

INTERNSHIP ON CISCO CERTIFIED NETWORK ASSOCIATE (CCNA)

BY

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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.

**Supervised
By**

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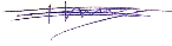
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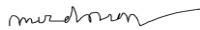
APPROVAL

This internship titled “INTERNSHIP ON CISCO CERTIFIED NETWORK ASSOCIATE (CCNA)”, submitted by Anirudha Sarkar, ID No: 182-15-11579 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 June 2, 2021.

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I hereby declare that, this internship report is prepared by me, Name: **Anirudha Sarkar** ID No: **182-15-11579** to the department of Computer Science and Engineering, Daffodil International University. Under the supervision of **Dewan Mamun Raza, Lecturer, Department of CSE** Daffodil International University. I also assure that neither this report nor any part of this report has been submitted anywhere for any kinds of award or degree. I also declare that neither this internship nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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Finally, I must acknowledge with due respect the constant support and patients of my parents.

ABSTRACT

As a student of CSE, I have completed my internship report in DIPTI (Daffodil International Professional Training Institute). The internship report is proposed for the completion of B.Sc. in Computer Science and Engineering. Ensuring minimal downtime and maximum continuity of a network is the main goal of a network service provider company. A student who wants to become a CCNA expert and gives the service to others is the main concept of this sector. To ensure maximum availability of a designed network is quite difficult to maintain for others. That's why it is important to learn. I develop myself to become a CCNA expert. It gives me the space to learn about Network fundamentals, OSI Model, TCP/IP, LAN switching technology, Routing Technology, WAN Technology, Infrastructure Services, Infrastructure security, Infrastructure Management. When some problem arise which is related these issues a CCNA expert can solve it. After completing this internship i learned a lot. Now i can imagine myself in the way to be a CCNA expert. In this report I can describe steps of configure in details.

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CHAPTER 1

INTRODUCTION

1.1 Introduction:

The internship provides hands-on experience and an introduction to computer support. Install, update, and maintain hardware, software programs, and network issues, as well as give user support. This internship will expose me to new experiences, communication issues and tasks, and interactions with coworkers. This internship provides me with the opportunity to obtain hands-on real-world experience in the networking industry; this internship allows me to get experience from specialists, which I will utilize in my professional life.

1.2 Motivation:

I work in the internship program in order to build my networking career. They can help the employee better learn new strategies and ideas for any company's growth. Represent the networking CCNA to encourage an organization to communicate with others. Always try to be an ideal research scientist and fit for a standard job in a dynamic enterprise. Organizations can expect different benefits if these experiences are implemented carefully.

1.3 Internships Objective:

Confident that the CCNA network sector expert's value was immense. Understand the principles that I wanted to learn to create a standard CCNA expert. Team inspiration, speed and self-reliance are needed to develop the capacity. Practical courses will build my sense and responsibility and give me the chance to make good habits. For all problems and the best performance, I can use my technical and management skills correctly. I want to implement my innovative ideas; skills and creativity for the internship to develop my networking profession.

1.4 Introduction to the Company:

Journey start with DIPTI Daffodil International Professional Training Institute: It began its journey as a traditional training facility. It has developed day after day. Now its courses have increased, and different positions have moved. It was slow, but in a different way, among all the others' institution. DIPTI has gone all past days and is now one of our country's finest institutions.

1.5 Mission:

Our objective is to provide standard services that entice people to join us. The standard quality of the training system and other facilities distinguishes us from the competition. We strive to provide top levels of service, efficiency, and quality at all times. Our mission is to develop the highest-quality, most-perfect manpower for the networking industry throughout the world.

1.6 Report Layout:

In Chapter One, I provide an overview of my internship as well as my thoughts on some fundamental concerns. Chapter one also includes motivation, internship objectives, and an introduction to the company. The final stage in this chapter is to define your vision and mission.

In the chapter Two Here I represent some fundamental CCNA issues. It is primarily an introduction to the internship program. Here is a summary of the present market condition and network carrier opportunities. In this chapter, the various types of jobs and network workers are also important.

In the chapter Three I represent here the process of configure Cisco software.

In the chapter Four I explain the skills here and it is the process it has gained. The final phase of this chapter is the intelligent plan.

In the chapter Five I told about discussions and findings, challenges and the scope of the future.

