20MCA136 - NETWORKING AND SYSTEM ADMISNISTRATION LAB

EXTERNAL LAB EXAMINATION - SEPTEMBER, 2021

BRAHMADUTTAN S
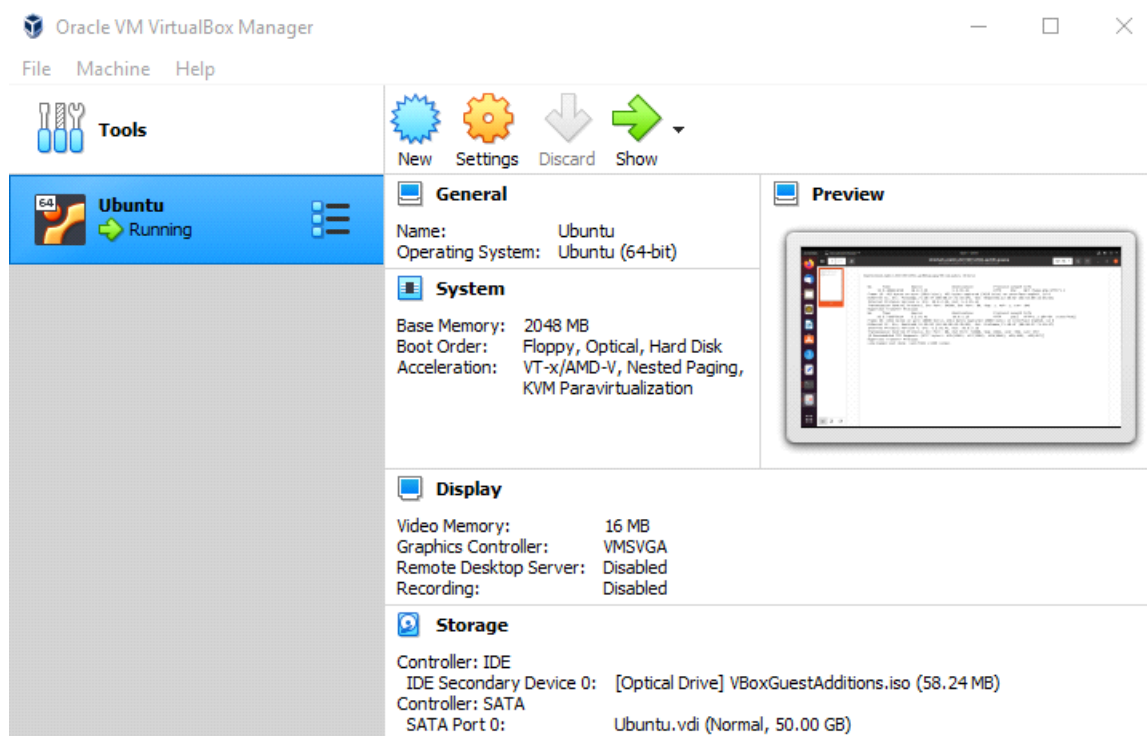
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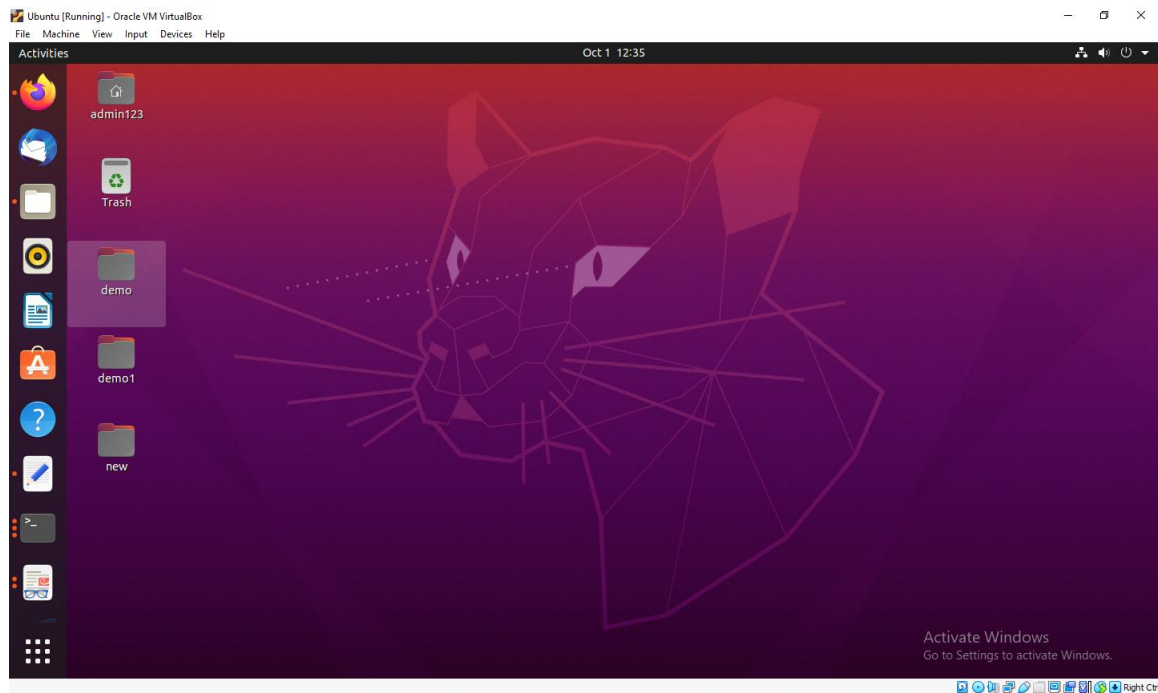
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MCA2020-22

https://github.com/brahmaduttan/External_Lab_Exam

1. Successfully completed Installation of Linux Ubuntu OS on Virtual box on Windows

3. To get Information about the sites

   1) $ nslookup -type=soa iitm.ac.in


```
admin123@admin123-VirtualBox:~$ nslookup -type=soa iitm.ac.in
Server:        127.0.0.53
Address:       127.0.0.53#53

Non-authoritative answer:
iitm.ac.in
        origin = dns1.iitm.ac.in
        mail addr = root.dns1.iitm.ac.in
        serial = 2021092902
        refresh = 10800
        retry = 3600
        expire = 1814400
        minimum = 86400

Authoritative answers can be found from:
```

