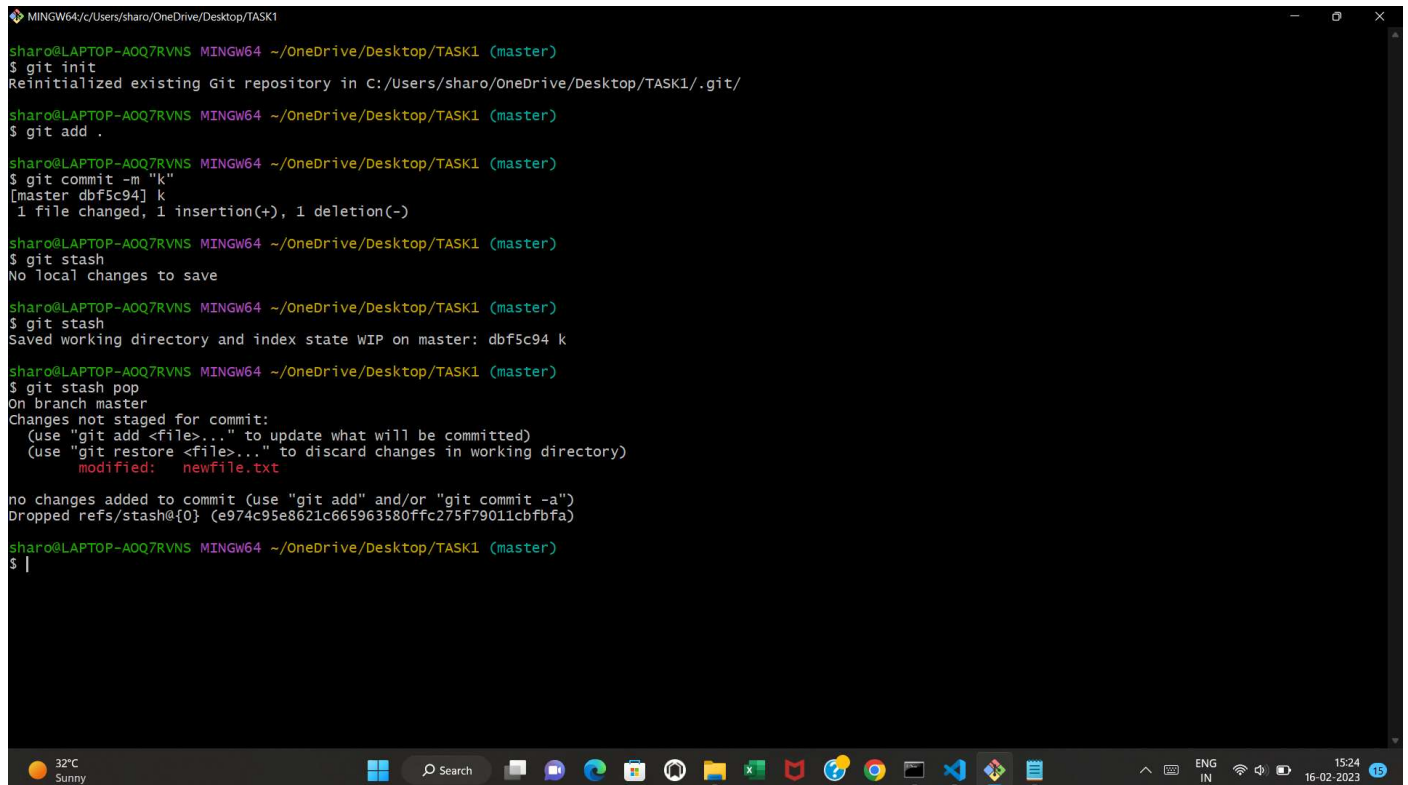


Q1. Describe the usage of the git stash command by using an example and also state the process by giving the screenshot of all the commands written in git bash.