CHAPTER 2 ORGANIZATION

2.1 Introduction:

In Bangladesh today, there are many employees and this will be a great benefit for Bangladesh as standard quality and experts can be developed through practical work-orientated training through their real-life methodology. Most industries or companies currently rely on foreign workers for technological, mechanical and workplace consultation, which is a part of the current world's growth. Now, a network in which experts deal with everything is very important. If our workforce is expert than other countries, we can receive a refund as well. It helps to attract other people. When foreign investment will come to produce quality products, our skilled manpower will be able to promote more business. These are why Daffodil International Professional Training Institute should be established (DIPTI). DIPTI will therefore constantly work for those who are educated but unemployed, also to help professionals to develop and develop their careers.

2.2 Market Situation:

DIPTI tries to make a difference in the job market so that educated but unemployed persons can find work. Therefore, both qualified and unskilled people in our country begin professional development training. These classes offer the chance to learn real life and genius knowledge. That helps them really in their personal and professional life. Training programs for professional development provide more skills, skills, practical experience and so on. All DIPTI course courses are interactive, challenging, experiential and the real world of practice. DIPTI will work on to deal with potential measures, and help workers to makes working conditions and increase the promotion of workers work performance.

2.3 Career Opportunity:

Bangladesh's job market is now in a bad state. Some firms want to hire great employees, but they can't find many because we don't always complete the training sessions properly. As a result, we always give up. True, the market demonstrates that many firms are looking for qualified specialists in numerous disciplines, while a large number of unemployed persons are looking for work both inside and outside of our country. DIPTI and Job-Providing Industries and Companies collaborate to bring recruiters and job seekers together.

2.4 Job Placement Cell:

DIPTI maintains a Job Placement Cell that helps trainees find work. Students will submit their CVs after completing the course, and the authority takes this matter seriously because every job seeker is significant to them. Following the evaluation of CVs, the job placement cell will send CVs to particular companies for placement of trainees.

2.5 Resource Personnel:

We have a team of experts from a variety of reputable national and worldwide companies, associations, organizations, and educational institutions. FBCCI, DCCI, BMDC, BIAM, BIM, UNDP, World Bank, WHO, Private and Public university professors, and others are among the companies. A substantial number of resource professionals hold a PhD and have won international awards.

2.6 Link/ Affiliation/ Partnership:

We have connections, partnerships, and affiliations with a variety of local and international educational institutions, universities, and ICT enterprises, among other things. Bangladesh Technical Education Board (BTEB), Daffodil Education Network (DEN), University and Industry Alliance, University of Dhaka, and Daffodil Foundation are some of the organizations involved.

2.7 SWOT Analysis:

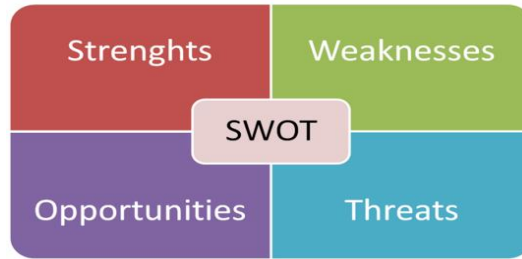


Fig. 2.1: SWOT Analyses

2.8 Strengths:

- Our Organization gives us real problems to solve and allows for buildup productivity.
- We can give better service for any other people very carefully.
- Our company respected employers that value its workforce is good.
- Our Training institute has strong moral values and moral mission statement.

2.9 Weaknesses:

- We have a small staff in our company.
- Sometime our company face little problem.
- Any such weaknesses could lead to major problems in the strategic planning of the company and can lead to worse situations.

2.10 Opportunities:

- Our training institute is developing day by day and with many future opportunities are coming for success.
- Opponent need to be fast and had to pick up new technologies.
- A lot of businesses want our company for help or additional facilities. Our company creates competent experts who can easily and effectively get a job.

CHAPTER 3

PROJECT TASK AND ACTIVITIES

3.1 Project Task and Activities:

We need to find out how to install Cisco Packet Tracer in this course. We work on it for a maximum of time to learn how to install.

Now we will download Packet Tracer, the latest version of which we are installing on the Windows system. When the download is complete, the folder containing the downloaded file must be opened.

