

**“INTERNSHIP ON NETWORK MANAGEMENT”**

**SUBMITTED BY**

**Md. Shahidul Islam**  
**ID: 182-15-11640**

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

Supervised By

**Ms. Refath Ara Hossain**  
Lecturer,  
Department of CSE  
Daffodil International University

Co-Supervised By  
**Mr. Md. Abbas Ali Khan**  
Lecturer (Senior scale)  
Department of CSE  
Daffodil International University



**DAFFODIL INTERNATIONAL**  
**UNIVERSITY DHAKA, BANGLADESH**  
**06 JANUARY, 2022**

## **APPROVAL**

This internship titled “ **Internship on network management** ”, submitted by **Md Shahidul Islam , ID No: 182-15-11640** 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 **JANUARY, 2022.**

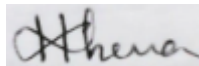
## **BOARD OF EXAMINERS**



**Chairman**

---

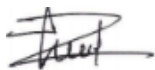
**Dr. S.M Aminul Haque**  
**Associate Professor and Associate Head**  
Department of Computer Science and Engineering  
Faculty of Science & Information Technology  
Daffodil International University



**Internal Examiner**

---

**Most. Hasna Hena (HH)**  
**Assistant Professor**  
Department of Computer Science and Engineering  
Faculty of Science & Information Technology  
Daffodil International University



**Internal Examiner**

---

**Md. Jueal Mia (MJM)**  
**Senior Lecturer**  
Department of Computer Science and Engineering  
Faculty of Science & Information Technology  
Daffodil International University



**External Examiner**

---

**Dr. Md Arshad Ali**

**Associate Professor**

Department of Computer Science and Engineering  
Hajee Mohammad Danesh Science and Technology  
University

## DECLARATION

We hereby declare that, this project has been done by us under the supervision of **MS. Refath Ara Hossain, Lecturer, Department of CSE** Daffodil International University. We also declare that neither this internship nor any part of this project has been submitted elsewhere for award of any degree or diploma

**Supervised by:**



---

**Ms. Refath Ara Hossain**

Lecturer

Department of CSE

Daffodil International University

**Submitted by:**



---

**Md. Shahidul Islam**

ID: -182-15-11640

Department of CSE

Daffodil International University

## ACKNOWLEDGEMENT

First I express my heartiest thanks and gratefulness to almighty God for His divine blessing makes me possible to complete the final year internship successfully.

I really grateful and wish my profound indebtedness to Supervisor **Rifat Ara Hossain** Lecturer , Department of CSE Daffodil International University, Dhaka Deep Knowledge & keen interest of our supervisor in the field of “*Internship or Networking*” to carry out this project. Her endless patience ,scholarly guidance ,continual encouragement , constant and energetic supervision, constructive criticism , valuable advice ,reading many inferior draft and correcting them at all stage have made it possible to complete this project.

We would like to express our heartiest gratitude to Dr. Touhid Bhuiyan, Head, Department of CSE, for his kind help to finish our project and also to other faculty member and the staff of CSE department of Daffodil International University.

We would like to thank our entire course mate in Daffodil International University, who took part in this discuss while completing the course work..

Finally, we must acknowledge with due respect the constant support and patients of our parents.

## **ABSTRACT**

The benefits that networking courses can bring have been widely discussed. This course i have learned a CCNA Course: Network Fundamentals, and acquired competencies that include the following: Some of the CCNA basics covered under CCNA certification include: OSI models, IP addressing, WLAN and VLAN, Network security and management (ACL included) , Routers / routing protocols ( EIGRP, OSPF, and RIP), IP Routing, Network Device Security, Trouble shooting etc. Use of network protocol templates to explain communication levels in data networks Design, calculation and application of subnet masks and addresses Building a simple Ethernet network using routers and switches Employing basic cabling and network designs to connect devices Using Cisco CLI commands to perform basic router and switch configuration and verification.

# TABLE OF CONTENTS

<b>CONTENS</b>	<b>PAGE NO.</b>
Board of examiners	I
Declaration	II
Acknowledgements	III
Abstract	IV
Table of Contents	V
List of Figures	VI
List of Tables	VIII

## **CHAPTER**

### **CHAPTER 1: INTRODUCTION**

1.1 Introduction	1
1.2 Motivation	1
1.3 Internship objectives	1
1.4 Introduction to the company	1
1.5 Company background	2
1.6 Report Layout	3

### **CHAPTER 2: ORGANIZATION**

2.1 Introduction	4
2.2 List of Products	5
2.3 Professional Short Courses	5
2.4Market Situation	6
2.4 Target Group	6-7
2.5SWOT Analysis	8
2.6Organizational Structure	

### **CHAPTER 3: TASKS, PROJECTS AND ACTIVITIES**

3.1 Daily Task And Activities	9-11
3.2 Events and Activities	12
3.4 Project Task and Activities	12-23
3.5 Challenges	23

### **CHAPTER 4: COMPETENCIES AND SMART PLAN**

4.1 Competencies Earned	24
4.2 Smart Plan	24
4.3 Reflection	25
<b>CHAPTER 5: CONCLUTION AND FUTURE CAREER</b>	
5.1 Discussion and Conclusion	25
5.2 Scope for Further Career	26
<b>APPENDIX</b>	
Appendix A: Internship Reflection, Appendix B: Company Details	26
<b>REFERENCE</b>	27-28



## LIST OF FIGURES

Figure	Page No
Fig: 2.1 SWOT Analysis	6
Fig: 2.2 Organization Diagram	8
Fig: 3.1 Cisco Packet Tracer	12
Fig: 3.2 Select Setup or Cancel	13
Fig: 3.3 Select Option	14
Fig: 3.4 Browse Folder	14
Fig: 3.5 Next to Desktop Icon	15
Fig: 3.6 Ready to Install	15
Fig: 3.7 Installing Extracting File	16
Fig: 3.8 Select Finish Cisco Packet Tracer	16
Fig: 3.9 Login Page	17
Fig: 3.10 Cisco Packet Tracer	17
Fig: 3.11 Static Routing	18
Fig:3.12 Static Routing Configure	19
Fig:3.13 Static Routing Configure	19
Fig:3.14 RIP	20
Fig: 3.15 RIP Configure	20
Fig: 3.16 OSPF	22
Fig: 3.17 OSPF Configure	23

# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 Introduction**

The temporary job gives involved work insight and a prologue to PC support for introducing, redesigning, keeping up with, and giving client backing to equipment, programming applications, and some organization issues. This temporary position will include animating freedoms, genuine ventures to help the specialized framework and cooperation with staff. This is a sublime chance to comprehend active experience inside the area of registering. This temporary position offers the possibility to comprehend insight with the CCNA of cmt international Professional Training Institute (CMT INTERNATIONAL).

### **1.2 Motivation**

I'm working entry level position program develop my great profession of the IT support engineer. They can more readily help the representative in learning new systems and thoughts for the development of the any organization. CCNA will open loads of chances for my, however that isn't the end. CCNA will just educate fundamentals. To find out about systems administration and improve work and assemble my vocation in Networking, I need to concentrate on CCNA. Most likely more than that.

### **1.3 Internships Objective**

Trust in the significance of framework support as a method for correspondence for the IT business. Counting the standards of making a framework support, data innovation. To develop fortitude, persuaded group, speed of collaboration and self-assurance. The temporary job will build my sense and obligation and great work propensities. I can utilize my specialized and the executives abilities to accomplish the objective and foster the best presentation. I might want to understand my imaginative thoughts; capacity and inventiveness to complete the temporary job to foster my profession in the IT area.

## **1.4 Introduction to the Company**

Journey Begins with CMT INTERNATIONAL (2014):

“CMT INTERNATIONAL LTD” is really a software, website advancement, and hosting offering company. This organization tries to offer imaginative and distinctive solutions to customers to improve their company performance and crack the technical obstacles for his or her business improvement. They customize options that make the client’s company run smoother, quicker with better protection and efficiency.

## **1.5 Vision**

The vision of “CMT INTERNATIONAL LIMITED” is to be the main decision for work arranged preparing for our enormous pool of labor according to showcase interest.

## **1.6 Mission**

CMT INTERNATIONAL will give an extremely wide scope of occupation situated and proficient improvement preparing both gifted and untalented individuals to a human asset. These courses offer the chance for specialists, individual, finance manager, and representatives to revive to grow and improve their IT and Animation abilities/polished methodology. Proficient Development Programs offer something beyond a customary learning experience. Every one of the courses run by CMT INTERNATIONAL will be experiential, testing, intuitive and connecting scholarly hypothesis and this present reality of training that will new work insight. CMT INTERNATIONAL will clearly carry fitting information to manage possible measures, and assist laborers with working on working conditions and include the upkeep and advancement of laborers work execution.