   2) $ nslookup -type=soa google.com

```
admin123@admin123-VirtualBox:~$ nslookup -type=soa google.com
Server:         127.0.0.53
Address:        127.0.0.53#53

Non-authoritative answer:
google.com
        origin = ns1.google.com
        mail addr = dns-admin.google.com
        serial = 399888122
        refresh = 900
        retry = 900
        expire = 1800
        minimum = 60

Authoritative answers can be found from:
```

4. Create a shell script extension.sh

    dir=/home/admin123/Desktop/new

        for file in $dir/*

        do

            mv $file $file.new

        done

    echo "extension are changed to .new"

```
                                    extension.sh
Open    ▼    ⊞                       ~/Desktop/demo              Save    ≡    _   □   ✕

1 dir=/home/admin123/Desktop/new
2   for file in $dir/*
3   do
4    mv $file $file.new
5   done
6 echo "extension are changed to .new"
```

```
admin123@admin123-VirtualBox:~/Desktop/demo$ chmod +x extension.sh
admin123@admin123-VirtualBox:~/Desktop/demo$ ./extension.sh
extension are changed to .new
```

5. Install wireshark in Virtual box ubuntu through command

    $sudo apt install wireshark

    and

seacrh link spiderline.in

Analysing the Request and Respond from the client and server

1. HTTP 1.1

2. language used en.US

```
40 5.950690897   10.0.2.15       5.2.91.41       HTTP    466 GET /js/jquery-1.9.1.min.js HTTP/1.1
42 5.952589549   10.0.2.15       5.2.91.41       HTTP    461 GET /js/owl.carousel.js HTTP/1.1
55 6.142456977   10.0.2.15       5.2.91.41       HTTP    470 GET /js/modernizr.customQuote.js HTTP/1.1
59 6.143707691   10.0.2.15       5.2.91.41       HTTP    379 GET /css/share.css HTTP/1.1
63 6.149094996   10.0.2.15       5.2.91.41       HTTP    469 GET /js/modernizr-customcapt.js HTTP/1.1
67 6.165828453   10.0.2.15       5.2.91.41       HTTP    460 GET /js/socialCircle.js HTTP/1.1
81 6.217802006   5.2.91.41       10.0.2.15       HTTP   5419 HTTP/1.1 200 OK  (application/javascript)
```

```
Host: spiderline.in\r\n
User-Agent: Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:92.0) Gecko/20100101 Firefox/92.0\r\n
Accept: */*\r\n
Accept-Language: en-US,en;q=0.5\r\n
Accept-Encoding: gzip, deflate\r\n
Connection: keep-alive\r\n
Referer: http://spiderline.in/home.php\r\n
If-Modified-Since: Sat, 03 Nov 2018 05:16:24 GMT\r\n
If-None-Match: "169d5-579bbc0d954b8-gzip"\r\n
Cache-Control: max-age=0\r\n
```

3. Source IP (System(VirtualBox)) - 10.0.2.15

   Destination IP (Server) - 5.2.91.41

```
/tmp/wireshark_enp0s3_20211001122942_apvKRn.pcapng 901 total packets, 140 shown


No.     Time            Source              Destination         Protocol Length Info
     15 5.409414218     10.0.2.15           5.2.91.41           HTTP     452    GET /home.php HTTP/1.1
Frame 15: 452 bytes on wire (3616 bits), 452 bytes captured (3616 bits) on interface enp0s3, id 0
Ethernet II, Src: PcsCompu_71:10:4f (08:00:27:71:10:4f), Dst: RealtekU_12:35:02 (52:54:00:12:35:02)
Internet Protocol Version 4, Src: 10.0.2.15, Dst: 5.2.91.41
Transmission Control Protocol, Src Port: 54938, Dst Port: 80, Seq: 1, Ack: 1, Len: 398
Hypertext Transfer Protocol
No.     Time            Source              Destination         Protocol Length Info
     33 5.710570214     5.2.91.41           10.0.2.15           HTTP     1011   HTTP/1.1 200 OK  (text/html)
Frame 33: 1011 bytes on wire (8088 bits), 1011 bytes captured (8088 bits) on interface enp0s3, id 0
Ethernet II, Src: RealtekU_12:35:02 (52:54:00:12:35:02), Dst: PcsCompu_71:10:4f (08:00:27:71:10:4f)
Internet Protocol Version 4, Src: 5.2.91.41, Dst: 10.0.2.15
Transmission Control Protocol, Src Port: 80, Dst Port: 54938, Seq: 8821, Ack: 399, Len: 957
[5 Reassembled TCP Segments (9777 bytes): #25(1260), #27(1260), #29(5840), #31(460), #33(957)]
Hypertext Transfer Protocol
Line-based text data: text/html (1159 lines)
```