ASSIGNMENT

SUBJECT :20MCA133 - Web Programming Lab(Cycle 1)

TO,

Mr. Rahulnath H.A
Assistant Professor
Department of MCA

FROM,

Arjun V Pankajakshan
Roll No- 11
D_1 MCA

1. The various steps involved in each of the above tasks.

Git and Github

A) To install git first open the terminal ,then run the following command.It will ask for password and type the password.Then it will ask for continue after some loading.Give “y” to continue,It installs git in the pc in few seconds.

$ sudo apt install git

B) To set up an account in Github search the term ”Github” in search engine.Then go the site have this url, https://github.com/ .Enter the unique email address,user name and password,then click on signup for Github.Then Click on “Join for Free Plan” after verifying the captcha verication.then click on “Complete Setup” It send a verification mail to the entered email address.Open the gmail app and verify it.Github account created.

To create repository,click on new option repository section and enter the name and click on create repository on bottom ,which create repository named “Web Programming”.As this same method we can create another two repositories named Data Structures, Programming Lab(Python).

To clone these repositories to the local machine use the command **git clone**.Run the following commands

$ git clone https://github.com/uttappan/Web-Programming.git
$ git clone https://github.com/uttappan/Data-Structures.git
$ git clone https://github.com/uttappan/Programming-Lab-Python-.git

The URL To The Web Programming Lab Repository

https://github.com/uttappan/Web-Programming

Install PHP, MySQL, Python3 And NodeJS

To install PHP ,run the following command ,then give the password,then continue by entering “y”.PHP will be installed in few seconds.
$ sudo apt install php

To install MySQL ,run the following command ,then give the password,then continue by entering “y”. MySQL will be installed in few seconds.
$ sudo apt install mysql-server

To install Python3 ,run the following command ,then give the password,then continue by entering “y”.Python3 will be installed in few seconds.
$ sudo apt install python3

To install NodeJS,run the following command ,then give the password,then continue by entering “y”. NodeJS will be installed in few seconds.
$ sudo apt install nodejs

Install A Programming IDE For Your Lab Courses

Go to browser and search for “vs code for ubuntu 1.35”then got the following link.
https://code.visualstudio.com/updates/v1_35 .Download vs code 1.35 and open the downloaded file and click on install button.

2. Each new linux terminal command you learn, what these commands and the various options.

pwd -- command will tell you exactly what the current working directory is.
cd -- command is used to change the working directory .
cd / -- is used to change working directory to root directory.
cd home -- change root directory to home.
cd .. -- to go back to parent diectory.
cd -- is a shortcut to get back to home directory.
cd ../.. -- is used to go back to multiple parent directories.
cd ../../etc -- for going straight from our home directory to the “etc” directory.
whoami -- is used to know the user name.
Ls -- to list directory
mkdir -- to make a new directory.

Example:

1) $ mkdir /tmp/tutorial
2) $ cd /*tmp/t*utorial
3) $ mkdir dir1 dir2 dir3
4) $ mkdir -p dir4/dir5/dir6

In first command we create the ***tutorial*** directory inside ***/tmp***.Then on the second command changed current directory into tutorial.third command is used to create three directories in tutorial directory at a time.The fourth command is used for to create parent directories,in above case it creates dir6 inside dir5,dir5 inside dir4 and dir4 inside tutorial directory.The following are the same meaning,which are another method of parent directories.

$mkdir --parents --verbose dir4/dir5
$mkdir -p --verbose dir4/dir5
$mkdir -p -v dir4/dir5
$mkdir -pv dir4/dir5

The following commands to try out different ways to create folders with spaces in the name:

mkdir "folder 1"

mkdir 'folder 2'

mkdir folder\ 3
mkdir "folder 4" "folder 5"
mkdir -p "folder 6"/"folder 7"

Creating Files

To capture the output of that command as a text file that we can look at or manipulate further. All we need to do is to add the greater-than character (">") to the end of our command line, followed by the name of the file to write to:

Example:$ ls > output.txt

cat -- command to look at its content.

echo -- just prints arguments.

