh Government announced "Vision 2021" and Digital Bangladesh. So that I want to be parts of this vision for gather and experience. Without strong knowledge it is not possible to learn more about IT profession. So, I select Internship on Creative IT Soft, one of the biggest IT supports in Dhaka, Bangladesh.

1.3 Internship Objectives

First and foremost, Internship is the only way to increase skill from the various organizations that may facilitate lots to create better knowledge between the academic and practical. The student's future career of path it adds valuable experiences. As a student of Computer science & Engineering (CSE) of Daffodil International University, I learned 42 subjects in last four years. Knowledge of classroom is important but practical knowledge is also important in an industry as it attracts employers. In vast area of the modern technology, this can be short to understand deeply concerning IT sides. Therefore, I used to be very interested to try and do this internship during IT side.

This Report is concerning " **IT Support & Computer or Laptop Hardware Maintenance**" at **CREATIVE IT SOFT**. This report covers the full internship activities that I have got a lot of about these.

1.4 Introduction to The Company

“CREATIVE IT SOFT” is an IT support and solution company. Established in 2006, the company has been working with a vision of IT service industry in Bangladesh. Creative IT Soft started with providing terribly high-level machinery support on its way. The corporate has built up with very brilliant strength of IT specialists who are innovative and advanced in their approach. On client's demand, This IT supports are able on the way to suggest appropriate IT related clarification. Creative IT Soft. Believes in best quality and well services, because quality and service discover its own require. Creative IT Soft. Pricing is medium. It depends on Customers demand. In Creative IT Soft. All member behaves like a joint family. Each member set their position with lots of respect to others and his professional identity. In Creative IT Soft. Every employee is very responsible and committed to their work. Sometimes committee meetings held for improve work speed and relationship. Creative IT Soft. Try to makes everything clear to its clients. Such transparency operational pays back through giving an awfully robust foundation to the boldness of the folks that contracts with Creative IT Soft.

Table 1.2: Office Info

Office	
Name	Creative IT soft Ltd.
Address	75(Beside BRB Hospital, Panthopath), East RajaBazar, Dhaka, Bangladesh.
Number Phone	+8801670228961
E-mail	creativeitsoft@yahoo.com, shopno@ymail.com
Website	nfo@creativeitsoft.net,
Type of Organization	IT solutions
Employees	15

1.5 Report Layout

To complete this internship report, this layout is added by me. Layout is the process of adding something in short form or in a table to view whole process in very short time. I added layout because I want to show all of my activities in short view to understand clearly.

In 1st Chapter I explained Internship objective, Motivation, and Introduction about the company.

In the 2nd Chapter explained about the internship methodology. On that chapter give the information of my Internship organization.

3rd Chapter expressed about my daily routine of inter office. (Task, Activities, Events and Challenges)

4th chapter explained about some hardware equipment and network communication tools.

5th chapter expressed about hardware Problems and Solutions.

At the last chapter 6th written about conclusion and future Scope.

CHAPTER 2

ORGANIZATION

2.1 Introduction

Creative IT Soft is one of the IT Support industry in Dhaka, Bangladesh. It was established in 2006. It starting time the organization face very difficult situation. After day by day progressing their position by their faithful and good works. Creative IT Soft mainly works with it sectors such as Bank, a few Ministry, Govt. related organization, some group of organization. Sometimes we also serve all over Bangladesh. Organization who are directly or indirectly related with Creative IT LTD are,

- ❖ EXIM Bank Ltd
- ❖ RAK Ceramics
- ❖ BISSAS Group
- ❖ DENIM Textile
- ❖ RUPA Garments
- ❖ UNICEF

Logo of Creative IT Soft Showing:



Figure 2.1: Creative IT Logo

2.2 Product and Market Situation

Creative IT Soft. is providing many kinds of courses like Enterprise, SMS & email Marketing Tools, SMS Quiz, Domain & Hosting, CRM, Vehicle tracking System, medical inventory, School Management System, Hospital Management System, Restaurant Management System, Property Management System, IT support. They also provide the course of JavaScript, SQL and Database, Web Framework and so many. Here I am giving some screenshots below:

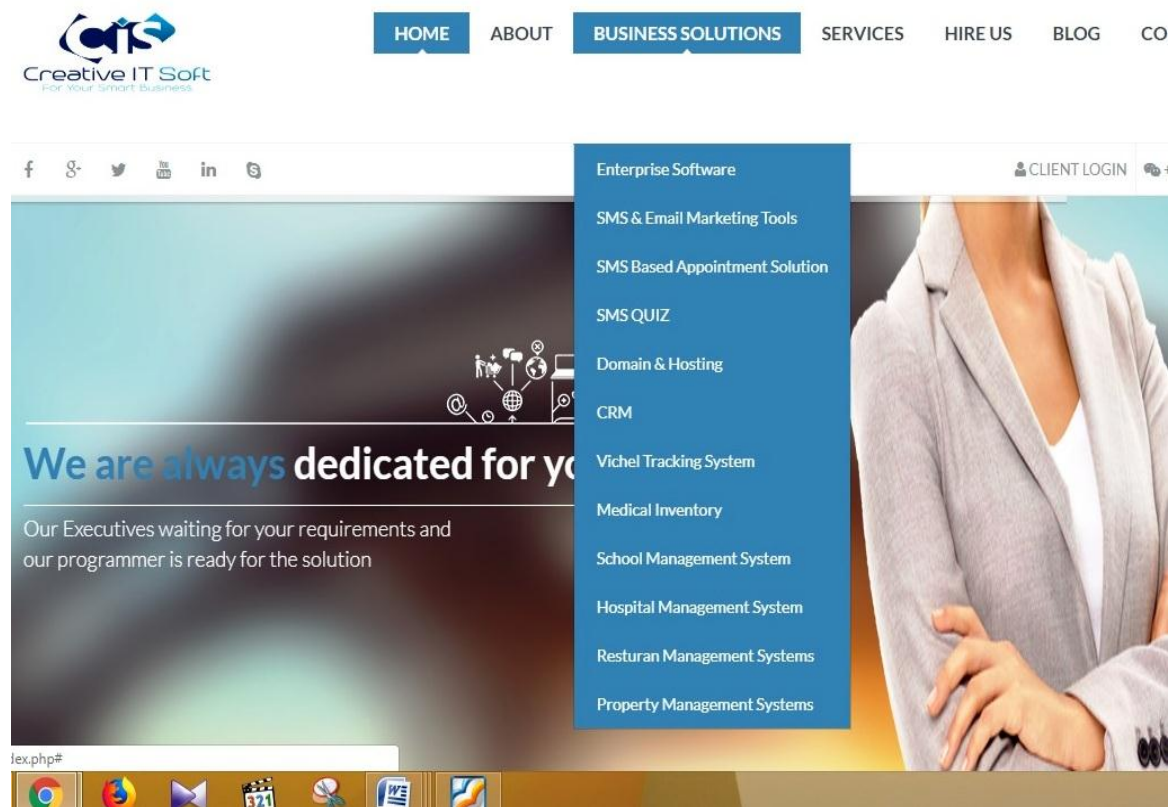


Figure 2.2: Courses Creative IT provides

2.3 Target Group & Audience

Before I said it that Creative IT Soft mainly work with IT supports but they also work with small and big business for Android Application, Web design, Custom Software Development, online ERP solution. Various kinds of target which are given below in the screenshot and this screenshot is taken from their website.

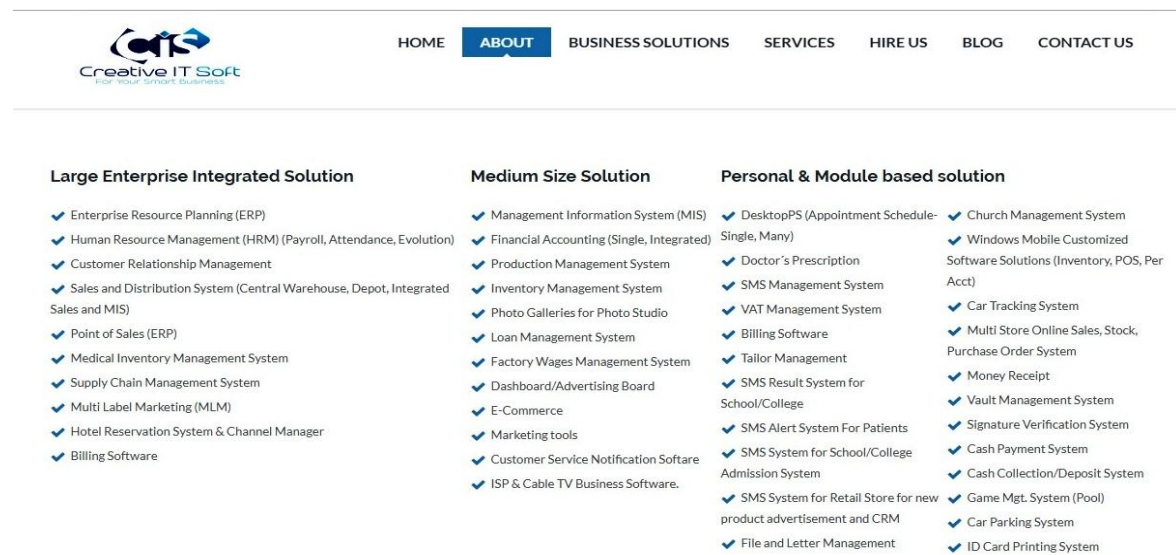


Figure 2.3: Courses Creative IT Targets

2.4 SWOT Analysis

SWOT is a most useful process to understand the strengths, weakness and to identify both the opportunity and threats.

