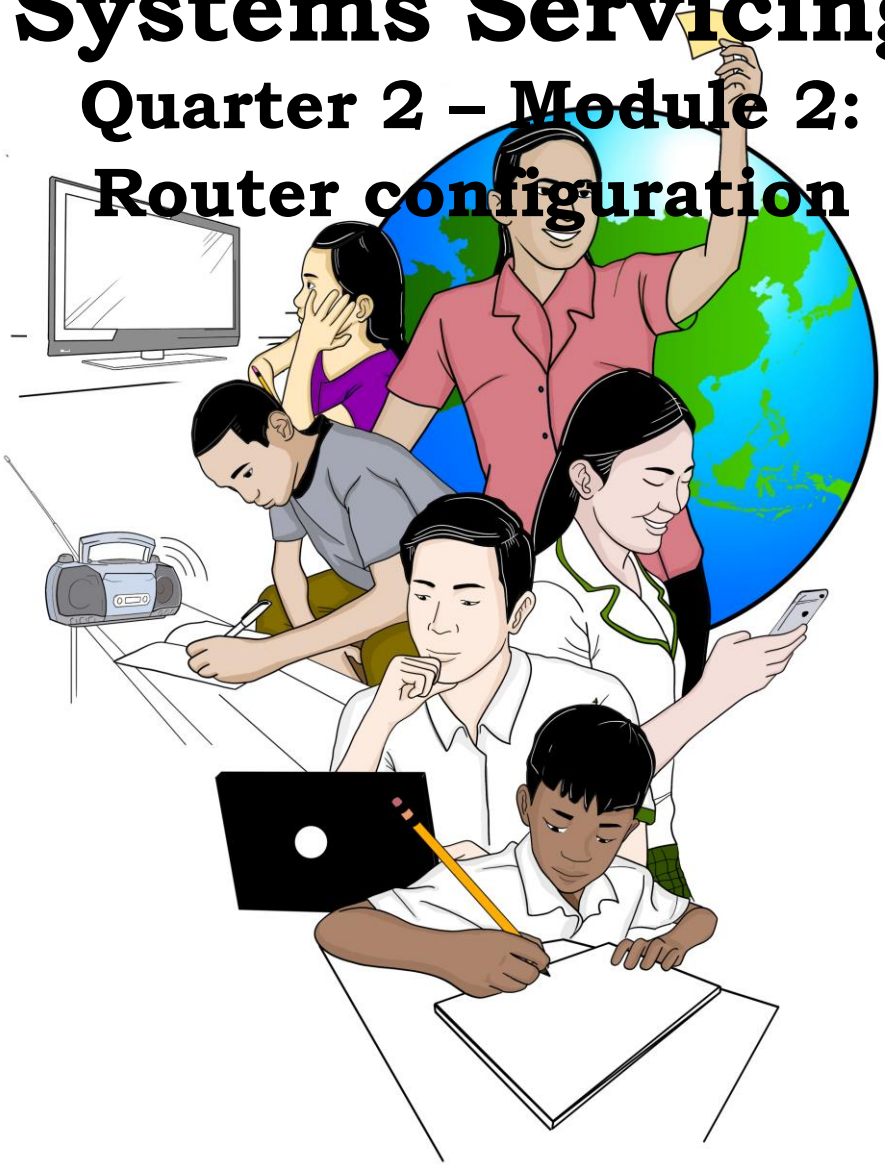
12

TVL - Computer Systems Servicing

Quarter 2 – Module 2: Router configuration



SELF-LEARNING MODULE

Week 3-4

GENSAN's ProTUNA
General Santos City's Pro-Active Response
in Turbulent, Uncertain, New and Ambiguous Environment

DIVISION OF GENERAL SANTOS CITY

Computer Systems Servicing – Grade 12
Self-Learning Module (SLM)
Quarter 2 – Module 2: Router configuration
First Edition, 2020

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Computer Systems Servicing

Quarter 2 – Module 2
Router configuration

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DIVISION OF GENERAL SANTOS CITY

DepED DEPARTMENT OF EDUCATION

Introductory Message

For the facilitator:

Welcome to the Computer Systems Servicing 12 Self-Learning Module (SLM) on router configuration!

This module was collaboratively designed, developed and reviewed by educators both from public and private institutions to assist you, the teacher or facilitator in helping the learners meet the standards set by the K to 12 Curriculum while overcoming their personal, social, and economic constraints in schooling.

This learning resource hopes to engage the learners into guided and independent learning activities at their own pace and time. Furthermore, this also aims to help learners acquire the needed 21st century skills while taking into consideration their needs and circumstances.

In addition to the material in the main text, you will also see this box in the body of the module:

Notes to the Teacher

This contains helpful tips or strategies that will help you in guiding the learners.

As a facilitator you are expected to orient the learners on how to use this module. You also need to keep track of the learners' progress while allowing them to manage their own learning. Furthermore, you are expected to encourage and assist the learners as they do the tasks included in the module.

For the learner:

Welcome to the Computer Systems Servicing 12 Self-Learning Module (SLM) on router configuration!

The hand is one of the most symbolized part of the human body. It is often used to depict skill, action and purpose. Through our hands we may learn, create and accomplish. Hence, the hand in this learning resource signifies that you as a learner is capable and empowered to successfully achieve the relevant competencies and skills at your own pace and time. Your academic success lies in your own hands!

This module was designed to provide you with fun and meaningful opportunities for guided and independent learning at your own pace and time. You will be enabled to process the contents of the learning resource while being an active learner.

This module has the following parts and corresponding icons:

 ***What I Need to Know***	This will give you an idea of the skills or competencies you are expected to learn in the module.
 ***What I Know***	This part includes an activity that aims to check what you already know about the lesson to take. If you get all the answers correct (100%), you may decide to skip this module.
 ***What's In***	This is a brief drill or review to help you link the current lesson with the previous one.
 ***What's New***	In this portion, the new lesson will be introduced to you in various ways such as a story, a song, a poem, a problem opener, an activity or a situation.
 ***What is It***	This section provides a brief discussion of the lesson. This aims to help you discover and understand new concepts and skills.
 ***What's More***	This comprises activities for independent practice to solidify your understanding and skills of the topic. You may check the answers to the exercises using the Answer Key at the end of the module.

 ***What I Have Learned***	This includes questions or blank sentence/paragraph to be filled in to process what you learned from the lesson.
 ***What I Can Do***	This section provides an activity which will help you transfer your new knowledge or skill into real life situations or concerns.
 ***Assessment***	This is a task which aims to evaluate your level of mastery in achieving the learning competency.
 ***Additional Activities***	In this portion, another activity will be given to you to enrich your knowledge or skill of the lesson learned. This also tends retention of learned concepts.
 ***Answer Key***	This contains answers to all activities in the module.

