

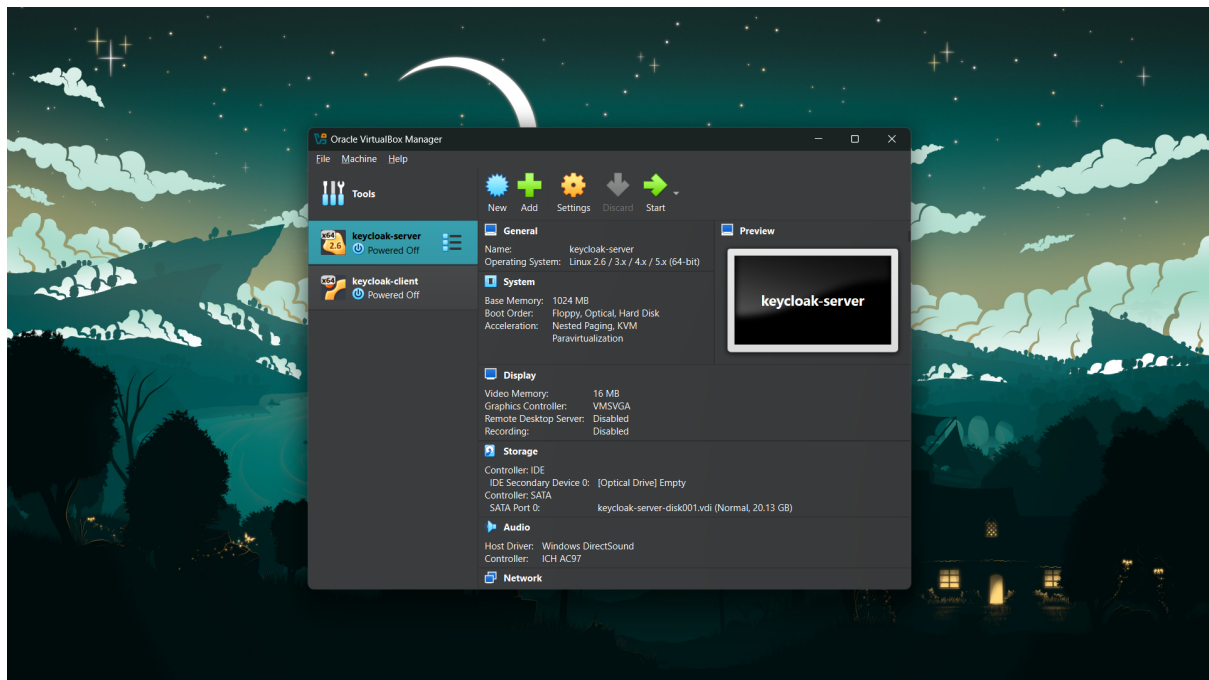
SIT725 TASK 1.4P

Github code link:

<https://github.com/ChoudhariJay/SIT725.git>

Screenshots:

VM:



SERVER 2:

```
footprint of MicroK8s to make it the smallest full K8s around.

https://ubuntu.com/blog/microk8s-memory-optimisation

250 updates can be applied immediately.
175 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

Last login: Thu Feb 22 02:11:40 UTC 2024 on tty1
user@keycloak-server:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
        inet 127.0.0.1/8 scope host lo
            valid_lft forever preferred_lft forever
        inet6 ::1/128 scope host
            valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:57:63:20 brd ff:ff:ff:ff:ff:ff
        inet 10.0.2.15/24 brd 10.0.2.255 scope global dynamic enp0s3
            valid_lft 86287sec preferred_lft 86287sec
        inet6 fd00::a00:27ff:fe57:6320/64 scope global dynamic mngtmpaddr noprefixroute
            valid_lft 86289sec preferred_lft 14289sec
        inet6 fe80::a00:27ff:fe57:6320/64 scope link
            valid_lft forever preferred_lft forever
3: enp0s8: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:c9:86:b5 brd ff:ff:ff:ff:ff:ff
        inet 192.168.56.101/24 brd 192.168.56.255 scope global dynamic enp0s8
            valid_lft 486sec preferred_lft 486sec
        inet6 fe80::a00:27ff:fec9:86b5/64 scope link
            valid_lft forever preferred_lft forever
user@keycloak-server:~$ _
```