Strengths

- Team Members are potential and very hard-worker
- All members behavior is very friendly with knowledge transfer to us
- Website and Database management is the main strength of the company.
- Skilled Database Administrator is of the company.
- Up to date with their knowledge, working and teaching skill.
- Update servicing machine.

Weakness

- Their UI work is not that much creative
- Lacking of some application knowledge at IT support.

Opportunity

- I got the chance to work in a professional environment
- I got the chance to attend some knowledge transfer meetings
- I got the chance to become a punctual and discipline person
- Helped me to set the foundation of my career

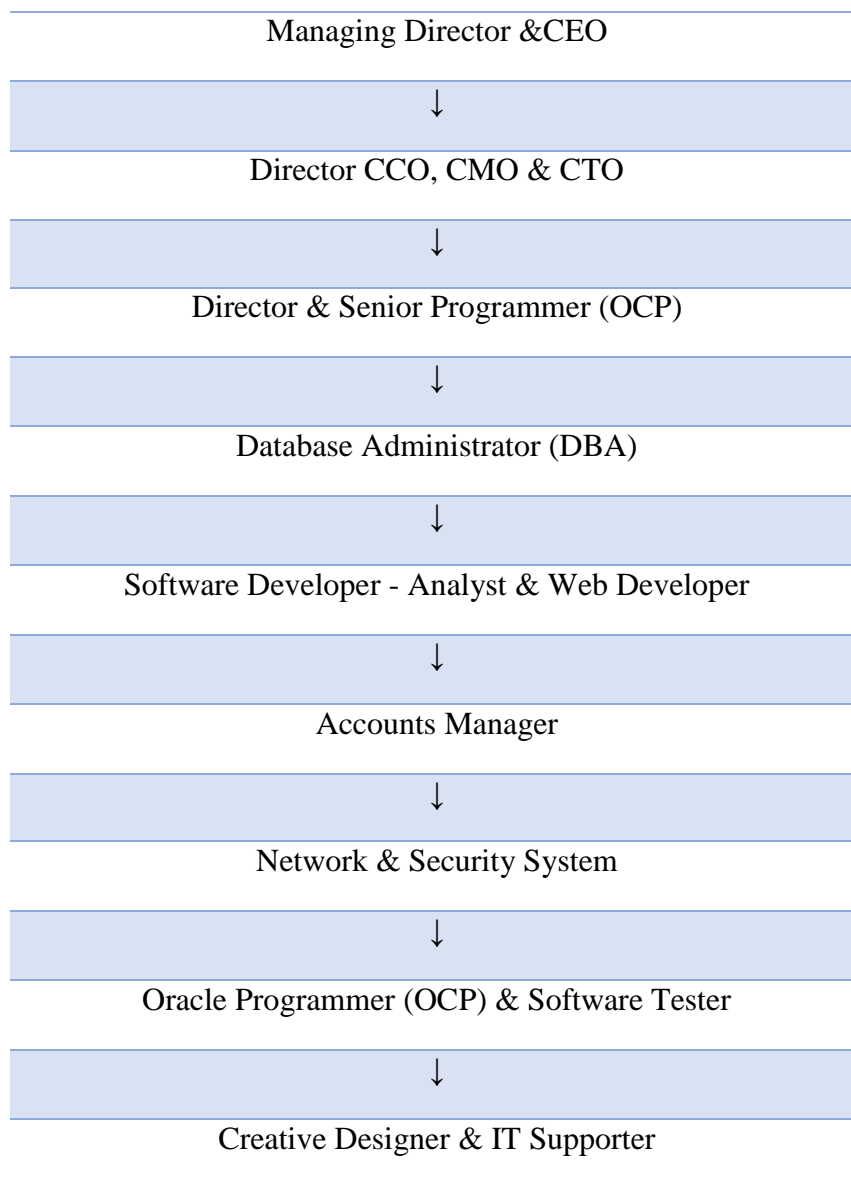
Threats

- I had lack of knowledge in some of software which were mandatory there.

2.5 Organizational Structure

Organizational structure of Creative IT Soft is shown below,

Table 2.1: Organizational Structure of Creative IT Soft



CHAPTER 3

Tasks, Projects and Activities

3.1 Daily Tasks and Activities

As an IT Supporter I had joined Creative IT Soft. The following overall things were getting in my employment list:

- Device Connections & Check out any error.
- BIOS Setup & update
- Hard Disk Partitioning with Windows XP (Primary Partition, Logical Partition).
- Computer Security Settings.
- System Software & Troubleshooting.
- Set Up any Windows and other operating system.
- Configure Motherboard Driver.
- Troubleshooting & Application Software.
- Practice on Linux OS Environment.
- Straight Forward & Cross Connection.
- LAN/Wireless LAN Card Installation, Configuration & Maintenance.
- Automatic IP Addressing from DHCP Server.
- Setup File Sharing.
- Implement System Security for Sharing System.
- Switch Connection Establish.
- Wireless Router Configuring.
- SSID Create Security Key Create, Wi-Fi client Management.
- Networking Troubleshooting & Network Connectivity Troubleshooting.
- Install remote application software & connect with another computer.
- Creating rules to manage automatic email folder arrangement.
- SOHO Networking Planning & Design.
- Configure Network Connections.
- Implementing IPV4 IP Addressing.

3.2 Events and Activities

- Archive Event Materials & Distribute it
- Collect Feedback
- Business analysis & intelligence
- Research and development
- Systems integration
- Networks
- Data/Information analytics & management
- Promote Next Event

3.3 Projects Task and Activities

- Install and configure device hardware with Operating systems (OS) and different applications software.
- Test along with Implement new technology
- Check with maintain devices and networks.
- Talk to employees or buyers through either for real or over telephone, to facilitate setup systems buildup and resolution problems.
- Troubleshoot system and network problems, diagnosing and solving hardware faults and software faults
- Change parts if needed.
- Maintain the roll-out of latest applications
- Setup users accounts and deal with password issues
- Take action within agreed time limits to call-outs
- Always do work on a task until conclusion (or transfer to third parties, if suitable)
- Establish a good effective correlation with clients and new organization, such as IT supporter.
- Check electrical protection on computer apparatus with IT support room.

3.4 Challenges

No effort has not challenged, but my internship time talent and share friends after listening my about glad hour. There are some general challenges in internship. In my thinking that interns three things are unpaid, Provisional and gain practice.

Occasionally not sufficient employment: On that I do not have much assigned work. So, I feel weird, underdeveloped and tempted to Facebook.

Lots of employment: Because interns are simply glad to get a foot within the door, some organization may take benefit of younger employee by providing many works for very long times of dull repetitive work. It's very tough work as a result of I have got update myself day to day regarding all new technologies and every one issues which might rise by my purchasers in my sectors and therefore the correct answer of these problems. In my office I conjointly face several challenges in commonplace. Considering the very fact that technical customer service is one in every of the world's toughest work environments, this can be not shocking. Handling all issues and guaranteeing highest levels of satisfaction to my shopper is absolutely a tricky responsibility on behalf of me. I chiefly face the challenge throughout doing this office is that too several decision regarding completely different issues connected in networking problems. Typically, Customer get angry once I can't justify the right reason of the created drawback. Another difficult issue throughout my office expertise that's to resolve the MS office issues. Another huge difficult on behalf of me that once I pander to completely different types of operational systems like UNIX system. Though operating as Associate in nursing intern is an IT company for initial time is additionally a difficult moment on behalf of me as a result of it had been my first expertise. The corporate atmosphere is unaccustomed Pine Tree State. However, it facilitates Pine Tree State to assemble an outsized quantity of data and skill for my future job life.

CHAPTER 4

NETWORKING

4.1 Introduction

Basically, a network could be a group/couple or a lot of objects systems that are associated together that the devices will share data. For example, printer, Application Software and web connection. Network devices will be shared files while not having to transfer information using transferable devices. Devices inside a network is connected few ways: through Wire Cables, Satellites, telephone lines, Radio Waves and Infrared. Figure a computer network:

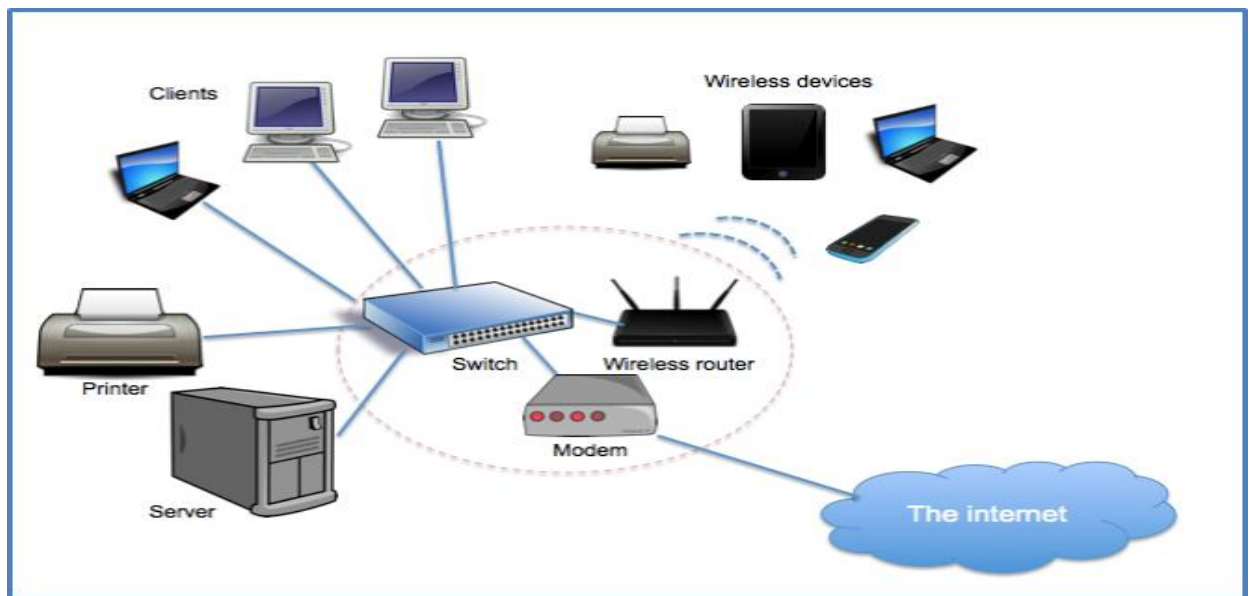


Figure 4.1: Computer Network

4.2 Categories of Networks

Networks are generally two categories:

- ❖ Peer to peer
- ❖ Client server

4.2.1 Peer to Peer Network

Peer to peer network systems permits users to distribute resources and collection set on their devices and access shared resources create on their devices and to entrance shared resources found on another devices. Peer to peer networks enable us to attach two or a lot of devices so as to collection their resource. Scanners and printers are transformed into shared resources that are accessible from every device. Peer to peer networks is intended primarily for little to medium local space networks. The data keep over this network is store domestically on every distinct.

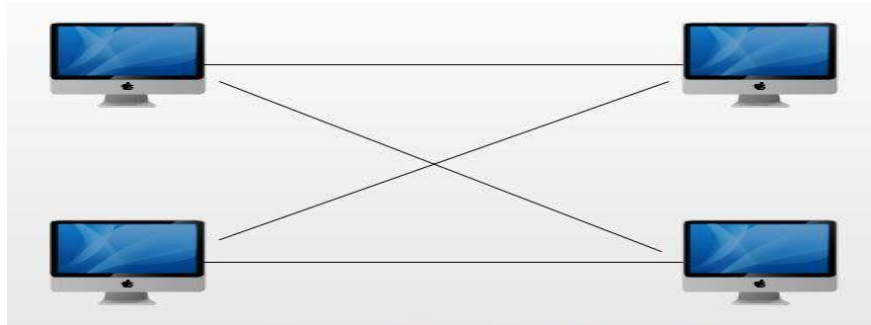


Figure 4.2.1: Peer to Peer

4.2.2 Client Server Network

Client server setting like Windows NT, collection is kept on a centralized, high-speed file server pc which is created obtainable to client devices. Network entrée speed and File found speed is typically quicker than peer to peer network. For this reason, that type network is affordable and given the massive numbers of clients that this design can support. Almost all network services like printing and E-mail are used the way through the file server. Security is best with a server primarily based network, as all users should be genuine by the fileserver before having the ability to access network resources. Following Figure 4.2.2 view of Client Server Network.

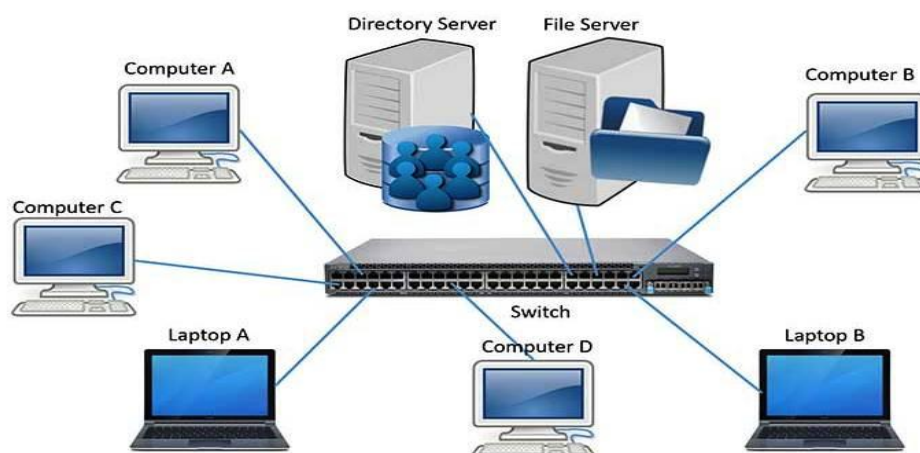


Figure 4.2.2: Client server Network

Table 4.1: Difference network among Client Server and Peer to Peer:

Comparison	Client server	Peer to peer
Basic	Particular server and clients connected to the server.	Clients and server are not separated; each are act like as client and server.
Service	Client send request for service and server respond for the service.	Each device can request for services and can also provide the services.
Focus	Supply the information.	Connectivity.
Data	Stock up in a main server.	Every device has its own data.
Server	When several clients send request for the services simultaneously, server can become bottlenecked.	Services are provided by several servers share out in the peer to peer system, server never come bottlenecked.
Expense	Costly to implement.	Inexpensive to implement.
Stability	Constant and range able.	Suffers if lot of peers add to the system.

4.3 Others category of Networks

Three common primary categories:

- ❖ Local area network (LAN)
- ❖ Metropolitan area network (MAN)
- ❖ Wide area network (WAN)

4.3.1 Local Area Network

local area network may be a set of devices and combined devices so as to share a standard communications line and resources of servers among a little geographical area (Example: Inside a workplace). Usually, the server has applications and information storage space that are distributed in normally many device users. A local area network might save 2 or 3 users.

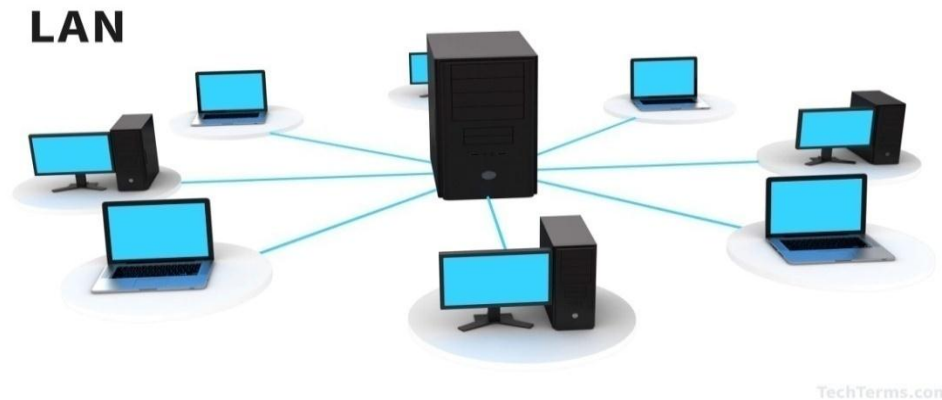


Figure 4.3.1: Local area network

4.3.2 Metropolitan area network

Metropolitan area network attaches an area bigger than a local area network though smaller than Wide area network, for example a town, with superior hardware. Completely different hardware and transmission media are usually used in MAN as a result of they have to efficiently cover this distance or because they don't need complete access to locations between the networks.

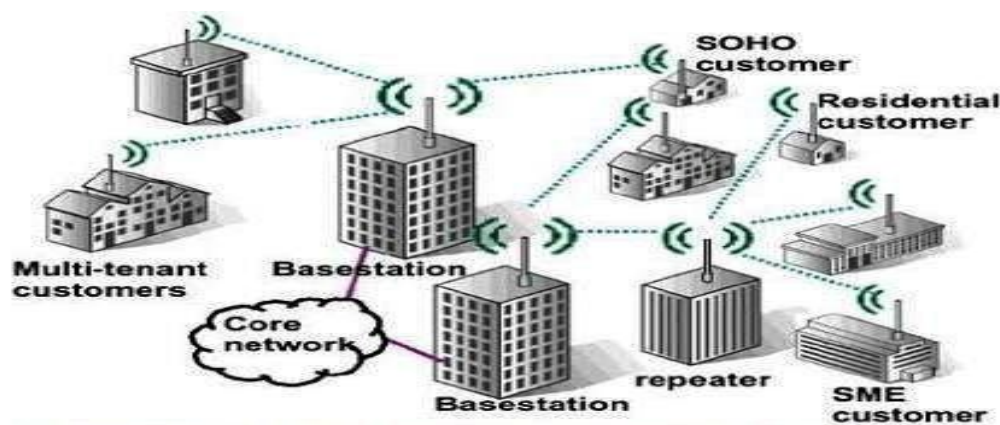


Figure 4.3.2 Metropolitan Area Network

MAN, usually cover up an area fifty-kilometer diameter. Several MANs cover up an area of a city dimensions. A person is not usually owned by a single organization.

4.3.3 Wide area network

Wide area network (WAN) length over many geographic places that consists of several LANs. It is nearly impossible for an office (except Network Service Providers) to pull network cables between their two offices in two completely dissimilar countries settled 1000s of kilometers away. Network provider supply the connectivity solutions for Wide area networks (WAN). Figure 4.3.3 clear view of Wide area network.



