

Assignment Name: Linux Troubleshooting

Duration : 2 weeks (Starting from July 6th , 2021)

Operation system: Ubuntu

Note: Completed assignments should be submitted via <http://school.wso2.com>.

Assignment answer file must be named as Linux_Troubleshooting.pdf

Create the document that includes steps that you followed to answer each question , Ultimately someone else should be able to refer your answers as guide to provide solutions to below questions / use cases

Resource Limitation (Soft and Hard limits)

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Refer comments in **/etc/security/limits.conf** configuration file

1. Create a user with name : **user1**
2. Set the **user1** soft limit RAM size to 1 GB
3. Set the **user1** soft limit file size to 2MB and Hard Limit file size to 3MB
4. Set the **user1** Linux open file limit Soft = 5000 hard = 6000
5. Set the servers network card's receiving ring buffer to Maximum value
6. Share the screenshot of
 - a. Ulimit -Ha
 - b. Ulimit -Sa
 - c. /etc/security/limits.conf

SWAP

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1. Create Two swap files , and one should be in size of 100MB and second file should 200MB
 - a. Assign 200MB swap file a priority 10 and 100MB swap file a priority 20
 - b. Configure swap files to mount during a boot
 - c. Change system swappiness value to 40
 - d. Share the screenshot of
 - i. /etc/fstab
 - ii. Free -m
 - iii. Swapon -s

FTP

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1. Configure and setup the proftpd FTP server .
 - a. Create a user called **proftpuser** , which should be able to upload and download content from the ftp server
 - b. Set the proftpd process priority (Nice value) as -5
 - c. Share screenshot of
 - i. **Top** command showing priority of the proftpd process
 - ii. Share the configuration file of proftpd service (You can share configuration file via Github public repository URL)

SQUID Proxy

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2. Setup and configure the Squid proxy server in the Linux box
 - a. Make sure to allow HTTP traffic via squid proxy .
 - b. Then point your local web browser to Squid proxy and check whether you can access HTTP web sites via the proxy
 - c. Configure Squid proxy to block following Domains
 - i. *.facebook.com and facebook.com
 - ii. *.wso2.com and wso2.com
 - iii. Ubuntu.com
 - d. Configure Squid proxy daemon so that it will start during the boot in only in 1,3,5 run levels
 - e. Assign the I/O priority of **Constant** to the **proftpd** process (Go via **ionice** command)
 - i. Share the configuration file of Squid (You can share configuration file via Github public repository URL)