At the end of this module you will also find:

References	This is a list of all sources used in developing this module.

The following are some reminders in using this module:

1. Use the module with care. Do not put unnecessary mark/s on any part of the module. Use a separate sheet of paper in answering the exercises.
2. Don't forget to answer *What I Know* before moving on to the other activities included in the module.
3. Read the instruction carefully before doing each task.
4. Observe honesty and integrity in doing the tasks and checking your answers.
5. Finish the task at hand before proceeding to the next.
6. Return this module to your teacher/facilitator once you are through with it.

If you encounter any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator. Always bear in mind that you are not alone.

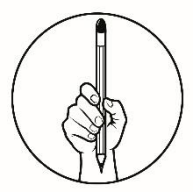
We hope that through this material, you will experience meaningful learning and gain deep understanding of the relevant competencies. You can do it!

What I Need to Know

This module was designed and written with you in mind. It is here to help you master router configuration. The scope of this module permits it to be used in many different learning situations. The language used recognizes the diverse vocabulary level of students. The lessons are arranged to follow the standard sequence of the course.

After going through this module, you are expected to:

1. explain the functions of a router;
2. identify the difference between a switch and a router; and
3. configure a router, LAN and login settings.



What I Know

Before we start our lesson, I would like to know about what you learned about switches and routers as well as their configurations.

Choose the letter of the correct answer. Write your answer on a separate sheet of paper.

_____ 1. What network device connects a local network to other networks?
a. Network Interface Card
b. router
c. switch
d. wireless repeater

_____ 2. Which term is referred to for routers to receive and transmit data packets to and from networks?
a. portal
b. gateway
c. doorway
d. threshold

_____ 3. How do routers know exactly which device it needs to transmit the received data?
a. through email address
b. through the device's IP address
c. through the location of the device
d. through the device's MAC address

_____ 4. A switch has the ability to assign IP addresses to devices connected to it. Is this statement correct?
a. correct
b. partly correct
c. not correct
d. missing something to become correct

_____ 5. Can a router function like a switch?
a. Yes
b. No
c. No in some ways
d. Yes but not entirely

_____ 6. Which of the following statements is true?
a. A switch has the capacity to connect devices wirelessly
b. The router has the capacity to connect devices wirelessly
c. Both routers and switches has the capacity to connect devices wirelessly
d. Both routers and switches has no capacity to connect devices wirelessly

_____ 7. How do you reset a router?
a. by turning off the device
b. by configuring through its menu
c. by unplugging it from the modem
d. by pressing the reset button for 5-10 seconds

_____ 8. In which port in the router should you plug in the other end of your computer's LAN cable?

a. WAN port
b. LAN port 1 only
c. any of the LAN ports
d. LAN port 1 and 4 only

_____ 9. What is the usual default user name and password of the router?

a. user and 1234
b. admin and 1234
c. admin and admin
d. user and P@ssword

_____ 10. What details can be found at the back of the router?

I. User name and password
II. IP address of the router
III. Wi-Fi password

a. I and II are correct
b. I and III are correct
c. II and III are correct
d. all are correct

_____ 11. What makes a strong password?

a. lowercase letters only
b. lowercase and uppercase letter
c. combine numeric and special characters
d. combination of lowercase and uppercase letters, numbers and special characters.

_____ 12. What is the usual default IP address of the router?

a. 192.168.0.0
b. 192.168.0.1
c. 192.168.2.0
d. 192.168.1.1

_____ 13. Which of the following statements is true?

a. router passwords and Wi-Fi passwords are different
b. router passwords and Wi-Fi passwords are the same
c. router passwords are partly the same with Wi-Fi passwords
d. all statements are wrong

_____ 14. Which setting can a router's user name and password be changed?

a. Network
b. Security
c. Wireless
d. System Tools

_____ 15. Which switch port should one connect the LAN cable from the router in order for the network to connect to the internet?

a. port 1 only
b. last port only
c. any of the ports
d. port 1 or last port only

_____ 16. What does a router do when it receives data packets that are not meant for its own network?

a. it deletes it
b. it receives it
c. it sends if off
d. it sends it back to the sender

_____ 17. How many LAN ports does a home router have?

a. 2 b. 4 c. 8 d. 16

_____ 18. What system does a router have that makes it capable of assigning IP addresses to devices connected to it?

a. WPS
b. DHCP
c. forwarding
d. MAC Addressing

_____ 19. What command is issued in the command prompt to identify the IP address of your computer?

a. ping
b. route
c. telnet
d. ipconfig

_____ 20. Which setting can a router's LAN IP address be changed?

a. DHCP
b. network
c. security
d. access control

Lesson 2 Router Configuration

Hello! It is fulfilling to learn new skills and learning how to network several computers is an accomplishment. However, as the demand of the network rises, so is our need to learn more.

In this module, you will learn the functions of a router and how it differs from a switch. Are you excited to learn how to connect your computer to the internet? What about connecting your newly created network to the internet?

Prepare yourself as we learn to configure LAN and login settings for the router.

After going through this module you are expected to:

- configure LAN in accordance with manufacturer's instructions and network design.

What's In

Let's recall what you have learned from the previous lesson by answering the following questions:

1. What are switches? When are they used in the network?
   _____
   _____

2. Is a switch faster than a hub? Explain your answer.
   _____
   _____

3. Why do we change the computer name and workgroup when our device is connected to a network?
   _____
   _____

4. Explain/demonstrate how to configure the computer name and workgroup.
   _____
   _____

5. Explain/demonstrate how to configure IP address of the computer in an Ethernet.
   _____
   _____

What's New

From our previous lesson, you were given two scenarios where network requirements are increasing. Let us recall them here to see the progression of our network from being simple to a more complex network.

Scenario 1

You were paired with your seatmate and tasked by your Media and Information Literacy teacher to create a Video log about "Tips on how to avoid Covid-19 disease". At first, only the two of you are sharing the task and therefore sharing videos, scripts and other documents from your laptops. As as a CSS student, how are you going to share resources in an easiest way possible?

Here we can solve this scenario by connecting your laptops using a crossover LAN cable in order to share resources.

Scenario 2

The following day, one of your classmates, who was absent the previous day, is assigned to join you and your partner. Now, there are three of you who are going to share resources for your VLOG. How are you going to address your connectivity issue? How are you going to network the 3 computers and what devices are you going to use?

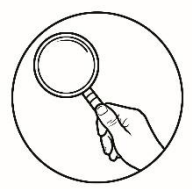
In this second scenario, we can solve this by adding a device that can handle multiple exchange of data simultaneously and that is the *switch*. In this solution, you can actually connect not only 3 computers but you can add more if in case your MIL teacher wants to add more members to your group considering that the limit to the network is the available number of ports your switch has.

