

Experiment no. 3

Aim : To Perform various GIT operations on local and Remote repositories using GIT Cheat-Sheet.

LO2: To be aware of different Version Control tools like GIT, CVS or Mercurial.

Theory :

What is Git?

Git is the most widely used distributed version control system that tracks changes in files and coordinates work among multiple people on the same project. It keeps a record of modifications, allowing you to revert to specific versions if necessary. Git enhances collaboration by making it easier to integrate changes from different team members into a single source of truth. Whether you're working solo or as part of a team, Git offers an efficient way to manage and track code changes over time.

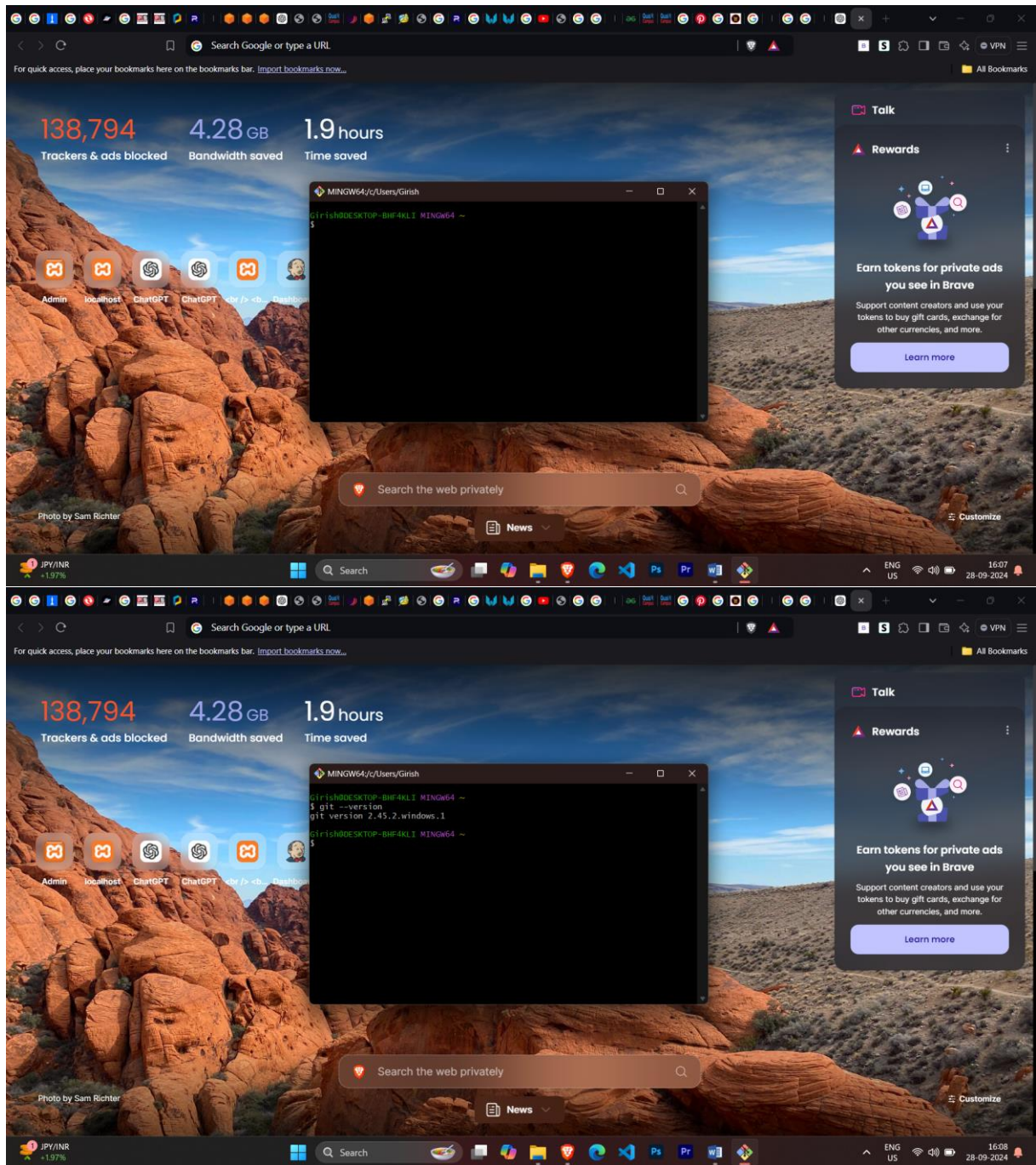
Local Repository:

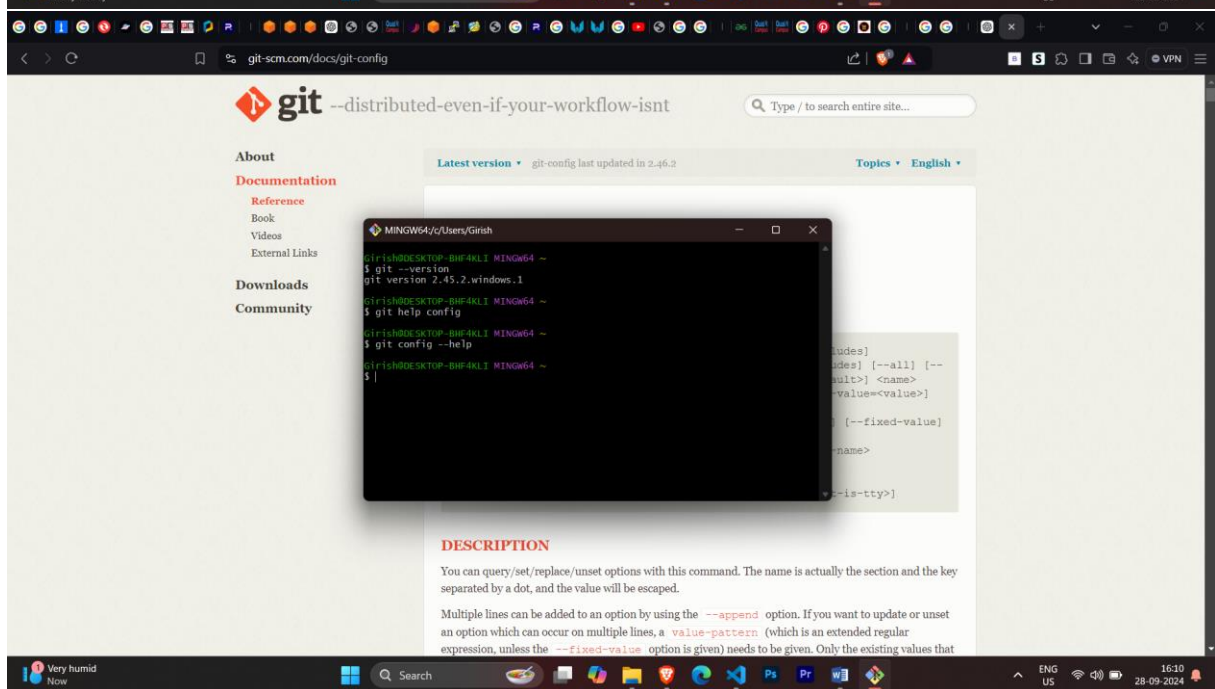
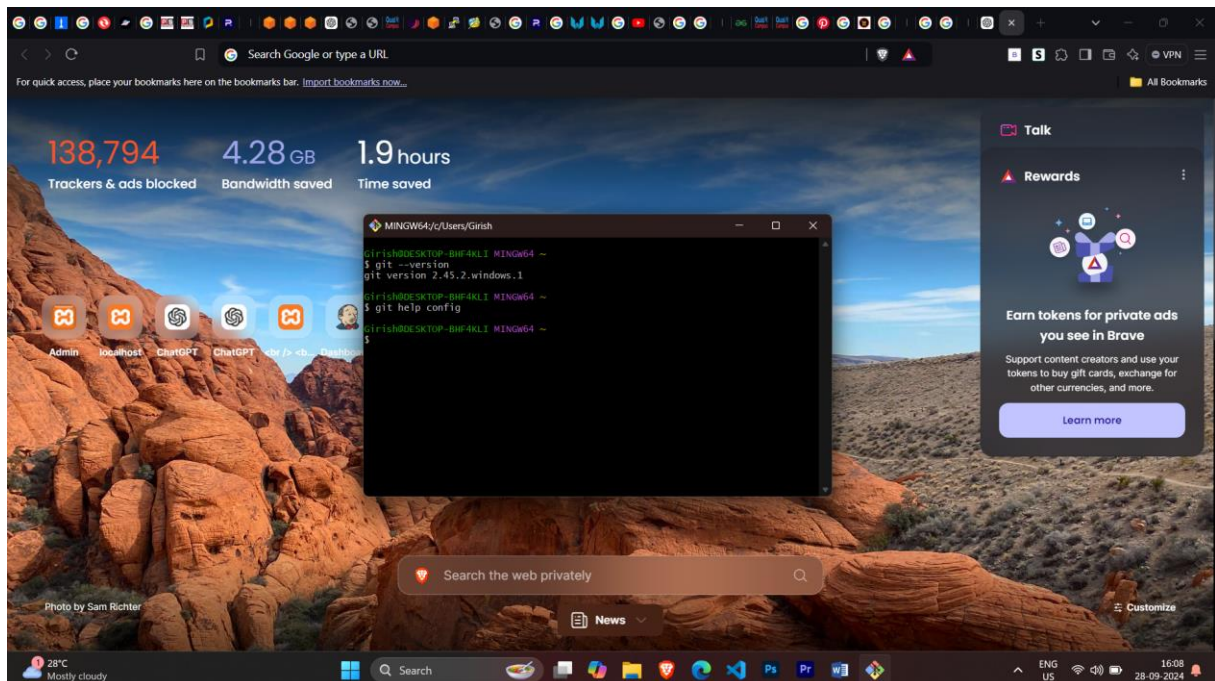
A Git local repository refers to the version of the project stored on your own machine, where you can make changes and test new features without affecting the shared repository. It contains the project history and allows you to commit, modify, and review changes locally before pushing them to a remote repository.

