Linux and Bash Scripting

Module 1

Assignment Problem Statement: You are assigned a task to install a web server, in order to control multiple worker processes from one master process. After you've done your research you found out that NGINX is the best suitable option in this scenario. Update the host system and install NGINX. Check the version installed.

Module 2

Problem Statement: You work for xyz organization. Your organization uses a UNIX/Linux based environment. You have been asked to:

1. Create 3 users for the people in our server

2. Create a group named "webdev" and add them in it

3. Create a folder named "dev" with a file inside and give the file permission to be only opened by this group's users

4. Remove one user from the group and delete that user

5. Move the file inside the folder to another folder and change the files group ownership

Module 3

Assignment Problem Statement: You are hosting a system network, where you have two processes running in background. First one is a process to monitor the uptime of each system and second one is a process that keeps track of all processes running in the working environment. The priority value of the first process is 8. The priority value of the second process is lower than the first process. Use 'renice' to change the priority.

Module 4

Assignment Problem Statement: Write a script to echo the following message before installing httpd in the system. The message is "You are using the system as" Change the file permission and test the script

Module 5

Assignment Problem Statement: You work for xyz organization. Your organization uses a UNIX/Linux based server. You have been asked to: 1. Create 2 shell script files – one.sh and two.sh 2. In one.sh, create a code which involves looping statements, Conditional statements and 3 functions 3. In two.sh, create a Case..esac statement in which first option runs the first function, 2nd option runs 2nd function and 3rd option runs the third function

Module 6

Assignment Problem Statement: In your primary system you have a folder consist that consists of the dataset that we need to perform task on. Mount the folder to the Linux operating system. The dataset is stored in zipped file. Extract the file using 'zip' command. You can find the dataset in the attachment. Once done mounting perform the tasks given below: a) Write an awk program to print out only the Name of the game and Year of release b) Write an awk program to print only the Name column from the row 200 to row 210 c) Write an awk program to print all the games released on the year 2005 between the rows 100 to 500

Note:- Linux_mod6_dataset.csv in Repository

Module 7

Assignment Problem Statement:

• Create a cron job that will run once a month, on the second data of the month

• Create a cron job that will run thrice in an hour and this should repeat every hour

Module 8

Assignment Problem Statement: You work for xyz organization. Your job work is to manage Linux-based servers. You have been asked to: 1. Launch Firefox 3 times, find their PID and use the kill command to close them 2. Monitor incoming logs files to a folder using inotify and output them to a file

Module 9

Assignment Problem Statement: You work for xyz organization. Your job work is to manage Linux-based servers. You have been asked to:

1. Install MySQL on CentOS

2. Create a database with two tables – table1 & table2

3. Create a shell script which can be used to insert 4 rows of data into table1 & table2

Module 10

Assignment Problem Statement: You work for xyz organization. Your job work is to manage Linux-based servers. You have been asked to:

1. Add a website with its IP address in the /etc/hosts file

2. Ping it to check whether it is working fine

3. Connect to that server using ftp and transfer a file from your pc to that server 4. Install a web server and allow access to the port number of that server