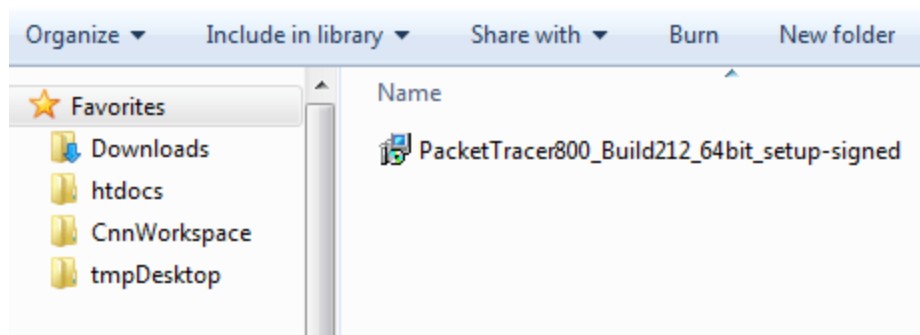


Fig. 3.1: Project Task and Activities

Double click on the Packet tracer's configuration or installer file. Windows may step up to confirm installation following collection of UAC (User Access Control) data. To make sure it is installed, you should click the Yes button. The installation process begins in a graphical wizard after confirmation.

License agreement on the first page of the installation wizard. Select the option "I agree" and click the button "Next."

3.2 Cisco Packet tracer setup:

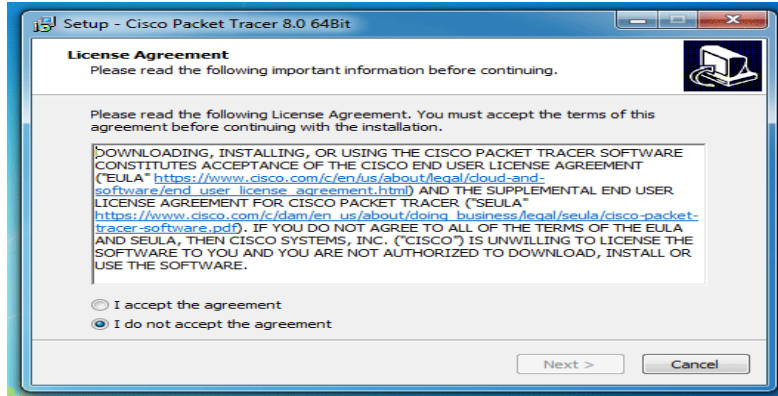


Fig. 3.2: Cisco Packet tracer setup

In the next screen, the installation directory can be adjusted. The "Program File" folder of the Windows partition installs a Packet Tracer by default. To install Packet Tracer into a separate folder, click the button Browse and select the folder in which Packet Tracer will be installed. To continue the installation of the next part click the Next button.

3.3 Select Destination Location:

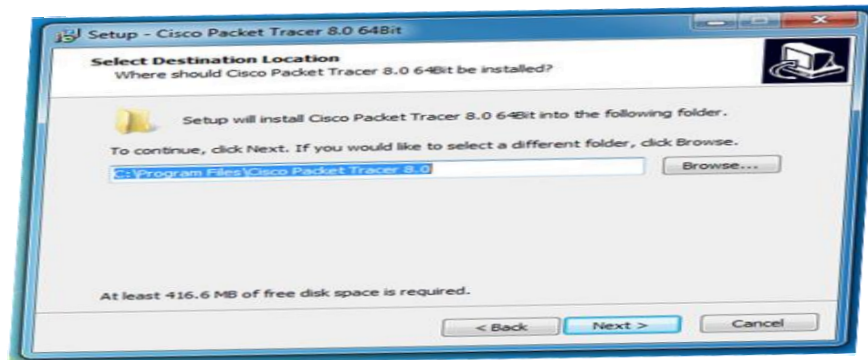


Fig. 3.3: Select Destination Location

The following page enables us to personalize your Packet Tracer shortcut name and location in the Start menu. To start an application from the Start menu, a shortcut-link name is used. The wizard uses the name of the folder name as well as the shortcut link

name of "Cisco Packet Tracer" by default. Default selections should be kept and Next should be clicked.