## **Report Layout**

The understudy likewise gets the opportunity to show advancement as a particular supervisor by presenting, analyzing, and evaluating his work at work. I portrayed brief occupation objectives, passage level position motivation, and introduction to the association. I depicted the procedure of my transitory position. Likewise, this segment gives information on where the brief position was associated with endeavor this program.

The understudy doing a transitory position gets credits from the school; portrayed credit constrained by the staff of particular arrangement, documentation is required in any case the evaluation of the site manager as a justification behind that graduated credit.

## **CHAPTER 2**

### **ORGANIZATION**

#### **2.1 Introduction**

“CMT INTERNATIONAL LTD” is working practically and physically. The team with highly skilled on development and even for service serving clients with best effort. “CMT INTERNATIONAL LTD” started in February 2018 officially but started its journey from 2019 to redefine sales and marketing with Artificial Intelligence. Guided by the combined encounters of the team, “CMT INTERNATIONAL LTD” has grown into the leader in the particular industry. “CMT GLOBAL LTD” team associated with serial entrepreneurs are usually passionate about democratizing the strength of synthetic intelligence for the particular mass market. “CMT INTERNATIONAL LTD” objective is to raise outbound sales plus marketing. By using artificial intelligence in order to the sales procedure. “CMT INTERNATIONAL LTD” helps faster profits growth with much less human labor. In order to accomplish this technology performs three challenging tasks. First, this reduces the price tag on promoting by accurately forecasting the fit in between buyers and retailers. Second, it gathers proprietary data that will makes predictions much better for each and every customer. Lastly, “CMT INTERNATIONAL LTD” provide predictive qualified prospects as a service to almost any kind of promotion, such since CRMs. These functions make “CMT GLOBAL LTD” the best way in order to use predictive analytics to drastically enhance sales and marketing and advertising results.

#### **2.2 List of Program/Courses**

Interior Design :- Basic Design Composition, Graphics Design, AutoCAD 2D, 3D, Sketch and Presentation, 3D Animation and Visual F/X, Sketching (Drawing).

☐ Hardware and Network Engineering :- CompTIA A+, Network Fundamental and Design, CISCO CCNA, Linux (RHCA, RHCE), Linux Virtualization , Wireless Networking, Mikrotik.

☑ Software Engineering :- Microsoft Office 2016 with Google Education Apps, Software and Web Designing using HTML 5 and CSS3 Designing and completing data base with Microsoft SQL Server 2017, JSP, JSTL, JSF and Java Swing advancement, Jasper Report, Android Apps Develop.

- **Certified Professional Outsourcing :-** Basic SEO, Advance SEO, Upwork & Fiverr, Freelancing & Real Life Project.

#### Professional Short Courses:-

- **CISCO CCNA :-** TCP/IP Protocol Suite and IP Addressing, VLSM, Virtual LANs & WAN Technologies, Inter VLAN, Managing CISCO Configure Dynamic routing with RIP, IGRP.EIGRP and OSPF.
- **Computer Hardware :-** Assemble & downgrade, Software & Hardware Troubleshooting, Operating System (OS), Windows Administration.
- **Graphic Design :-** Basics of Graphic Design, Adobe Illustrator CC, Adobe Photoshop CC.
- **Certificate in Web & e-Commerce :-** HTML 5 & CSS3, JavaScript, jQuery, Bootstrap, Creative Graphic Design, Digital Marketing, SEO and Amazon Affiliate Marketing.
- **ASP.net (with C#) :-** C# Language structure, Data type, control, operator, ASP.net theory, ASP.net with web application.

#### Related Product I Work on:

Item/Course Name: CCNA Cisco Packet Tracer (7.0 variant).

#### Market Situations:

Started its excursion as an anticipated ICT preparing and exchange house.

The center business of Daffodil Computers was the gathering and offer of PCs, the Company. IT Support Means various abilities and disciplines in the creation and support of various organizations. The various spaces of incorporate Software; Hardware, organization, including the normalized client can do it.

## Target Group

- The objective is the primary reality in any organization. Trustworthiness is totally ideal for the organization, so you need to offer the best types of assistance to any client and friends.
- We can offer designated backing to fill and oversee workers successfully to accomplish manageable outcomes in our organization.
- We need to be fruitful in our excursion to a raised circumstance, attempting to duplicate/increment what they have: abundance, capacity, impact and the action of their clients.
- There are numerous business objectives that our organization acquires this region Education, Hospital, Web Development, IT Farm, Industry, Real Life Experience.
- Our organization tries to develop our nation's high level primary objective. The flowing figure to shows the SWAT analysis of a company

## SWOT Analysis:



Figure 2.1: SWOT Analysis

**Strengths:**

- ☐ Our association likewise provides us with a feeling of control and takes into consideration more noteworthy usefulness. It is a Bangladesh brand organization and based on a decent standing for administration and item.
- ☐ We can give better business administration to different organizations cautiously.
- ☐ Our organization has regarded managers who like the labor force.
- ☐ Our association has solid virtues and an assertion of moral plan.

**Weaknesses:**

- ☐ We have a little group, with a shallow expertise base in certain spaces of our organization.
- ☐ Sometimes our organization needs to manage little issues
- ☐ This implies that these shortcomings could prompt significant issues in the organization's essential arranging and could even prompt more terrible circumstances.

**Opportunities:**

- ☐ The business space of our association is making and with various future opportunities for progress.
- ☐ Our adversary might be delayed to embrace new advancements.
- ☐ Sometimes many organizations need to get help from our organization.
- ☐ Our organization makes new innovative items and once in a while extends to great job openings for experienced specialists.

**Threats:**

When we foster another innovation for the market circumstance, unexpectedly the market circumstance is declining, this is an extremely enormous danger to our organization. Sometimes an organization arranges an item from our organization and we foster this item, for reasons unknown this organization dismisses our item, this additionally represents a danger to our organization.

The flowing figure to 2.2 shows the organization structure

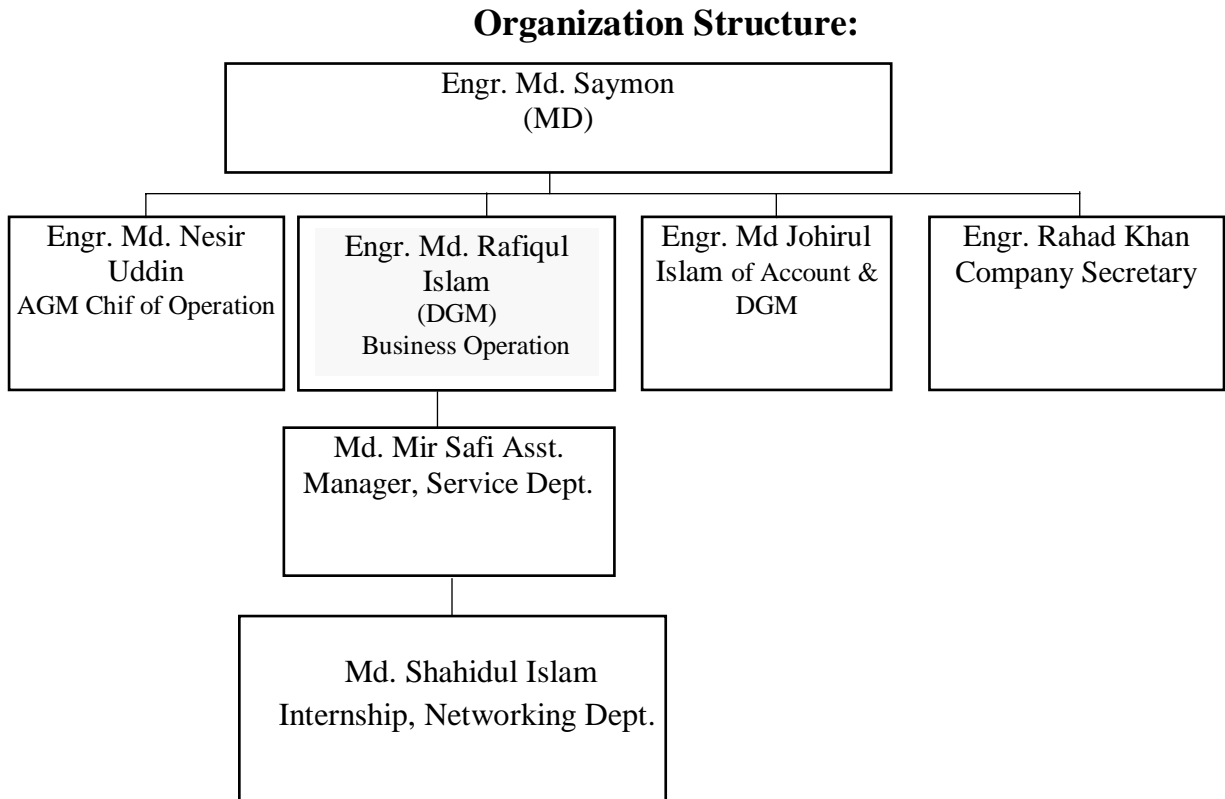


Fig:2.2 Organization Structure diagram



## CHAPTER 3

### Tasks, Projects and Activities

#### 3.1 Daily Task and Activities

My office start at 3.00 pm and shut down at 6.00 pm. In this time I accomplish numerous others work day by day proportion.