Let us now consider Scenario 3.

Scenario 3

As you worked on your project VLOG, you felt the need to communicate and share files online. In short, your small network now needs to connect to a wider network which is the Internet. How are you going to address this situation?

As you can see, your network demand is again higher than the previous one. Another device is needed in order to address this issue and we will discuss and configure this device in this lesson.



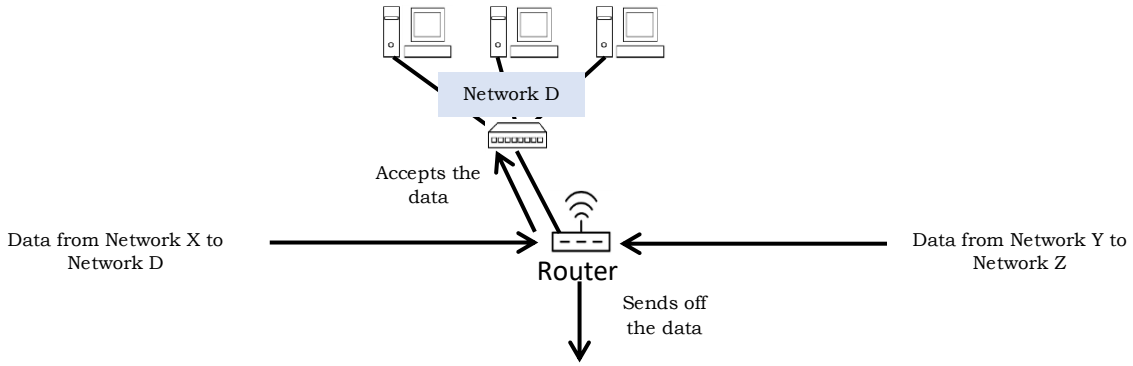
What Is It

WHAT IS A ROUTER?

A router is a network device that connects a local network to the internet. From its root word route, it routes data from one network to another based on their IP address. Therefore it is what you need in order for the data in your group's network to be transmitted outside your local network and at the same time access the information superhighway, the internet.

How does a router work?

When a router receives data packets from other networks, it inspects the data's IP address. It then determines if the data is meant for its own network or for another network. When the router determines that the data is for its own network, it receives the data. If it determines that the data is not for its own network, it sends it off to another network. The router is then the gateway of your network. It serves as an entrance and exit of data in your network.



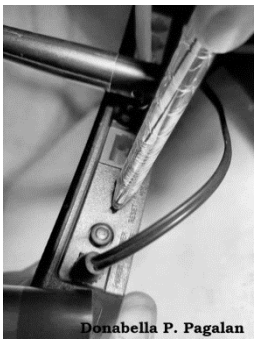
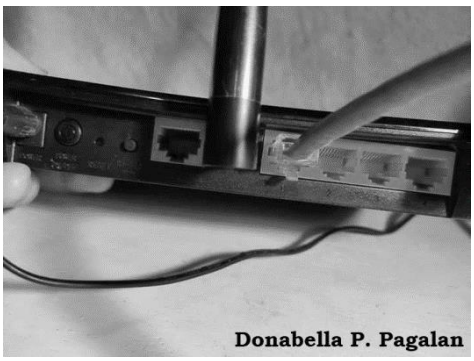
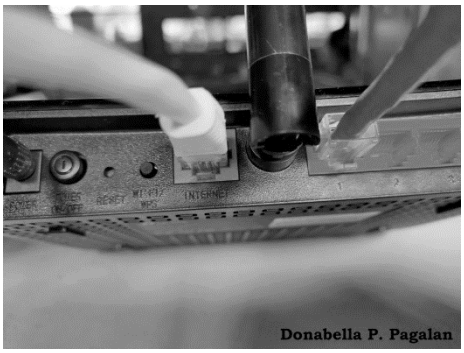
Switches and Routers

Based on our illustrations so far, switches and routers have distinct functions in the network. Here's a table of their functions for clarity.

Switch	Router
Creates networks	Connects networks
Allows exchange of data within the network	Allows exchange of data from the local network to other networks
• In a way, functions as a router within its network but cannot communicate outside its network • Limited to LAN and not possible for WAN because switches do not have WAN ports	• Can function as a switch but is limited to the number of ports available on it • It cannot expand to more computers other than those that can connect to the available Ethernet ports
Does not have the capacity to assign IP addresses to computers within the network. It needs to be manually assigned per computer.	Can automatically assign IP addresses to the computers connected to it through DHCP.
Confined to wired LAN	Has a wireless LAN capability

SETTING UP CONNECTION USING A ROUTER

Steps

1. Plug in the power cord of the router to the power source and turn it on.	
2. Reset the router by pressing the reset button for at least 5 to 10 seconds.	
3. Plug in LAN cable to LAN port in your computer	
4. Plug the other end of the UTP/LAN cable to any of the 4 Ethernet ports of the router. They all work the same way.	
5. Plug the LAN cable from your modem, to the internet port in your router. You are good to go with this setup. It is now time to configure the router.	

Configuring the Router

Routers come with manuals that teach you step-by-step instructions on how to setup your router. However, there are instances that manuals are not available especially if you are just borrowing a router or perhaps bought it as a second hand unit.

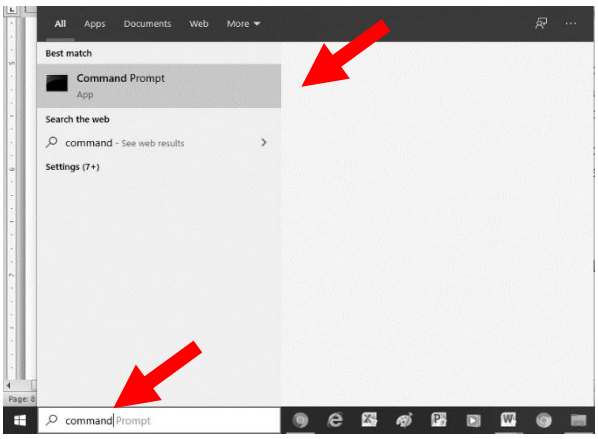
First we need to know the initially assigned IP address of the router. We will change this IP address later. Before we configure the router, make sure you are not connected to any wireless network. For TPLink router used link for emulator if you want to practive online.

https://emulator.tp-link.com/EMULATOR_wr840nv4_eu/index.htm

Here are the steps to know the IP address of the router:

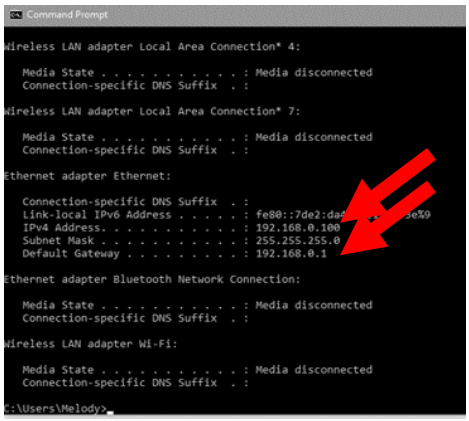
1. Type command in the search bar in your windows taskbar. Best match will show command prompt and click it.

