

# INDIAN INSTITUTE OF INFORMATION TECHNOLOGY BHAGALPUR



## Computer Network Lab CS-313

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ASSIGNMENT:-VI  
BATCH:- (2018-22)

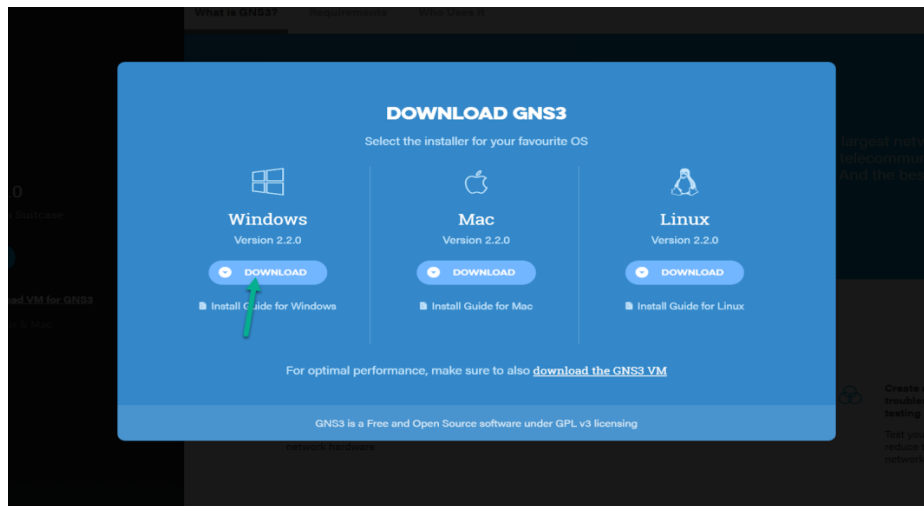
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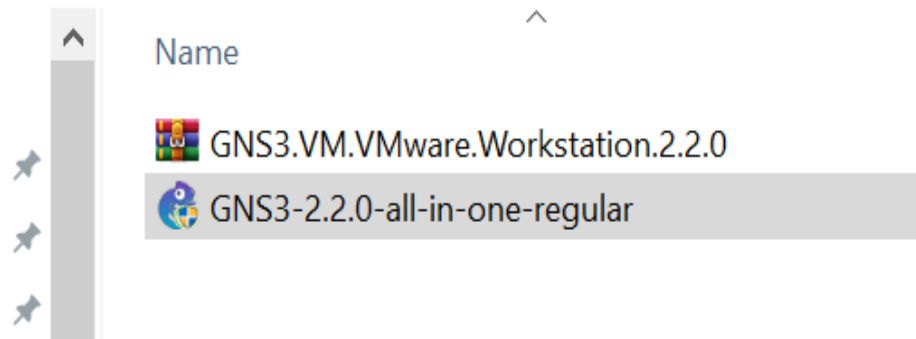
Jan-May 2021

<p><b>Q.1</b></p>	<p>Install any simulator of your choice (ex: GNS3, NS3 etc.,). Make document (with snapshots) of install process, executing a simple network topology and analysis of packets transfer between nodes/pc/hosts/devices...?</p>
<p><b>ANS:</b></p> <p>-</p>	<div data-bbox="596 338 1136 386" data-label="Section-Header"> <h3><u>-:Installing Process of GNS3 :-</u></h3> </div> <div data-bbox="316 464 1386 539" data-label="List-Group"> <ul style="list-style-type: none"> <li>➤ Firstly Download the GNS3 all-in-one-installer from the link given below:-  <a href="https://gns3.com/">https://gns3.com/</a> the window will looks like:-</li> </ul> </div> <div data-bbox="305 598 1351 1098" data-label="Image"> </div> <div data-bbox="316 1165 1403 1274" data-label="List-Group"> <ul style="list-style-type: none"> <li>➤ Now Click on free Download Then it will redirect on <b>Create Account</b> page , then you have to create a account if you have not created.The window will looks like:-</li> </ul> </div> <div data-bbox="305 1312 1351 1795" data-label="Form"> </div>

- After login, you will be prompted to select the version of GNS3 to download.