Git Stash:

The git stash command is used to temporarily save changes that are not ready to be committed. It allows you to switch to a different branch or perform other operations without committing the current changes. After, you can apply the changes back to the working directory using git stash apply or git stash pop.



```
MINGW64/c:/Users/sharo/OneDrive/Desktop/TASK1
sharo@LAPTOP-AQQ7RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (master)
$ git init
Reinitialized existing Git repository in C:/Users/sharo/OneDrive/Desktop/TASK1/.git/
sharo@LAPTOP-AQQ7RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (master)
$ git add .
sharo@LAPTOP-AQQ7RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (master)
$ git commit -m "k"
[master dbf5c94] k
1 file changed, 1 insertion(+), 1 deletion(-)
sharo@LAPTOP-AQQ7RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (master)
$ git stash
No local changes to save
sharo@LAPTOP-AQQ7RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (master)
$ git stash
Saved working directory and index state WIP on master: dbf5c94 k
sharo@LAPTOP-AQQ7RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (master)
$ git stash pop
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   newFile.txt

no changes added to commit (use "git add" and/or "git commit -a")
Dropped refs/stash@{0} (e974c95e8621c665963580ffc275f79011cbfbfa)
sharo@LAPTOP-AQQ7RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (master)
$ |
```

Q2. By using a sample example of your choice, use the git fetch command and also use the git merge command and describe the whole process through a screenshot with all the commands and their output in git bash.

Git fetch:

The git fetch command is used to retrieve changes from a remote repository and store them in a local branch. It allows you to see changes made by other collaborators without merging them into your local branch.

Git merge:

The git merge command, on the other hand, is used to merge changes from one branch into another. It combines the changes made in different branches into a single branch.

```
MINGW64/C:/Users/sharo/OneDrive/Desktop/TASK1
sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (master)
$ git init
Reinitialized existing Git repository in C:/Users/sharo/OneDrive/Desktop/TASK1/.git/

sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (master)
$ ls
fetch.txt  newfile.txt

sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (master)
$ git remote add origin https://github.com/21P35A0347/devops.git

sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (master)
$ git fetch
remote: Enumerating objects: 23, done.
remote: Counting objects: 100% (23/23), done.
remote: Compressing objects: 100% (14/14), done.
remote: Total 23 (delta 1), reused 16 (delta 1), pack-reused 0
Unpacking objects: 100% (23/23), 3.41 KiB | 37.00 KiB/s, done.
From https://github.com/21P35A0347/devops
* [new branch]      Emmanuel -> origin/Emmanuel
* [new branch]      master   -> origin/master

sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (master)
$
```

```
MINGW64/C:/Users/sharo/OneDrive/Desktop/TASK1
sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (Emmanuel)
$ git init
Reinitialized existing Git repository in C:/Users/sharo/OneDrive/Desktop/TASK1/.git/

sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (Emmanuel)
$ git add .

sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (Emmanuel)
$ git commit -m "me"
[Emmanuel 08837d8] me
1 file changed, 2 insertions(+), 1 deletion(-)

sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (Emmanuel)
$ git switch master
Switched to branch 'master'

sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (master)
$ git merge Emmanuel
Updating 1f1e7f6..08837d8
Fast-forward
 merge.txt | 3 ++-
1 file changed, 2 insertions(+), 1 deletion(-)

sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (master)
$
```

Q3. State the difference between git fetch and git pull by doing a practical example in your git bash and attach a screenshot of all the processes.

Git fetch:

The git fetch command retrieves changes from a remote repository and stores them in a separate branch in your local repository. This allows you to review the changes before merging them into your local branch.

Git Pull:

The git pull command, on the other hand, retrieves changes from a remote repository and automatically merges them into your local branch.

```
MINGW64/C:/Users/sharo/OneDrive/Desktop/TASK1
sharo@LAPTOP-AQ07RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (master)
$ git init
Reinitialized existing Git repository in C:/Users/sharo/OneDrive/Desktop/TASK1/.git/

sharo@LAPTOP-AQ07RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (master)
$ ls
fetch.txt  newfile.txt

sharo@LAPTOP-AQ07RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (master)
$ git remote add origin https://github.com/21P35A0347/devops.git

sharo@LAPTOP-AQ07RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (master)
$ git fetch
remote: Enumerating objects: 23, done.
remote: Counting objects: 100% (23/23), done.
remote: Compressing objects: 100% (14/14), done.
remote: Total 23 (delta 1), reused 16 (delta 1), pack-reused 0
Unpacking objects: 100% (23/23), 3.41 KiB | 37.00 KiB/s, done.
From https://github.com/21P35A0347/devops
* [new branch]      Emmanuel -> origin/Emmanuel
* [new branch]      master   -> origin/master

sharo@LAPTOP-AQ07RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (master)
$
```

```
MINGW64/C:/Users/sharo/OneDrive/Desktop/TASK1
sharo@LAPTOP-AQ07RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (Emmanuel)
$ git init
Reinitialized existing Git repository in C:/Users/sharo/OneDrive/Desktop/TASK1/.git/