SERVER 1:

```
Ubuntu 20.04.3 LTS keycloak-server tty1
keycloak-server login: [ 24.901000] cloud-init[972]: Cloud-init v. 21.2-3-g899bfaa9-0ubuntu2~20.04.1 running 'modules:config' at Mon, 10 Mar 2025 06:57:32 +0000. Up 24.66 seconds.
[ 26.285855] cloud-init[977]: Cloud-init v. 21.2-3-g899bfaa9-0ubuntu2~20.04.1 running 'modules:final' at Mon, 10 Mar 2025 06:57:34 +0000. Up 25.95 seconds.
[ 26.286156] cloud-init[977]: Cloud-init v. 21.2-3-g899bfaa9-0ubuntu2~20.04.1 finished at Mon, 10 Mar 2025 06:57:34 +0000. DataSource DataSourceNone. Up 26.27 seconds
[ 26.286245] cloud-init[977]: 2025-03-10 06:57:34,332 - cc_final_message.py[WARNING]: Used fallback datasource
user
Password:
Welcome to Ubuntu 20.04.3 LTS (GNU/Linux 5.4.0-96-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information disabled due to load higher than 1.0

 * Super-optimized for small spaces - read how we shrank the memory
   footprint of MicroK8s to make it the smallest full K8s around.

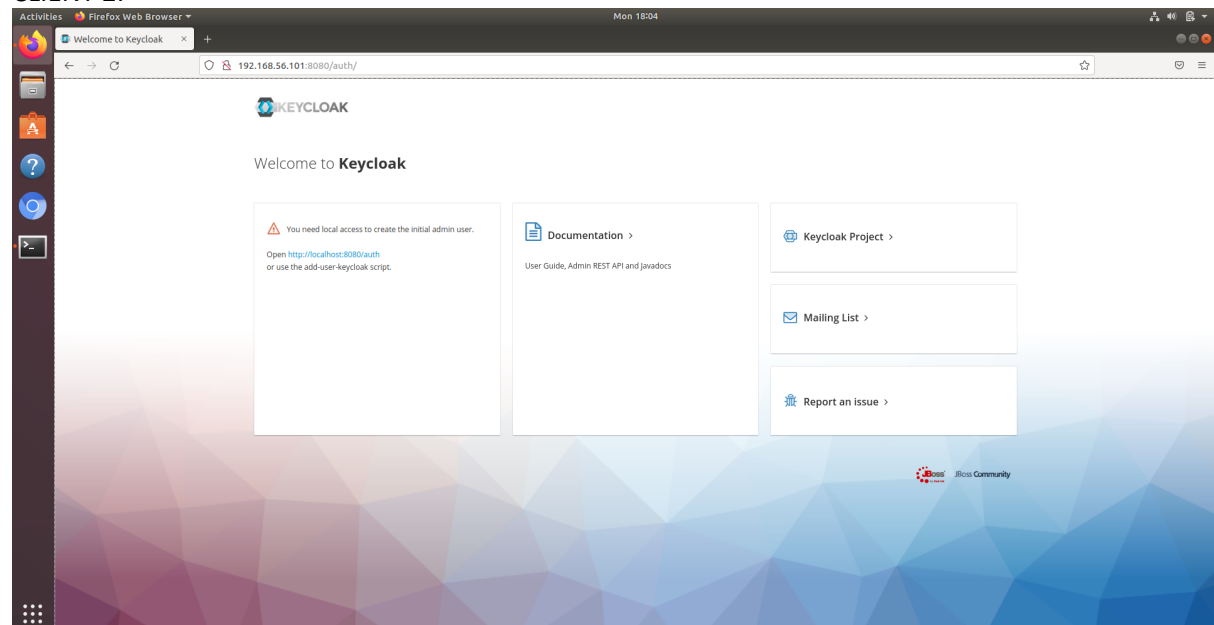
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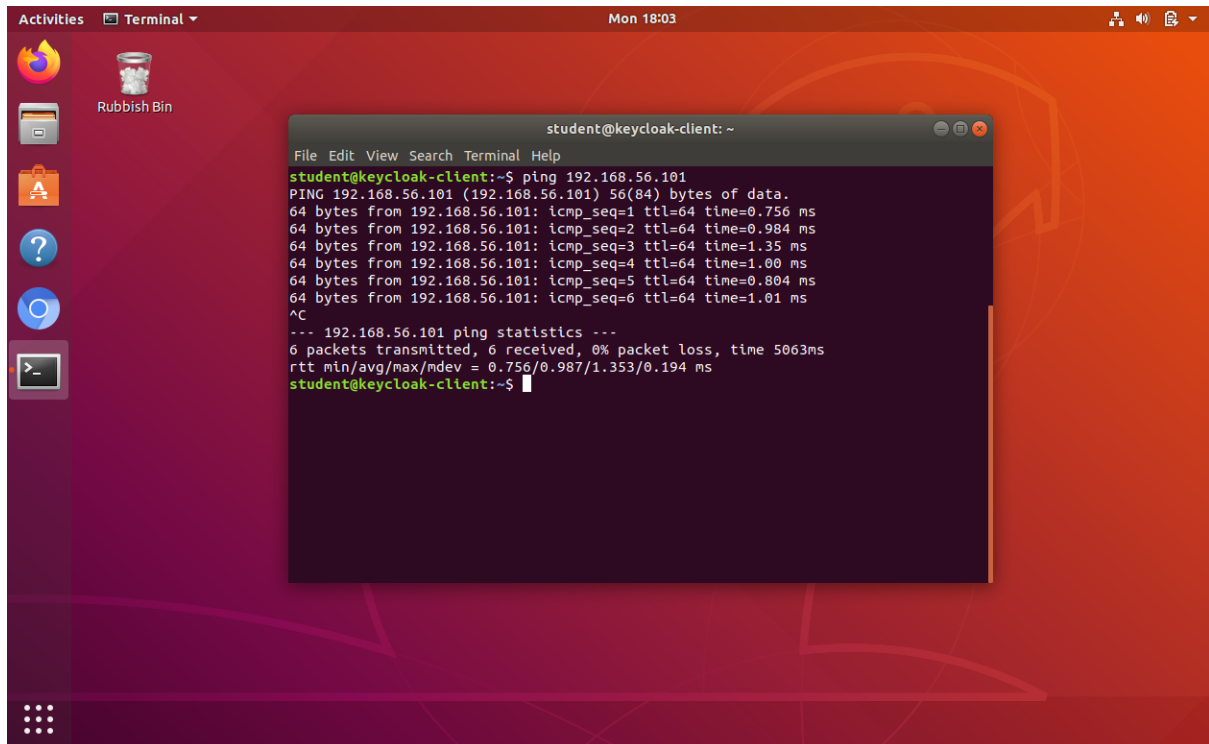
The list of available updates is more than a week old.
To check for new updates run: sudo apt update

Last login: Thu Feb 22 02:11:40 UTC 2024 on tty1
user@keycloak-server:~$
```

