A client has a Linux server that has just paged you because of a high load average issue. Upon connecting and running uptime you see: 12:20:50 up 1 day, 10:52, 6 users, load average: 44.28, 33.34, 30.44 How would you troubleshoot this issue to find out what is the source of the load and what tools would you use? Please also list what you would look for in the output of the commands you would run.

NOTE: Use AWS free tier for hosting

First we connect with server using ssh

Ssh -i pemkeyfilename username@serverip

Then we can check uptime using command line

* uptime (which will show overloading server waiting processes)

further we can check system process using top command

* top (will show cpu, memory and process usage)

we can list high usage of cpu using ps command

* ps aux (processes with unusually high %CPU usage)

we can check disk I/O

* iostat (high average wait time for I/O operations.)

we can check network usage

* ifstat -t (transmit and receive rate can indicate)

we can check high memory and swap usage using command

* free -m (high swap usage can indicate insufficient RAM)

we can check file usage

* df -h
* we can also use cloudwatch to check instance usage metrics
* If the load is due to legitimate traffic or demand, we can scale our infrastructure or vertically using AWS services.