2. In the command prompt, type **ipconfig** and press **enter**



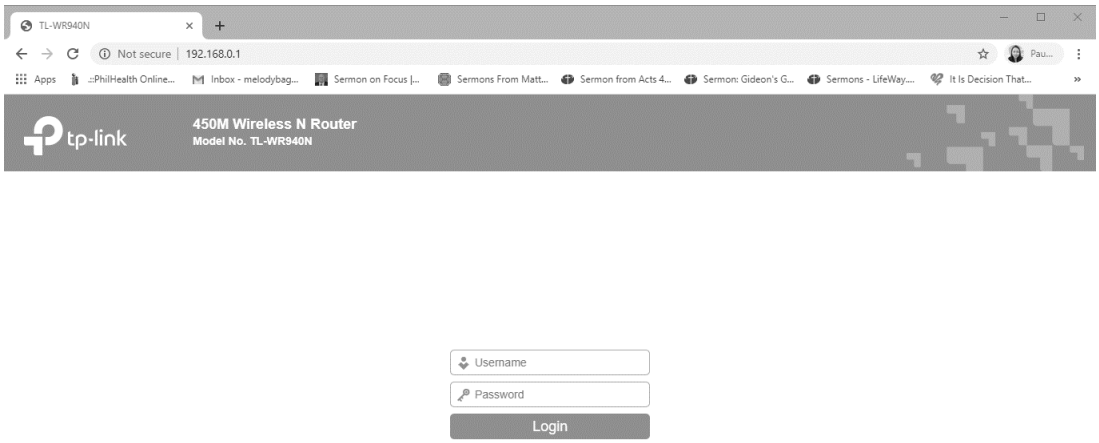
Command prompt will then show you a list of IP addresses. In this example the computer's addresses are as follows:
IPv4 Address : 192.168.0.100
Default Gateway : 192.168.0.1

The IPv4 Address 192.168.0.100 is assigned by the router to your computer when you connected to it. The default gateway 192.168.0.1 then is the IP address of the router. This address is not always the same with the other routers depending on the manufacturer setting but mostly, it is.



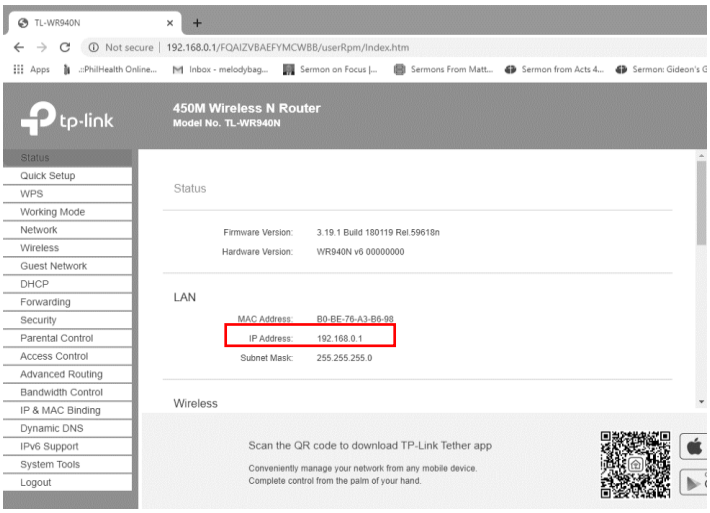
3. Now that you know the IP address of your router, open a Web Browser (Chrome, Internet Explorer and the like) and type in the IP address 192.168.0.1 in the address bar.

The browser will then prompt you to login into the router.



4. Input the default username and password of the router which are usually found at the back of the device. In this case which is usually the norm, the username is **admin** and the password is **admin** too.

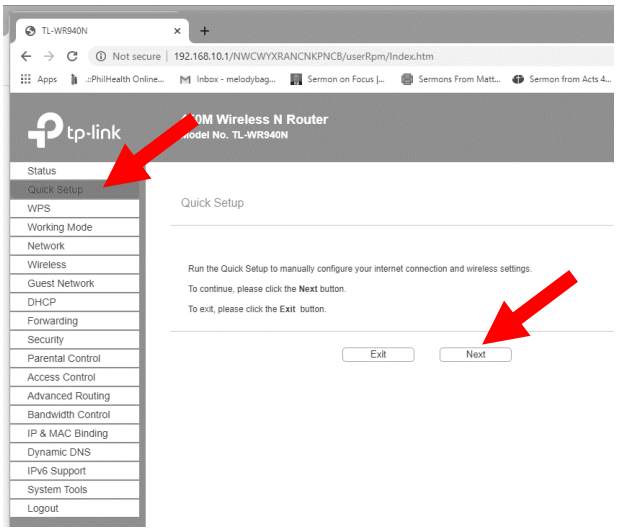
5. Browser will then open the router configuration interface.

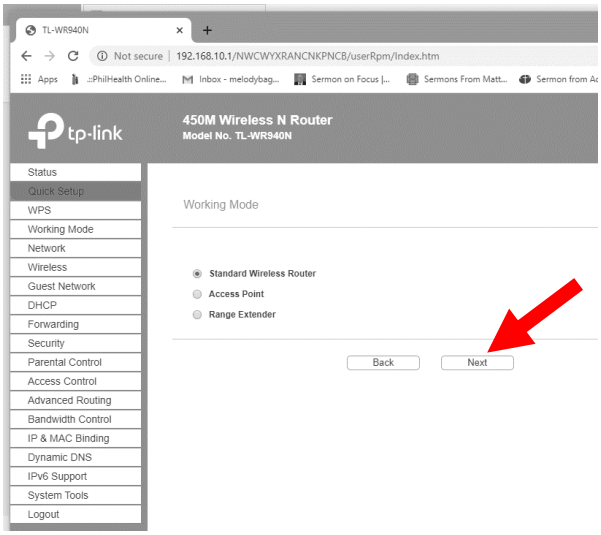


A. Quick Setup

You may or may not perform a quick setup. But if you decided to run one, you may follow the steps below.