- ☐ I work with Cisco Packet Tracer programming.
- ☐ Last day investigation works and in the event that I commit an error here I attempt to tackle it with the mentor.
- ☐ Perfectly I need to attempt gives different IT support in many organization.
- ☐ Create and Maintain some IT System Support Documentation.

.

#### 3.2 Basic Networking

##### ❖ IP Addressing

An IP (Internet Protocol) address is an astounding identifier for a center or host relationship on an IP association. An IP address is a 32-digit equal number typically tended to by 4 decimal characteristics, each tending to 8 pieces, in the arrive at 0 to 255 (known as octets) separated by decimal core interests. This is known as "decimal point" documentation.

**Example:** 130.178.230.220

It is sometimes useful to view the values in their binary form.

130.178.230.220

10000010.10110010.11100110.11011100

Each IP address contains two areas, one that perceives the association and the other that recognizes the center point. The Address Class and subnet cloak sort out which part has a spot with the association address and which part has a spot with the center location.

### 3.3 Address Classes

There are 5 distinctive location classes. You can figure out which class any IP address is in by analyzing the initial 4 bits of the IP address.

Class A addresses, to begin with, 0xxx or 1 to 126 decimal spots.

Class B address to begin with 10xx, or 128 to 191 decimal spots because 127 is a loopback address.

Class C address to begin with 110x or 192 to 223 decimal spots. Class D address to begin with 1110 or 224 to 239 decimal spots. Class E address to begin with 1111 or 240 to 254 decimal spots.

#### ❖ Subnetting:

Applying a subnet cover to an IP address perceives the association and portions of the area center point. The association pieces are tended to by 1 in the design, and the center point pieces are tended to by 0. Playing out an astute AND each little advance in turn action between the IP address and the subnet cover makes the association address or number.

For instance, using our test IP address and the default Class B subnet cover, we get:

10001100.10110011.11110000.11001000 140.179.240.200 Class B IP Address  
11111111.11111111.00000000.00000000 255.255.000.000 Default Class B Subnet Mask  
10001100.10110011.00000000.00000000 140.179.000.000 Network Address

#### • Default Subnet masks

- Class A - 255.0.0.0- 11111111.00000000.00000000.00000000
- Class B - 255.255.0.0 - 11111111.11111111.00000000.00000000
- Class C - 255.255.255.0- 11111111.11111111.11111111.00000000

#### ❖ Telnet

vtty Line Configuration for Telnet

Access Enter line configuration

mode.

Enable login on the vty lines.

Set a password for Telnet access.

Set the exec-timeout interval.

- Telnet configure

```
R1(config)# line vty 0 4
R1(config -line)# password 123
R1(config -line)# login
R1(config -line)# exit
```

## ❖ SSH

- SSH Configurer

```
Router (config) # ip domain-name
Router (config) # enypot generate key
Router (config) # line vty 04
Router (config) # password
Router (config) # login
```

## ❖ VLAN

- Choose Switch Configuration.

Choose Advanced Features.

Choose VLAN menu ...

Choose VLAN Support.

Set Enable VLAN to Yes if it is not already and choose a VLAN number. ...

Restart the switch to apply the changes

## ➤ Routing:

### ❖ Static Routing Protocol

- Default Static
- Static Router

### ❖ Dynamic Routing Protocol

- RIP (Routing-Information-Protocol)
- EIGRP (Ethernet Interiors Gateway Routing Protocol)
- OSPF (Open Shortest Path First)
- BGP (Border Gateway Protocol)

## Events and Activities

Temporary job gives there has give numerous exercises and occasion. It mastermind entry level position understudy in a situation. The arrangement interaction and work with an organizer. Facilitator the help and assuming he need continue it. The booking system coordinated enormous organization and occasion organizations. I should need to apply acknowledged to program in city life. Occasion arranging entry level position offers an encounter and numerous obligations. The obligations are parties, services, rivalry of all shapes and sizes. On the off chance that I got the experience is beneficial for me. In any case, there was no occasion for Coronavirus 1.

## Project Task and Activities

The principally point of this temporary position is to Exhibit that with better components in IT backing could improve.

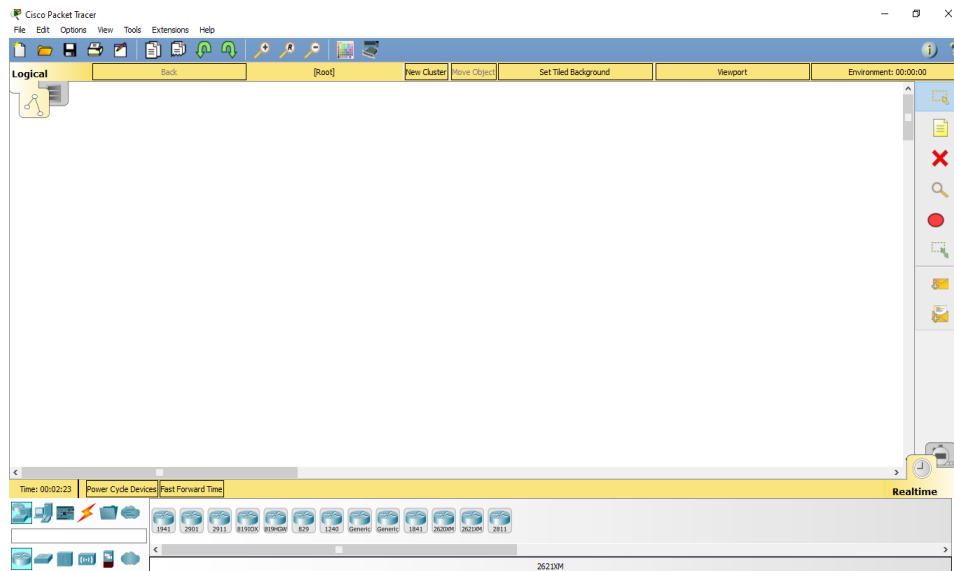
### Working Profile

#### Cisco Packet Tracer

#### Important Requirements:

- Hardware: Pc.

The flowing figure to 3.1 shows the Cisco Packet Tracer



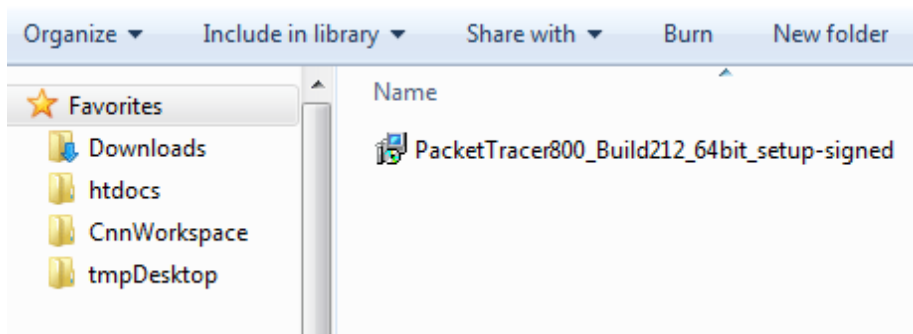
**Fig:3.1 Cisco Packet Tracer.**

- Software : Cisco Packet Tracer (7.0 version).
- Network: Some Networking issue LAN, Server/Switch.

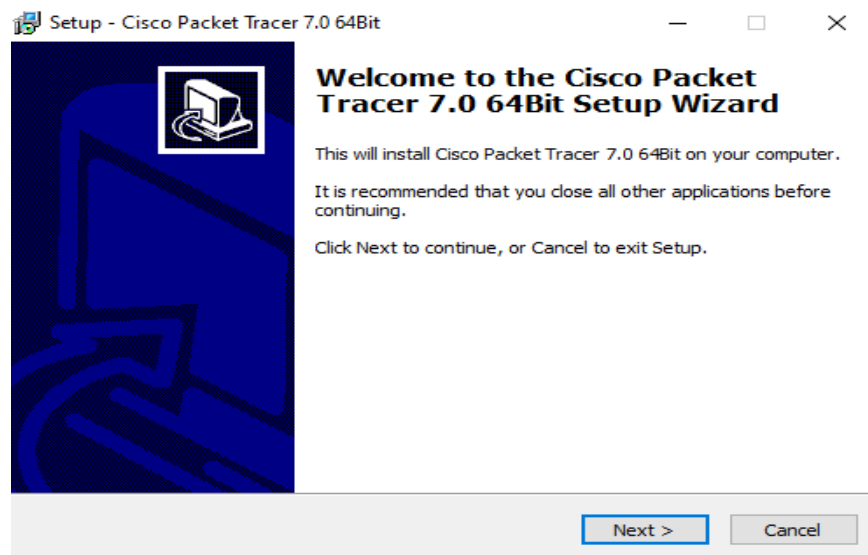
Presently we wanted to introduce the product, I work here extraordinarily Customized programming. Presently I shown it's bit by bit.