Figure 4.3.3: Wide Area Network

Table 4.2: Variation between LAN, MAN and WAN

Comparison	LAN	MAN	WAN
Expand	Local area network	Metropolitan area network	Wide area network
Meaning	Connects a group of computers in a small geographical area.	Covers large region. For example, city, towns.	Covers large area and connects countries together. For example: Internet.
Plan and maintenance	Simple	Complex	Complex
Ownership	Private	Private or Public	Government
Transmission Delay	tiny	Moderate	Long
Speed	High	medium	Low
Fault sufferance	More sufferance	a smaller amount sufferance	a smaller amount sufferance
Congestion	Less	More	More
Used for	University, Hospital.	Small area, District.	Country

4.4 Types of Network Topology

4.4.1 Bus Topology

Bus Topology apply a general backbone to join all machines. A particular cable shared communication medium, those devices connect into with an interface connector. A machine wants to converse with other machine on the network sends broadcast significance onto the wire that all other machine can observe. Although just the intended receiver essentially allows and procedure the message. Shows this Figure 4.4.1: Bus Topology.



Figure 4.4.1: Bus Topology

4.4.2 Star Topology

Star topology is planned with each one node file server, workstation, and secondary attached directly to fundamental networks hub. Stars are applied in targeted network, once the endpoints are frankly accessible form a central position. When network development is estimated, and when the larger consistency of a star topology is needed. Shows this Figure 4.4.1: Star Topology.

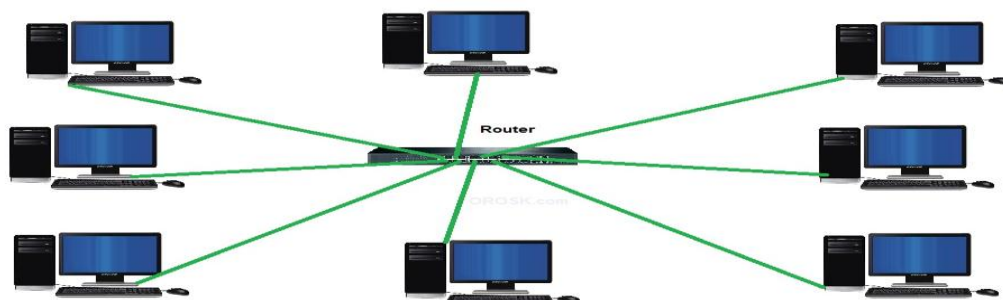


Figure 4.4.2: Star Topology.

4.4.3 Ring Topology

Ring topology connects devices along a single path whose start point joined with ends point. The loop could be reasonable only. Although the physical collection of the cabling is similar to star topology. Shows This Figure 4.4.3 Ring Topology.

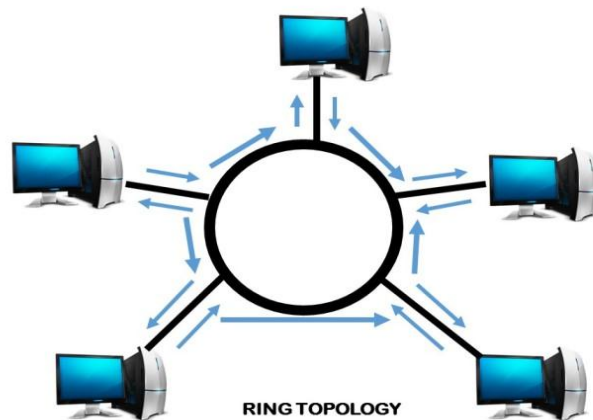


Figure 4.4.3 Ring Topology.

4.4.4 Tree Topologies

Tree topology is a unique kind of makeup within which several joined components are organized just similar to limbs of a tree. For example, tree topology is often used to manage the computers in a company network. During tree topology, there is just one connection between any two connected nodes. As a result of any two nodes will have just one common connection? Tree topologies type a natural parent and child hierarchy. Shows this Figure 4.4.4: Tree Topology.

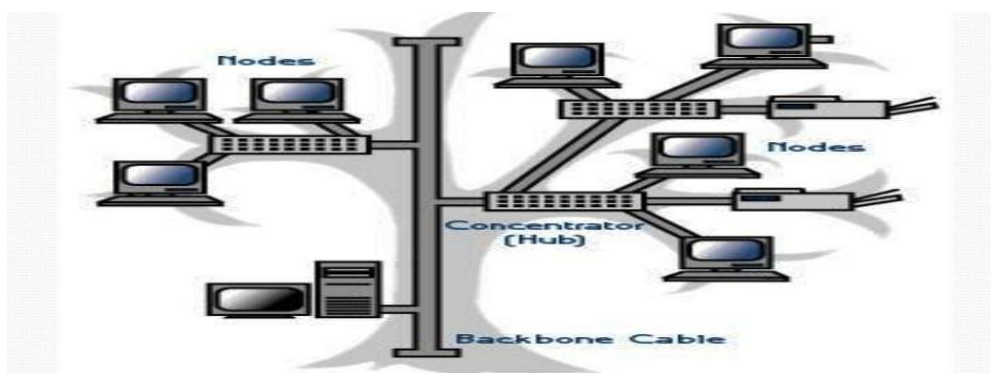


Figure 4.4.4: Tree Topology

4.4.5: Mesh Topology

In this Mesh topology all devices are communicated with another. Actually, mesh topology is the one where every node is connected to every other node in the network. This topology is extremely costly as there are several surplus links. It is generally applied for wireless networks. Name of techniques is called Flooding also used in this topology. Shows this Figure 4.4.5: Mesh Topology.

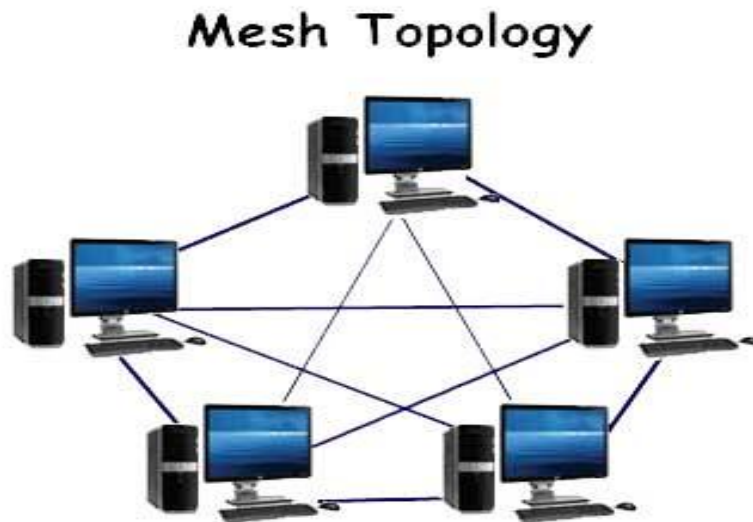


Figure 4.4.5: Mesh Topology.

4.5 Basic Networking Components

Several of the basic apparatus required for connecting to the network -

- ❖ Hubs
- ❖ Network Interface Card (NIC)
- ❖ Switch
- ❖ Repeaters
- ❖ Modem
- ❖ Network Bridge
- ❖ Router

4.5.1 HUB

Network hub is a common connection point for devices in a network. Normally Hubs applied to connect fragments of a LAN. The hubs have several ports. Once a packet enters at a port, it is derived to opposite ports. Therefore, all fragments of the LAN will see all packages.



Figure 4.5.1 Hub

Hubs along with switches works as a fundamental connection for all network instrumentation and handles an information type called frame. Frames carry data. When a frame is taking delivery of, it is magnified and then send out on to the destination device port.

4.5.2 Switch

Switch is centralizing communications with many attached devices in one LAN. Separate Ethernet switch were commonly applied on residence networks many years. When broadband routers became popular, switch lost its place from user. Present routers combine Ethernet switches frankly into the unit core functions.



Figure: 4.5.2 Switch

High-performance switches are still broadly used in corporate office networks and data centers. Sometimes Switches are work like switching hubs and MAC bridges.

4.5.3 Network Interface Card

Network card is an additional part of designed to allow computers to converse over a network. When the main interface port of motherboard become damage then IT supporter use it to make network connection.

Following Figure 4.5.3 clear view of a Network Interface card.



Figure 4.5.3: Network Interface Card

4.5.4 Repeater

Repeater receives a signal and retransmits it at a higher power level, or to opposite side of an obstruction in order that the signal can cover extended distances devoid of degradation. Following Figure 4.5.4 view of Repeater.

- Twisted pair Ethernet configuration, Repeaters are involved for cable runs 100 meters lengthy.



Figure 4.5.4: Repeater

4.5.5 Network bridge

Network Bridge attaches various network segments at the data link layer of OSI model. Bridges do not promiscuously duplicate traffic to all ports, as hubs do, but learn which MAC addresses are available through exact ports. Once the bridge connects a port and an address, it sends traffic for that address to that port. Bridges launch broadcasts to all ports with the exception of the one on which the broadcast was received.



Figure 4.5.5: Network Bridge

4.5.6 Modem

A modem is a short for modulator/demodulator device that changes the digital signals generated by a computer into analog signals that can move over normal phone lines. The modem at the receiving end converts the signal into a type of format the computer can realize. Modems may be used as a method to join to an ISP area a mechanism for dialing up to a local area network.



Figure 4.5.6: Modem

4.5.7 Router

Routers are networking procedure that forward data packets between networks using headers and forwarding tables to see the most effective path to forward the packets. Routers work on the network layer.



Figure 4.5.7: Router

4.6 Connection Between cable and connector

There are many steps for connection between cable and connector. Steps are given below

Step 1: Insert wire hooked on connector ensuring that all wire goes into its proper "channel" and make longer all the way to the end of the connector under the gold crimping connector. Generally, we are able to observe ending of connector to make sure the gold crimping connectors to see copper wires if were using solid copper cable. If wires do not arrive at end of connector, the crimp is not built. Figure 4.6.1 shows how to work connection Cat5 & RJ-45 connector.

