**User Management**

User management in Linux is the process of creating, modifying, and deleting user accounts on a Linux system.

User management is crucial for maintaining a secure and well-organized Linux environment.

Why do you need user management?

User management allows administrators to manage resources and organize users according to their needs and roles while maintaining the security of IT systems.

Whenever a new user is created a user gets uid and gid

Home directory is created in /home/username

**Types of users in Linux**

1. Root User : uid – 0 gid - 0
2. System User : uid and gid between 1 to 999
3. Local User 1000 onwards. In a single directory, we can create 60,000 users

**Important commands**

awk -F':' '{ print $1}' /etc/passwd - > To print all user in linux

useradd -> to create a new user & useradd –a 4001 username – to give user uid 4001 ( -g for gid )

usermod -> modify user usermod –a 4001 username – to change user uid to 4001 ( -g for gid ) ,

usermod –l newname oldname – > to change user login name

usermod –c

groupadd -> to create new group or add group

cat /etc/passwd -> to prints the data of the configuration file of user

gpasswd -a username groupname -> to add user to the group

gpassed -M "user1,user2,user3" groupname -> to add multiple users but the users already present will be removed

gpasswd groupname -> to set password to the group

gpasswd -A username groupname -> to make admin for the group

gpasswd -A .. -> Remove Admin

userdel username -> deletes user without removing the user resources (directory)

userdel -r username -> deletes user and all the resources

groupdel groupname -> delete group

chage -l username -> to see the user related information

When we create a new user or modify user then user detail changes occur in the following files

**/etc/passwd , /etc/group , /etc/gshadow & /etc/shadow**

**Fields of /etc/passwd**

1) username

2) link of encrypted password from /etc/shadow

3) uid

4) gid

5) comment

6) home directory of local user

7) login shell

ex : username:x:1001:1001::/home/username:/bin/bash

**Fields of /etc/group**

1) group name

2) encrypted password link of group from gshadow file

3) gid

4) list of group members

**Fields of /etc/gshadow**

1) group name

2) encrypted password

3) group admin name

4) list of group members

**fileds of /etc/shadow**

1) username

2) encrypted password

3) last password change date since 1 jan 1970

4) minimum days

5) maximum days

6) warning days

7) inactive days

8) Expiry

9) Future use

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to change the minimum number of days of user password

chage --mindays no.ofdays username

to change the maximum number of days of user password

chage --maxdays no.ofdays username

change inactive days

Inactive days are the number of days for which the account can be inactive before being disabled

chage --inactive no.ofdays username

to set user account expiry date

chage -M no.ofdays username

to set warning days

chage --warndays no.ofdays username

to change last password change date?

chage passwd