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SEC : A

UNIX ASSIGNMENT

Q) Write a shell script that list the memory usage and cpu usage of multiple machines.

Ans :

mem.sh :

```
#!/bin/bash
```

```
# Define the list of remote machines
```

```
machines=("student@172.50.4.235" "student@172.50.11.107")
```

```
# Iterate over each machine and retrieve memory and CPU usage
```

```
for machine in "${machines[@]}; do
```

```
    echo "Memory and CPU usage for $machine:"
```

```
    # SSH into the remote machine and retrieve memory usage
```

```
    echo "Memory Usage:"
```

```
    ssh "$machine" 'free -m'
```

```
    # SSH into the remote machine and retrieve CPU usage
```

```
    echo "CPU Usage:"
```

```
    ssh "$machine" 'mpstat'
```

```
    echo
```

```
done
```

OUT PUT :

```
Memory and CPU usage for student@172.50.4.235:
Memory Usage:
The authenticity of host '172.50.4.235 (172.50.4.235)' can't be established.
ECDSA key fingerprint is SHA256:LEXifvg3a596w1vXBxu/+m4tEmi6AGS1krx5xB8i/pc.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '172.50.4.235' (ECDSA) to the list of known hosts.
student@172.50.4.235's password:
      total      used      free    shared  buff/cache   available
Mem:    15768     1680     12418        10       1669     13784
Swap:    2047         0       2047
CPU Usage:
student@172.50.4.235's password:
Linux 5.15.0-79-generic (ai-HP-ProDesk-600-G4-MT)      08/04/24      _x86_64_      (12 CPU)

04:13:25 PM IST  CPU    %usr   %nice    %sys %iowait    %irq   %soft  %steal  %guest  %gnice   %idle
04:13:25 PM IST  all     0.36    0.07    0.29   6.88     0.00    0.03    0.00    0.00    0.00    92.37

Memory and CPU usage for student@172.50.11.107:
Memory Usage:
The authenticity of host '172.50.11.107 (172.50.11.107)' can't be established.
ECDSA key fingerprint is SHA256:MnQ9jIhUpzrDaLciD6MB0Xl3H8mH09/poFmg/eLPd4I.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '172.50.11.107' (ECDSA) to the list of known hosts.
student@172.50.11.107's password:
      total      used      free    shared  buff/cache   available
Mem:    15768     2575     10082        31       3111     12856
Swap:    2047         0       2047
CPU Usage:
student@172.50.11.107's password:
Linux 5.15.0-82-generic (hp-prodesk)      08/04/24      _x86_64_      (12 CPU)

04:13:40 PM IST  CPU    %usr   %nice    %sys %iowait    %irq   %soft  %steal  %guest  %gnice   %idle
04:13:40 PM IST  all     2.88    0.06    0.78   6.74     0.00    0.02    0.00    0.00    0.00    89.51
```