### Install Program:

- When the download is complete, open the folder that contains the downloaded file.



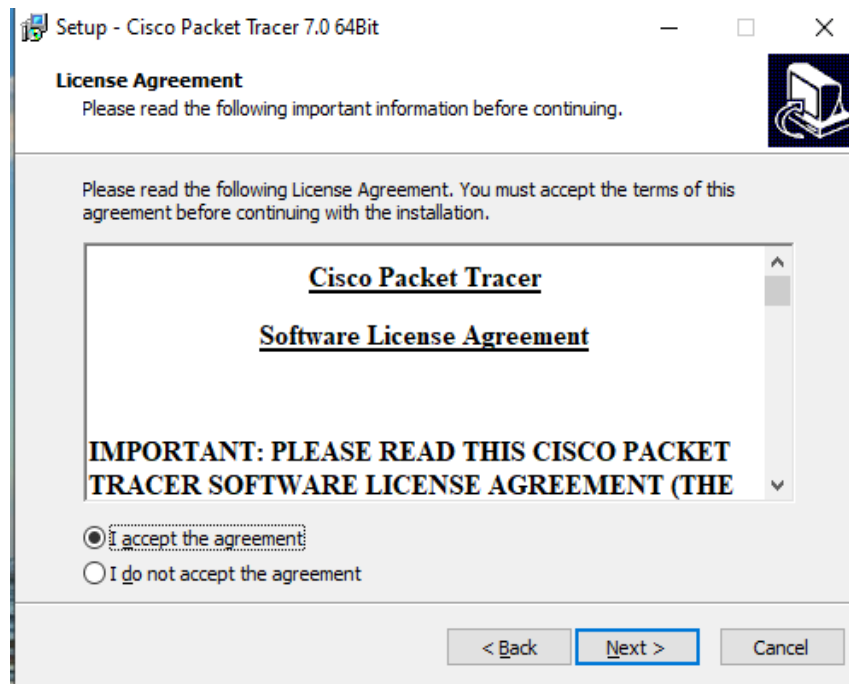
- We want to install and click next button.
- The flowing figure to 3.1 shows the cancel Cisco Packet Tracer



**Fig:3.2 Select setup or cancel**

- Then click Next button and open a new window to enter the License agreement, then I choose Accept the agreement and click next button.

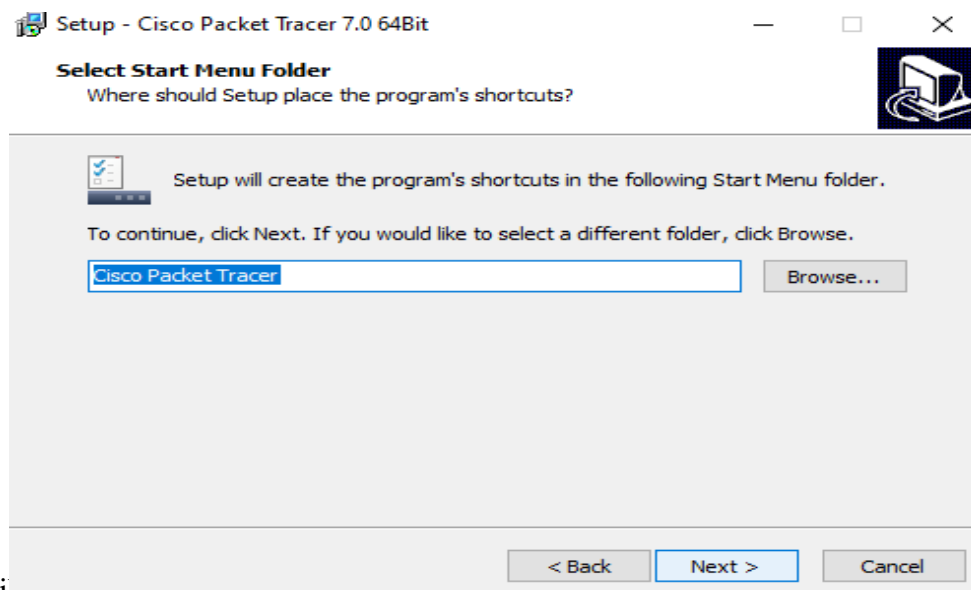
The flowing figure to 3.3 shows the Cisco Packet Tracer select option



**Fig:3.3 Select option.**

- Select start menu then any folder/ Cisco Packet Tracer.

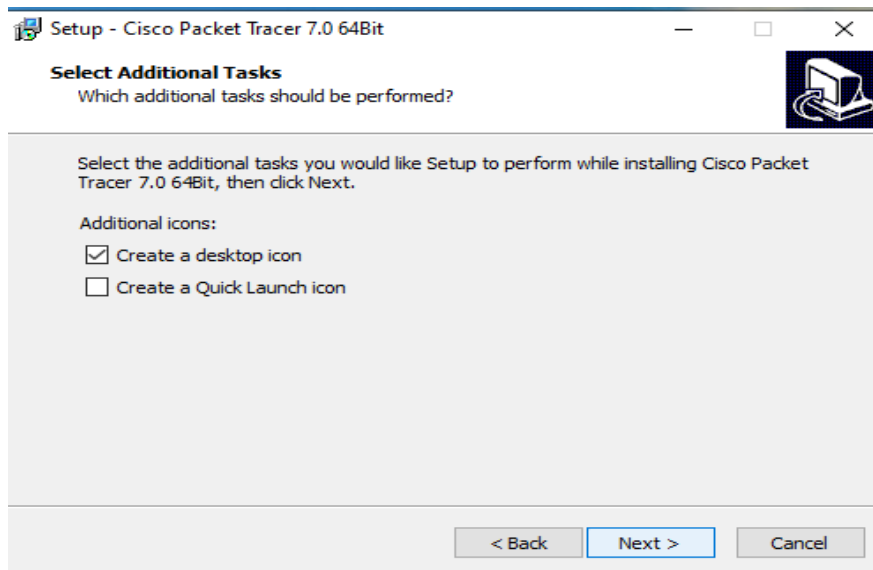
The flowing figure to 3.3 shows the Cisco Packet Tracer



**Fig:3.4 Browse folder**

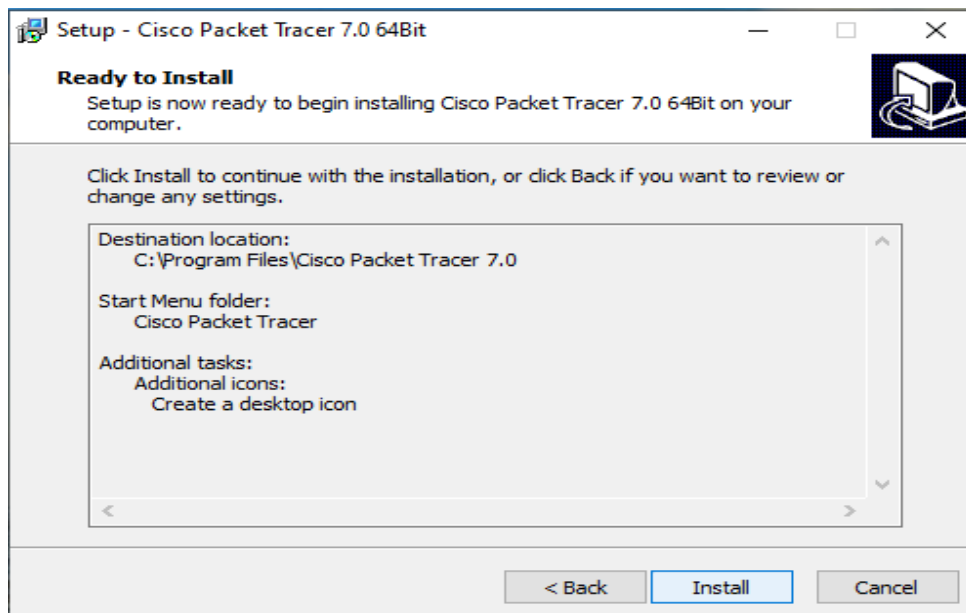


- Then click next button turn to the next step and open new window. Create a desktop icon.



