COLLEGE OF ENGINEERING

CHENGANNUR

CS232

FREE AND OPEN SOURCE SOFTWARE LAB

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Certificate

Name :   Class :

Roll No :   Exam No :

This is certified to be the bonafide record of practical work done in Free and Open Source Software as per Syllabus of class .... in the Lab during the academic year 20   /20

....

Teacher In-charge   *Head of Dept.*

....

Examiner's Signature   *Principal*

Date : ....   *Institution Rubber Stamp*

Contents….

EXPERIMENT- 1

LINUX COMMANDS

Date : 07/02/2019

Task details :-

To familiarize with following commands

- ➢ ls -The "ls" command is used to know what files are there in the directory you are in. You can see all the hidden files by using the command "ls-a" .
- ➢ alias –The "alias" command instructs the shell to replace one string while executing the commands.
- ➢ cd – The "cd" is the command used to go to a directory.
- ➢ mkdir -The mkdir command is used when you need to create a folder or a directory.
- ➢ rmdir - rmdir is the command used for deleting a directory.
- ➢ man -To know more about a command and on how to use it, the man command is used.
- ➢ Ping-To check connection to server.
- ➢ cp-The cp command is used to copy files through the command line

- mv-The mv command is used to move files through the command line.
- cat-The cat command is used to display the contents of a file, usually used to easily view programs

EXPERIMENT-2

SCRIPTING TASK

Date:03/05/2019

Aim : To calculate cgpa of first year D batch students

Task details:-

- Downloaded ktu results using curl .
- Converted it into text document using pdftotext.
- Grep command helps to search cs students.
- Join command helps to extract d batch students from cs students.
- Grade are replaced by grade points using sed commands .
- Using awk ,calculated the sgpa .
- Did similar for s2 and cgpa is calculated.

EXPERIMENT-3

NETWORKING TASKS

Date:01/04/2019

Aim: To setup network with ifconfig, route, /etc/resolve.config

Experiment details:

- ➢ ifconfig- ifconfig used to display and configure network interface.
- ➢ ifconfig interface up -is used to activate the driver for the given interface.
- ➢ ifconfig interface down option is used to deactivate the driver for the given interface
- ➢ ifconfig eth0 192.168.2.2 –Assign ip address to an interface.
- ➢ route- The route show and manipulate IP routing tables. No switch shows info.
- ➢ etc/resolve.conf - It is used to configure dns name servers.

EXPERIMENT -4

SSH ,RSYNC &SCP

Date:14/03/2019

Aim:To familiar with ssh,rsync and scp.

Experiment details:-

ssh - It is a command used to login into another computer over a network and to move files from one another.
ssh user_name@host: Here username refers to account that is being accessed on host and host refers to machine or router that is being accessed. It can IP address or domain.

 rsync –rsync will copy only the changed part of files.

rsync local-file user@remote-host:remote-file

scp –It is used to copy files between servers in a secure way.It is similar to ssh . The scp command or secure copy allows secure transferring of files in between the local host and the remote host or between two remote hosts.

EXPERIMENT -5

FTP USAGE

Date:28/03/2019

Aim:

To familiar with ftp usage.

Experiment details:

The **File Transfer Protocol** (**FTP**) is a standard network protocol used for the transfer of computer files from a server to a client using the Client–server model on a computer network.Sftp is used rather than ftp. when we enter sftp user@sever_add. The server will ask us password. After entering the password, we get access to server. The commands to list, move and create folders on SFTP server are almost the same as we would use locally on our computer, ls for list, cd to change directories, mkdir to create directories. put command will upload files to server. Get command will download the files that we want.Once we have done the SFTP work, we should close the connection by entering exit or bye or quite.

EXPERIMENT -6

LINUX INSTALLATION

Date: 28/03/2019

Aim

To install linux using DVD provided.

Experiment details:-

Insert DVD to cd-rom of the computer to which linux is to be installed. Follow the instructions . The root password which isset on the time of installation is to be remembered.

EXPERIMENT -7

HTTP&FTP SERVERS

Date : 08/04/2019

Aim:

To setup http and ftp server.

Experiment details:

To install vsftpd, use the command sudo apt install vsftpd.
sudo vsftpd will enable it.Then the command- ftp localhost will
show you the local host page in   your server

Nginx is a free, open-source, high performance HTTP server.

To install it, apt-get install nginx is used.

To check whether it is running or not service nginx status is
used.
Local host can be created by changing index.html for that,sudo
gedit/var/www/html/index.html is used.

EXPERIMENT-8

FURTHER TASKS

Date:25/02/2019

Aim:

 To familaiarize with package management ,lamp stack,perl ,

Kernel compliation.

Experiment description:

Package management:

In few words, package management is a method of installing and maintaining software on the system.

apt –get: The apt-get utility is a powerful and free package management command line program, to perform installation of new software packages, removing existing software packages, upgrading of existing software packages and even used to upgrading the entire operati ng system.

 sudo apt-get update

The 'upgrade' command is used to upgrade all the currently installed software packages on the system

Perl-

Perl is a scripting language. Sample of perl code is like this

#!/usr/bin/perl

print "Hello, world!";

Save it by .pl extension and run by perl filename.pl

Lamp Stack
LAMP is an acronym consists of Linux , Apachae,My Sql and PHP.
Apache server: To install apache server, sudo apt install apache2 is used.
My sql is replaced by mariadb,to install mariadb sudo apt-get install mariadb-server mariadb-client is used.

Kernel
Install using sudo apt install git fakeroot.
To rip collection of files tar command is used. Make menu config is used to configure menu. Make modules is used to install a module.

EXPERIMENT-9
WEBPAGE

Date: 04/05/2019

Aim:
To create webpages on webservers.

Experiment details:
Create index.html which have details of our FOSS lab.Upload it to our server.

DETAILED REPORT .. EXPERIMENT -4

1.current logged in username:

It can be displayed by following commands:

- logname
- whoami
- id –un

2. current logged user

It can be displayed using following commands:

- echo $USER
- id –un
- users

3.operating system type

- echo $OSTYPE

4.Home directory –

- cd
- echo $HOME

5.current path

- echo$PATH

6.current working directory-

- pwd

7.no of users currently worked in:-

- users|wc-w

code of the experiment is:

```
#!/bin/bash

logname  ## current logname ##

echo $USER ##current logged user ##

echo $SHELL ## current shell ##

echo $OSTYPE ## os type ##

cd ## home directory ##

echo $PATH ## current path ##

pwd ## current working directory ##

users | wc -w ## no of users currently logged in ##
```

Result of the experient is:-

s4d@user-Inspiron-15-3567:~$ chmod +x exp_4.sh

s4d@user-Inspiron-15-3567:~$ sh exp_4.sh

s4d

s4d

/bin/bash

/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:/snap/bin:/usr/lib/jvm/java-8-oracle/bin:/usr/lib/jvm/java-8-oracle/db/bin:/usr/lib/jvm/java-8-oracle/jre/bin

/home/s4d
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