

# ASSIGNMENT - 5

1. Using SSH command execute the three programs on two different machines.
2. Create a project under CVS/git repository and record multiple versions/branches and practice merging of branches (with a batch of 2 members) using gitbash commands and upload all your previous lab tasks to this repository .

## SSH

```
Activities Terminal Mar 20 15:40 student@ai-HP-ProDesk-600-G4-MT: ~/Desktop/attachments

student@ai-HP-ProDesk-600-G4-MT:~$ sudo apt install openssh-client openssh-server
[sudo] password for student:
Reading package lists... Done
Building dependency tree
Reading state information... Done
openssh-client is already the newest version (1:8.2p1-4ubuntu0.11).
openssh-server is already the newest version (1:8.2p1-4ubuntu0.11).
0 upgraded, 0 newly installed, 0 to remove and 279 not upgraded.
student@ai-HP-ProDesk-600-G4-MT:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: eno1: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc fq_codel state DOWN group default qlen 1000
    link/ether 10:e7:c6:39:92:53 brd ff:ff:ff:ff:ff:ff
    altname enp0s31f6
3: wlp2s0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc noqueue state UP group default qlen 1000
    link/ether fc:01:7c:8e:3f:5b brd ff:ff:ff:ff:ff:ff
    inet 172.50.4.235/20 brd 172.50.15.255 scope global noprefixroute wlp2s0
        valid_lft forever preferred_lft forever
    inet6 fe80::fe01:7cfe:fe8e:3f5b/64 scope link
        valid_lft forever preferred_lft forever
student@ai-HP-ProDesk-600-G4-MT:~$ ssh student@172.50.4.235
student@172.50.4.235's password:
Welcome to Ubuntu 20.04.5 LTS (GNU/Linux 5.15.0-79-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

1 device has a firmware upgrade available.
Run 'fwupdmgtr get-upgrades' for more information.

288 updates can be applied immediately.
191 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

New release '22.04.3 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Your Hardware Enablement Stack (HWE) is supported until April 2025.
Last login: Wed Mar 20 15:24:12 2024 from 172.50.4.235
student@ai-HP-ProDesk-600-G4-MT:~$ cd Desktop
```

```
Activities Terminal Mar 20 15:40 student@ai-HP-ProDesk-600-G4-MT: ~/Desktop/attachments

student@ai-HP-ProDesk-600-G4-MT:~$ cd Desktop
student@ai-HP-ProDesk-600-G4-MT:~/Desktop$ ls
'422178_DATA BASE MANAGEMENT SYSTEM LAB' 622104 attachments.zip file2.txt file4.txt num.txt wifi_off_command.sh
'422178_unix Tools and Shell Scripting Lab' attachments file1.txt file3.txt new state.txt wifi_on_command.sh
student@ai-HP-ProDesk-600-G4-MT:~/Desktop$ cd attachments
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/attachments$ ls
cities.txt day-temp.txt forgrep.txt foruniq.txt grepscript.sh months.txt numbers.txt week9.txt
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/attachments$ ./grepscript.sh
\bash: ./grepscript.sh: Permission denied
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/attachments$ chmod +x grepscript.sh
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/attachments$ ./grepscript.sh
Original File:
This is a sample text file.
It contains various lines of text.
Line 1: 12345, apple, banana
Line 2: 67890, orange, grapes
Line 3: !@#$, cherry, mango
Line 4: This is a longer line with more words.
...
Lines containing line:
It contains various lines of text.
Line 4: This is a longer line with more words.

First 3 lines of the file:
This is a sample text file.
It contains various lines of text.
Line 1: 12345, apple, banana

Last 3 lines of the file:
Line 3: !@#$, cherry, mango
Line 4: This is a longer line with more words.
...
Second field of each line (comma-separated):
This is a sample text file.
It contains various lines of text.
apple
orange
cherry
Line 4: This is a longer line with more words.
...
Lines of the file pasted side by side:
This is a sample text file. It contains various lines of text. Line 1: 12345, apple, banana Line 2: 67890, orange, grapes Line 3: !@#$,
cherry, mango Line 4: This is a longer line with more words, ...
```

```
Activities Terminal Mar 20 15:40 student@ai-HP-ProDesk-600-G4-MT: ~/Desktop/attachments

cherry, mango Line 4: This is a longer line with more words. ...

Sorted lines of the file:
...
It contains various lines of text.
Line 1: 12345, apple, banana
Line 2: 67890, orange, grapes
Line 3: !@#$, cherry, mango
Line 4: This is a longer line with more words.
This is a sample text file.

Unique lines of the file:
This is a sample text file.
It contains various lines of text.
Line 1: 12345, apple, banana
Line 2: 67890, orange, grapes
Line 3: !@#$, cherry, mango
Line 4: This is a longer line with more words.
...

File with all uppercase characters converted to lowercase:
this is a sample text file.
it contains various lines of text.
line 1: 12345, apple, banana
line 2: 67890, orange, grapes
line 3: !@#$, cherry, mango
line 4: this is a longer line with more words.
...

student@ai-HP-ProDesk-600-G4-MT:~/Desktop/attachments$ chmod +x awk_command.sh
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/attachments$ ./awk_command.sh
Contents of file1.txt

s01 em1 10000 25
s02 em2 12000 24
s03 em3 11020 22
s04 em4 13000 23
s05 em5 19000 26
s06 em6 20000 25
s07 em7 25000 27
s08 em8 32000 28

Emulate cat command using awk

s01 em1 10000 25
s02 em2 12000 24
```

```
Activities Terminal Mar 20 15:40 student@ai-HP-ProDesk-600-G4-MT: ~/Desktop/attachments

s02 em2 12000 24
s03 em3 11020 22
s04 em4 13000 23
s05 em5 19000 26
s06 em6 20000 25
s07 em7 25000 27
s08 em8 32000 28

printing only first two columns using awk

s01 em1
s02 em2
s03 em3
s04 em4
s05 em5
s06 em6
s07 em7
s08 em8

printing records starting with s and ending with 25

s01 em1 10000 25
s06 em6 20000 25

printing sum of values in field 3

Sum= 142020
Average= 17752.50

print substring containing last 2 letters of field 1, field2 and first two digits of field 3

01 em1 10
02 em2 12
03 em3 11
04 em4 13
05 em5 19
06 em6 20
07 em7 25
08 em8 32

print junior if 3rd column less than equal to 15000
s01 junior
s02 junior
s03 junior
s04 junior
s05 senior
```

```
Activities Terminal
student@ai-HP-ProDesk-600-G4-MT: ~/Desktop/attachments

03 em3 11
04 em4 13
05 em5 19
06 em6 20
07 em7 25
08 em8 32

print junior if 3rd column less than equal to 15000
s01 junior
s02 junior
s03 junior
s04 junior
s05 senior
s06 senior
s07 senior
s08 senior

print squares of the numbers in field 4
25 squared = 625
24 squared = 576
22 squared = 484
23 squared = 529
26 squared = 676
25 squared = 625
27 squared = 729
28 squared = 784

Count the number of words in the file
No of records= 8
No of words= 32
No of characters= 136

Enter a number to calculate sum of first n numbers
25 = 325
24 = 300
22 = 253
23 = 276
26 = 351
25 = 325
27 = 378
28 = 406

student@ai-HP-ProDesk-600-G4-MT:~/Desktop/attachments$
```