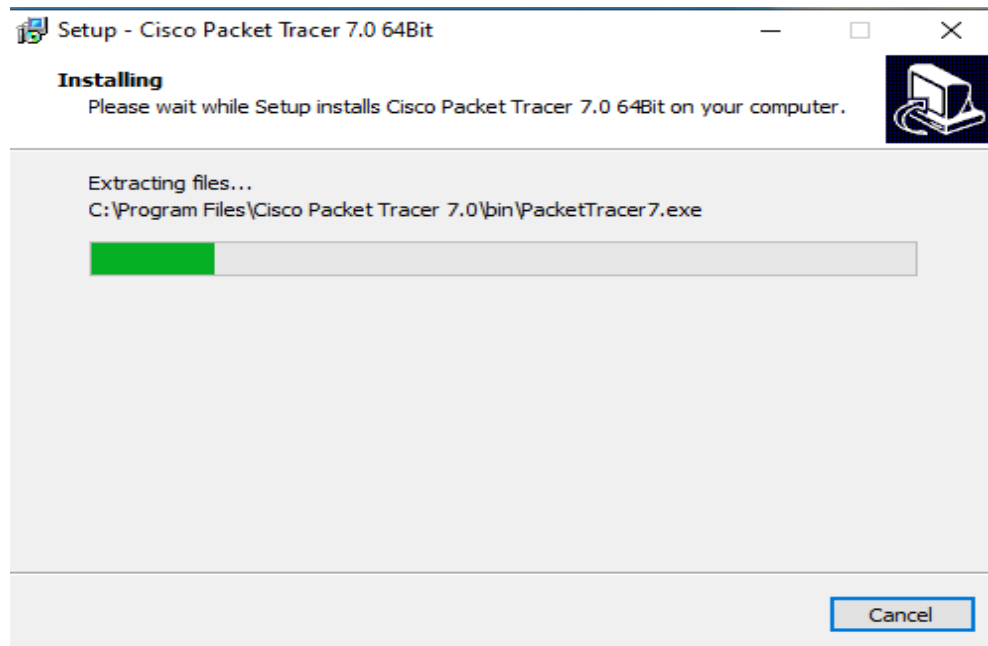
**Fig:3.5 Next to desktop icon**

- Click install option and software install.



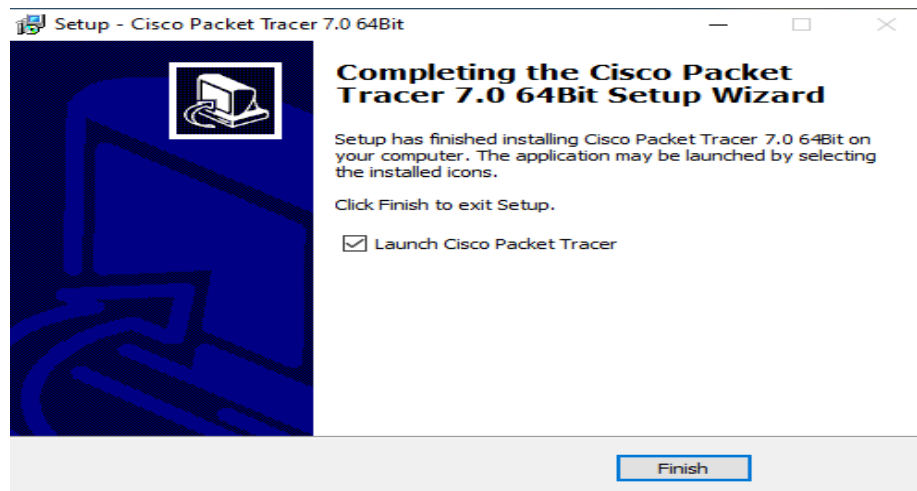
**Fig:3.6 Ready to install**

- Then we click next button and come Installing window.



**Fig:3.7 Installing/Extracting File....**

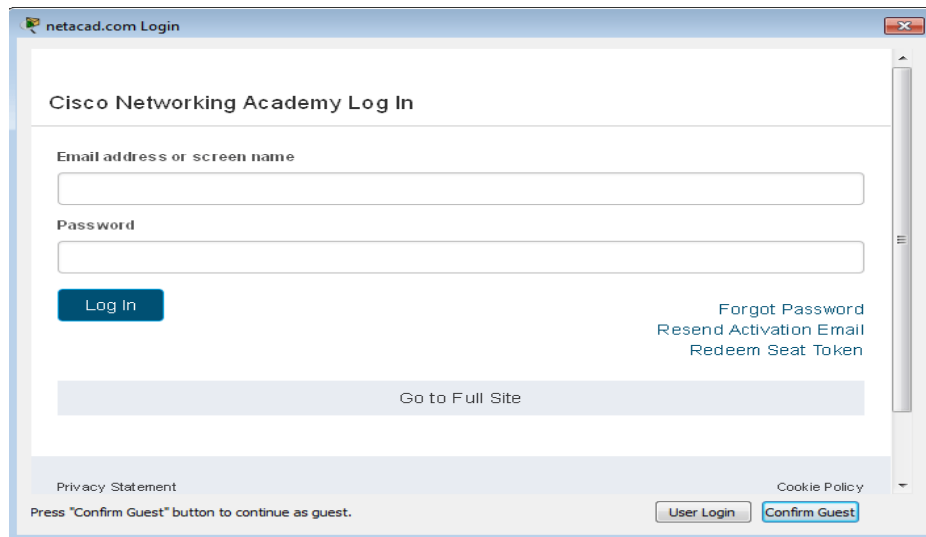
- Completing the Cisco Packet Tracer install.
- I want.



**Fig:3.8 Select Finish Cisco Packet Tracer**

- As of version 7.0.0, Packet Tracer can only be used after login. When you start Packet Tracer, it has an access box. If your system is not connected to the Internet, you can use

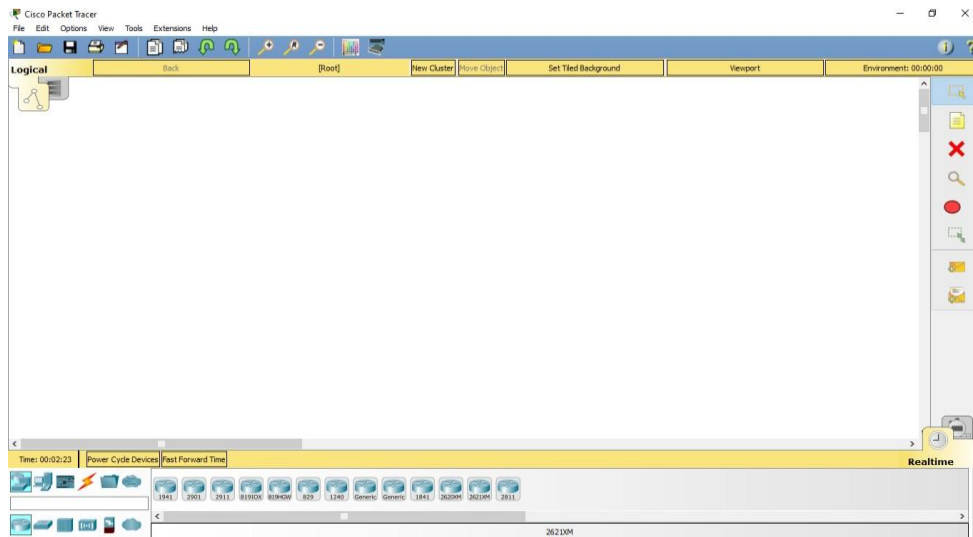
the Guest account to access Packet Tracer. To use a guest account, click the Guest Login button at startup.



**Fig:3.9 login page**

### **Work flow the software:**

- First I open the Cisco Packet Tracer in my computer desktop.