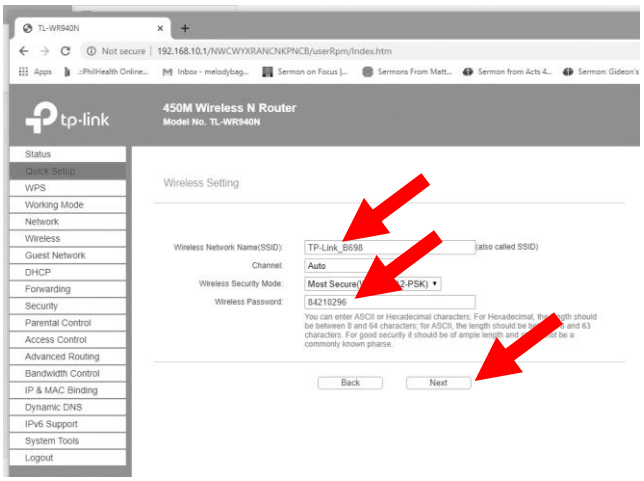
1. Click Quick Setup and click Next
2. Choose StandardWireless Router and click Next

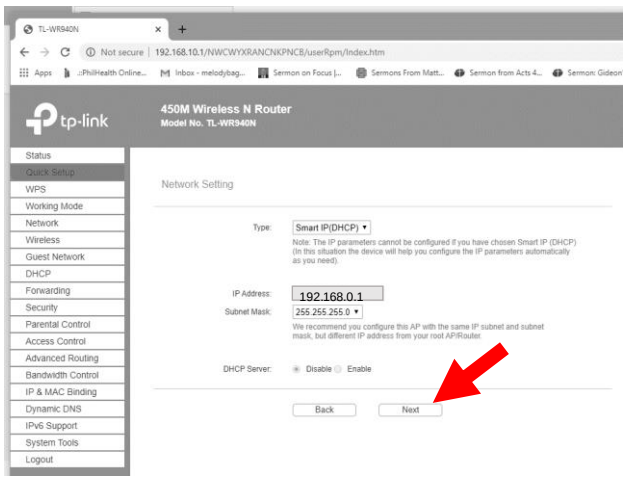




For this router, the default SSID name is TP-Link_B698. This is the name assigned by the manufacturer and the Wireless Password is 84210296 which can be found at the back of your router. You may change the Wireless Network Name (SSID) and the password. Or you may also do it later.

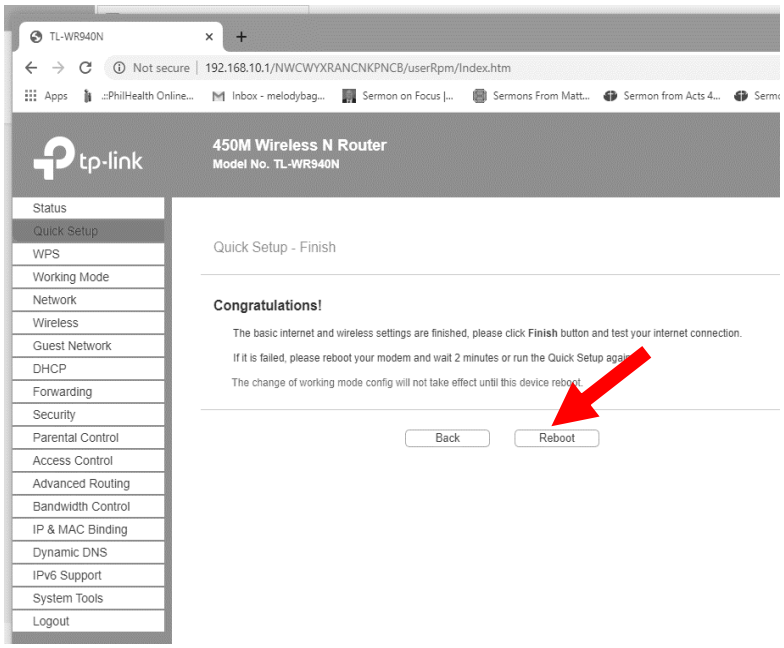
3. Click Next





4. Congratulations you finished the router's quick Setup. Then it will prompt you that the router will reboot. Just click Reboot button.

You will then be able to access the Internet with your computer. Go ahead and check Google!

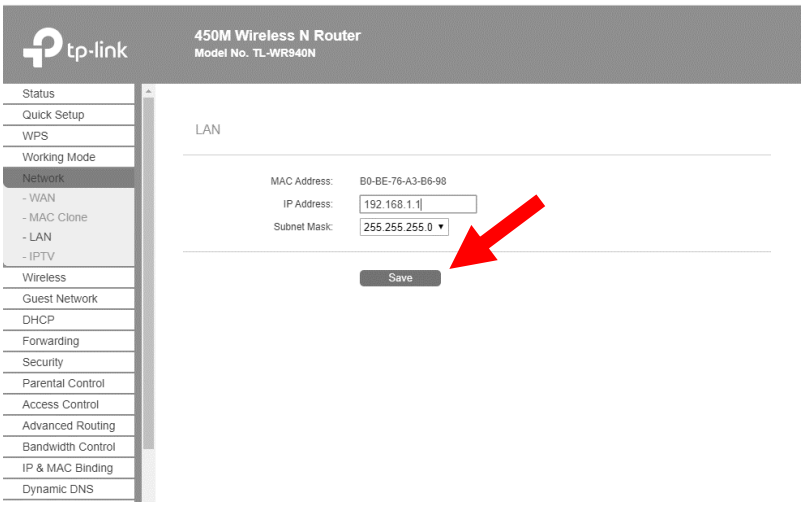


We now need to change the router's LAN IP Address. Why are we doing this?

As you can see from the picture above that the IP address is 192.168.0.1 which is initially assigned by the manufacturer. IT people or IT inclined enthusiasts are usually aware of this default manufacturer IP address. Therefore if they are trying to connect to your router, they would first try the manufacturer default settings hoping that you did not change it. Then worse, they will be able to login to your router if you also did not change its default login details. It is then a good practice to first change your IP address so that these wanna-be-network-members would have to think of a thousand combinations of IP addresses before they could figure out your router's IP address. This would be no good if they know "ipconfig". If they happen to figure out the IP address with the use of this command, then you have a second line of defence which is the User-defined User Name and password. Therefore, we are changing them first.