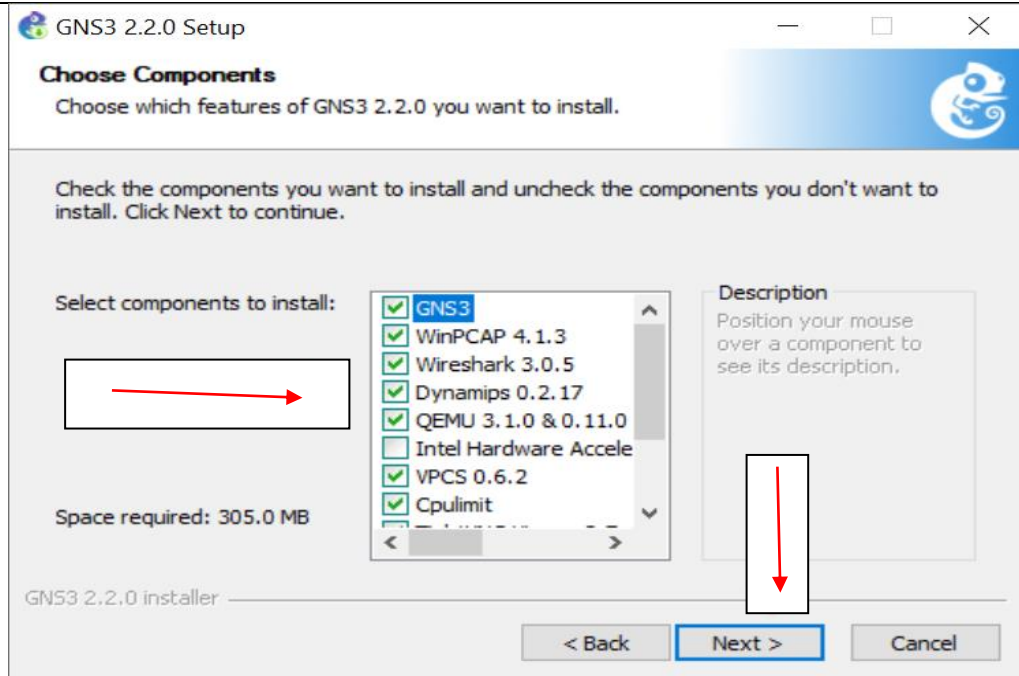
- In my case, I've install on window.



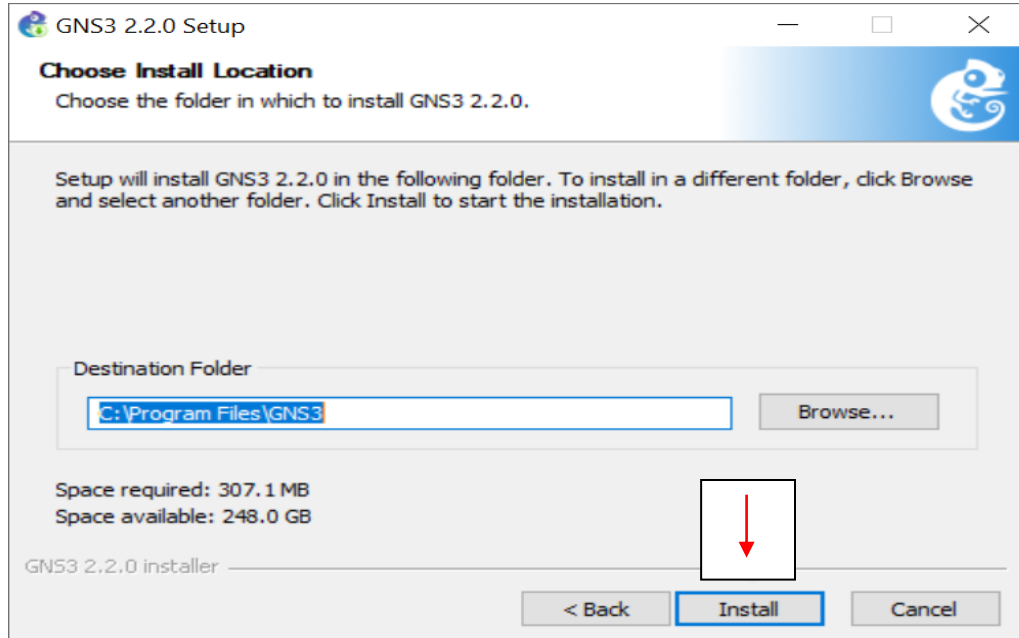
- Now Extract it, then The GNS3 Setup wizard displays. Click **Next >>** to start the installation:



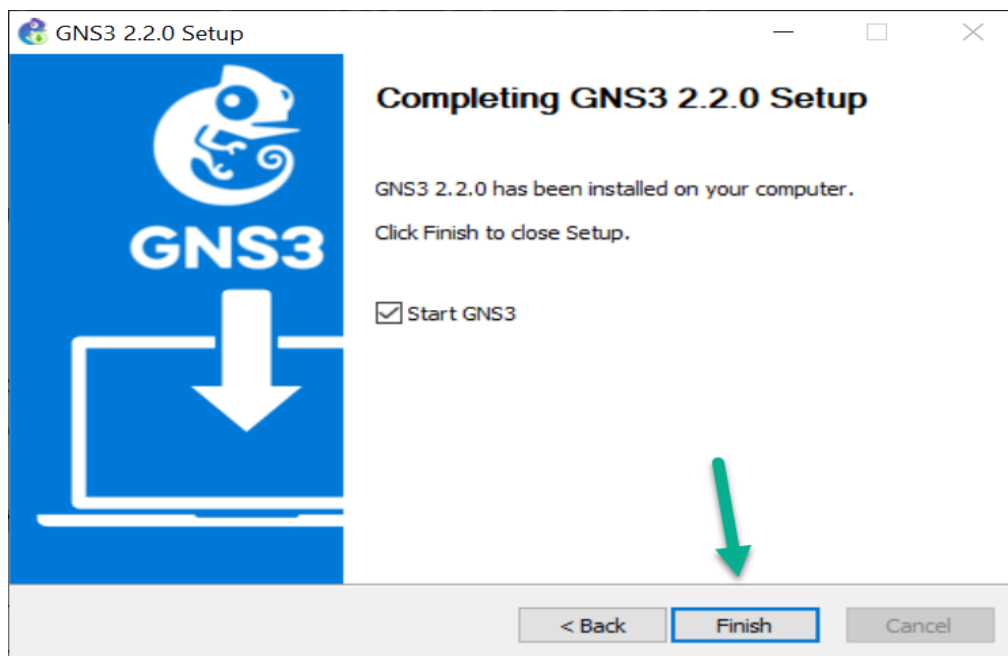
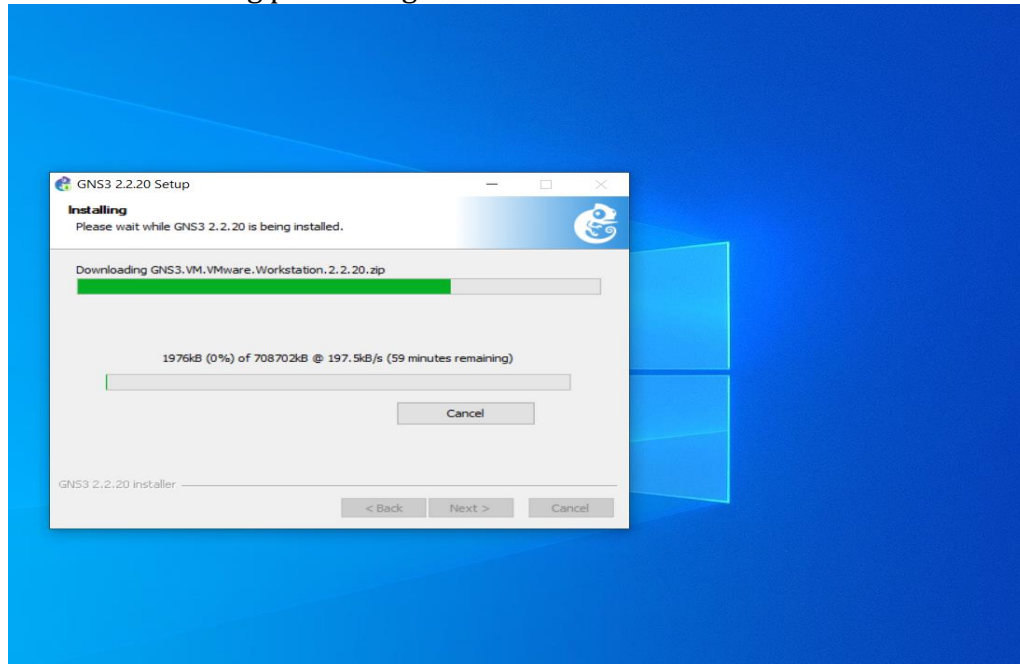
- Read the license agreement, and if you agree with the contents, click the **I Agree >** button to continue the installation and then click on Click **Next >** to continue the installation.
- And then software selections at their default selection and click **Next >** to continue the installation. The window will look like:-