CLIENT 2:



CLIENT 1:



The screenshot shows a Linux desktop with a red and purple background. On the left is a dock with icons for Firefox, a trash bin labeled 'Rubbish Bin', a file manager, a shopping bag, a question mark, a circular arrow, and a terminal icon. The top bar shows 'Activities', 'Terminal', and the time 'Mon 18:03'. A terminal window titled 'student@keycloak-client: ~' is open, displaying the output of a ping command to 192.168.56.101. The output shows six successful ping requests with varying response times and a summary statistics block at the bottom.

```
student@keycloak-client: ~
File Edit View Search Terminal Help
student@keycloak-client:~$ ping 192.168.56.101
PING 192.168.56.101 (192.168.56.101) 56(84) bytes of data.
64 bytes from 192.168.56.101: icmp_seq=1 ttl=64 time=0.756 ms
64 bytes from 192.168.56.101: icmp_seq=2 ttl=64 time=0.984 ms
64 bytes from 192.168.56.101: icmp_seq=3 ttl=64 time=1.35 ms
64 bytes from 192.168.56.101: icmp_seq=4 ttl=64 time=1.00 ms
64 bytes from 192.168.56.101: icmp_seq=5 ttl=64 time=0.804 ms
64 bytes from 192.168.56.101: icmp_seq=6 ttl=64 time=1.01 ms
^C
--- 192.168.56.101 ping statistics ---
6 packets transmitted, 6 received, 0% packet loss, time 5063ms
rtt min/avg/max/ndev = 0.756/0.987/1.353/0.194 ms
student@keycloak-client:~$
```