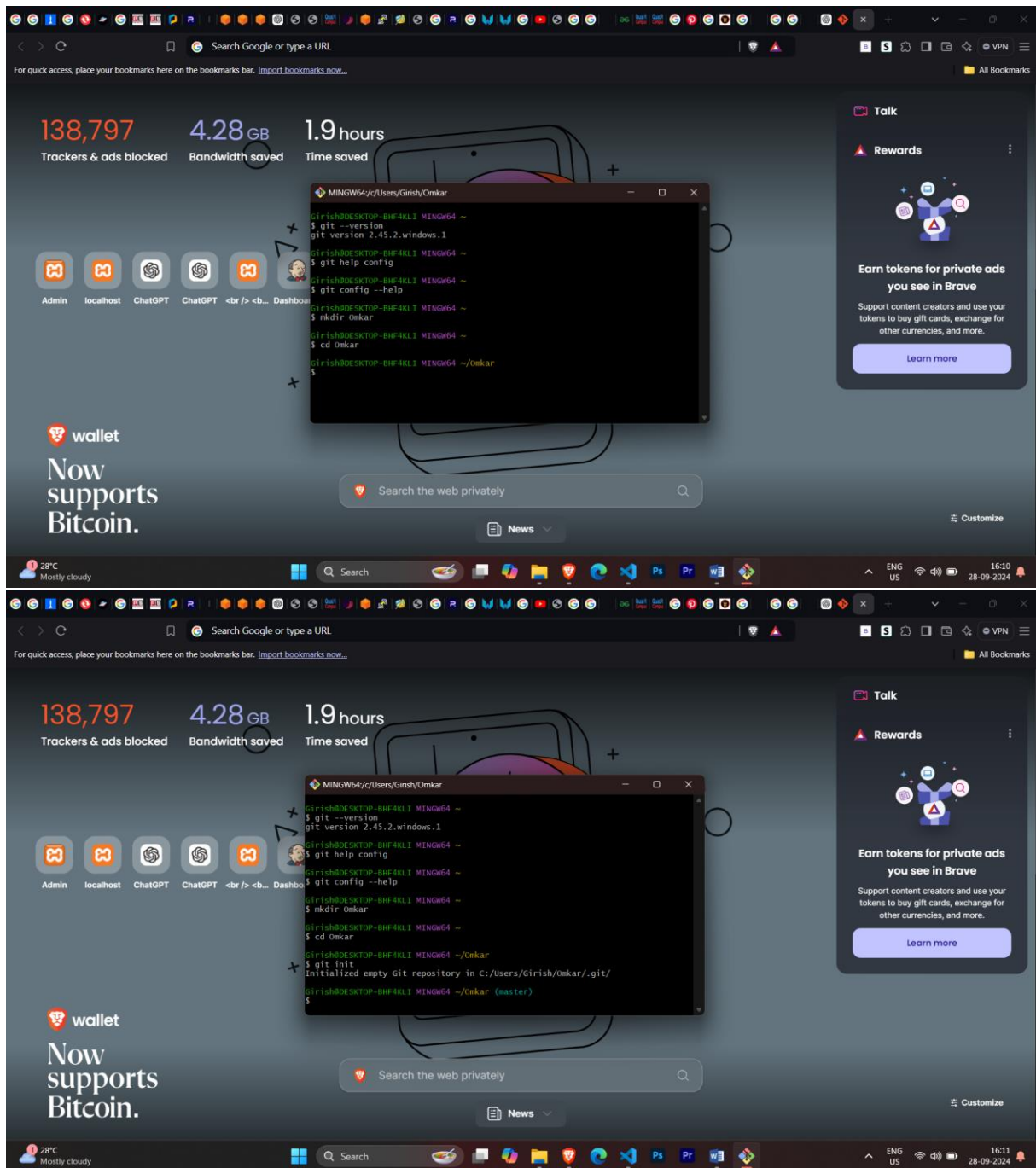
Command table :