## REPOSITORY

REPO LINK : <https://github.com/VenkataCha23/UNIX-Lab>

```
Activities Terminal
student@ai-HP-ProDesk-600-G4-MT: ~/Desktop/422133/UNIX-Lab

student@ai-HP-ProDesk-600-G4-MT:~$ cd Desktop
student@ai-HP-ProDesk-600-G4-MT:~/Desktop$ cd 422133
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133$ git clone https://github.com/VenkataCh23/UNIX-Lab
Cloning into 'UNIX-Lab'...
warning: You appear to have cloned an empty repository.
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133$ ls
'Assignment - 1' 'Assignment - 2' 'Assignment - 3' 'Assignment - 4' Others UNIX-Lab
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133$ cd UNIX-Lab
bash: cd: UNIX-LAB: No such file or directory
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133$ cd UNIX-Lab
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133/UNIX-Lab$ git status
On branch master

No commits yet

nothing to commit (create/copy files and use "git add" to track)
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133/UNIX-Lab$ git checkout -b branch_1
Switched to a new branch 'branch_1'
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133/UNIX-Lab$ ls
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133/UNIX-Lab$ git status
On branch branch_1

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    Assignment - 1/
    Assignment - 2/
    Assignment - 3/
    Assignment - 4/
    Others/

nothing added to commit but untracked files present (use "git add" to track)
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133/UNIX-Lab$ git add .
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133/UNIX-Lab$ git status
On branch branch_1

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
    new file:   Assignment - 1/Assignment - 1.pdf
    new file:   Assignment - 2/awk_out.txt
    new file:   Assignment - 2/file1.txt
    new file:   Assignment - 2/sed.sh
    new file:   Assignment - 2/sed_out.txt
    new file:   Assignment - 2/sum.sh
```



```
Activities Terminal Apr 4 19:39 student@ai-HP-ProDesk-600-G4-MT: ~/Desktop/422133/UNIX-Lab

Changes to be committed:
(use "git rm --cached <file>..." to unstage)
new file: Assignment - 1/Assignment - 1.pdf
new file: Assignment - 2/awk_out.txt
new file: Assignment - 2/file1.txt
new file: Assignment - 2/sed.sh
new file: Assignment - 2/sed_out.txt
new file: Assignment - 2/tar.sh
new file: Assignment - 2/tar_out.txt
new file: Assignment - 3/Assignment-3.pdf
new file: Assignment - 3/Assignment-3.txt
new file: Assignment - 4/Assignment-4.pdf
new file: Assignment - 4/Assignment-4.txt
new file: Others/eg_dynamic.so
new file: Others/eg_static.a
new file: Others/fact.c
new file: Others/fact_obj.o
new file: Others/g
new file: Others/head.h
new file: Others/main.c
new file: Others/main_obj.o
new file: Others/main_result
new file: Others/prog.c
new file: Others/prog2.c
new file: Others/sun.c
new file: Others/sun_obj.o

student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133/UNIX-Lab$ git commit -m "Added Files"

*** Please tell me who you are.

Run

git config --global user.email "you@example.com"
git config --global user.name "Your Name"

to set your account's default identity.
Omit --global to set the identity only in this repository.

fatal: unable to auto-detect email address (got 'student@ai-HP-ProDesk-600-G4-MT.(none)')
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133/UNIX-Lab$ git config --global user.email "CVCcharan23@gmail.com"
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133/UNIX-Lab$ git config --global user.name "VenkataCh23"
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133/UNIX-Lab$ git commit -m "Added Files"
[branch_1 (root-commit) 58e2673] Added Files
24 files changed, 395 insertions(+)
create mode 100644 Assignment - 1/Assignment - 1.pdf
create mode 100644 Assignment - 2/awk_out.txt
```

```
Activities Terminal Apr 4 19:39 student@ai-HP-ProDesk-600-G4-MT: ~/Desktop/422133/UNIX-Lab

student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133/UNIX-Lab$ git config --global user.email "CVCcharan23@gmail.com"
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133/UNIX-Lab$ git config --global user.name "VenkataCh23"
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133/UNIX-Lab$ git commit -m "Added Files"
[branch_1 (root-commit) 58e2673] Added Files
24 files changed, 395 insertions(+)
create mode 100644 Assignment - 1/Assignment - 1.pdf
create mode 100644 Assignment - 2/awk_out.txt
create mode 100644 Assignment - 2/file1.txt
create mode 100644 Assignment - 2/sed.sh
create mode 100644 Assignment - 2/sed_out.txt
create mode 100644 Assignment - 2/tar.sh
create mode 100644 Assignment - 2/tar_out.txt
create mode 100644 Assignment - 3/Assignment-3.pdf
create mode 100644 Assignment - 3/Assignment-3.txt
create mode 100644 Assignment - 4/Assignment-4.pdf
create mode 100644 Assignment - 4/Assignment-4.txt
create mode 100644 Others/eg_dynamic.so
create mode 100644 Others/eg_static.a
create mode 100644 Others/fact.c
create mode 100644 Others/fact_obj.o
create mode 100755 Others/g
create mode 100644 Others/head.h