3.4 select Start Menu Folder:

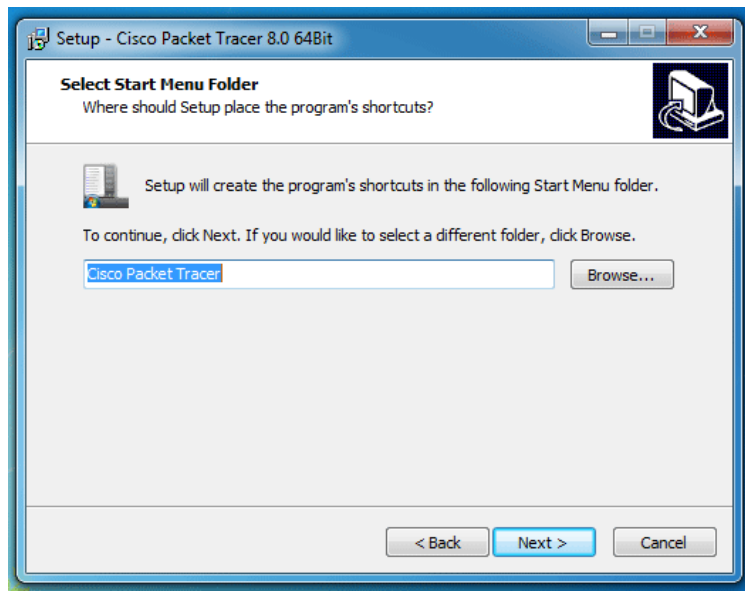


Fig. 3.4: Select Start Menu Folder

On the following page, we can create two more Packet Tracer shortcut links.

Creating a desktop icon: - Create a desktop shortcut link.

Create a fast-start icon: - This option provides the Quick-Launch bar with a shortcut.

Choose and click the Next button.

3.5 Select additional tasks

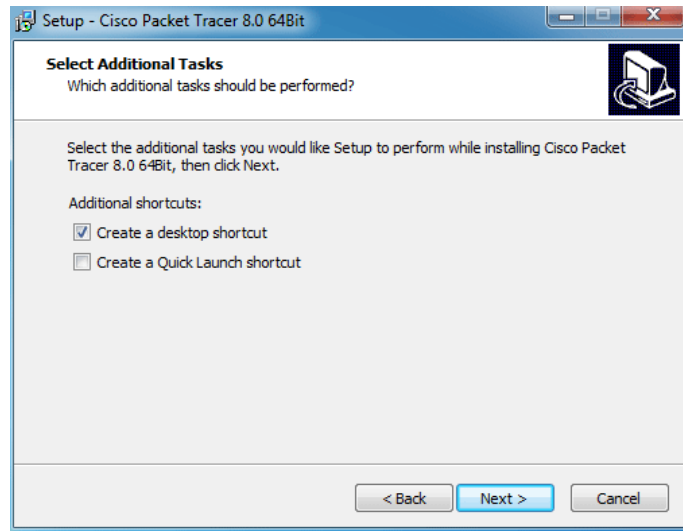


Fig. 3.5: Select additional tasks

The selections are summarized on the following page. Use the Back button to return to the previous screen and modify an option. Click the Install button to begin the installation with the currently selected choices.

3.6 Ready to Install:

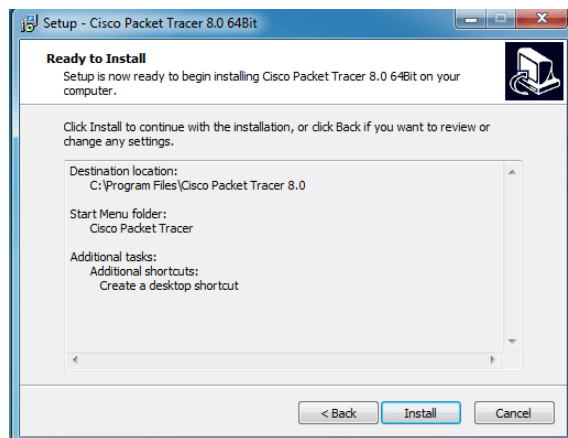


Fig. 3.6: Ready to Install

The wizard displays the real-time progress of the installation.