Example:

1. $echo "This is a test" > test_1.txt
2. $ echo "This is a second test" > test_2.txt
3. $ echo "This is a third test" > test_3.txt
4. $ cat test_1.txt test_2.txt test_3.txt
5. $ cat test_?.txt
6. $ cat test_*
7. $ cat t* > combined.txt
8. $ echo "I've appended a line!" >> combined.txt
9. $ less combined.txt

In the above example, first three commands use to create three text files with content written with echo command. The fourth command output each of them, one after the other, as a single block of text.The fifth and sixth commands is shortcut methods for command 4.sixth command even further to cat t*, meaning “concatenate all the files whose names start with a ***t*** and are followed by zero or more other characters”. Let’s use this capability to join all our files together into a single new file.In command eight If we want to append to, rather than replace, the content of the files, double up on the greater-than character.In order to see the whole file we now need to use a different program, called a ***pager*** (because it displays your file one “page” at a time) by command 9 less can use the **Up Arrow, Down Arrow, Page Up, Page Down, Home and End ke**ys to move through your file. . When you’ve finished viewing your file, press **q** to **q**uit less and return to the command line.

Unix systems are case-sensitive, that is, they consider “A.txt” and “a.txt” to be two different files. If you were to run the following lines you would end up with three files:

$ echo "Lower case" > a.txt
$ echo "Upper case" > A.TXT

$ echo "Mixed case" > A.txt

Moving And Manipulating Files

mv -- command is used to move files from one directory to another

Example

1. $ mv combined.txt dir1

2. $ cd dir1

   $ mv combined.txt ..

3. $ mv dir1/* .

4. $ mv combined.txt test_* dir3 dir2

5. $ mv dir2/combined.txt dir4/dir5/dir6

The first command putting our *combined.txt* file into our *dir1* directory. Then the command two move it back to the working directory.The third command is alternate method of command two.The command 4 move more than one file at a time into dir2.In command 5 combined.txt in *dir2* have been put in *dir6*, which is the one that's inside *dir5*, which is in *dir4*.

cp -- command to copy files

Example

1. $ cp dir4/dir5/dir6/combined.txt .

2. $ cp combined.txt backup_combined.txt

3. $ mv backup_combined.txt combined_backup.txt

The first command copying combined.txt in the curent working directory.The Second command create another copy of the file, in our working directory but with a different name.The third command is used to rename the file.

rm command to remove file

rmdir command to remove directories

The wc (**w**ord **c**ount) command can tell us that, using the -l switch to tell it we only want the line count (it can also do character counts and, as the name suggests, word counts)

If we were to sort the contents of the file alphabetically, Unix offers a **`sort`** command to do exactly that.

The Command Line And The Superuser

`sudo` is used to prefix a command that has to be run with superuser privilege and is to install new software onto your system using the `apt` or `apt-get` commands.

Example:

```
$ sudo apt install tree
```

The above command is used to install tree tree.

Hidden Files

To **hidden** Rename the file with simply starting a name with a dot (".").We can still work with the hidden file by making sure you include the dot when you specify its file name.If we run ls you'll see that the .hidden directory is, as you might expect, hidden. You can still list its contents using ls .hidden, but as it only contains a single file which is, itself, hidden you won't get much output. But you can use the -a (show **a**ll) switch to ls to make it show everything in a directory, including the hidden files and folders:

3. Any bugs or issues you encounter while executing these commands or while installing any of the above packages and how you fix these issues and bugs?

When runned following comment i got error message as “No such file or directory”
$ cd desktop.
This error because Unix systems are case-sensitive.I entered “desktop” instead of “Desktop”.

A problem found only when installing VS Code.Not installing VS Code latest version.The installation of VS Code latest version is not done because my system is based 32 bit.Since VS Code started using Electron 4.x+, it does not anymore run on Linux 32-bit.VS Code mentioned the upgrade to Electron 4 in their release for 1.36.So my only option is to use an older version before 1.36.Start with the 1.35 release.It works.