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Practical No. 4

Title: Creation of user and group

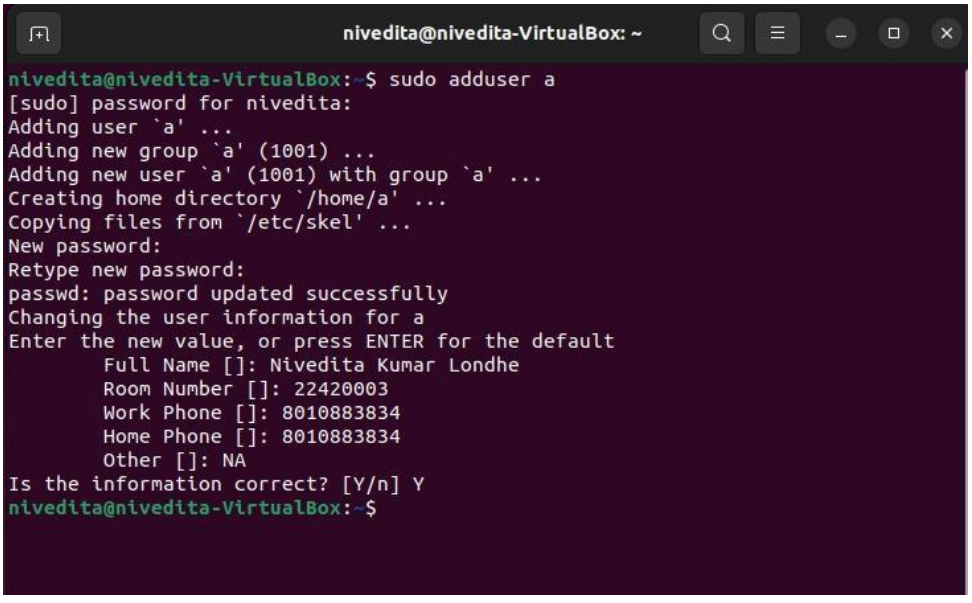
Part A: Creating User

Procedure:

1. Commands Used:

- To create a user:
  sudo adduser username
- To create a group:
  sudo addgroup groupname
- To add a user to a group:
  sudo usermod -aG groupname username
- Verify the groups the user is part of:
  groups username

Screenshots:



Part B: Group Creation

Procedure:

Step 1: Create a Group

- The **groupadd** command is used to create a group in the system.
- If the group already exists, the system will return.

Step 2: Add User to the Group

- To add an existing user to the group, the **usermod** command is used. This appends the user to the group without removing them from any existing groups.

Step 3:Verfiy Group Membership

- You can verify the groups a user belongs to with the **groups** command.
  Command:

ScreenShot:

Conclusion :

The experiment of Creation of user and group is performed successfully with proper screenshot as expected.

Significance of creating user and group

- **User Account Management:** Creating individual users allows multiple people to use the same system without interfering with each other's files, settings, or preferences. Each user gets their own home directory, where personal data is stored.
- **Access Control and Security:** Users and groups allow the administrator to control file permissions and system resources. You can specify which users or groups can access, modify, or execute files, enhancing system security.
- **Task Isolation:** Different users can be assigned different roles or tasks, isolating their activities. This isolation prevents one user's actions from affecting another's data or processes.
- **Group Management:** Groups allow users to be categorized based on shared roles or responsibilities. Instead of assigning permissions individually, you can assign them to groups, simplifying management in larger environments.
- **System Administration:** By creating user groups (e.g., group), you can provide certain users with administrative privileges while keeping others as standard users. This prevents accidental or unauthorized system changes.
- **Resource Allocation:** Users and groups can be used to manage resource limits, ensuring fair usage of system resources like CPU and memory. This is important in multi-user environments like servers.
- **Collaboration and Sharing:** Groups make it easier to manage collaboration by allowing a set of users to share files and directories, granting access to a common pool of resources.