**ACCOUNT DATA**

never login with root account.

Create unqiue accounts for each user.

Assign only necessary authority to each user.

Use admin power only via sudo

less /etc/shadow ( contains encrypted passwords of all user)

less /etc/passwd (contains user account data, but not passwords)

you will see there are too many users.

These are for seperate apps

less /etc/group (groups containing name and id)

id “username” (show privileges)

who (who is loggedin at current time? )

last | less(all system login record during a month)

**ADMINISTRATING USERS AND GROUPS**

sudo useradd -m jane(create a new user, -m tells make a home tree with the user name)

cd /home/jane

ls

ls -a (hidden files)

cd /etc/skel/ (skeleton directory for creating of new users directory in home dir)

ls -a

sudo passwd jane (create loginpassword for jane, this is a temp pass.once she login, she will create permanent password for herself)

**list all users**

cut -d: -f1 /etc/passwd

**limit access for users**

sudo groupadd secret

**change ownership properties of directory**

sudo chown :secret-group /var/secret/

**add someone to group**

sudo usermod -a -G secret-group Jane (a means add and G means to an existing group)

**edit permissions for directory to allow group members to edit files**

sudo chmod g+w /var/secret/ (g+w means add write permissions to the directory’s group)

**SECURING YOU LINUX SERVER**

**APPLYING OBJECT PERMISSIONS**

every object in linux has some unique meta data associated with it, whether it be directory or file. This metadeta is represented by characters.

Ls -l

-rw-rw-r-- 1

First (-) : - for a file / d for directory

2nd (r) : yes read permission for owner

3rd (w): yes write permission for owner

4th (-) : no execute permission for owner

5th (r) : yes read permission for group members

6th (w): yes write permission for group members

7th (-) : no execute permission for group member

8th (r) : yes read permission for others

9th (-) : no write permission for others

10th (-) no execute permission for others.

Ls -dl

drwxrwxr-x

chmod o+x data.txt (assign execute power to others on data.txt file)

**APPLYING OBJECT PERMISSIONS (NUMERIC NOTATIONS)**

**read 4 (add them up)**

**write 2**

**execute 1**

**full permission = 7**

**read /execute =5**

**execute = 1**

**chmod 777 data.txt (7 for owner, 7 for owner, 7 for group member, 7 for others )**

**EXTENDING OBJECT USABILITY**

**sticky bit (group members cannot delete files from others directory)**

sudo chmod +s /var/secret (run with root)

**SERVICE ACCESS CONTROLS**

**service hardening**

**port control**

**firewall rules**