Ex 5	**Package Management System**
Date: 29.08.20	

Aim:

To study and implement the package management system

Description:

Samba :

Samba is a free and open-source re-implementation of the SMB/CIFS network file sharing protocol that allows end users to access files, printers, and other shared resources.

This tutorial explains how to install Samba on Ubuntu 18.04 and configure it as a standalone server to provide file sharing across different operating systems over a network.

We'll create the following Samba shares and users.

Users:

- **sadmin** - An administrative user with read and write access to all shares.
- **josh** - A regular user with its own private file share

Shares:

- **users** - This share will be accessible with read/write permissions by all users.
- **josh** - This share will be accessible with read/write permissions only by users josh and sadmin.

The file shares will be accessible from all devices on your network. Later in this tutorial, we will also provide detailed instructions on how to connect to the Samba server from Linux, Windows and macOS clients.

Exercise

1. Install (Samba) free software re-implementation of the SMB/CIFS networking protocol.

Installing samba using terminal

```
kali@kali:~$ sudo apt install samba
[sudo] password for kali:
Reading package lists ... Done
Building dependency tree
Reading state information ... Done
samba is already the newest version (2:4.12.5+dfsg-3).
0 upgraded, 0 newly installed, 0 to remove and 475 not upgraded.
```

Checking the status of Samba service

```
kali@kali:~$ sudo systemctl status smbd
● smbd.service - Samba SMB Daemon
     Loaded: loaded (/lib/systemd/system/smbd.service; disabled; vendor preset: disabled)
     Active: active (running) since Mon 2020-11-02 04:26:02 EST; 4s ago
       Docs: man:smbd(8)
             man:samba(7)
             man:smb.conf(5)
    Process: 1465 ExecStartPre=/usr/share/samba/update-apparmor-samba-profile (code=exited, status=0/SUCCESS)
   Main PID: 1469 (smbd)
     Status: "smbd: ready to serve connections ... "
      Tasks: 4 (limit: 2318)
     Memory: 26.0M
     CGroup: /system.slice/smbd.service
             ├─1469 /usr/sbin/smbd --foreground --no-process-group
             ├─1471 /usr/sbin/smbd --foreground --no-process-group
             ├─1472 /usr/sbin/smbd --foreground --no-process-group
             └─1473 /usr/sbin/smbd --foreground --no-process-group

Nov 02 04:26:02 kali systemd[1]: Starting Samba SMB Daemon ...
Nov 02 04:26:02 kali systemd[1]: Started Samba SMB Daemon.
```

Starting Samba using start smbd

```
kali@kali:~$ sudo systemctl start smbd
kali@kali:~$ sudo systemctl status smbd
● smbd.service - Samba SMB Daemon
     Loaded: loaded (/lib/systemd/system/smbd.service; disabled; vendor preset: disabled)
     Active: active (running) since Mon 2020-11-02 04:26:02 EST; 1min 19s ago
       Docs: man:smbd(8)
             man:samba(7)
             man:smb.conf(5)
    Process: 1465 ExecStartPre=/usr/share/samba/update-apparmor-samba-profile (code=exited, status=0/SUCCESS)
   Main PID: 1469 (smbd)
     Status: "smbd: ready to serve connections ... "
      Tasks: 4 (limit: 2318)
     Memory: 26.0M
     CGroup: /system.slice/smbd.service
             ├─1469 /usr/sbin/smbd --foreground --no-process-group
             ├─1471 /usr/sbin/smbd --foreground --no-process-group
             ├─1472 /usr/sbin/smbd --foreground --no-process-group
             └─1473 /usr/sbin/smbd --foreground --no-process-group

Nov 02 04:26:02 kali systemd[1]: Starting Samba SMB Daemon ...
Nov 02 04:26:02 kali systemd[1]: Started Samba SMB Daemon.
```

Restart Samba using restart smbd

```
kali@kali:~$ sudo systemctl restart smbd
kali@kali:~$
```

Allow Samba service from firewall

```
kali@kali:~$ sudo ufw allow 'samba'
Rule added
Rule added (v6)
```

Enforce Permissive State

```
kali@kali:~$ getenforce
Disabled
```

```
kali@kali:~$ setenforce
usage:  setenforce [ Enforcing | Permissive | 1 | 0 ]
```

Creating a normal user and setting up the Password

```
kali@kali:~$ sudo useradd -M -d /samba/deepak -s /usr/sbin/nologin -G sambashare deepak
```

```
kali@kali:~$ sudo chown deepak:sambashare /samba/ deepak
kali@kali:~$ sudo chmod 2770 /samba/ deepak
kali@kali:~$ sudo smbpasswd -a deepak
New SMB password:
Retype new SMB password:
Added user deepak.
kali@kali:~$ sudo smbpasswd -e deepak
Enabled user deepak.
```

Installing smbclient from terminal to access localhost

```
kali@kali:~$ sudo apt install smbclient
Reading package lists... Done
Building dependency tree
Reading state information... Done
smbclient is already the newest version (2:4.12.5+dfsg-3).
smbclient set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 475 not upgraded.
```

Login into smbclient and listing number of documents

```
kali@kali:~$ smbclient //localhost/deepak -U deepak
Enter WORKGROUP\deepak's password:
```

Results:

The package management system is executed and verified succesfully.

Video : https://youtu.be/GLrbH9RcC3M