- And now Choose an install location. The default location is C:\Program Files\GNS3. Then click **Install** it, Now it will looks like :-



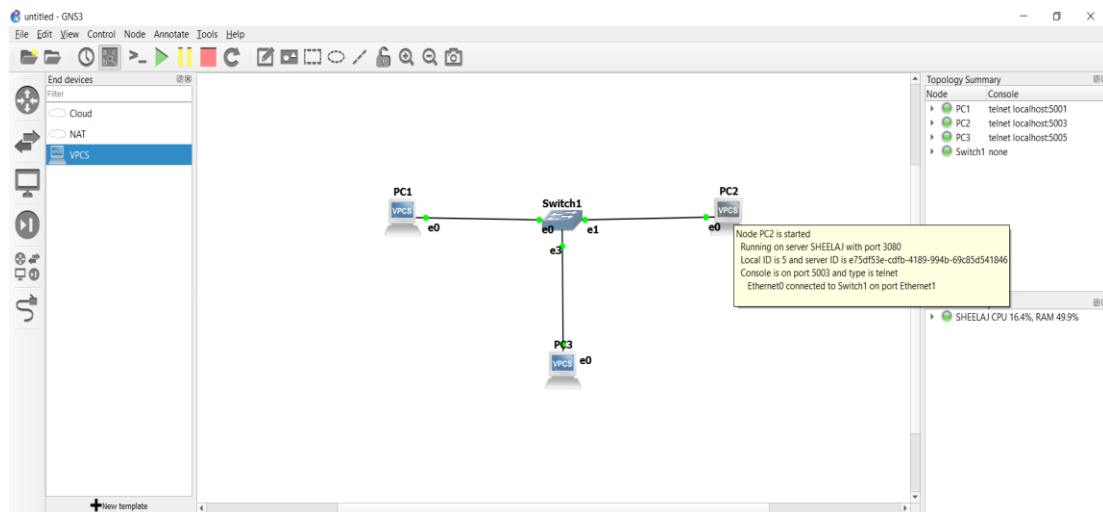
- It showing processing Looks like:-



- Then click on (**Finish button**) , and Now it's successfully installed in our laptop.

## --:simple networks topology:--

- ✓ I have created a simple network topology as shown given below:--
- ✓ Here we taken three PC1, PC2, PC3 and Connect with one switch.
- ✓ After that we will assigned IP address of these PCs:
- ✓ PC:1 > ip 10.1.1.1 255.255.255.0
- ✓ PC:2 > ip 10.1.1.2 255.255.255.0
- ✓ PC:3 > ip 10.1.1.3 255.255.255.0