B. Configure router LAN IP Address

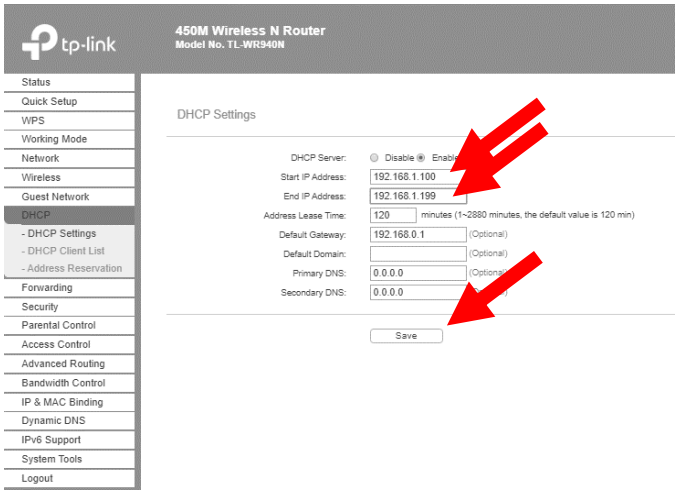
1. Go to Network and click LAN. Then change the details of the IP address. In this case you changed the 0 into 1. Usually, the last two parts or octet of the IP address is changed because the first two parts or octet is your network ID that tells what class of IP address you have. You learned this lesson in the previous quarter. Then click save.



2. Browser will prompt that the router will reboot. Just click okay. It will ask you to login again.

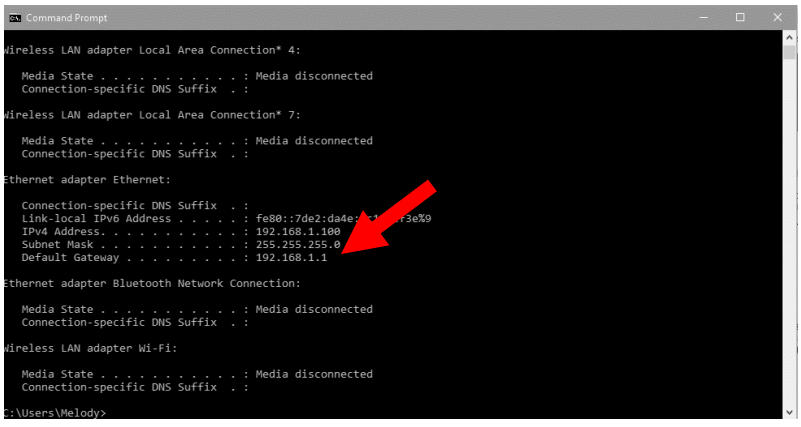
3. Go to the DHCP tab and change the start IP Address and End IP address, then click Save.

These will be the IP addresses that will be given to all the computers that will connect to the router. We will further discuss DHCP in the next lesson.



4. Check if the change in the gateway's IP address took place by issuing **ipconfig** command again in the command prompt.

This time, it shows that the change in IP address was successful.



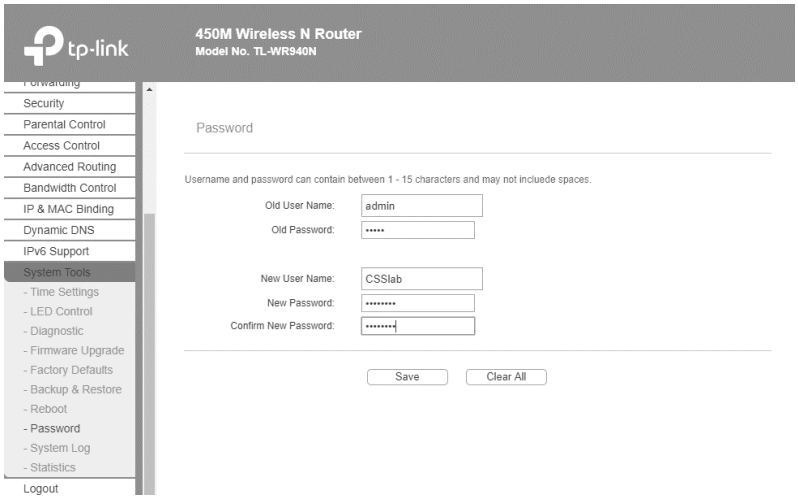
Congratulations for a job well done! Now it's time to complete the login setup.

C. Change router login data (username and password)

Router password and Wi-Fi passwords are different. Router password is used when you login to the router. Wi-Fi password is used when you login to Wi-Fi provided by the router.

1. Click system tools and choose password

2. Then input the default username and password and also input the new username and password. Make sure your password is strong by combining uppercase letters with numbers and symbols.



Old User Name : admin
Old Password : admin

New User Name : CSSLab
New Password : P@ssword101
Confirm New Password : P@ssword101

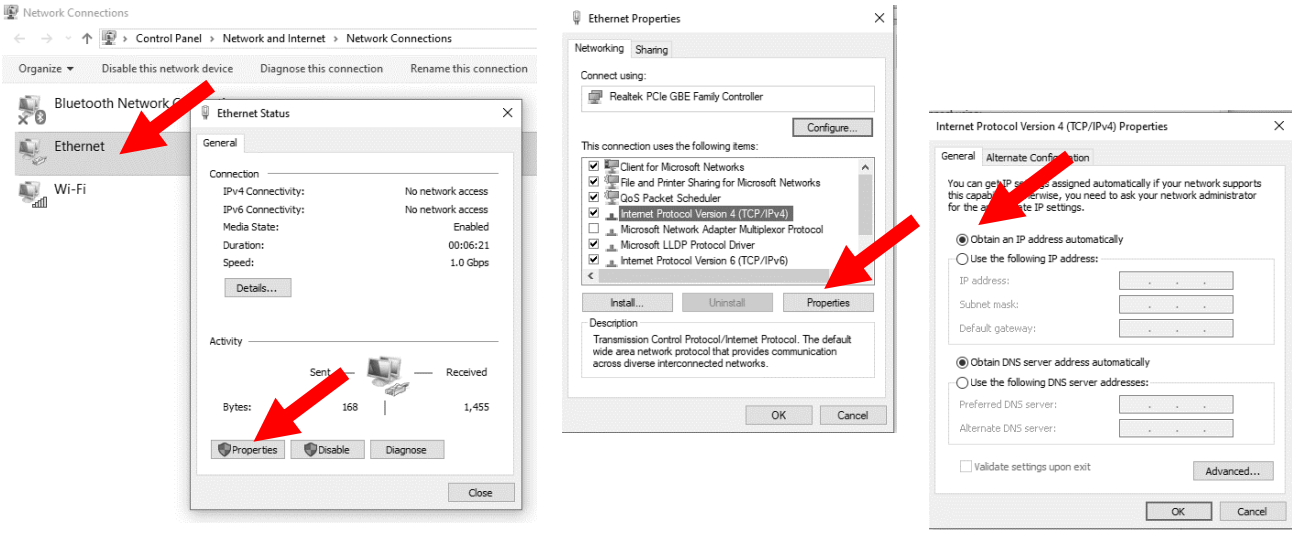
Click the save button and the browser will ask you to log in again with the new User Name and Password this time.