sharo@LAPTOP-AQ07RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (Emmanuel)
$ ls
fetch.txt  merge.txt  newfile.txt

sharo@LAPTOP-AQ07RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (Emmanuel)
$ git remote -b
error: unknown switch 'b'
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 [--[no-]progress] <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

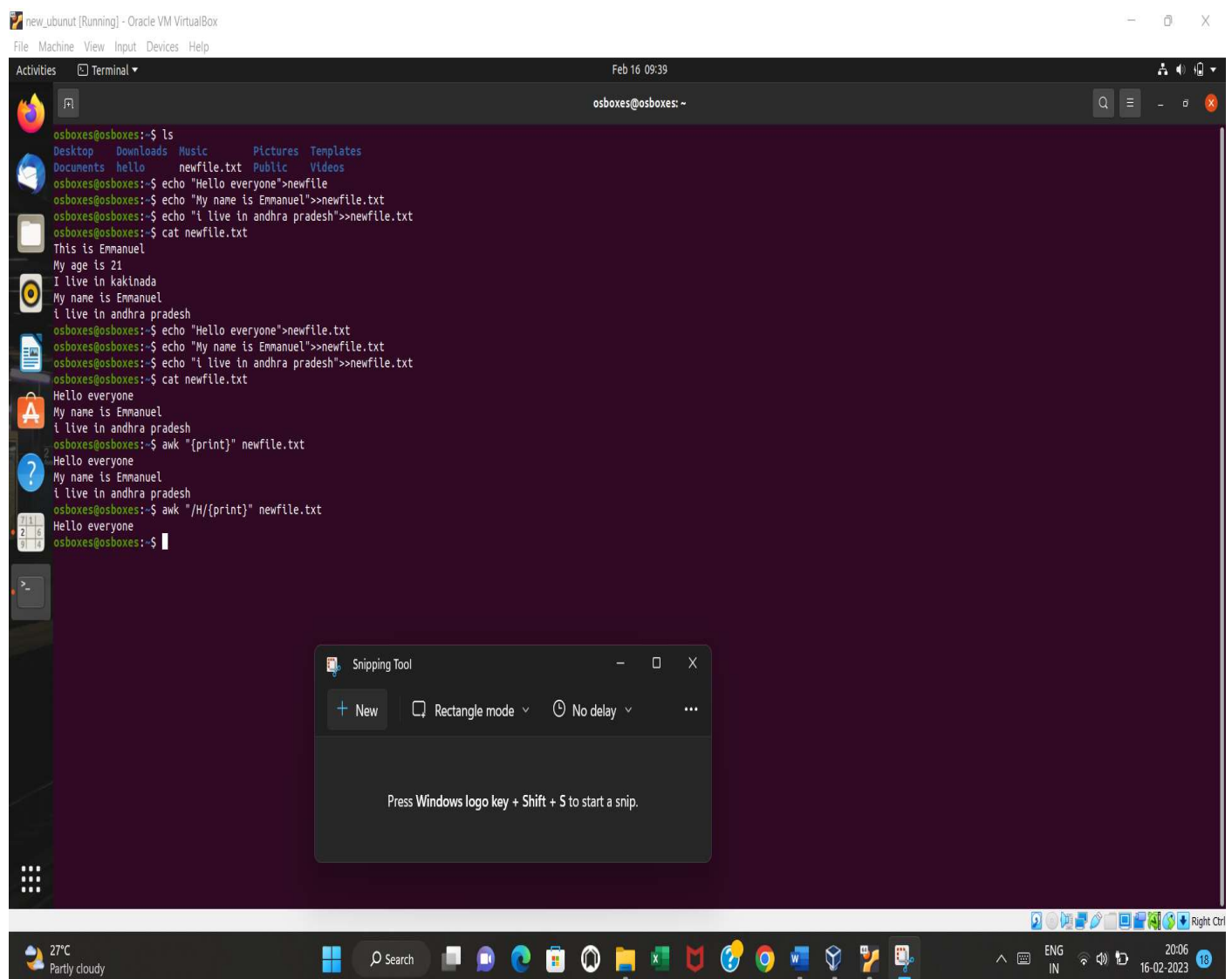
sharo@LAPTOP-AQ07RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (Emmanuel)
$ git remote -v
origin https://github.com/snehal-herovired/LearningGit.git (fetch)
origin https://github.com/snehal-herovired/LearningGit.git (push)

sharo@LAPTOP-AQ07RVNS MINGW64 ~/OneDrive/Desktop/TASK1 (Emmanuel)
$ git pull
remote: Enumerating objects: 3791, done.
remote: Counting objects: 100% (691/691), done.
remote: Compressing objects: 100% (489/489), done.
remote: Total 3791 (delta 197), reused 630 (delta 171), pack-reused 3100
Receiving objects: 100% (3791/3791), 89.53 MiB | 5.38 MiB/s, done.
Resolving deltas: 100% (566/566), done.
From https://github.com/snehal-herovired/LearningGit
* [new branch]      20A91A0402 -> origin/20A91A0402
* [new branch]      20A91A0440 -> origin/20A91A0440
* [new branch]      20A91A0496 -> origin/20A91A0496
* [new branch]      20A91A04A1 -> origin/20A91A04A1
* [new branch]      20A91A04D9 -> origin/20A91A04D9
* [new branch]      20A91A04J2 -> origin/20A91A04J2
```