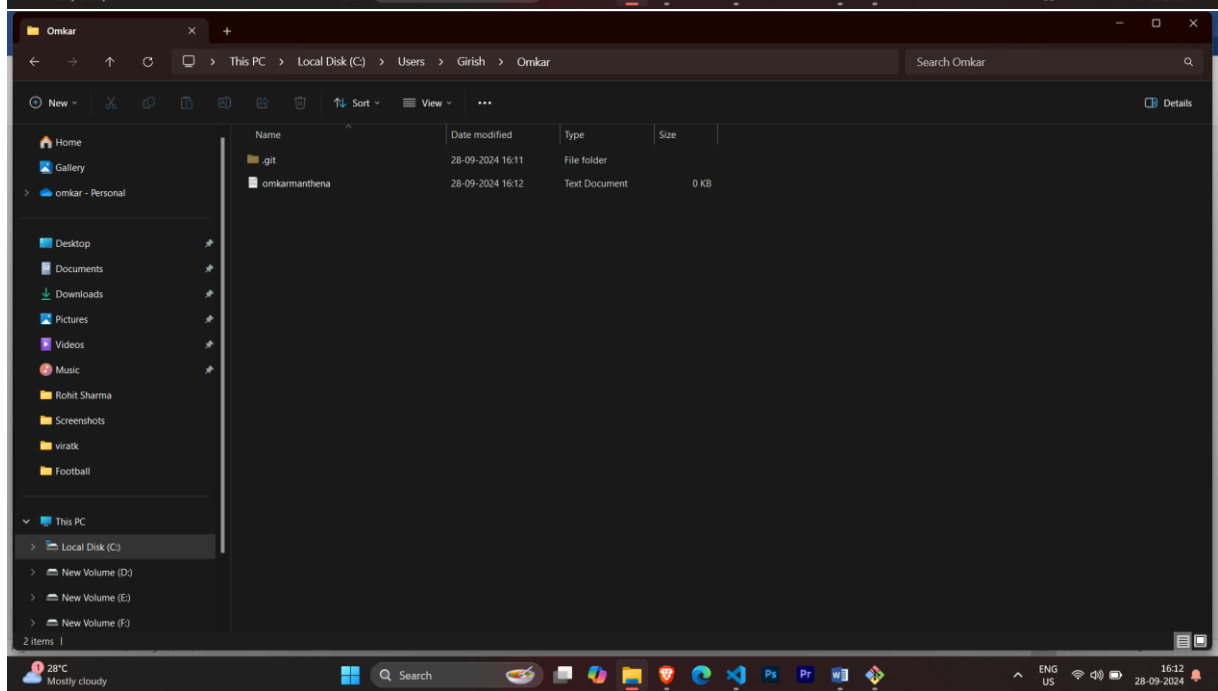
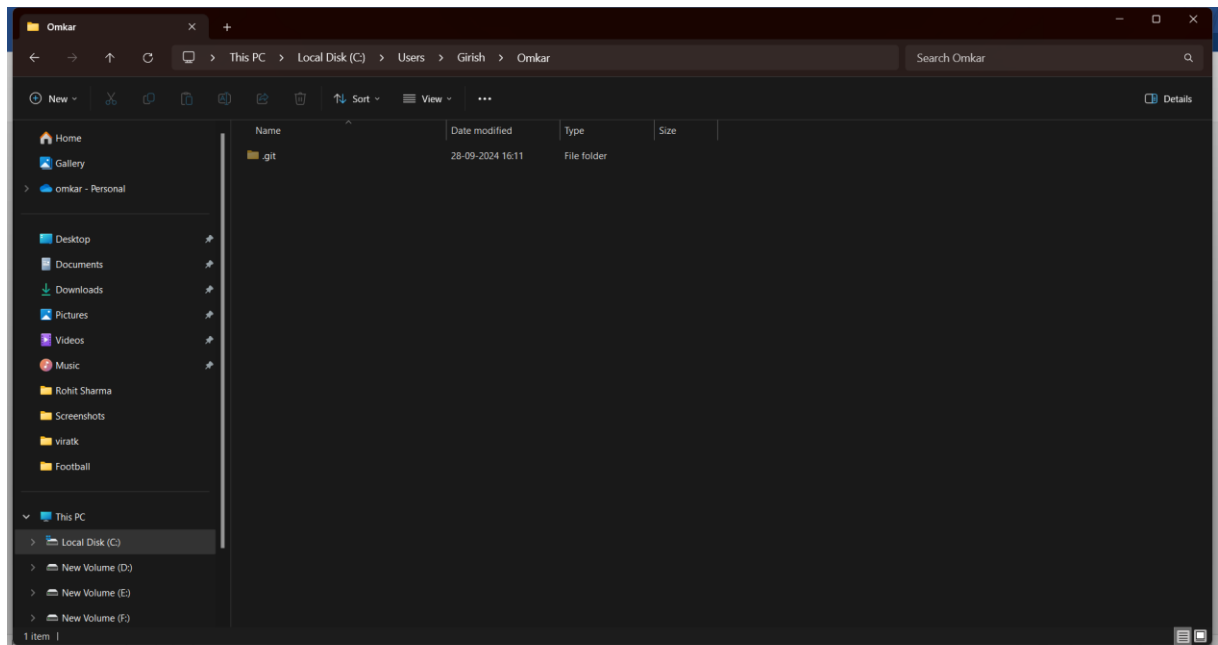
Git Syntax	Description
<code>git --version</code>	Displays the Git version installed on your system.
<code>git help config</code>	Displays the Git config manual page with a synopsis.
<code>git config --help</code>	Displays the Git config manual page with a synopsis.
<code>mkdir</code>	Creates a new directory.
<code>cd</code>	Changes the current directory.
<code>git init</code>	Initializes a new Git repository in the current directory.
<code>git status</code>	Displays the state of the working directory and staging area (files staged, modified, or untracked).
<code>git add n1.txt</code>	Adds the file <code>n1.txt</code> to the staging area.
<code>git commit -m "committing a text file"</code>	Commits changes with a message to track the changes (e.g., "committing a text file").
<code>git config --global user.email "email"</code>	Sets the global email address for Git configuration (e.g., <code>nanmerciline@gmail.com</code>).
<code>git remote add origin <URL></code>	Adds a remote repository (e.g., <code>https://github.com/NancyMerciline/exp_2.git</code>).
<code>git push origin master</code>	Pushes the contents of the local repository's master branch to the remote server.
<code>git log</code>	Displays all commits in the repository's history.
<code>git log --oneline</code>	Displays the commit history in a single line format.
<code>git log n1.txt</code>	Displays the commit history, author, and date for the file <code>n1.txt</code> .
<code>vim n1.txt</code>	Opens the <code>n1.txt</code> file in the Vim editor to edit or view contents.
<code>git diff n1.txt</code>	Shows the differences between the working directory and the last commit for the file <code>n1.txt</code> .