create mode 100644 Others/main.c
create mode 100644 Others/main_obj.o
create mode 100755 Others/main_result
create mode 100644 Others/prog.c
create mode 100644 Others/prog2.c
create mode 100644 Others/sun.c
create mode 100644 Others/sun_obj.o
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133/UNIX-Lab$ git push origin branch_1
Username for 'https://github.com': VenkataCh23
Password for 'https://VenkataCh23@github.com':
remote: Support for password authentication was removed on August 13, 2021.
remote: Please see https://docs.github.com/get-started/getting-started-with-git/about-remote-repositories#cloning-with-https-urls for information on currently recommended modes of authentication.
fatal: Authentication failed for 'https://github.com/VenkataCh23/UNIX-Lab/'
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133/UNIX-Lab$ git remote set -url origin https://ghp_6X828TCx7FIUDw2acwjBzQ2Go5NXBe3dmyHw@github.com/VenkataCh23/UNIX-Lab
error: Unknown subcommand: set
usage: git remote [-v] [--verbose]
or: git remote add [-t <branch>] [-m <master>] [-f] [--tags | --no-tags] [--mirror=<fetch|push>] <name> <url>
or: git remote rename <old> <new>
or: git remote remove <name>
or: git remote set-head <name> (-a | --auto | -d | --delete | <branch>)
or: git remote [-v | --verbose] show [-n] <name>
or: git remote prune [-n | --dry-run] <name>
or: git remote [-v | --verbose] update [-p | --prune] [<group> | <remote>]...
```

```
Activities Terminal Apr 4 19:39 student@ai-HP-ProDesk-600-G4-MT: ~/Desktop/422133/UNIX-Lab

create mode 100755 Others/g
create mode 100644 Others/head.h
create mode 100644 Others/main.c
create mode 100644 Others/main_obj.o
create mode 100755 Others/main_result
create mode 100644 Others/prog.c
create mode 100644 Others/prog2.c
create mode 100644 Others/sum.c
create mode 100644 Others/sum_obj.o
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133/UNIX-Lab$ git push origin branch_1
Username for 'https://github.com': VenkataCh23
Password for 'https://VenkataCh23@github.com':
remote: Support for password authentication was removed on August 13, 2021.
remote: Please see https://docs.github.com/get-started/getting-started-with-git/about-remote-repositories#cloning-with-https-urls for information on currently recommended modes of a
uthentication.
fatal: Authentication failed for 'https://github.com/VenkataCh23/UNIX-Lab/'
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133/UNIX-Lab$ git remote set -url origin https://ghp_6X820TCx7FIUDw2acwjzbzQ2Go5NXBe3dmyHM@github.com/VenkataCh23/UNIX-Lab
error: Unknown subcommand: set
usage: git remote [-v | --verbose]
or: git remote add [-t <branch>] [-n <master>] [-f] [--tags | --no-tags] [--mirror=<fetch>[push]] <name> <url>
or: git remote rename <old> <new>
or: git remote remove <name>
or: git remote set-head <name> (-a | --auto | -d | --delete | <branch>)
or: git remote [-v | --verbose] show [-n] <name>
or: git remote prune [-n | --dry-run] <name>
or: git remote [-v | --verbose] update [-p | --prune] [(<group> | <remote>)...]
or: git remote set-branches [--add] <name> <branch>...
or: git remote get-url [--push] [--all] <name>
or: git remote set-url [--push] <name> <newurl> [<oldurl>]
or: git remote set-url --add <name> <newurl>
or: git remote set-url --delete <name> <url>

-v, --verbose          be verbose; must be placed before a subcommand

student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133/UNIX-Lab$ git remote set-url origin https://ghp_6X820TCx7FIUDw2acwjzbzQ2Go5NXBe3dmyHM@github.com/VenkataCh23/UNIX-Lab
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133/UNIX-Lab$ git push origin branch_1
Enumerating objects: 31, done.
Counting objects: 100% (31/31), done.
Delta compression using up to 12 threads
Compressing objects: 100% (30/30), done.
Writing objects: 100% (31/31), 7.95 MiB | 2.38 MiB/s, done.
Total 31 (delta 5), reused 0 (delta 0)
remote: Resolving deltas: 100% (5/5), done.
To https://github.com/VenkataCh23/UNIX-Lab
 * [new branch]      branch_1 -> branch_1
student@ai-HP-ProDesk-600-G4-MT:~/Desktop/422133/UNIX-Lab$
```

Activities Google Chrome Apr 4 19:40 VenkataCh23/UNIX-Lab x +

github.com/VenkataCh23/UNIX-Lab

VenkataCh23 / UNIX-Lab

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

UNIX-Lab Public

branch\_1 1 Branch 0 Tags

Go to file Add file <> Code

VenkataCh23 Added Files 58e2673 · 15 minutes ago 1 Commits

Assignment - 1	Added Files	15 minutes ago
Assignment - 2	Added Files	15 minutes ago
Assignment - 3	Added Files	15 minutes ago
Assignment - 4	Added Files	15 minutes ago
Others	Added Files	15 minutes ago

README

Add a README

Help people interested in this repository understand your project by adding a README.

Add a README

About

No description, website, or topics provided.

Activity

0 stars

1 watching

0 forks

Releases

No releases published

Create a new release

Packages

No packages published

Publish your first package

Languages

C 88.1% Shell 11.9%

Suggested workflows

Based on your tech stack

**NAME : CH V CHARAN**

**SECTION : A**

**ROLL NO : 422133**