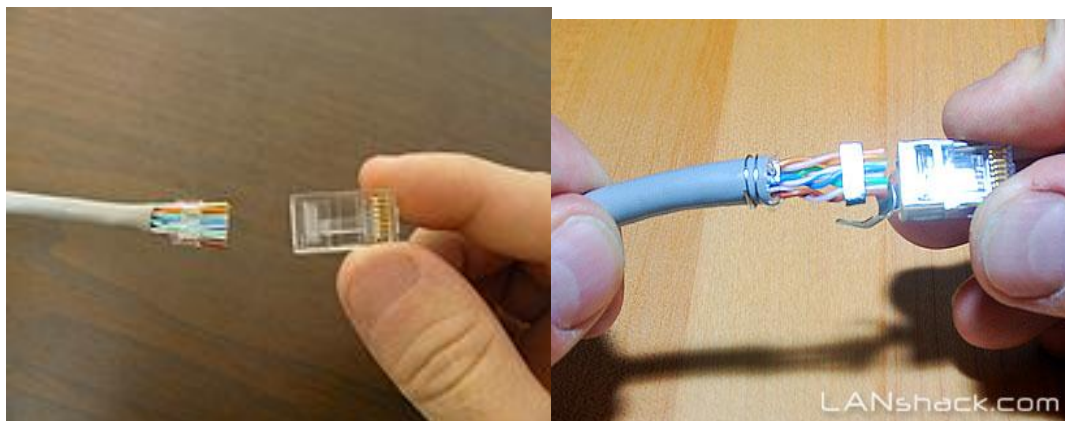


Figure 4.6.1: Connection between cable and connector

Step 2: Repeat steps one then when with success complete connection between cable and connector. We will use these for our device networking.



Figure 4.6.2: Complete Connector

4.7 Setup IP address

Internet protocol address is also call as IPv4 (Internet Protocol version 4). It is the 4 octets (32bits) address used to discover devices among network module in network. IP allocated to network card on devices to be in touch with another network device.

Setup TCP/IP

Here I am showing step by step instructions how to set IP address.

Step 1: Click on Start button and open control panel.

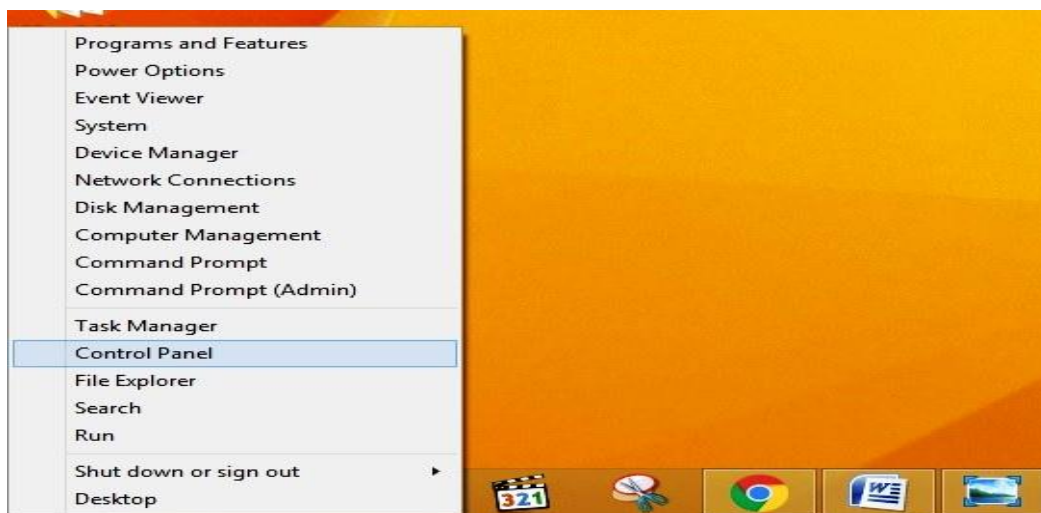


Figure 4.7.1: Control Panel

Step 2: In Control panel find "Network and Internet" than double click on it



Figure 4.7.2: Network and Internet window

Step 3: Than go on "network and sharing center". After that find "change adapter setting" and click on that. A new window will be open.

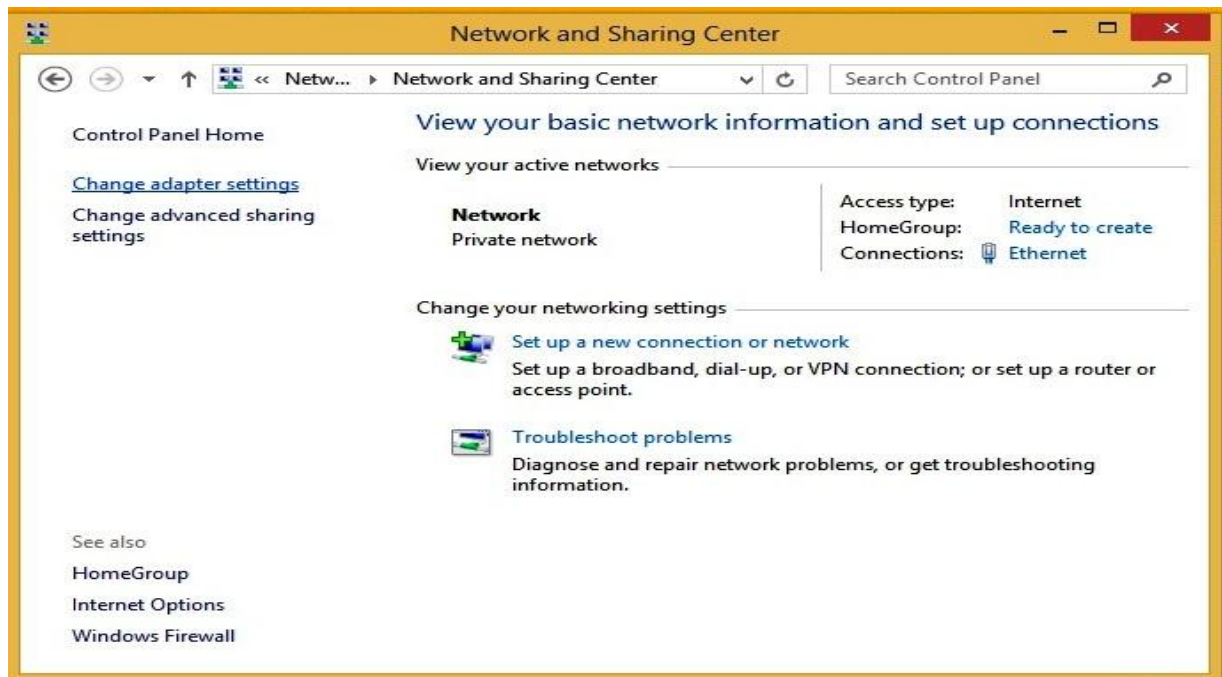


Figure 4.7.3: change adapter setting

Step 4: Click on "Ethernet" and open its properties.

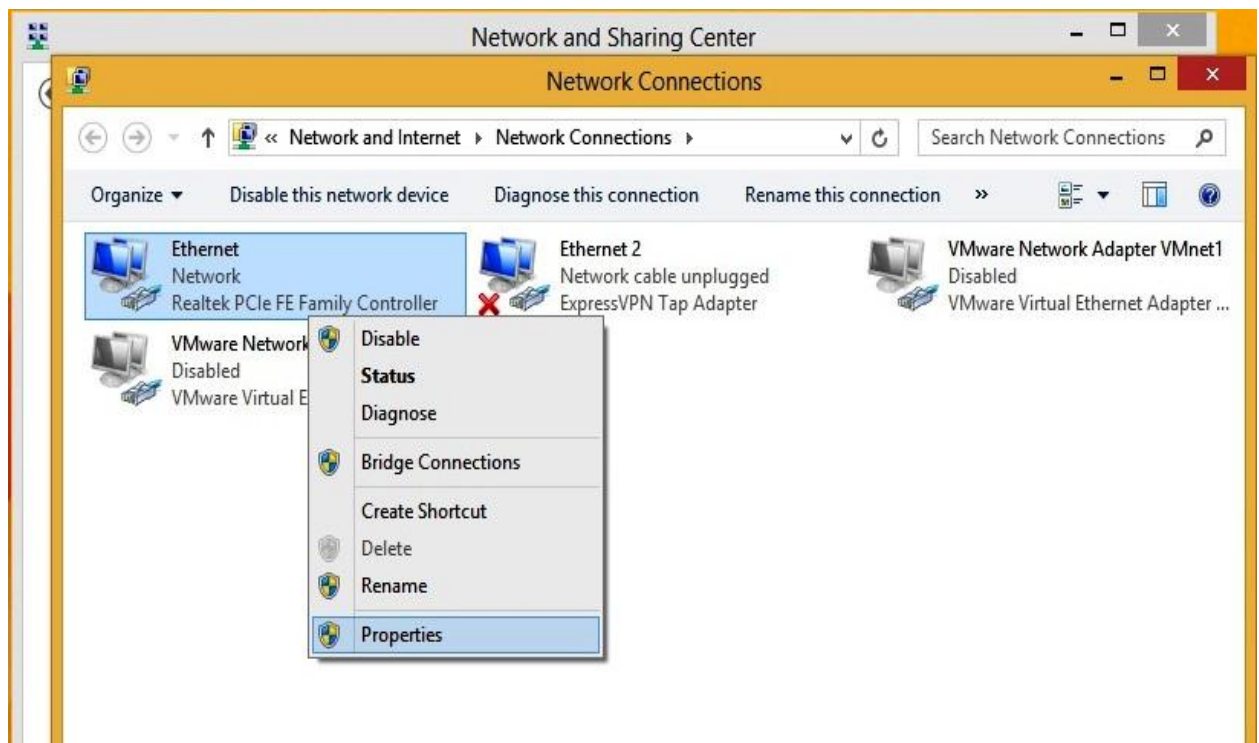


Figure 4.7.4: Ethernet

Step 5: Now I have to scroll down and find IPv4 form the table. Point the "Internet Protocol Version 4 (TCP/IPv4)" and select "Properties"