3.7 Installation:

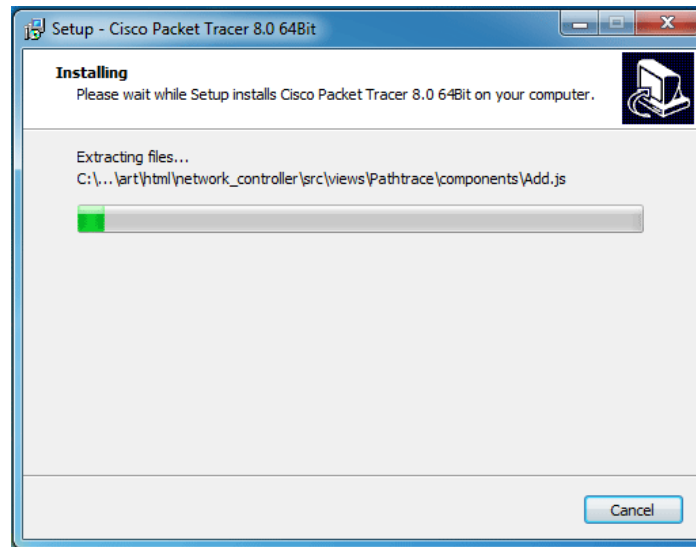


Fig. 3.7: Installation

The wizard's final screen displays the installation's outcome. This screen reveals any errors that happened during the installation. When an error occurs, the user is always notified. This screen displays the confirmation message if the installation process has completed without error or notice. This screen displays an option to run the Packet Tracer if the installation was successful. The packet tracer will start when the wizard is closed if you keep this option enabled. To exit the wizard, click the Finish button.

3.8 Setup wizard:

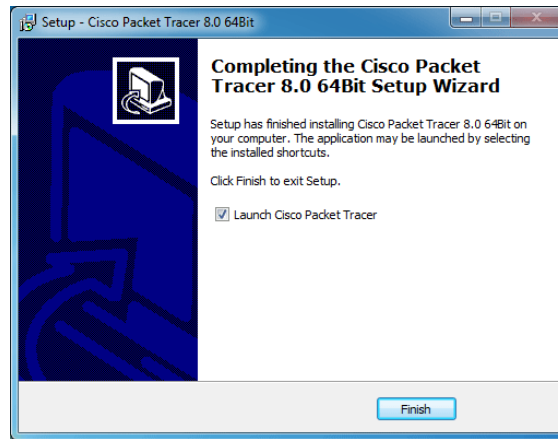


Fig. 3.8: Setup wizard

When Packet Tracer first starts up, it prompts the user to choose the mode in which it should run. Multiple users can work at the same time in multi-user mode. Click No if you don't wish to share or swap your packet tracer instance.

3.9 Activating Packet Tracer:

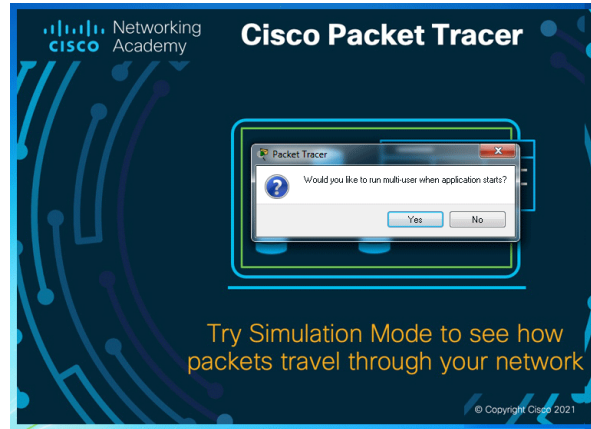


Fig. 3.9: Activating Packet Tracer

Packet Tracer may only be used after logging in since version 7.0.0. When Packet Tracer is started, it displays a login box. You can use the Guest account to access Packet Tracer if the system is not connected to the Internet. To use a guest account, click the Guest login button on startup.

3.10 Login Form:

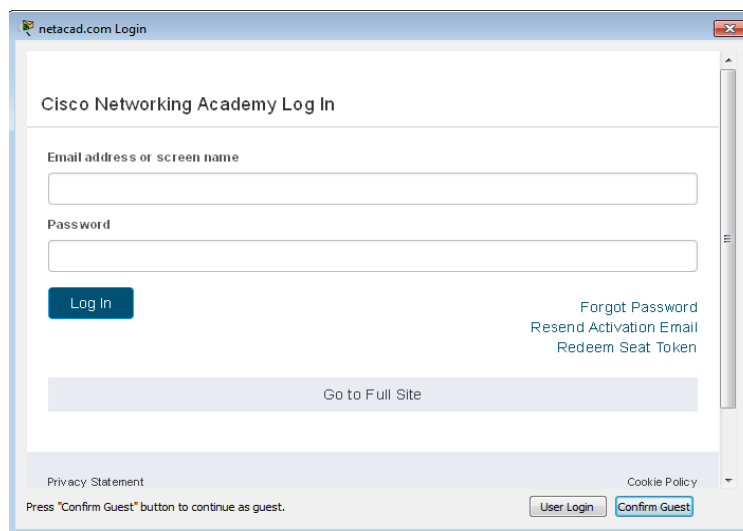


Fig. 3.10: Login Form

The guest account offers limited features. This account allows you to save only 3 practice labs.