Congratulations for changing your login details! You are now safe from worrying about the router intruders.

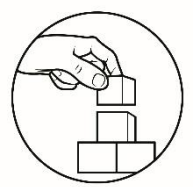
Since you already created a small network using a switch, it's time to connect your network to the internet.

Connect network to a router

1. Simply connect a UTP cable from one of the ports of your switch to one of the LAN ports to your router.
2. Configure your Ethernet network to Obtain IP address. The router will automatically assign an IP address for your computer.



And there you go! The whole wired network will now be able to access the internet.



What's More

In this lesson, we learned that a switch and a router are distinct in their functions. Let's see how much you have absorbed from the information downloaded to you so far.

Check **S** if what is referred to is a function of a *switch*, check **R** if it is for a *router* and check **SR** if it is for *both*.

S	R	SR	Properties
			1. It connects different devices on a network.
			2. It connects networks.
			3. It stores MAC addresses of the different devices connected to it.
			4. It creates networks.
			5. It inspects IP addresses of data coming in and out of it.
			6. Allows exchange of data within the network
			7. It cannot expand to more computers other than those that can connect to the available Ethernet ports.
			8. Alone, it cannot broadcast data outside its own network.
			9. It has wireless connectivity.
			10. It is connected to a modem.
			11. It has no WAN port.
			12. It can connect as many as 52 computers in a single network.
			13. It can connect 2-4 computers in a network.
			14. Alone it cannot connect to the Internet.
			15. It has a routing table for IP addresses.

Check the appropriate device or devices to use in a particular situation and write your explanation why you chose that device.

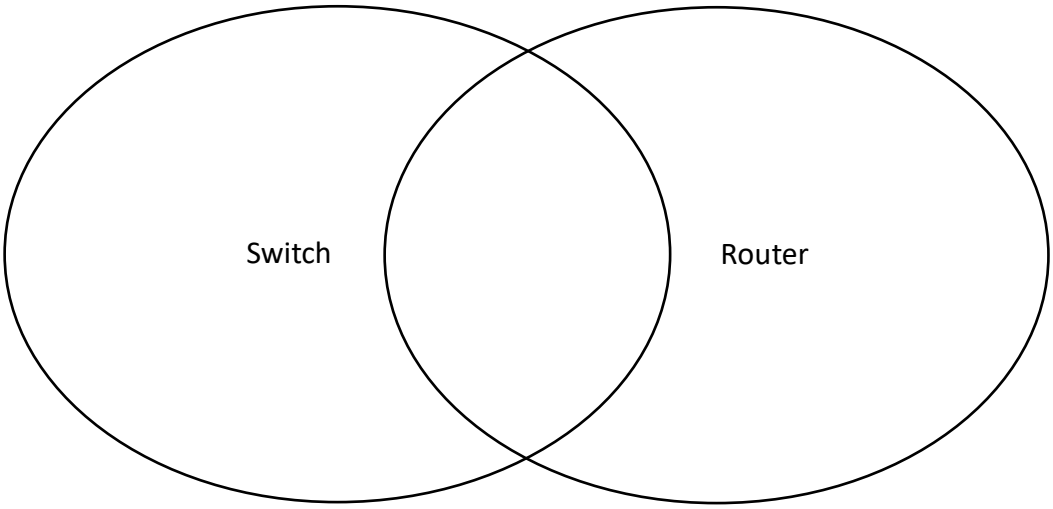
Situations	Switch	Router	Explanation
1. You are alone in the boarding house and you want to connect to the internet with your laptop			
2. There are only 5 of you in the house who want to connect to the internet			
3. There are 6 of you in the classroom who want to share documents for your research together without needing the internet.			
4. There are 30 computers in the computer laboratory which should be connected to the internet.			
5. There are two rooms with 20 computers each which should be connected together to the internet.			

Practice your skills. Put a check mark on the box if you have accomplished each item below.

Checkbox	Tasks
	Unplug all wirings and connect them again for mastery.
	Reset the router
	Configure the router with the following settings: SSID: Yourname_router Password: Yourfamilyname_yourage
	Change the LAN IP address to 192.168.100.0
	Change the router login data into the following settings: User Name: Yourfamilyname Password: Newrouter2020
	Connect a network to a router and configure them to be able to connect to the internet.
	Mentor someone who needs help in this lesson.

What I Have Learned

A. Using a Venn Diagram, write the differences of the switch and the router and write their overlapping roles.



B. Answer the following questions:

1. Do all networks need a switch? Why?

_____

_____

_____

_____

2. Do all networks need a router? Why?

_____

_____

_____

_____

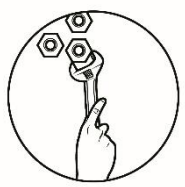
3. In summary, why do we need to configure a router's login details, and IP address?

_____

_____

_____

_____



What I Can Do

Can you share some of your thoughts by answering the following questions:

1. Switches and routers have distinct functions that are both important in the network. In relation to this, can you relate this to comparing our lives to others? Should we or should we not compare our lives to others? Why?

   _____
   _____
   _____
   _____

2. Why are login details important? Should you forget your login details? Why?

   _____
   _____
   _____
   _____

3. Should you use your names and birthdays as login passwords? Why?

   _____
   _____
   _____
   _____

4. What advice can you give in order to secure your login details?

   _____
   _____
   _____
   _____

5. Why do you think other people break in to other's network?

   _____
   _____
   _____
   _____

6. Should your router password and Wi-fi password be the same? Why or why not?

   _____
   _____
   _____
   _____

Assessment

Part I - Illustration

Using a diagram, explain the functions of a router. Do your output in a bond paper.

Part II ***(Performance Task)***

Local Area Network (LAN) port configuration

Performance Objective:

Given (tools, equipment, materials & protective equipment), you should be able to:

1. Setup wirings
2. Configure router LAN and login settings

Supplies/Materials, Tools/Equipment: UTP Cable, computers, switch, router

Steps/Procedures:

1. Ensure that your workplace is safe from stray cables/devices that may cause others to stumble upon.
2. Prepare your working area, all materials, equipment and protective equipment
3. Unplug all wirings and connect them together
4. Reset the router
5. Change the router SSID and password making sure that the password is "strong"
6. Change router LAN IP address
7. Change router login User Name and password making sure that the password is "strong"
8. Connect a network using a switch to a router
9. Configure the IP addresses of the computers in the network to be router assigned.
10. Unplug everything and perform 5S upong finishing your tasks

Performance Criteria Checklist

Criteria Did the student…	**Yes** *(5 pts)*	**No** *(2 pts)*
1. Ensure that workplace is safe from stray cables/devices		
2. Prepare working area, all materials, equipment and protective equipment		
3. Unplug all wirings and connect them together		
4. Reset the router		
5. Change the router SSID and password		
6. Change router LAN IP address		
7. Change router login User Name and password		
8. New passwords are "strong"		
9. Connect a network using a switch to a router		
10. Configure the IP addresses of the computers in the network to be router assigned.		
11. Unplug everything and perform 5S upong finishing tasks		

Part III

Choose the letter of the correct answer. Write your answer on a separate sheet of paper.