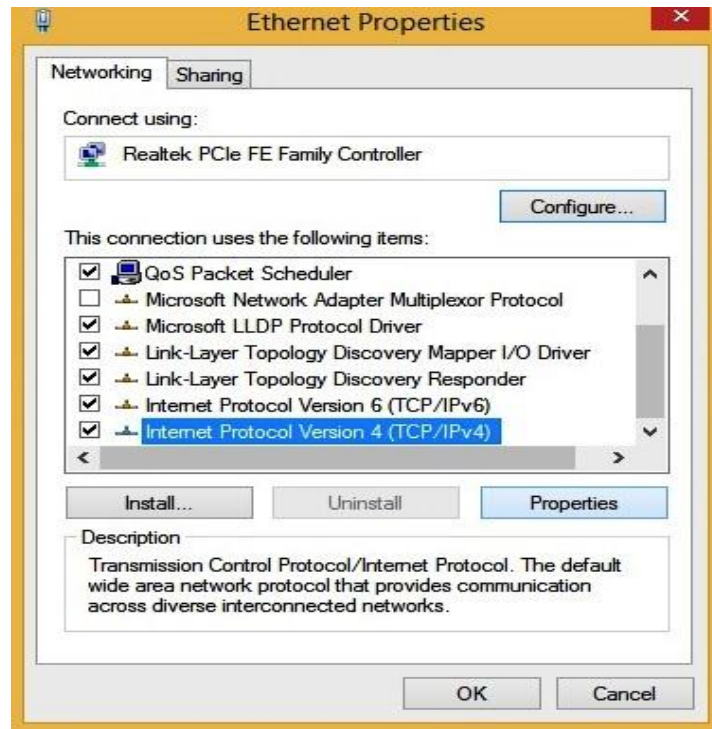


Figure 4.7.5: Internet Protocol Version 4 (TCP/IPv4)"

Step 6: Now click "Use the following IP address" and manually set IP address with Subnet mask and default Gateway.



Figure 4.7.6: "write IP address"

Step 7: Now click "Use DNS addresses" and manually set the DNS address, alternate address than apply ok.

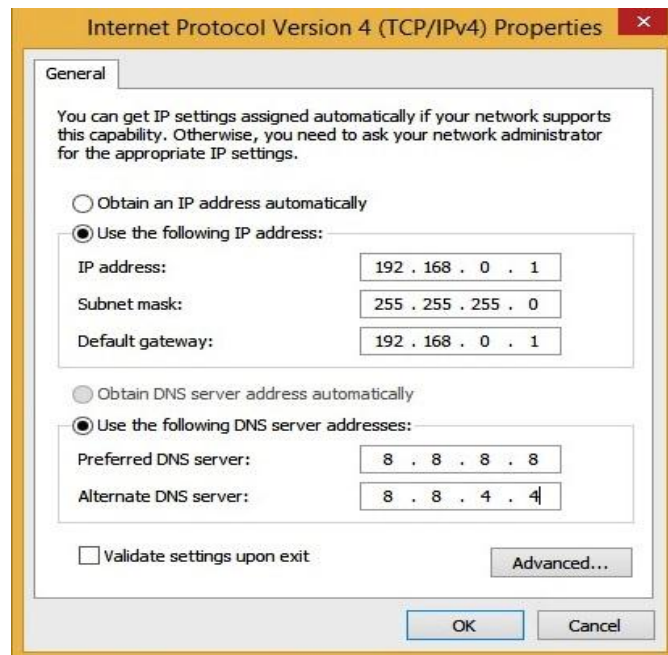


Figure 4.7.7: Write DNS addresses

4.8 Why a computer network Necessary?

Computer networks facilitate users on the network to share the resources and in communication. We cannot imagine the world currently without emails, on-line newspapers, blogs, chat and also the other services offered by the internet

The following are the vital uses and advantages of a network.

4.8.1 Sharing of Hardware

Users share devices like printers, scanners, hard drives etc. not including networks, sharing device is not possible. Figure 4.10.1 is the view of Hardware sharing.



Figure 4.8.1: Hardware sharing.

4.8.2 Sharing of Application

Applications shared over the network. That enables implementing client/server applications. Figure 4.8.2 is the view of Application sharing

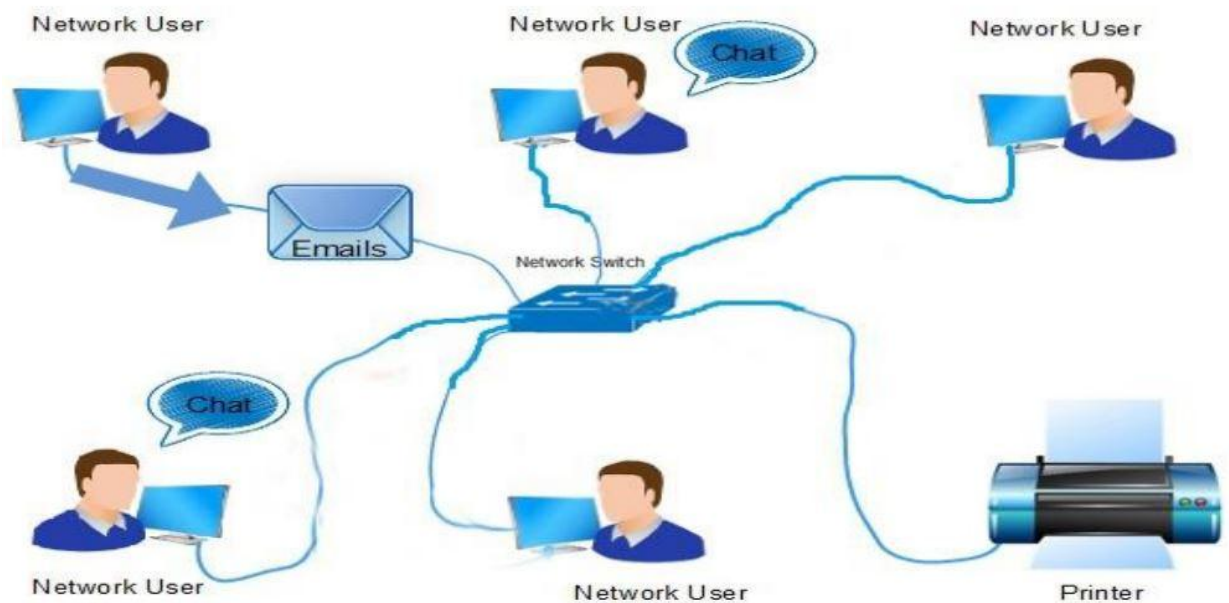


Figure 4.8.2: Application sharing (Email)

4.8.3 Sharing of File

Networking facilitate the users to distribute information records. Showing Figure 4.8.3 File Sharing.

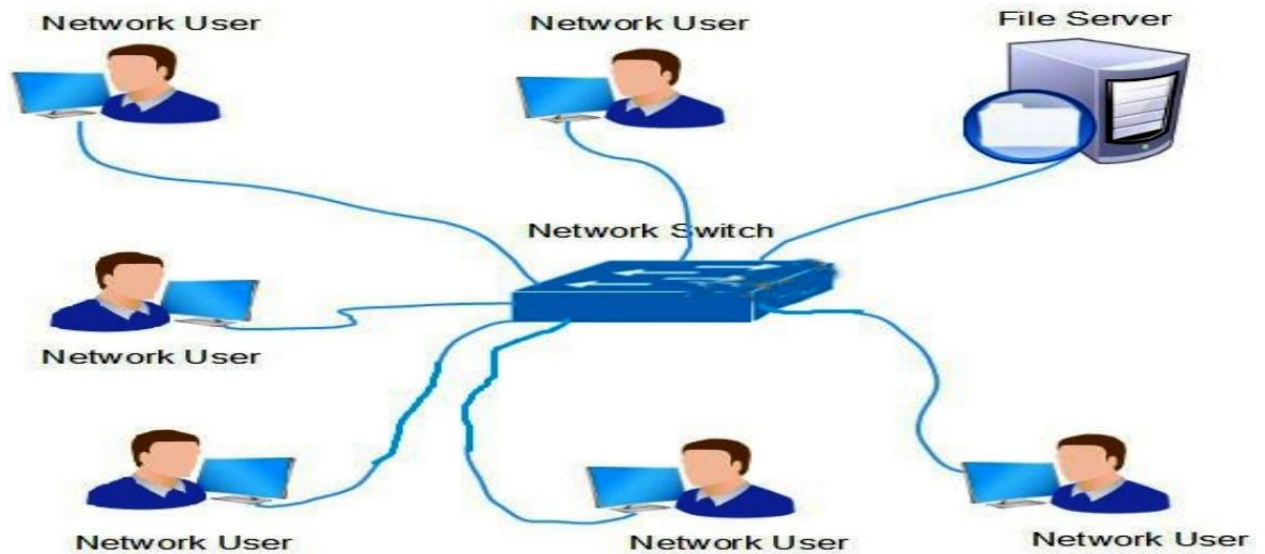


Figure 4.8.3 File Sharing.