3.11 Guest save:

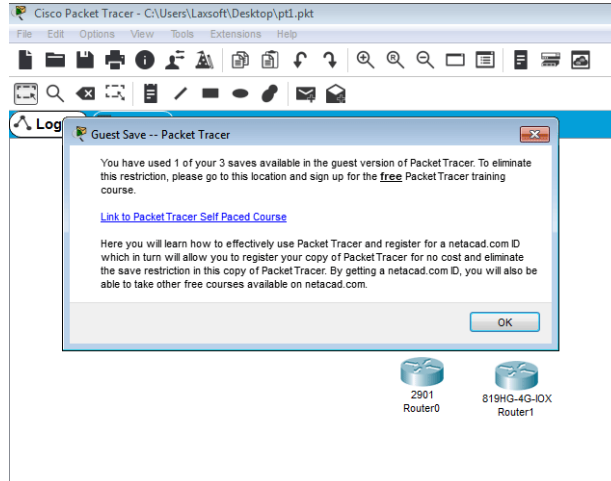


Fig. 3.11: Guest save

To remove this restriction, you must log in to Packet Tracer from a Cisco Academy account.

3.12 Sign Up:

The screenshot shows a web browser at the URL <https://www.netacad.com/courses/packet-tracer/introduction-packet-tracer>. The page header includes the Cisco Networking Academy logo and the breadcrumb 'Courses / Packet Tracer Courses / Intro to Packet Tracer'. The main content area features a blue header with the text 'Packet Tracer Introduction to Packet Tracer' and a sub-header 'Discover and troubleshoot using powerful networking simulation tool.' Below this is a paragraph of text: 'Enroll, download and start learning valuable tips and best practices for using Cisco's innovative simulation tool, Packet Tracer. This self-paced course is designed for beginners with no prior networking knowledge. It teaches basic operations of the tool with multiple hands-on activities helping you to visualize a network using everyday examples, including Internet of Things (IoT). Introductory course is extremely helpful for anyone who plans to take one of the Networking Academy courses which utilizes the powerful simulation tool.' To the right of the text is a vertical list of course details, each with a circular icon: 'Length: 10 hours' (clock icon), 'Cost: Free*' (dollar sign icon), 'Level: Beginning' (graduation cap icon), 'Learning Type: Online self-paced' (person at computer icon), and 'Languages: English' (globe icon). At the bottom left of the course details is a yellow button that says 'Sign up today!'. A blue arrow points from the 'Cost: Free*' icon to the 'Sign up today!' button, and an orange arrow points from the 'Sign up today!' button to the left.

Fig. 3.12: Sign Up

Visit the above web-page and create a free user account and use that user account to login to Packet Tracer.

3.13 Cisco Packet Tracer Front Page:

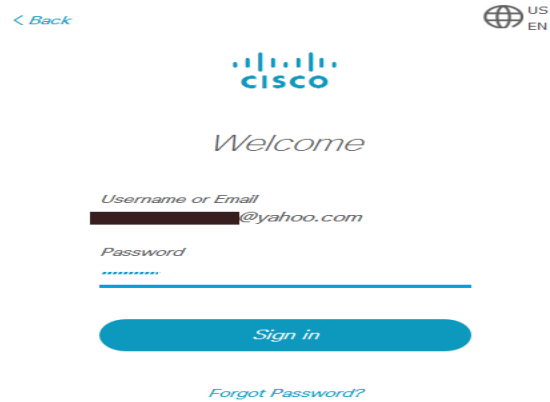


Fig. 3.13: Cisco Packet Tracer Front Page

Packet Tracer will be activated and all restrictions will be removed after successful authentication. Packet Tracer automatically remembers login information and uses that information to log in when you start Packet Tracer again the following time to deliver a hassle-free experience. Unless you manually log out, the Packet Tracer will not prompt you to login again.