Q4. Try to find out about the awk command and use it while reading a file created by yourself. Also, make a bash script file and try to find out the prime number from the range 1 to 20. The whole process should be carried out and by using the history command, give the screenshot of all the processes being carried out.

AWK Command:

The awk command is a powerful text-processing tool used to manipulate and analyze data files, particularly in Linux and Unix operating systems. It scans files line by line, applies patterns to each line, and performs actions based on the matching patterns.

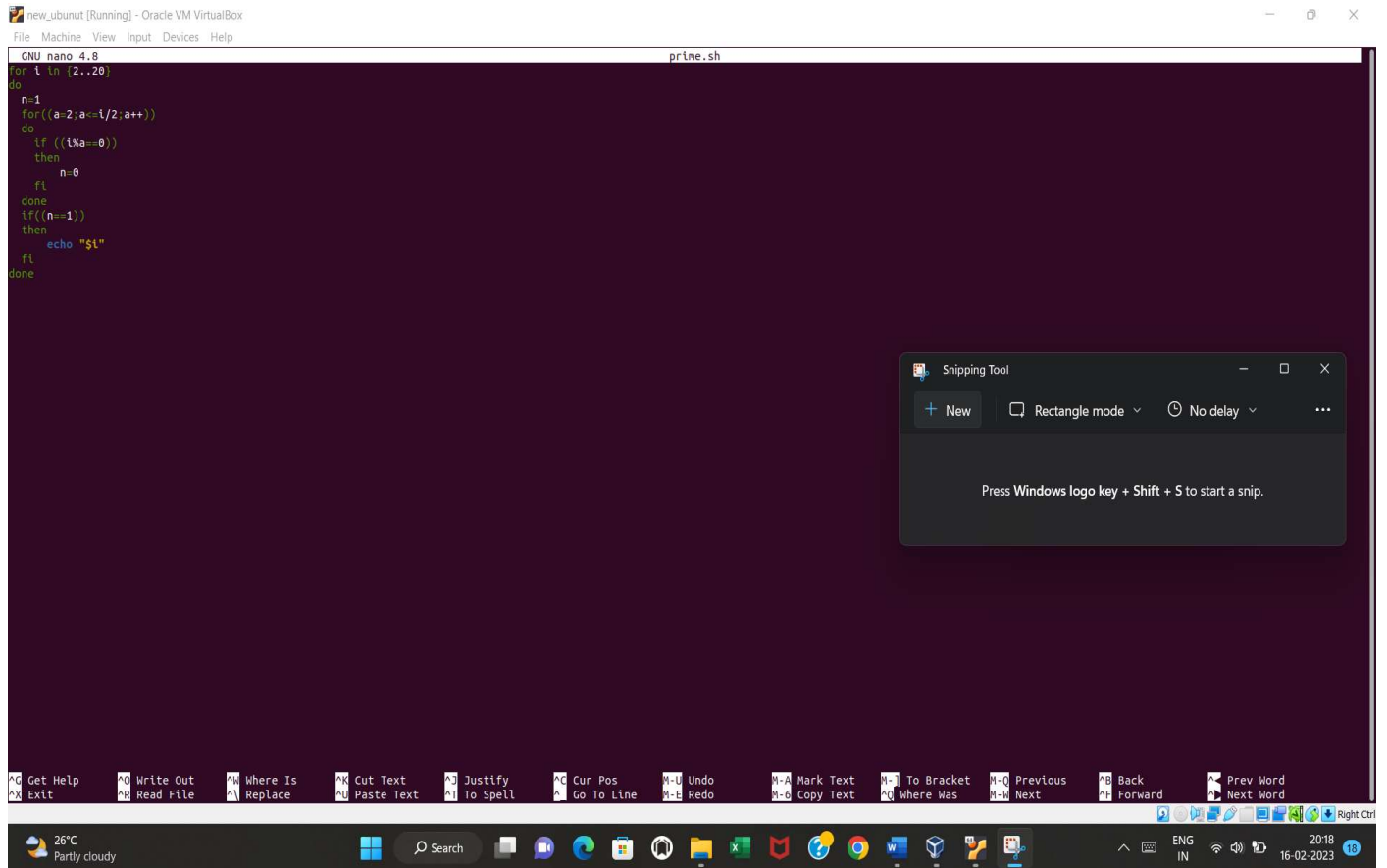


```
new_ubuntu [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

Activities Terminal Feb 16 09:39 osboxes@osboxes: ~

osboxes@osboxes:~$ ls
Desktop  Downloads  Music      Pictures  Templates
Documents  hello      newfile.txt  Public    Videos
osboxes@osboxes:~$ echo "Hello everyone">newfile
osboxes@osboxes:~$ echo "My name is Emmanuel">>newfile.txt
osboxes@osboxes:~$ echo "i live in andhra pradesh">>newfile.txt
osboxes@osboxes:~$ cat newfile.txt
This is Emmanuel
My age is 21
I live in kakinada
My name is Emmanuel
i live in andhra pradesh
osboxes@osboxes:~$ echo "Hello everyone">newfile.txt
osboxes@osboxes:~$ echo "My name is Emmanuel">>newfile.txt
osboxes@osboxes:~$ echo "i live in andhra pradesh">>newfile.txt
osboxes@osboxes:~$ cat newfile.txt
Hello everyone
My name is Emmanuel
i live in andhra pradesh
osboxes@osboxes:~$ awk "{print}" newfile.txt
Hello everyone
My name is Emmanuel
i live in andhra pradesh
osboxes@osboxes:~$ awk "/H/{print}" newfile.txt
Hello everyone
osboxes@osboxes:~$
```