**Fig:3.10 New Cisco Packet Tracer**

### **❖ Static Routing Configuration LAB-01**

Router (config) # interface serial 0/0/0

Router (config -if) # clock rate 64000

Router (config -if) # ex

## 2nd router

```
ip route 255.255.255. 10.10.10.1
192.168.1.0 0 0

ip route 255.255.255. 20.20.20.2
192.168.3.0 0 3

ip route 255.255.255. 20.20.20.24
192.168.5.0 0
```

## 1st router

```
ip route 255.255.255. 10.10.10.23
192.168.2.0 0

ip route 255.255.255. 10.10.10.21
192.168.3.0 0

ip route 255.255.255. 10.10.10.21
192.168.5.0 0
```

## 3rd router

```
ip route 255.255.255. 20.20.20.1
192.168.2.0 0

ip route 255.255.255. 20.20.20.1
192.168.1.0 0
```

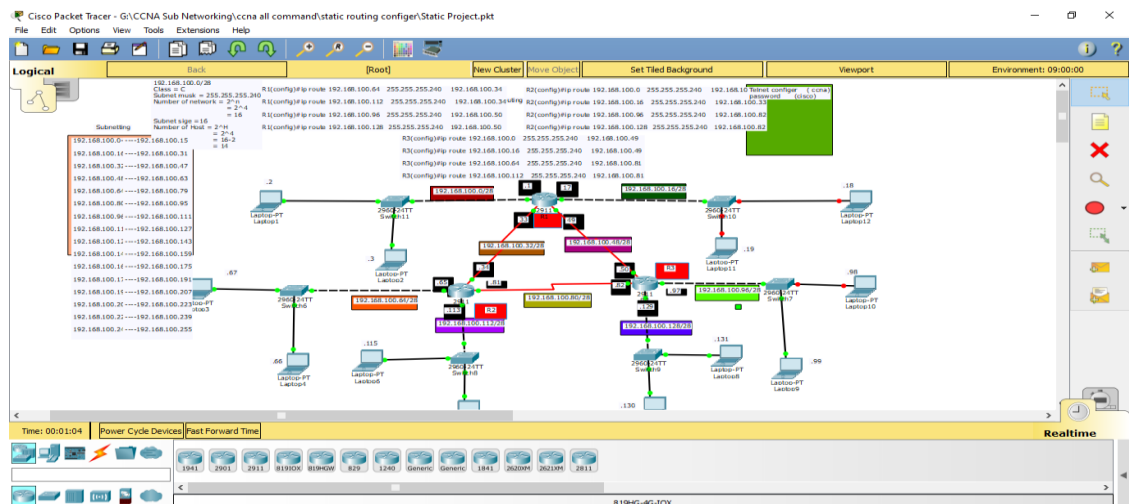


Fig:3.11 Static Routing

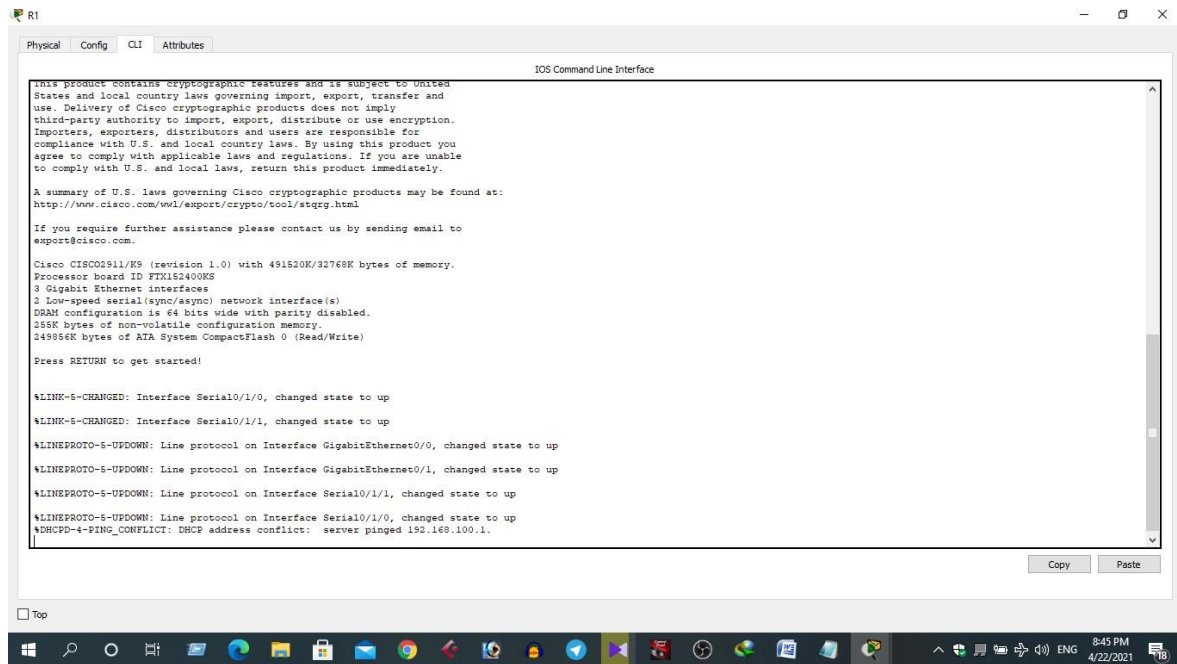


Fig:3.12 Static Routing Configure

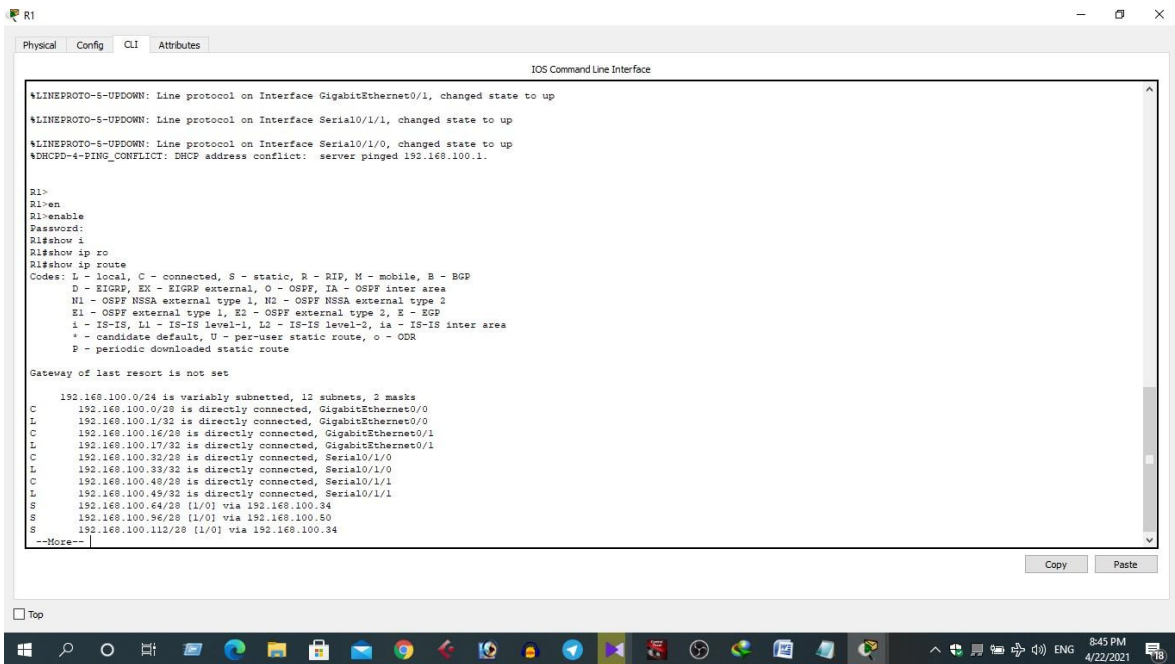


Fig:3.13 Static Routing Configure

## Command for configure rip 7 Router

(config) # router rip

Router (config) # network

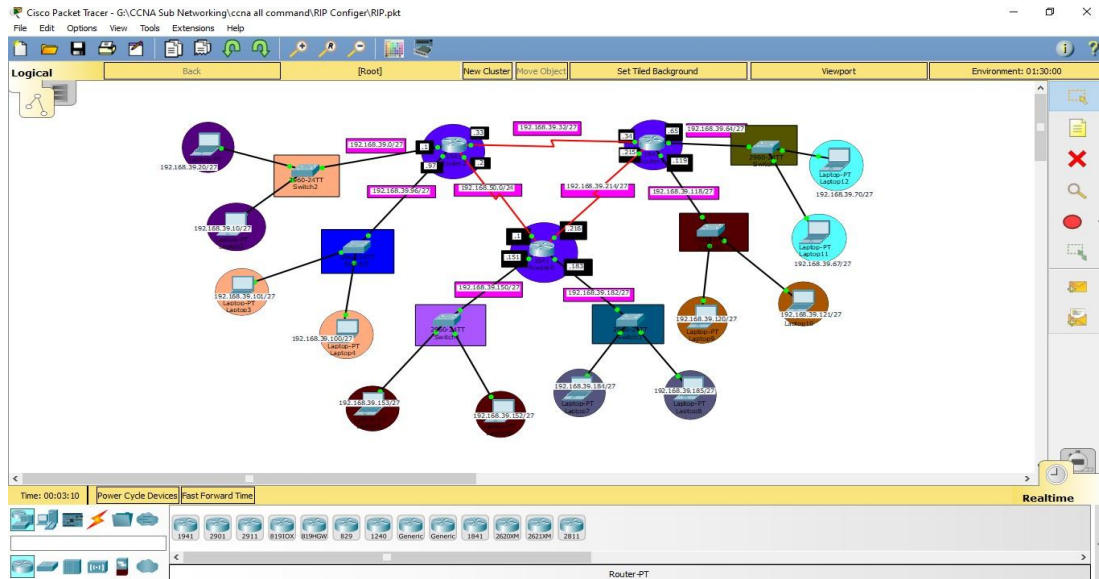


Fig:3.14 RIP

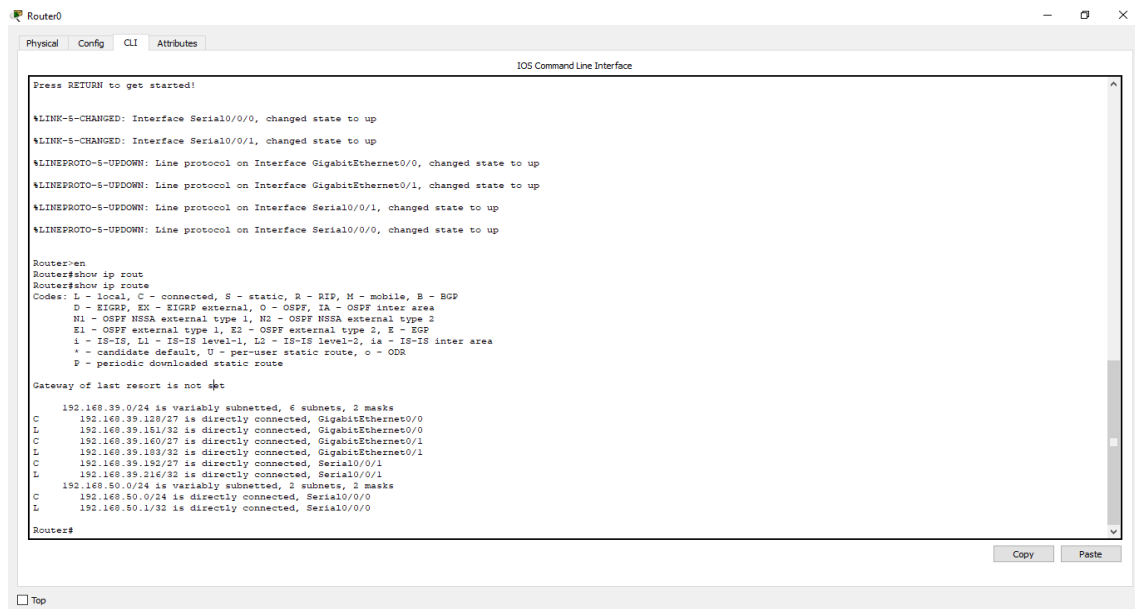


Fig:3.15 RIP Configure

- **OSPF**

According to the OSPF perspective, there are several things that should be coordinated for a close by OSPF boat to make; these consolidate:

1. The gadgets ought to be in a comparable locale.
2. Devices ought to have a comparable approval arrangement.
3. The Devices ought to be on the identical subnet.
4. The greeting and dead range Devices should organize.
5. Devices ought to have relating flag nails.

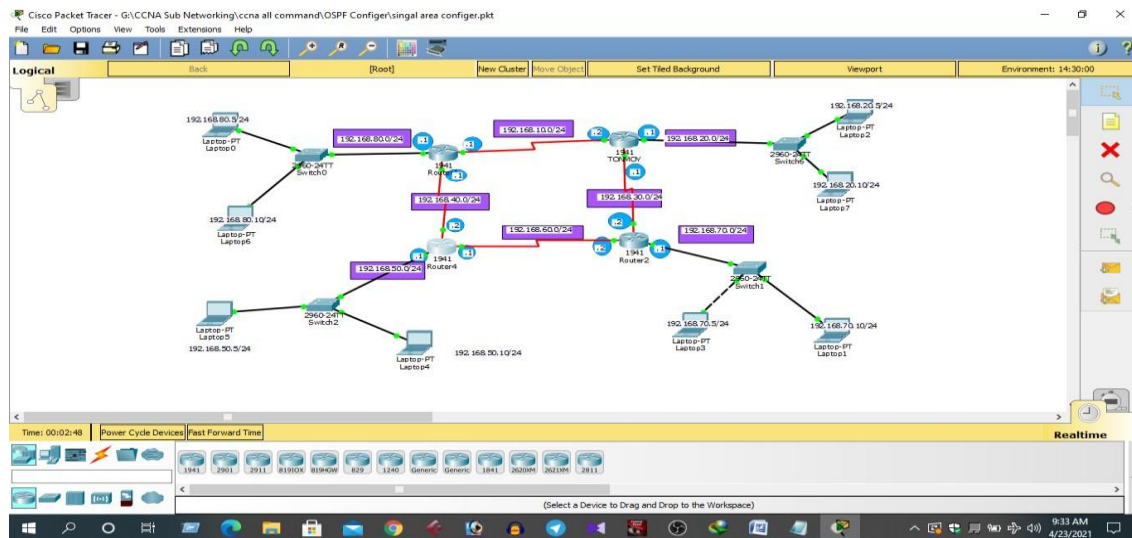
"The welcome and dead span esteems might contrast contingent upon the kind of OSPF organization. On the Ethernet interfaces you will see a hello break of 10 seconds and a dead recess of 40 seconds.

**Contents Of A Hello Packet**

- Required data to develop contiguousness:

- Router ID of sending switch
- Hello and dead time period
- List of neighbors
- Network mask
- Router need
- Area ID \*
- DR and BDR IP
- Authentication data (If any)

\* Need to match to make the neighbor relationship



**Fig:3.16 OSPF**

### **Router configure**

Router (config) # interface serial 0/1/0

Router (config-if) #ip address 192.168.10.2 255.255.255.0

Router (config-if) #no sh

Router (config) #interface serial 0/1/1

Router (config-if) #clock rate 64000

Router(config) # interface serial 0/1/1

Router(config -if) # ip address 192.168.30.1 255.255.255.0

Router(config-if)#no sh

Router(config)#interface gigabitEthernet 0/1

Router(config-if)#ip address 192.168.20.1 255.255.255.0

Router(config-if)#no sh

Router(config)#router ospf 6

Router(config-router)#network 192.168.10.0 0.0.0.255 area 1

Router(config-router)#network 192.168.20.0 0.0.0.255 area 1

Router(config-router)#network 192.168.30.0 0.0.0.255 area 1

Router(config-router)#do wr



```

R2
File Edit View Terminal Tabs Help
R1 R2 R3
Amsterdam(config-router)#network 192.168.0.0 0.0.255.255 area 0