CHAPTER 4

COMPETENCIES AND SMART PLAN

4.1 Competencies Earned:

To support the internship in developing competency in a variety of tasks in the practice of CCNA in order to graduate as competent entry-level professionals. Regardless of the complexity of the system you work on, this framework standard defines ways to increase the competences that support your success. With correct assistance for refining three main areas of internship management competency, you can improve your ability and capacity for personal growth. Performance, technical knowledge and skills, and personal behavior and attitudes are among them. The internship was a great experience for me. Competency Development also provides information for establishing a company competency development process that companies can use for the co-development of employees.

4.2 Smart plan:

The acronym SMART stands for Specific, Attainable, Measurable, Relevant, and Time-bound, and it is used to describe a standard for creating goals and objectives. The notion is that in order to be effective, every internship goal must correspond to the SMART standard. To be honest, any type of business that has a unique technique that is not followed by other businesses.

4.3 Reflections:

- i. Training on CCNA assure work life balance.
- ii. My internship confers me scale between personal life and work.
- iii. It helps having knowledge of balance will improve job getting possibility.
- iv. My work environment is transparent and open form of communication.
- v. Daffodil International Professional Training Institute confer me training and develop my efficiency in my practical work time.
- vi. DIPTI taught us that team work is most important for any organization.
- vii. Everybody working by to achieve a bigger goal in their individual work place.

CHAPTER 5

CONCLUSION AND FUTURE CAREER

5.1 Discussion and Conclusion:

My internship lasted a total of five months. The purpose of my constant work in the proposed system was to create an internship through which I was able to learn CCNA and make every task of the accommodation information and communication easier for the various types of clients and users.

The IT sector in Bangladesh is dominated by the CCNA certification. It necessitates a great deal of opportunity, but if the learning experience can be executed effectively and thoroughly, Bangladesh will have a very bright future in the near future.

5.2 Future Scopes:

Everyone who has completed the internship has some features that we can add or improve, if time permits. The value of a CCNA specialist in today's environment is pretty great. More updates should be made to the CCNA work system management. The aid of a software person will change the world in the near future. To create a revolution to get better idea how an efficient and intelligent space conservation system can be implemented. I'm waiting for a few opportunities and helps us improve our career. CCNA's market position in IT is very good. I would therefore like to build my career and know my new system to improve my career.

APPENDICES

Appendix A: Internship Reflection

It is easy for me to identify an internship as a learning experience or vice versa, but more work will be needed to identify the positive and negative aspects of the experience. Make sure I write about all the stages of my report.

Understanding our workplace preferences makes clear what I want more and what I want to avoid next time and my chances of finding out what is next are significantly higher. An internship can be evaluated by dividing it into their main components first. Then consider each element's value (negative and positive).

Appendix B: Company Details:



Fig. 5.1: Daffodil International Professional Training Institute

For technical advice and implementation, Bangladesh relies on foreign employees and slows our economic growth in the emerging world.

It is therefore necessary to develop qualified workforce to attract more foreign investment and also to promote quality companies in the production of quality products. This question encouraged us to found the Daffodil International Institute of Vocational Training (DIPTI). DIPTI will therefore work in this field for trained but unemployed people; it will also help professionalism to develop and establish their careers.

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Dhaka, 1205.

Phone: +8801713493233

Email: info@dipti.com.bd

Reference:

- [1] Learn about CCNA: <https://www.google.com/search?sxsrf=ALeKk00a1t8pN6ext5UbmRHkOXhZnJ-jow:1622557156197&q=Cisco+Packet+Tracer+online&sa=X&ved=2ahUKEwjDvbC30PbwAhVX63MBHRMkCdUQ1QIwJXoECAcQAQ&biw=1366&bih=625> < Last accessed: 12- Aug- 2020>
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[10] Learn about CCNA install:
<https://www.google.com/search?sxsrf=ALeKk03yZdgJT413bQLRQAQLFjC0e23PYw:1622557790113&q=Cisco+Packet+Tracer+student+download&sa=X&ved=2ahUKEwj73tPl0vbwAhV7yzgGHYA2DW4Q1QIwIXoECA4QAQ&biw=1366&bih=625> [Last accessed: 02 - Mar – 2021]

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