Assessement 3

1. **What is a user account?**

A user account is a location on a network server used to store computer username, password, and other information. it allows or does not allow a user to connect to a network, another computer or another share. The components of a user account are username, password and profile.

1. **what is a user's shell?**

A shell is a user interface for access to an operating system’s services. it is an input interface.

1. **what is a user's home directory?**

A home directory also called a login directory is that directory on Unix-like operating systems that serves as the repository for a user’s personal files, directories and programs. It is also the directory that a user is first in after logging into the system.

1. create a user manolo with the uid of 33545

# useradd –u 33545 manolo

1. create a group called sysmgrs

# groupadd sysmgrs

1. create a user sarah with sysmgers as subgroup ( sarah's password is redhat)

# groupadd sysmgrs

# useradd sarah

# usermod -aG sysmgrs sarah

# passwd sarah

# password: type redhat

# retype password: redhat

# grep sysmgrs /etc/group

# grep sarah /etc/sysmgrs

1. create a user natasha with shipping as primary group.

# groupadd shipping

# useradd natasha

# usermod –g shipping natasha

# passwd natasha

# password: type redhat

# retype password: redhat

# grep shipping /etc/group

# grep natasha /etc/group

1. **what is the permission 765 means?**

Read = 4

Write = 2

Execute = 1

Therefore 765 means

Owner ( 7) can Read (R), Write (W), and Execute(X),

Group ( 6) can Read(R), and Write(W), and

Others (5) can Read(R), and Execute(X).

1. **how do you check the permission on a file/directory**

#ls -l

1. **how do you check the owner of a file?**

# ls –l or #ll

1. **what command would you type to change the owner of a file?**

# chown [ old owner][ new owner] filname

1. **what command would you type to change the group a file belongs to?**

# chgrp [old group] [new group] filename or directory

1. **what is git?**

Is a Version Control System (VCS) is used for tracking changes in computer files and coordinating work on those files among multiple users.

**14- what is ticketing system?**

It is a software that enables a group to intelligently and efficiently manage tasks, issues, and requests submitted by a community of users.

**15- what is DevOps?**

It is the collaboration and communication between Developers and Operations professionals

**16- What is CI**

It’s a development practice that requires developers to push and pull code into a shared repository several times a day. Each check-in is then verified by an automated build, allowing teams to detect problems early.

**17- what is an inode?**

An inode is a data structure on a filesystem on Linux and other Unix like operating system that stores all information about a file except its name and its actual data. A data structure is a way of storing data so that it can be used efficiently.

18- **how do you check the inode of a file?**

# ls – li [filename]

e.g

# li – li /etc/resolv.conf

or

# stat filename

E.g

# stat /etc/passwd

**19- What is a 3 way hand shake?**

It is a method used in the Tcp/ip network to establish communications between a local host/client and server. It requires both the client and the server to exchange Syn and Ack packets before actual data communication is transmitted

**20- What are DevOps tools that you know?**

Bitbucket, git, Ansible, Jenkins

**21- what is ssh?**

Ssh is acronym for Secure Shell. It is used to remotely access a server. Putty is an example of a secure shell and it uses port 22 for access.

**22- what is ssl?**

ssl is acronym for secure socket layer. It is the standard security technology for establishing an encrypted link between a web server and a browser.

**23- why is putty considered secured?**

It is considered secured because the information is encrypted; however in any protocol, security depends on knowing that you are communicating with the right server. In the case of SSH (standard configuration), the first time you connect to the server you have to verify its fingerprint. (Don't just confirm it without actually checking, as many people do.) The next time, the server's key will be checked

**24- what is selinux?**

Selinux is acronym for Security-enhanced Linux. It is a security feature of the Linux kernel. It is designed to protect the server against misconfigurations and/or compromised daemons. It puts limits and instructs server daemons or programs what files they can access and what actions they can take by defining a security policy.

**25- What is a version control system (VCS)?**

It fast and efficient to manage projects as they use repositories. Commit and push projects with easy. Git is an example of VCS.

It is a system that records changes to a file or set of files over time so that you can recall specific versions later.

**26- What is your experience with version control system ?**

**27- what happen when you type a url on the browser until the page come on?**

The browser checks the cache to see if the url is cached. If not, the url queries the DNS for an ip address translation. The browser uses the ip address and sends it to the http get command which in turn, sends it to the webserver. The webserver returns the html data stream to the web browser. The web browser renders the html web page with the requested information.

**28- what is a three way hand shake?**

It is a method used in the TCP/IP network to establish communications between a local host/client and server. It requires both the client and the server to exchange Syn and Ack packets before actual data communication is transmitted

**29- what is the boot up process in linux ?**

The Bios runs a program called the POST( Power-On-Self-Test). Bios is loaded on a ROM which is powered by Cmos. The Bios then locate the MBR which is located on the first sector of the hard drive. It has information about the grup. It locates and loads the grup. The grup then unified the boot loader, it displays a splash screen. Grup then loads and execute the kernel. The kernel phase then mount up the file system starting with the root to check all the file system to be mounted. The kernel then execute the init phase. The init program identifies what is a default run level by reading the inittab file. The system is boot up when you see a bunch of green ok indicating that the services are getting started.

**30- how do you update the Os version of your linux server?**

# yum update –y

**31- how do you harden/secure a server?**

32- Download and then Import the prebuild CentosAssessement.ova from your software folder to your virtualbox.

33- On the server , the inittab file was mistakently deleted from the server. How can you fix this problem?

34- Go ahead and secure the imported server.

35- Set the server to display below message each a user log in.

"This is a private computer system monitored 24/7, any unauthorized use will be subject to disciplinary mesure including job termination. If you do not have the proper authorization, please logout NOW!!!!"

Displaying assessment3.txt.