Amsterdam(config-router)#net
Amsterdam(config-router)#network 2.2.2.0 0.0.0.255 area 0
Amsterdam(config-router)#
*Mar 1 00:06:14.915: %OSPF-5-ADJCHG: Process 1, Nbr 1.1.1.1 on FastEthernet0/0 from LOADING to FULL, Loading Done
Amsterdam(config-router)#
Amsterdam(config-router)#Z
Amsterdam#show ip ospf ne
*Mar 1 00:06:40.215: %SYS-5-CONFIG_I: Configured from console by console
Neighbor ID      Pri   State           Dead Time   Address        Interface
1.1.1.1          1     FULL/DR         00:00:30    192.168.23.3   FastEthernet1/0
1.1.1.1          1     FULL/DR         00:00:30    192.168.12.1   FastEthernet0/0
Amsterdam#
*Mar 1 00:07:03.335: %OSPF-5-ADJCHG: Process 1, Nbr 3.3.3.3 on FastEthernet1/0 from LOADING to FULL, Loading Done
Amsterdam#
Amsterdam#show ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
        D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
        N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
        E1 - OSPF external type 1, E2 - OSPF external type 2
        I - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
        ia - IS-IS inter area, * - candidate default, U - per-user static route
        o - ODR, P - periodic downloaded static route

Gateway of last resort is not set

C        192.168.12.0/24 is directly connected, FastEthernet0/0
O        1.0.0.0/32 is subnetted, 1 subnets
          1.1.1.1 [110/2] via 192.168.12.1, 00:00:08, FastEthernet0/0
O        192.168.33.0/24 [110/2] via 192.168.23.3, 00:00:08, FastEthernet1/0
          [110/2] via 192.168.12.1, 00:00:08, FastEthernet0/0
C        2.0.0.0/24 is subnetted, 1 subnets
          2.2.2.0 is directly connected, Loopback0
O        3.0.0.0/32 is subnetted, 1 subnets
          3.3.3.3 [110/2] via 192.168.23.3, 00:00:08, FastEthernet1/0
C        192.168.23.0/24 is directly connected, FastEthernet1/0
Amsterdam#
Amsterdam#
Amsterdam#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Amsterdam(config)#int lo
Amsterdam(config-if)#ip ospf network point-to-point

```

Fig:3.17 OSPF Router Configure

### Challenges:

Numerous different difficulties this work of the participation gadget altered programming, equipment, network issue, different IT backing of others organization's cautiously and our organization challenges in our nation high level then it is a major test. Examination shows that administration associations with admittance to the ITsupport as a significant part. First I need to say the difficult is extremely enormous thing for any framework .uniquely I talk about participation Management System. We wanted to do the difficult are effective execution. At the point when we work this framework many showcasing organization challenge for ourselves and challenge our framework. We really wanted to confront it. At the point when we work this framework numerous client organization at times challenge for us. Then, at that point, we nearly need the face this test and tackle it.