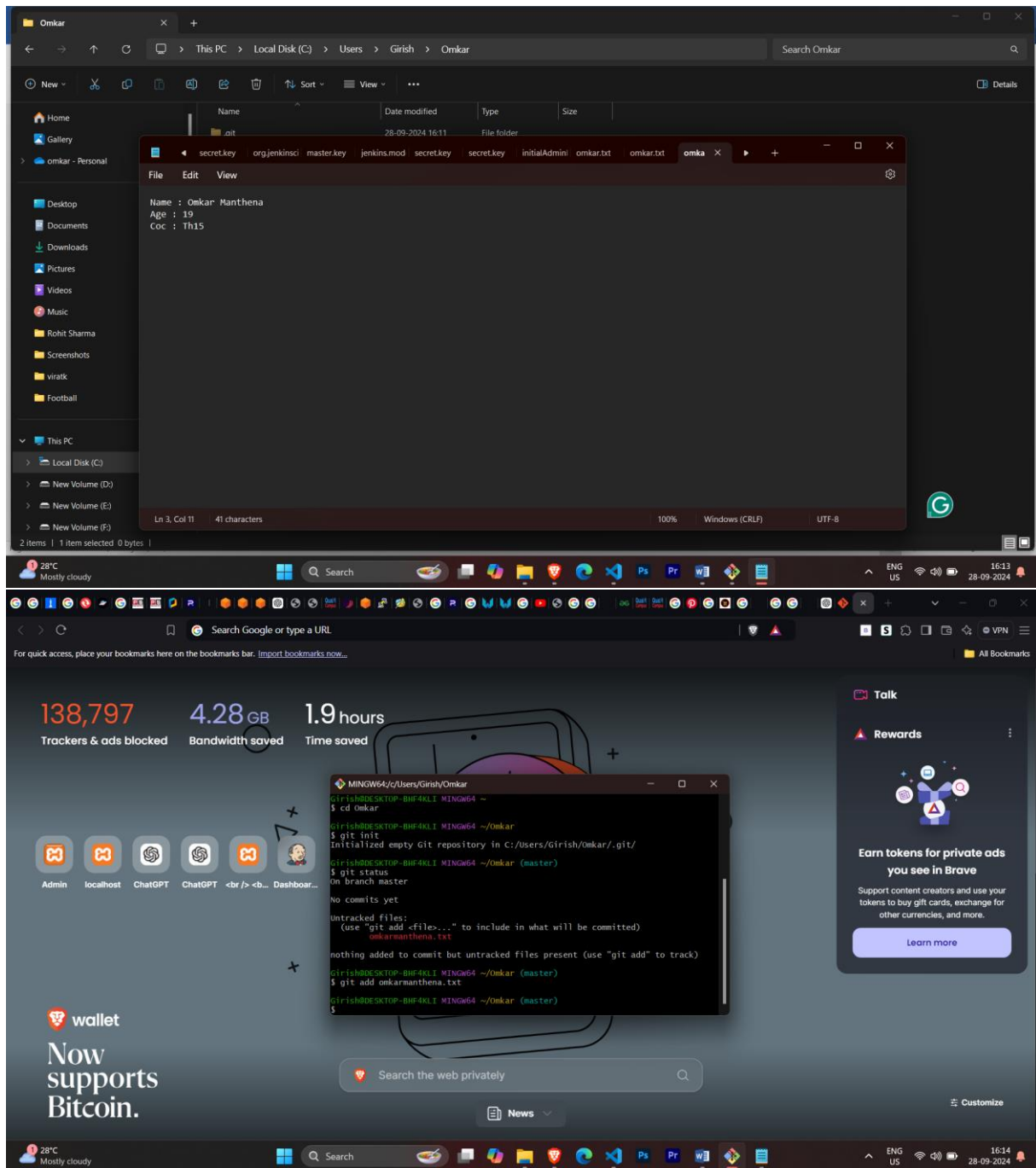
Output:











138,797
Trackers & ads blocked

4.28GB
Bandwidth saved

1.9 hours
Time saved

Admin

localhost

ChatGPT

ChatGPT

 <b... Dashboard...

wallet

Now supports Bitcoin.

Search the web privately

News

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FlameDash25

Repositories 4

Projects

Packages

Stars

Popular repositories

Exp3

Public

Donation-Management-System

EZTool

Public

omkar

JavaScript

8 contributions in the last year

Oct

Nov

Dec

Jan

Feb

Mar

Apr

May

Jun

Jul

Aug

Sep

Mon

Wed

Fri

Learn how we count contributions

Less

More

Contribution activity

September 2024

Created 2 commits in 2 repositories

FlameDash25

Omkar Mohan Ma...

Account switcher

Set status

Your profile

Your repositories

Your Copilot

Your projects

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FlameDash25

OverviewRepositories4ProjectsPackagesStars



Omkar Mohan Manthena

FlameDash25

Edit profile

Xavier's Institute of Engineering
omkarmanthena01@gmail.com

Popular repositories

Exp3Public

Donation-Management-System

Contribution activity

September 2024

Created 2 commits in 2 repositories

Set status

Your profile

Your repositories

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Your projects

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Try EnterpriseFree

Feature previewNew

Settings

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github.com/FlameDash25?tab=repositories

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OverviewRepositories4ProjectsPackagesStars



Omkar Mohan Manthena

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Edit profile

Xavier's Institute of Engineering
omkarmanthena01@gmail.com

Find a repository...

