Linux Interview Questions

Lavatech Technology

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User and Group Administration

1. **What is a user?**
   Ans. In Linux user is one who uses the system.

2. **How many types of users available in Linux?**
   Ans.There are 5 types of users available in Linux.

   - System user (Admin user who control the whole system nothing but root user).
   - Normal user (Created by the Super user. In RHEL - 7 the user id's from 1000 - 60000).
   - System user (Created when application or software installed
   - In RHEL - 7 the System users are Static system user id's from 1 - 200 and (ii) Dynamic system user user id'sfrom 201 - 999).
   - Network user (Nothing but remote user, ie., who are login to the system trough network created
   - Windows Active Directory or in Linux LDAP or NIS).
   - Sudo user (The normal users who are having admin or Super user privileges)

3. **What is user management?**
   Ans.User management means managing user. ie., Creating the users, deleting the users and modifying the users.

4. **What are the important points related to users?**
   - Ans.Users and groups are used to control access to files and resources.
   - Users can login to the system by supplying username and passwords to the system.
   - Every file on the system is owned by a user and associated with a group.
   - Every process has an owner and group affiliation.
   - Every user in the system is assigned a unique user id (uid) and group id (gid).
   - User names and user id are stored in /etc/passwd file.
   - User's passwords are stored in /etc/shadow file in an encrypted form.
   - Users are assigned a home directory and a shell to work with the O/S.
   - Users cannot read, write and execute each other's files without permission.
   - Whenever a user is created a mail box is created automatically in /var/spool/mail location.
   - And some user environmental files like .bash_logout, .bash_profile, .bashrc , ...etc., are also copied from /etc/skell to his/her home directory (/home/<username>).

5. **What are fields available in /etc/passwd file?**
   Ans.<user name> : x : <uid> : <gid> : <comment> : <user's home directory> : <login shell (where 'x' means link to password file ie., /etc/shadow file)

6. **What are fields available in /etc/shadow file?**
Ans. user name : password : last changed : min. days : max. days : warn days : inactive days : expiry days : reserved for future.

7. **What are the files that are related to user management?**
   - Ans.**/etc/passwd**: Stores user's information like user name, uid, home directory and shell ...etc.,
   - **/etc/shadow**: Stores user's password in encrypted form and other information.
   - **/etc/group**: Stores group's information like group name, gid and other information.
   - **/etc/gshadow**: Stores group's password in encrypted form.
   - **/etc/passwd**: Stores the /etc/passwd file backup copy.
   - **/etc/shadow**: Stores the /etc/shadow file backup copy.
   - **/etc/default/useradd**: Whenever the user created user's default settings taken from this file.
   - **/etc/login.defs**: user's login defaults settings information taken from this file.
   - **/etc/skell** ——> Stores user's all environmental variables files and these are copied from this directory to user's home directory

8. **In how many ways can we create the users?**
   - Ans. **useradd** - <options><user name>

- (ii) **adduser** - <options><user name>
- (iii) **newusers** <file name> (In this file we have to enter the user details same as /etc/passwd file)

9. **What is the syntax of useradd command with full options?**
Ans. useradd -u <uid> -g <gid> -G <secondary group> -c <comment> -d <home directory> -s <shell><user name>
Example: useradd -u 600 -g 600 -G java -c "oracle user" -d /home/raju -s /bin/bash raju

10. **What is the syntax of adduser command with full options?**
Ans.adduser -u <uid> -g <gid> -G <secondary group> -c <comment> -d <home directory> -s <shell><user name>
Example# adduser -u 700 -g 700 -G linux -c "oracle user" -d /home/ram -s /bin/bash ram.

11. **What is the syntax of newuser command?**
- Ans. newusers <file name> (This command will create multiple users at a time)
- First we should a file and enter user's data as fields same as the fields of /etc/passwd file for how many users do you want to create and mention that file as an argument for newusers command.
- When we execute this command new users will be created but their environmental files like

.bash_logout, .bash_profile, .bashrc and .bash_history files will not be copied from /etc/skell. Directory. So, we have to copied manually from /etc/skell directory.

12. **What is the syntax of userdel command with full options?**
Ans.userdel <options><user name>
The options are:

- **-f** :forcefully delete the user even through the user is login. The user's home directory, mail and message directories are also deleted.

- **-r** : recursively means files in the user's home directory will be deleted and his home directory also deleted but the other files belongs to that user should be deleted manually.

13. **How to check whether user is already created or not?**
Ans.We can check in different ways:

- id <user name> (It shows the user id group id and user name if that is already created)

- grep <user name> /etc/passwd

14. **How to verify or check the integrity of the password file?**

- Ans.pwck <options> /etc/passwd or

- pwck <options> /etc/shadow

- The options are, -q :quiet r : read only s : sort the contents by uidin /etc/passwd and /etc/shadow files

15. **How to verify or check the integrity of the group file?**

- grpck <options> /etc/group or
- grpck <options> /etc/gshadow
- The options are, -r:read only -s:sort the contents by **gidin /etc/group and /etc/gshadow files.**

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