## **CHAPTER 4**

### **COMPETENCIES AND SMART PLAN**

#### **4.1 Competencies Earned**

To help temporary job in the advancement of skill in a scope of exercises in the training IT framework support to be capable section level experts at the finish of entry level position. The capacities and data collected while getting ready for the CCNA R&S accreditation will come accommodating in one's regular tasks as an association engineer. Cisco CCNA Routing and Switching is an accomplice level affirmation expected to support an individual's ability to present, explore, organize, and use medium-sized coordinating and trading organizations. Similarly remembered for the affirmation and execution of association relationship with far off districts inside the WAN. The CCNA R&D educational program gives a prologue to the phrasing and ideas of remote organizations, execution based capacities, and essential mitigation of shortcomings and security risks. It similarly joins the use of unequivocal shows, for instance, Frame-Relay Serial Interface Protocol, IP, Enhanced Interior Gateway Routing Protocol (EIGRP), Ethernet, ACL (Access Control Lists), and RIPv2 (Routing Information Protocol variation 2). These capacities and data are critical to work preferably as an association engineer in any affiliation.

#### **4.2 Smart Plan**

Smart alludes to the norm for characterizing objectives and targets, ie these 5 attributes of destinations are: Specific, Measurable, Achievable, Relevant and Limited on schedule. The thought is that each entry level position objective should hold fast to the SMART norm to be successful. Thusly, when arranging the goals of a temporary position.

The CCNA preparing offers a few profession ways like Network

- Technician,
- Helpdesk Engineer,
- Network Support Engineer, Service Desk Engineer and others.

In CCNA preparing, I can likewise land different position openings, for example,

- Network Analyst,
- ISP
- I can function as a frameworks and organization engineer in an IT organization
- Network Specialist and IT Team Leader.

So I need to fabricate my profession of this framework in IT segment and realized new framework to work on my vocation.

### **4.3 Reflections**

Be fundamental whether or not the substance of an insightful portfolio will be more modified than various tasks, you ought to use the actual level of essential examination that you use for any work or test.

Make sure to elucidate all times of your business, from aiming to satisfaction. Join an absolute examination of the specific issues of data. Assessment results and propose future redesigns. To get the most significant possible score, your smart report should fuse a distinct assessment of the transitory occupation results. A piece of this should consolidate some completely inspected thoughts for further developing tantamount endeavors later on.

## **CHAPTER 5**

### **CONCLUSION AND FUTURE CAREER**

#### **5.1 Discussion and Conclusion**

My temporary position program kept going 4 months. With this declaration, I can examine an occupation as an association engineer, programming creator, or association chief. There are various possibilities keeping things under control for me in the business. The functioning states of an organization engineer are superb in light of the fact that I just need to work 37 to 40 hours per week. The IT support engineer all over Bangladesh is a major IT industry.

#### **5.2 Scope for Further Career**

All however the temporary job was finished to the first prerequisites. The CCNA getting ready offers a couple of livelihood ways like Network Technician, Helpdesk Engineer, Network Support Engineer, Service Desk Engineer, and others. In CCNA planning, I can in like manner land diverse position openings like Network Analyst, ISP, Systems and Network Engineer, Network Specialist, and IT Team Leader. So I really wanted to collect my calling of this system in the IT fragment and an acknowledged new structure to work on my employment.

## **Appendix A: Internship Reflection**

Internship is basically one of the two choices for BSC requirements. The additional option is task work. I select internship as an alternative to project function because I desired in order to know about the particular job market and job culture of our country virtually. At the exact same time I believe this a excellent opportunity for one to learn professionalism furthermore.

As an inner I chose “CMT INTERNATIONAL LTD” because of to their market value and reputation. Our interest also combined with their providers. Being an intern within Cmt International Limited, my role is usually to develop a expert web portfolio that will displays content plus information that might be displayed to a viewpoint employer. The internet helps us in order to remove geographical constrains and pursue a lot more opportunities for function in theexpert.

The context of the Website is in order to introduce Web Style for the internet portfolio assignment. Nevertheless, I believe the particular goal is in order to be able in order to translate these portfolios to the professional world to be able to display the understanding and abilities concerning web growth. The audience associated with this project is usually generally the individuals Introduced to Internet development including each teachers and learners. A secondary viewer would be any kind of perspective employee regarding whom I would certainly display my Function.

I believe one of the greatest things I was going to keep in mind from this encounter will be the teamwork plus just how everybody works together effortlessly. Everyone here provides their place and they also constantly exceed anticipations. I’mhonored I had developed the possibility to work together with everyone and end up being part of the group though it was just for a short while. When I ever require an online site or any kind of marketing services within the future there is absolutely no question, I may be calling our friends at CMT INTERNATIONAL LTD, since after all they will are the greatest in the company.

## **Appendix B: Company Details**

“CMT INTERNATIONAL LTD” is usually working nearly plus physically. The group with highly competent on development plus even for services serving clients along with best effort. “CMT INTERNATIONAL LTD” Remedy started in November 2015 officially yet started it’s trip from 2014 in order to redefine sales plus marketing with Synthetic Intelligence. Guided with the combined experience of our own team, “Cmt Global Ltd” has produced in to a leader within the industry. “CMT INTERNATIONAL LTD” group of serial business owners are passionate regarding democratizing the strength of artificial cleverness for the bulk market.

“Cmt Global Ltd” goal would be to supercharge outbound product sales and marketing. By making use of artificial intelligence towards the sales process. “CMT INTERNATIONAL LTD” help faster profits development with less individual labor. To achieve this technology works three difficult duties. First, it decreases the price tag on selling simply by accurately predicting the particular fit between customers and sellers. 2nd, it collects amazing data which makes forecasts better for each and every consumer. Finally, “CMT INTERNATIONAL LTD” provide predictive leads as a service to almost any marketing tool, such as CRMs. These abilities make UTBL the perfect way to use predictive analytics to significantly improve sales and marketing results.

## **Head Office**

### **CMT INTERNATIONAL LTD**

Level-02, 59/A/1 Sher-E-Bangla Nagar, Dhaka

Mobile: +02-58153742, +8801511-223335

Email: info@cmt.ltd

## Reference:

- [1]CMT website: <http://cmt.com/about.html> (20-12-2021 7.54 pm)
- [2]HOSTCMT website: <http://hostcmt.com.bd/> (20-11-2021 8.00 pm)
- [3]Hostcmt website: <https://cmtinternational/our-company/company-background> (20-10-2021 8.00pm)
- [4]SWOT Image: <https://www.google.com/search?q=swot&tbm=isch&hl=en&sa=X&ved=2ahUKEwj7i5-B5ZPwAhVNAbcAHfGBDGsQ3VZ6BAgBEBg&biw=1349&bih=568#imgrc=8F3mB3sLxzmraM> (23-10-2021)
- [5]Cisco Packet Tracer image: <https://www.computernetworkingnotes.com/ccna-study-guide/how-to-install-and-activate-packet-tracer-in-windows.html>(22-9-2021 11:35am)
- [6]SWOT: <https://www.smartdraw.com/swot-analysis/> (21-10-2021 11.47 am)

## Internship report

### ORIGINALITY REPORT

25%	24%	6%	13%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

### PRIMARY SOURCES

1	only4programmers.blogspot.com	4%
	Internet Source	
2	zsoftsolution.co.uk	3%
	Internet Source	
3	Submitted to Daffodil International University	3%
	Student Paper	
4	www.computernetworkingnotes.com	2%
	Internet Source	
5	dipti.com.bd	2%
	Internet Source	
6	www.cisco.com	2%
	Internet Source	
7	www.experts-exchange.com	2%
	Internet Source	
8	www.ssdntech.com	1%
	Internet Source	
9	idoc.pub	1%
	Internet Source	