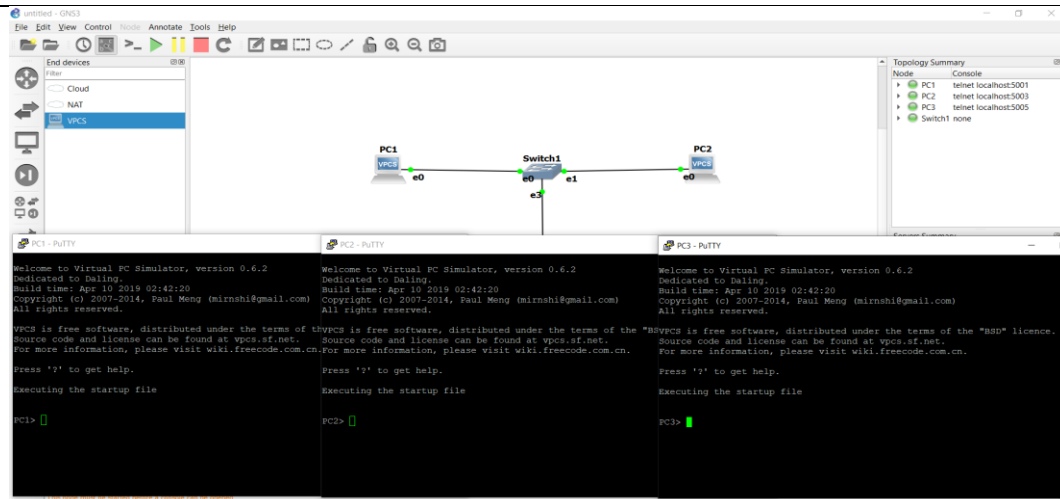


And after that we observe more things like:

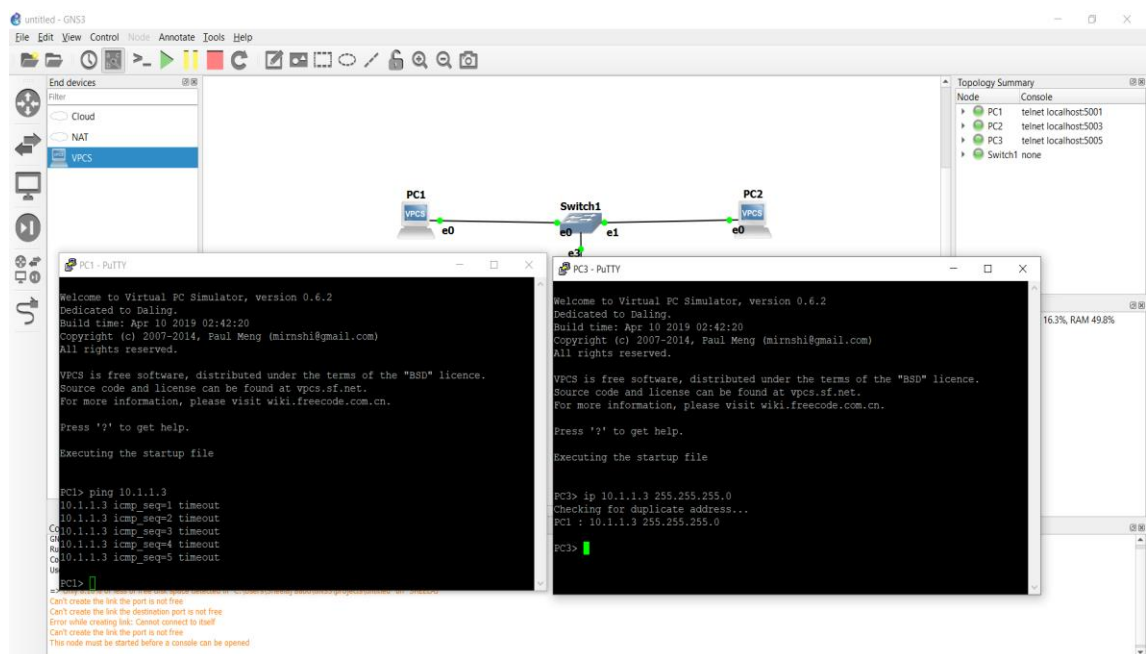
If I'd clicked the Console button on the Toolbar, it would've opened tabs for all three devices, even though we already had two of them open already for PC-1 and PC-2.