TypeLanguageSortNew

omkarPublicStar

Updated 16 hours ago

EZToolPublicStar

JavaScript Updated last week

Donation-Management-SystemPublicStar

Updated 2 weeks ago

Exp3PublicStar

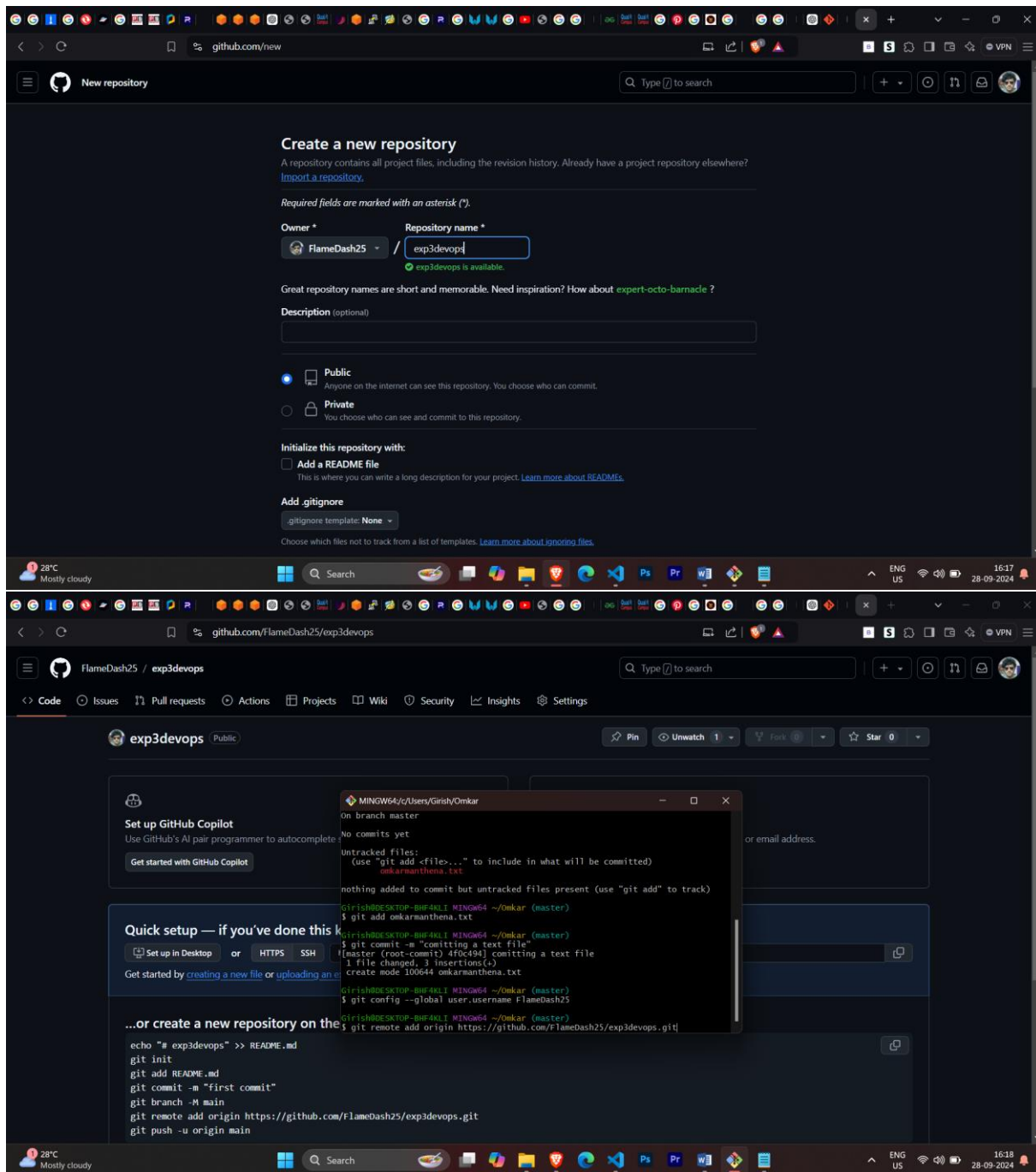
Updated on Aug 2

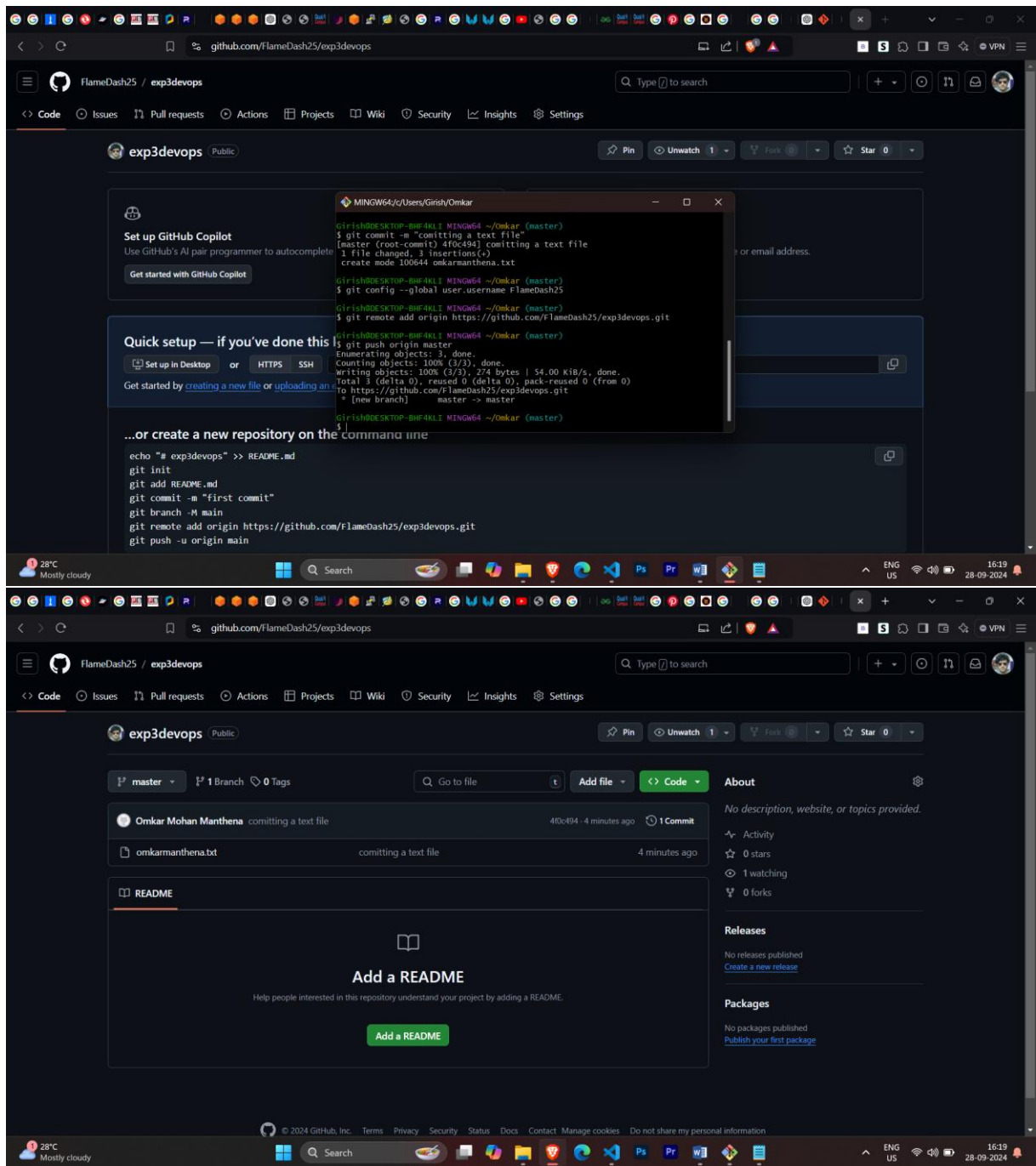