Prime numbers ranges from 1 to 20



new_ubuntu [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

GNU nano 4.8 prime.sh

```
for i in {1..20}
do
  n=1
  for ((a=2;a<=i/2;a++))
  do
    if ((i%a==0))
    then
      n=0
    fi
  done
  if ((n==1))
  then
    echo "$i"
  fi
done
```

Snipping Tool

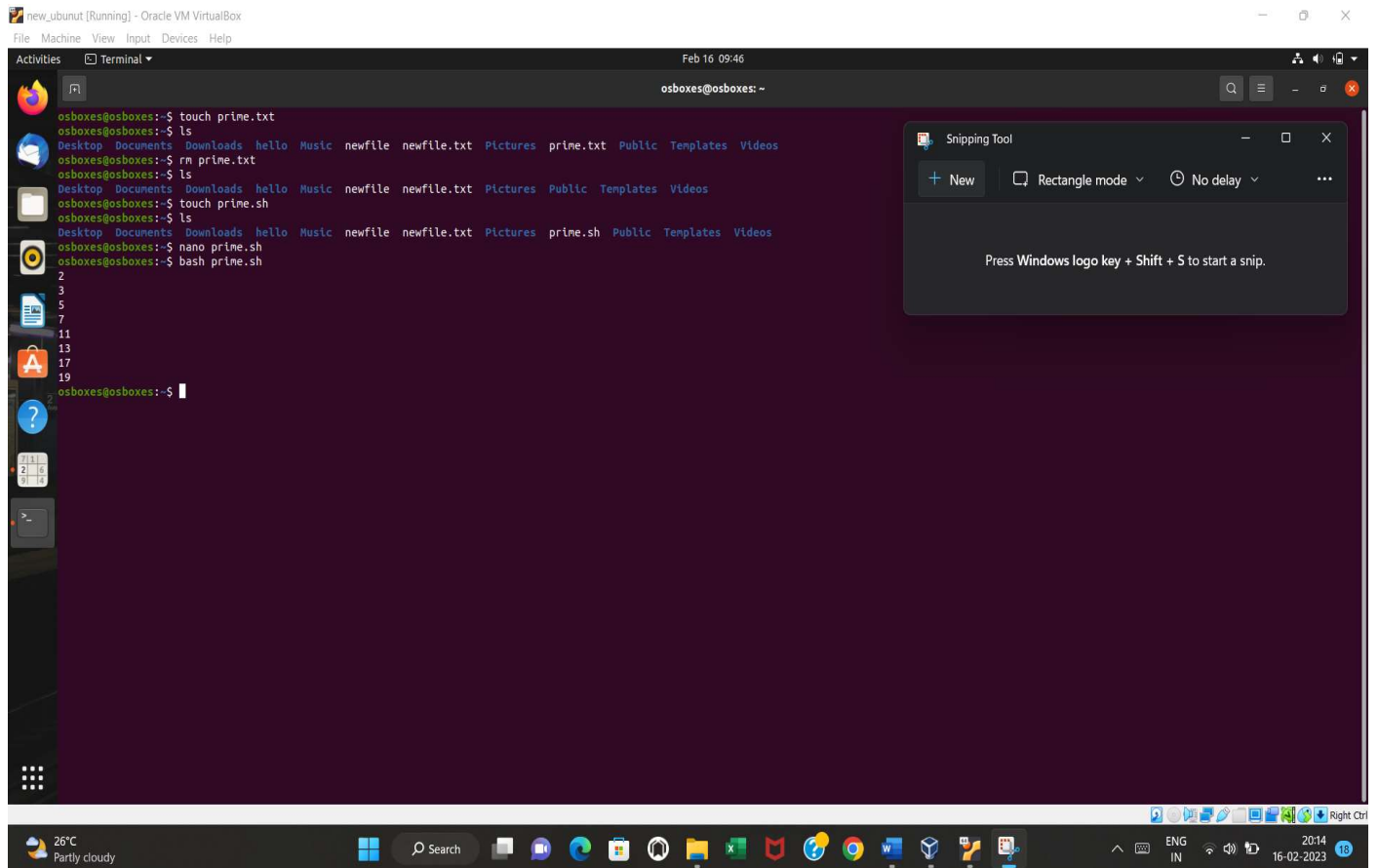
+ New Rectangle mode No delay

Press Windows logo key + Shift + S to start a snip.

Get Help Write Out Where Is Cut Text Justify Cur Pos Undo Mark Text To Bracket Previous Back Prev Word Exit Read File Replace Paste Text To Spell Go To Line Redo Copy Text Where Was Next Forward Next Word

26°C Partly cloudy

20:18 16-02-2023



new_ubuntu [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

Activities Feb 16 09:46 osboxes@osboxes: -

```
osboxes@osboxes:~$ touch prime.txt
osboxes@osboxes:~$ ls
Desktop Documents Downloads hello Music newfile newfile.txt Pictures prime.txt Public Templates Videos
osboxes@osboxes:~$ rm prime.txt
osboxes@osboxes:~$ ls
Desktop Documents Downloads hello Music newfile newfile.txt Pictures Public Templates Videos
osboxes@osboxes:~$ touch prime.sh
osboxes@osboxes:~$ ls
Desktop Documents Downloads hello Music newfile newfile.txt Pictures prime.sh Public Templates Videos
osboxes@osboxes:~$ bash prime.sh
2
3
5
7
11
13
17
19
osboxes@osboxes:~$
```

Snipping Tool

+ New Rectangle mode No delay

Press Windows logo key + Shift + S to start a snip.