_____ 1. Which is **NOT** a function of a router?
a. it routes data to the correct receipient
b. it connects a local network to the internet
c. it guards the network from unwanted softwares
d. it gives access to wireless devices to connect to the internet

_____ 2. What does being a gateway of the network mean?
a. it provides security from intruders
b. it protects the network from harmful malwares
c. it regulates the entry and exit of data in the network
d. it serves as an entrance and exit of data in the network

_____ 3. Which **CANNOT** be done by a router?
a. it connects all devices together
b. it removes viruses within the network
c. it gives IP addresses to all devices connected to it
d. it disregards data packets that are not meant for its network

_____ 4. What do routers check if it is to receive or sends off the data packets?
a. the origin
b. the contents
c. the IP address
d. the MAC address

_____ 5. How can you prove that a router can be a switch?
a. it serves as a gateway to the local area network
b. it gives internet access to the devices connected to it
c. it gives IP addresses to all the devices connected to it
d. It connects computers together but is limited to only 4

_____ 6. A switch has the ability to assign IP addresses to devices connected to it. Is this statement correct?
a. correct
b. not correct
c. partly correct
d. missing something to become correct

_____ 7. Which one is the similarity of switches and routers?
a. they both connect all the devices to the internet
b. they both route data to the correct device on the network
c. they both filter information going in and out of the network
d. they both assign MAC addresses to all computers in the network

_____ 8. Which **CANNOT** be done by a switch that a router can?
I. connects wireless devices to the network
II. connects local networks to other networks
III. assign IP addresses to devices connected to it
a. I
b. III
c. I and III
d. II and III

_____ 9. If there are only 4 slots for a LAN using the router, what is the best option if there are 6 or more laptops that needs to connect to the internet using one router?

a. purchase another router
b. connect to the router wirelessly
c. find another router to connect to
d. take turns in connecting to the router

_____ 10. How do you reset a router?

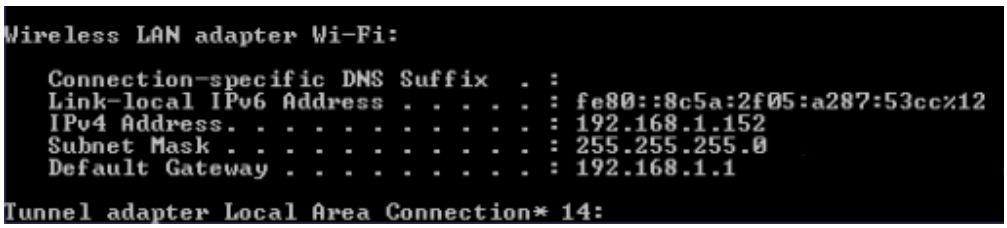
a. by turning off the device
b. by configuring through its menu
c. by unplugging it from the modem
d. by pressing the reset button for 5-10 seconds

_____ 11. What does *ipconfig do?*

I. It tells the computer's IP address
II. It tells the IP address of the router
III. it configures the DHCP server

a. I
b. I and II
c. II and III
d. I, II and III

_____ 12. Which one is the IP addres of the router in this *ping result*?



a. 192.168.1.152
b. 255.255.255.0
c. 192.168.1.1
d. 192.168.0.1

_____ 13. What is the usual default IP address of the router?

a. 192.168.0.0
b. 192.168.0.1
c. 192.168.1.0
d. 192.168.1.1

_____ 14. What do you need to do to configure the router?

a. configure the IP address of the computer
b. turn on the router and you are already connected
c. connect to the network that the router broadcasts wirelessly
d. type the IP address of the router on the browser's address bar

_____ 15. If it is your first time to configure a router, where can you usually get the username and password information of the routers' login details?

a. in the router's website
b. in the router's warranty card
c. at the back of the router's box
d. at the back of the physical router

_____ 16. Why should you change the router's IP address and login details?
a. for security reasons
b. it is the basic thing to do
c. it is the instruction given
d. for identity of the network

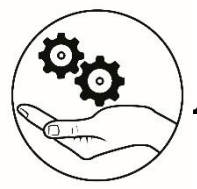
_____ 17. What does a router do when it receives data packets that are not meant for its own network?
a. it deletes it
b. it receives it
c. it sends if off
d. it sends it back to the sender

_____ 18. What makes a strong password?
a. lowercase letters only
b. lowercase and uppercase letter
c. combine numeric and special characters
d. combination of lowercase and uppercase letters, numbers and special characters.

_____ 19. Why should you change the IP address of the networked computer to *obtain an IP address automatically?*
a. because it is the default option to do
b. because the router will not be able to identify the computer
c. because DHCP server will assign the IP address for the computer
d. because it will conflict with the IP address of the other computers

_____ 20. What could be wrong if a computer is connected to the router and it cannot connect to the internet?
I. the router might not be connected to the modem
II. the computer is not compatible to connect in the network
III. it may have a different gateway than that of the router's gateway

a. I and II
b. II and III
c. I and III
d. I, II and III



Additional Activities

Explore on the following for self-discovery.

How will you connect two rooms with 20 computers each in a single router? Draw a diagram and explain your connections and configurations.

Answer Key

What I Know

1. b
2. b
3. b
4. a
5. a
6. b
7. d
8. c
9. c
10. b
11. d
12. b
13. a
14. d
15. c
16. c
17. b
18. b
19. d
20. b
21.

What's More

1. SR
2. R
3. SR
4. S
5. R
6. S
7. R
8. S
9. R
10. R
11. S
12. S
13. SR
14. S
15. SR

Assessment

1. c
2. d
3. b
4. c
5. d
6. a
7. b
8. a
9. b
10. d
11. b
12. c
13. b
14. d
15. d
16. a
17. c
18. d
19. c
20. c

References

- Computer Systems Servicing Curriculum Guide

Router emulator

https://emulator.tp-link.com/EMULATOR_wr840nv4_eu/index.htm

DISCLAIMER

This Self-learning Module (SLM) was developed by DepEd – Division of General Santos City with the primary objective of preparing for and addressing the new normal. Contents of this module were based on DepEd's Most Essential Learning Competencies (MELC). This is a supplementary material to be used by all learners in General Santos City in all public schools beginning SY 2020-2021. The process of LR development was observed in the production of this module. This is version 1.0. We highly encourage feedback, comments, and recommendations.

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