4.9 Troubleshooting Networking work

- ❖ Check Networking Cable
- ❖ Check Faceplate
- ❖ Change IP address

4.10 Learning of networking work

- ❖ How to check connection device to device by ping command
- ❖ How to setup IP in different computers
- ❖ How to setup printer via network

CHAPTER 5

INTERNSHIP OUTCOMES

5.1 Problems and Solutions

In computer System there is two problems occur that are:

1. Hardware Problem
2. Software Problem

Categories of Software

System Software: Contains operating system and all of the utilities that enable the computer to function.

Application Software: Contains all program that user uses for real life. For example: MS Office, player, management system of database etc.

5.2 Hardware Problem: Different types of Hardware in a Device. It is very difficult to find out when a device goes wrong. Sometimes Client are not completely aware of what exactly has happened, or rather which computer hardware is causing the problem. So, I have decided to that I will present to you some solutions. First, we take up the problem and then we do for computer hardware troubleshooting

5.2 .1 Problem 1: Wireless network is unstable.

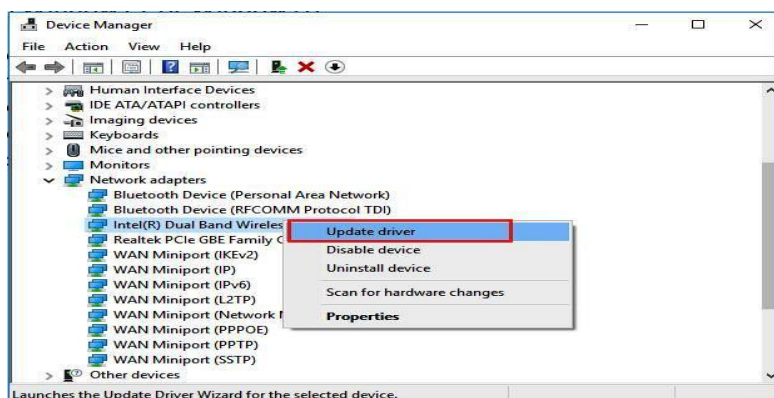


Figure 5.2.1: Update wireless driver

Solutions: 1st check Wi-Fi driver install or not. If install then Check Wi-Fi settings and check router. Then bring up the system. Always try to update the driver of Wi-Fi card.

5.2 .2 Problem 2: My Computer or Laptop turns off by itself.

Solutions: For PC: First I checked all the cables are connected or not. Then I check to the power supply unit (PSU). I see that is internally burn so I change the power supply Unit then the problem was solved.

For Laptop: First I check the adapter of laptop. Then I use millimeters to check the adapter is passing electricity or not. Then I touch the adapter and feel that the adapter increasing heat. It's so dangerous to device or human. So, I replace the adapter then the problem solves.

5.2 .3 Problem 3: Loss information data that have to back up my data.

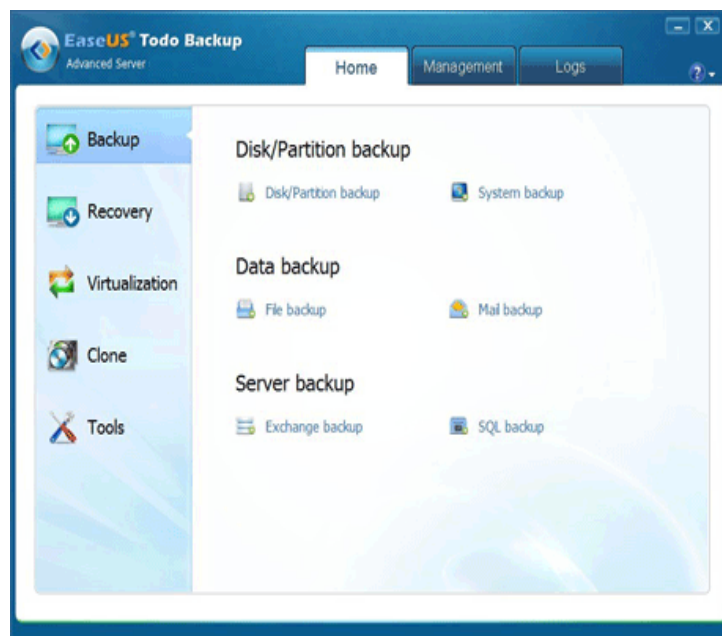


Figure 5.2.3: 3rd party back up application

Solutions: disk drive information data loss then lot of try then not backup data. Then I attempt o backup then fail. Then again try use to 3rd party Application software system then I get to success restore hard drive information data.

5.2 .4 Problem 4: Cannot print from the net.

Solutions: Enable short-term pop-up. I discover some legitimate programs which will smash the code during a protected PDF file, however they are habitually only officially permitted to use in my workplace contain the copyright to the document. Then the matter was solved.

5.2 .5 Problem 5: Disk drive is dead



Figure 5.2.5: Dead HDD

Solutions: I check disk via HDD tune-up that is third party application software use this

Software to check magnetic disc. Then find the hard disk is dead. Then replace a replacement hard disk and solved the issue.

5.2 .6 Problem 6: Dell Inspiron Have the following issues

- i) laptop can crash once left idling and need to force stop working pressing power key.
- ii) Laptop can crash once below sleep mode and left inactivity and need to force shut down pressing power key.
- iii) All on a sudden there will be no sound and want to reboot (Sound driver crashed I think)
- IV) Sometimes in boot up, the screen are going to be whole black but laptop is process and will reach windows. Have to force stop working a few times or connect external monitor to solve the matter

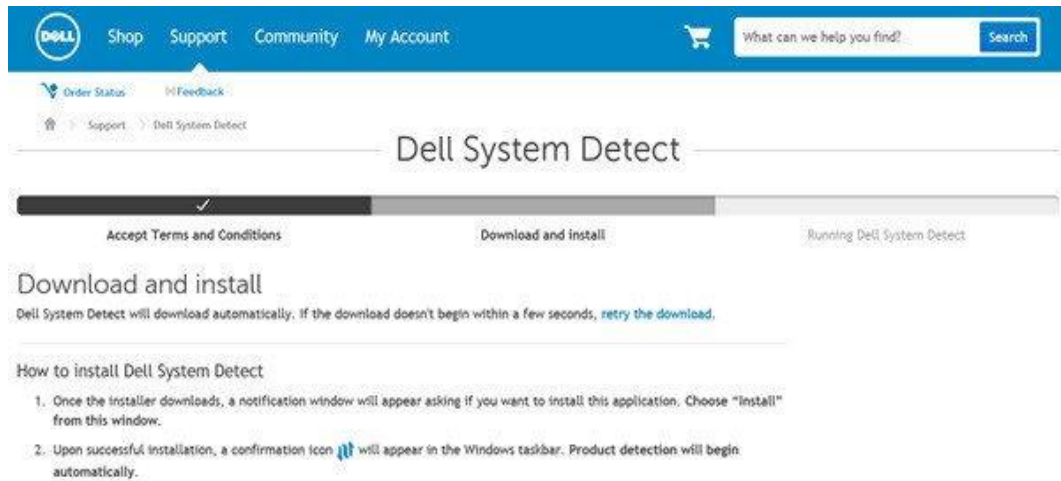


Figure 5.2.6 Dell System Detect

Solutions: I have updated all drivers and software system to the newest version. Laptop is free of malware and viruses. Then solve the issues.

5.2 .7 Problem 7: Computer does not start. (PSU Problem)

If computer device does not power up at all, then problem is extremely obvious. It has something wrong on power supply or power switch. A list of common factors given below that cause PSU give up.

*Age

*Electrical (lighting, short circuit)

*Dirty (Dust)

*Brown outs

*overheating and ventilation failure



Figure 5.2.7: Power Supply

Solution: First check power cord. Then I check back of the power supply to determine if the fan is working or not. Open the power supply from computer. Then make a connection on PSU 20-24 ATX connector. On PSU connector, I take green and black wire to make a short connection and give power up. Again, I check the PSU fan is working or not. If fan works, the PSU is ok. I think problem is on power switch. If fan not works, the PSU has gone. Then I replace power supply unit.

5.2 .8 Problem 8: Computer/ Laptop freezes shut down suddenly and rebooting again and again.

The user facing the problem that your operating system stops responding suddenly or the computers shuts down itself, then there may be hardware related problem out here. Before I am starting the solving i want to tell you about

Solution: Basically, this problem is related with heat issues. If processor gets more heated up its capacity than there is chance to shutdown computer and rebooting. There is a fan which is seat on processor called cooling fan. This fan starts work when the device powered on.