Let's assign an IP address to PC-3, and see if all three PCs can ping one another:

```
PC-3> ip 20.1.1.3 260.260.260.0
Checking for duplicate address...
PC1 : 20.1.1.3 260.260.260.0
PC-3>
```



Can PC-1 ping PC-3..?  
Now lets see weather it will ping or not,

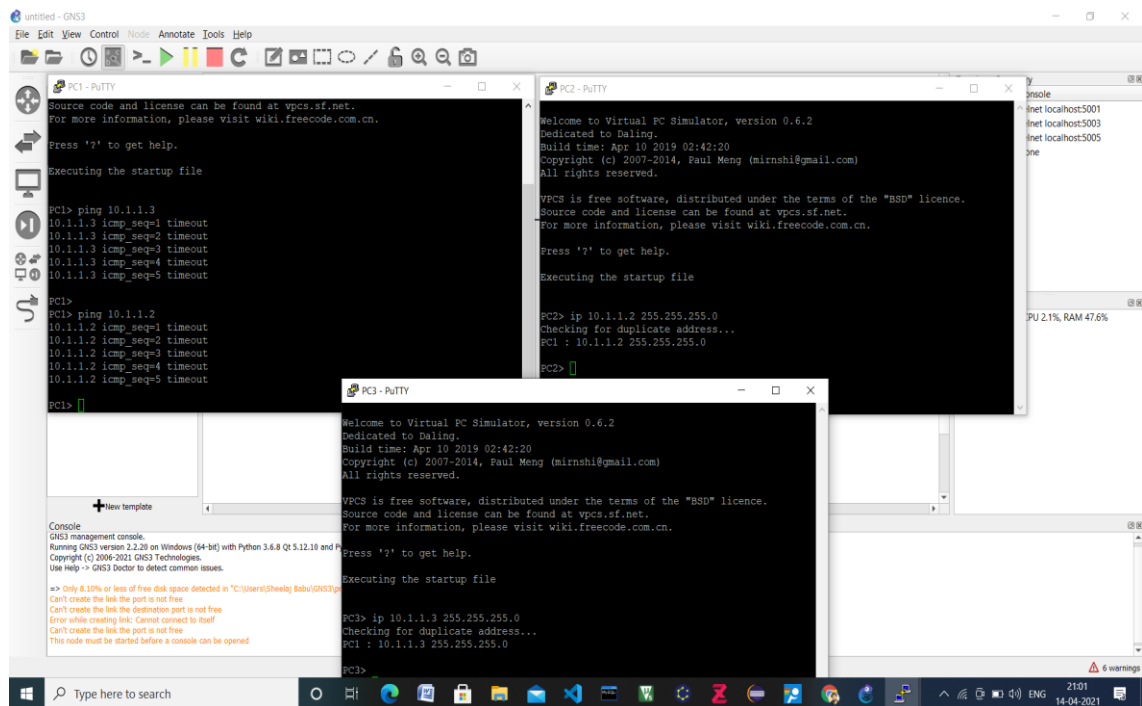


As we can seen above figure we can say that PC1 will ping PC3.

```
PC1> ping 10.1.1.3
10.1.1.3 icmp_seq=1 timeout
10.1.1.3 icmp_seq=2 timeout
10.1.1.3 icmp_seq=3 timeout
10.1.1.3 icmp_seq=4 timeout
10.1.1.3 icmp_seq=5 timeout
PC1>
```



Can PC-1 ping PC-2 and PC-3 both..?



Yes PC1, can ping PC2 And PC3 both.

```
PC1> ping 10.1.1.3
10.1.1.3 icmp_seq=1 timeout
10.1.1.3 icmp_seq=2 timeout
10.1.1.3 icmp_seq=3 timeout
10.1.1.3 icmp_seq=4 timeout
10.1.1.3 icmp_seq=5 timeout

PC1>
PC1> ping 10.1.1.2
10.1.1.2 icmp_seq=1 timeout
10.1.1.2 icmp_seq=2 timeout
10.1.1.2 icmp_seq=3 timeout
10.1.1.2 icmp_seq=4 timeout
10.1.1.2 icmp_seq=5 timeout

PC1>
```

**Conclusion:-** In this assignment We have done with very interesting software GNS3 and also we knowing about its feautres, and much more knowledge about how to Connect PC1 to other PC's using switch.