26°C Partly cloudy

20:14 16-02-2023

Activities Terminal Feb 16 09:49

osboxes osboxes sample.sh file.txt Trash file.txt names Mechanical

```
238 ls
239 echo "This is Emmanuel>newfile.txt"
240 ls
241 echo "Hello everyone">newfile
242 echo "My name is Emmanuel">>newfile.txt
243 echo "i live in andhra pradesh">>newfile.txt
244 cat newfile.txt
245 echo "Hello everyone">newfile.txt
246 echo "My name is Emmanuel">>newfile.txt
247 echo "i live in andhra pradesh">>newfile.txt
248 cat newfile.txt
249 awk '{print}' newfile.txt
250 awk '/H/{print}' newfile.txt
251 clear
252 touch prine.txt
253 ls
254 rm prine.txt
255 ls
256 touch prine.sh
257 ls
258 nano prine.sh
259 bash prine.sh
260 clear
261 history
osboxes@osboxes:~$
```

Snipping Tool

+ New Rectangle mode No delay

Press Windows logo key + Shift + S to start a snip.

26°C Partly cloudy Search 20:17 16-02-2023

Q5. Set up a container and run an Ubuntu operating system. For this purpose, you can make use of the docker hub and run the container in interactive mode.

```
root@417589b4518b: /

sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/LearningGIT (master)
$ docker login
Authenticating with existing credentials...
Login Succeeded

Logging in with your password grants your terminal complete access to your account.
For better security, log in with a limited-privilege personal access token. Learn more at https://docs.docker.com/go/access-tokens/

sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/LearningGIT (master)
$ docker images
REPOSITORY          TAG         IMAGE ID      CREATED        SIZE
emmanueldokkadi/abhi latest      5f83ac2d33d0  31 hours ago  156MB
abhi                 latest      5f83ac2d33d0  31 hours ago  156MB
emmanueldokkadi/emmanuelnodeapp latest      115c009eb751  3 days ago    919MB
emmanuelnodeapp     latest      115c009eb751  3 days ago    919MB
python              latest      f92346e0c39e  5 days ago    925MB
ubuntu              latest      58db3edaf2be  3 weeks ago   77.8MB

sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/LearningGIT (master)
$ docker pull ubuntu
Using default tag: latest
latest: Pulling from library/ubuntu
Digest: sha256:9a0bdde4188b896a372804be2384015e90e3f84906b750c1a53539b585fbbe7f
Status: Image is up to date for ubuntu:latest
docker.io/library/ubuntu:latest

sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/LearningGIT (master)
$ wimpy docker run -it ubuntu
bash: wimpy: command not found

sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/LearningGIT (master)
$ winpty docker run -t ubuntu
root@417589b4518b:/# |
```

25°C
Partly cloudy



Search



ENG
IN

20:35
16-02-2023

```
MINGW64/c/Users/sharo/OneDrive/Desktop/LearningGit

sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/LearningGit (master)
$ docker login
Authenticating with existing credentials...
Login Succeeded

Logging in with your password grants your terminal complete access to your account.
For better security, log in with a limited-privilege personal access token. Learn more at https://docs.docker.com/go/access-tokens/

sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/LearningGit (master)
$ docker images
REPOSITORY          TAG         IMAGE ID      CREATED       SIZE
emmanueldokkadi/abhi latest      5f83ac2d33d0  31 hours ago 156MB
abhi                 latest      5f83ac2d33d0  31 hours ago 156MB
emmanueldokkadi/emmanuelnodeapp latest      115c009eb751  3 days ago   919MB
emmanuelnodeapp     latest      115c009eb751  3 days ago   919MB
python               latest      f92346e0c39e  5 days ago   925MB
ubuntu               latest      58db3edaf2be  3 weeks ago  77.8MB

sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/LearningGit (master)
$ docker pull ubuntu
Using default tag: latest
latest: Pulling from library/ubuntu
Digest: sha256:9a0bdde4188b896a372804be2384015e90e3f84906b750c1a53539b585fbbe7f
Status: Image is up to date for ubuntu:latest
docker.io/library/ubuntu:latest

sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/LearningGit (master)
$ wimpty docker run -it ubuntu
bash: wimpty: command not found

sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/LearningGit (master)
$ wimpty docker run -t ubuntu
root@417589b4518b:/# |
sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/LearningGit (master)
$
```

```
MINGW64/c/Users/sharo/OneDrive/Desktop/LearningGit

sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/LearningGit (master)
$ docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED    STATUS    PORTS    NAMES
417589b4518b   ubuntu    "/bin/bash"             4 minutes ago Up 4 minutes      cranky_hellman

sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/LearningGit (master)
$ docker stop 417589b4518b
417589b4518b

sharo@LAPTOP-AOQ7RVNS MINGW64 ~/OneDrive/Desktop/LearningGit (master)
$ |
```