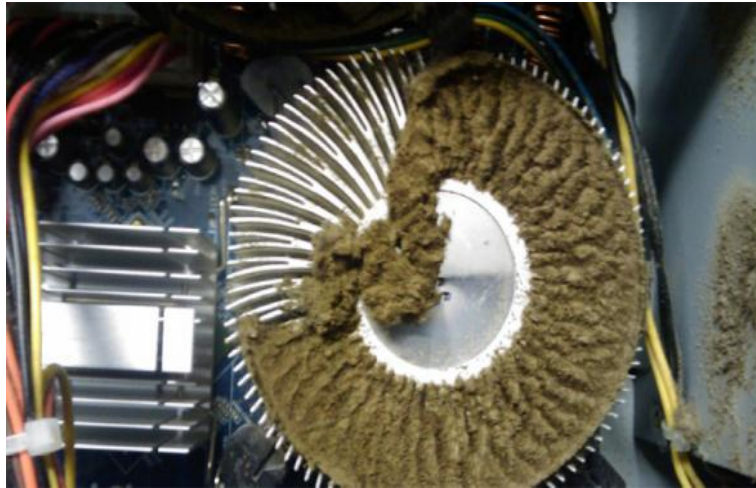


Figure 5.2.8.1: Computer heat sink

Computer heat sink

For PC: When this type of problem come, first I open the casing of computer. Then I dismantling cooling fan. After that I check that fan is working or not. I saw dust is overload heat sink which is made in aluminum or copper. Aluminum or copper uses because it passes heat rapidly and become cool faster. Then I use blower to clean dust on heat sink, and processer area of mother board. Use some heat sink paste on processor then again set the cooling fan. Doing all these, I start pc and the problem has gone.



Figure 5.2.8.2: Laptop heat sink

For Laptop: First I feel the laptop become hot and from cooling fan side no air passing out. Than disassemble laptop and dismantling cooling side. Clean heat sink and fan. Then again use paste and assemble it. Finally, Problem has gone.

5.2.9 Problem 9: Boot up Problem

Starting on Device, Device command to insert floppy disk, CD DVD, or USB drive to install operating system. Then probably a problem is on motherboard bios or hard drive.

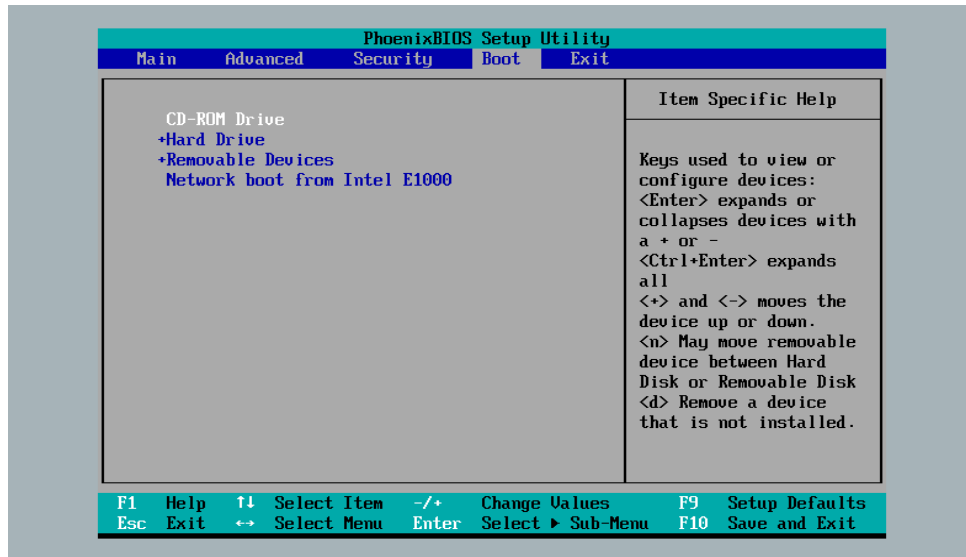


Figure 5.2.9.1: PC boot menu

For PC: 1st I start on pc and press "Delete" or "F2" button to inter the bios setting. Then find boot option and check which one has to use first priority? If Hard disk have not first priority, then change the priority level and select hard disk at the first priority level. if the hard drive not find then probably the hard drive is corrupted. In this type case, if user have backup system in user computer, then use that for recovering valuable data.

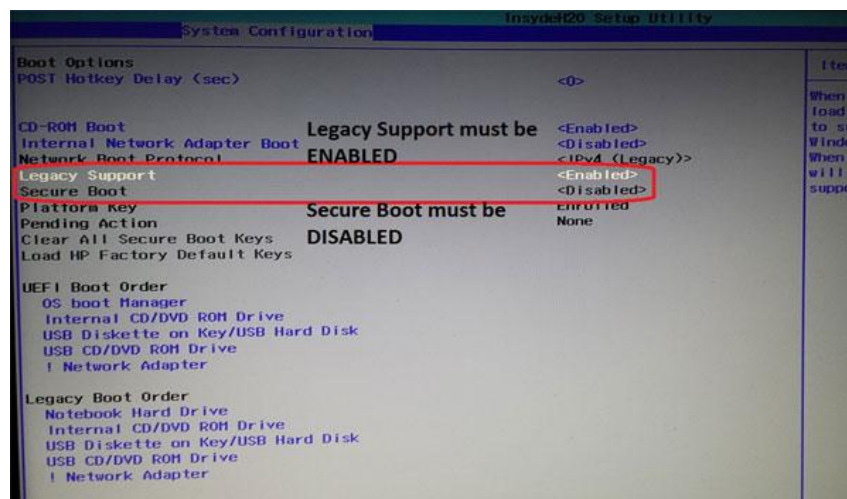


Figure 5.2.9.2: Laptop Boot Menu

For Laptop: Press power on button then press "F9" for HP, "F2" for Dell, "Esc" for Asus laptop to enter bios function. Then using left arrow key to find boot option and check which one has select for UEFI or Legacy. If UEFI select, then change to legacy. After select Legacy option again check the priority level. And select hard disk at the first priority level. If the hard drive not find then probably the hard drive is corrupted. In this type case, if user have backup system in user computer, then connect the corrupted HDD it for recovering valuable data.

5.2 .10 Problem 10: Monitor says - "No signal", "No signal input" or black screen.



Figure 5.2.10 Display no signal

Solution: If computer is on and user get error, it means the cable which is use from monitor to computer is loose-fitting or unplugged. But sometimes computers are on but showing nothing on display. This problem happens from Ram or Ram IC. Dust and chemical reaction disconnect between ram's gold crimping side and ram slots. Than open the pc box and dismantling ram. Clean the ram chamber and rub the gold crimping side of ram with eraser.

5.2 .11 Problem 11: CMOS Battery problem

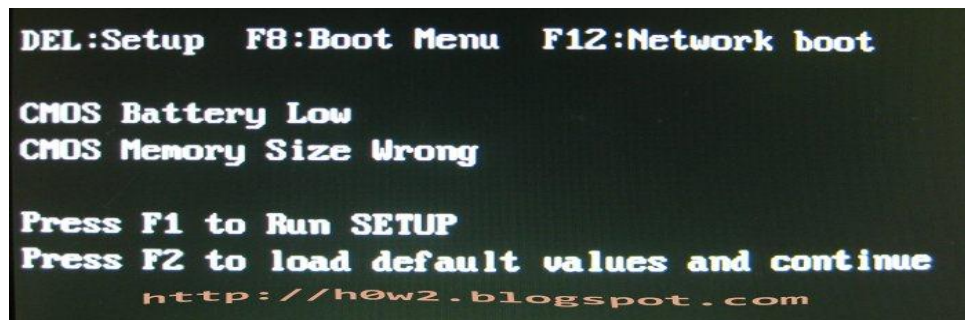


Figure 5.2.11 CMOS battery problem

Solve: Your device is losing its time or date settings, otherwise you will receive CMOS error, CMOS checksum error, or CMOS battery failure when you start the devices. Try leaving the PC for 24 hours initially. In this case, battery replacement is one of the best solutions. After the computer has been shut down for several months it usually resolves the problem of CMOS battery.

CHAPTER 5

CONCLUSION AND FUTURE CAREER

5.1 Discussion and Conclusion

First, I want to thank Daffodil International University and my supervisor Ms. Zakia Zaman and also the organization employees where I did my Internship "Create IT Soft". In my Internship time I had learned a great deal how to operate a company and more IT related work and supports.

Gathering knowledge is not sufficient to read technical books. Increase this knowledge, everyone must be need practical work and make us confident about future carrier. I always say that in my internship time there was a lot of learning. It is an experience of first-time job. Successfully I have achieved the concluding result from my Internship" IT Support & Computer or Laptop Hardware Maintenance".

5.2 Scope for Further Career

If I don't have any working knowledge, it's too hard to get a job can be a real challenge. Student are gaining much popularity to study computer hardware and networking courses. Internship can turn to make me as an IT skilled and motivate to get better career opportunity. Most hardware experts' agreements with variety of hardware mechanism such as chips, circuit boards, motherboard, processor, modems, hard disks, RAM, printers, and keyboards. So, as to achieve success in hardware and network industry, candidates ought to be inclined towards the technical and analytical field. One should be a team player and may be able to take challenges. Hardware professionals are needed to appear when software system parts moreover to confirm that computers work quicker and with efficiency. After a complete successful internship my future scopes will be:

- To be a successful IT Engineer.
- To be a mechanical Supporter.
- To be work in IT center.
- To be structure analyst.

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Appendix A: Internship Reflection

The main goal of my internship in a skilled environment, the real solution to the real-world problem is to concern knowledge in real life. Learn new ways of acquiring knowledge, improve skills and manage them. I found a proper company for my internship and they told me about their facilities or activities. They give me an organizational angle, how to talk about projects with clients, how to use office tools, how to be in touch with colleagues, how to share power, how to come to a decision, how to make professional organizations. At the end of my internship and internship experience, I learned to take a professional attitude through a different measure and manage the whole thing right, which will be very helpful in my future place of work.

Appendix B: Company Details

Creative IT Soft. Is an IT solution company. It established 2006. This association is working with a revelation of developing vibrant software and IT service industry in Bangladesh. Creative IT Soft. Started with aim of providing very elevated intensity software and technology support. Creative IT Soft. Accept as true in quality and service. Because quality and service generate its own demand.

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