https://github.com/new

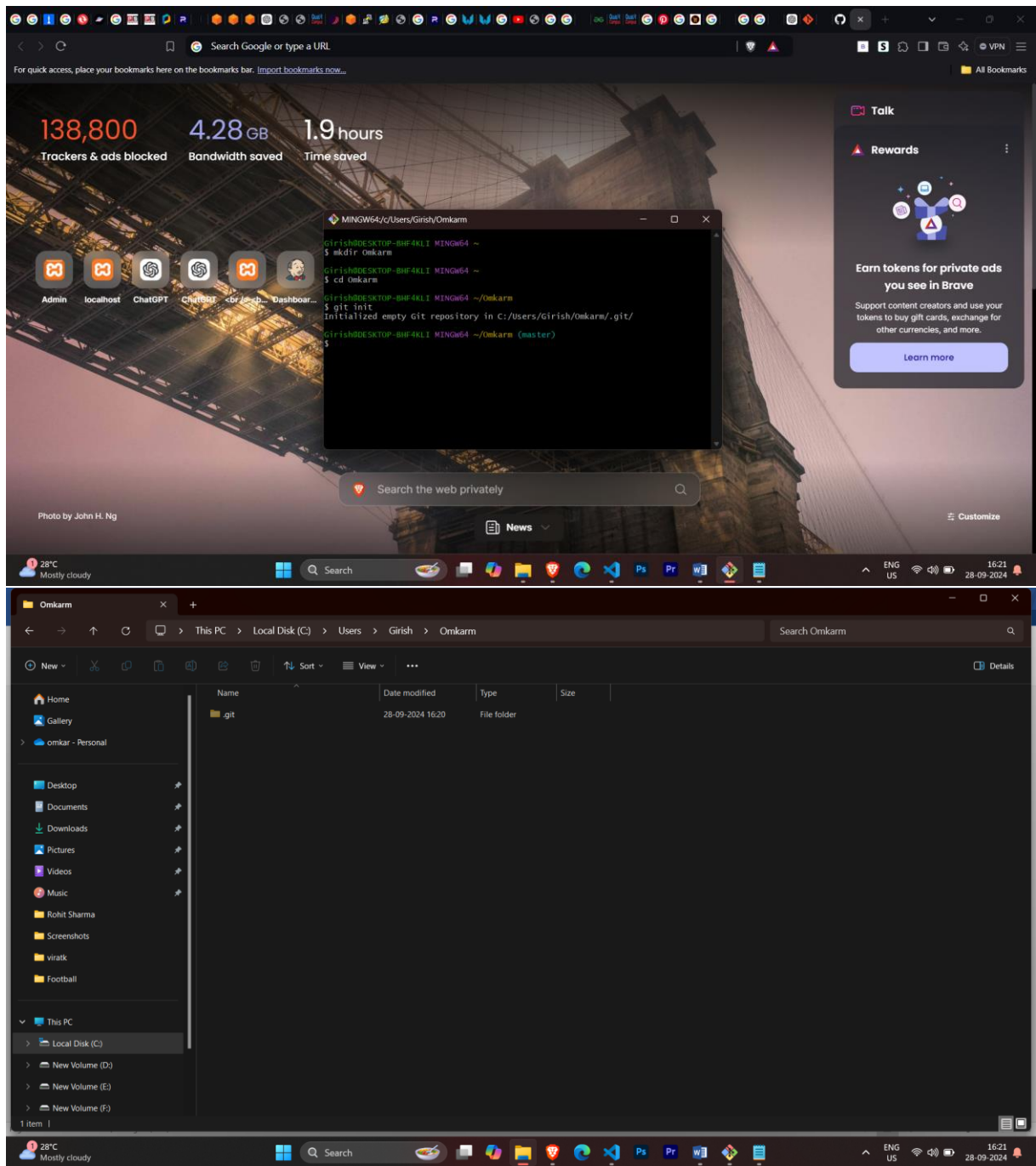
28°C Mostly cloudy

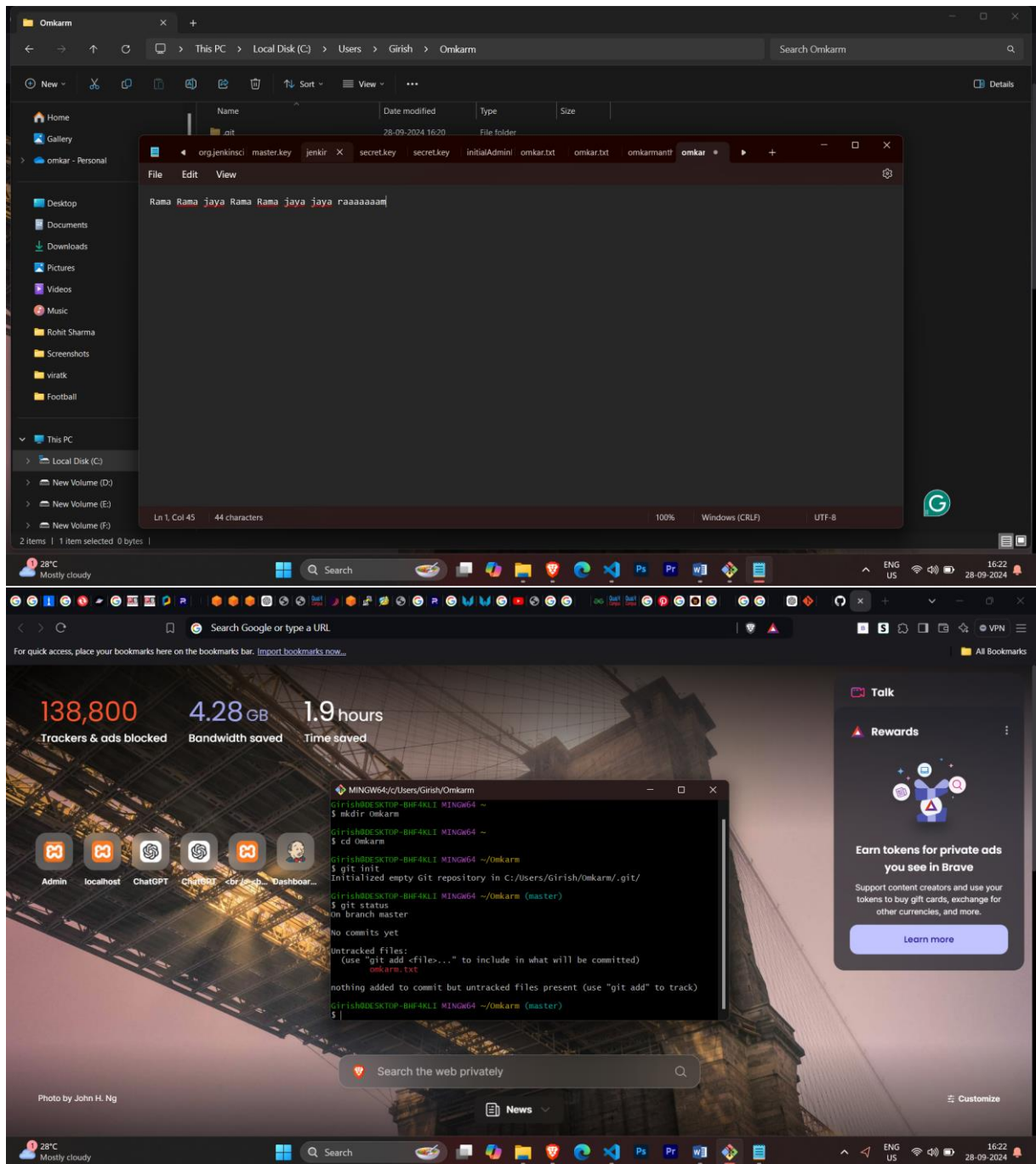
Search

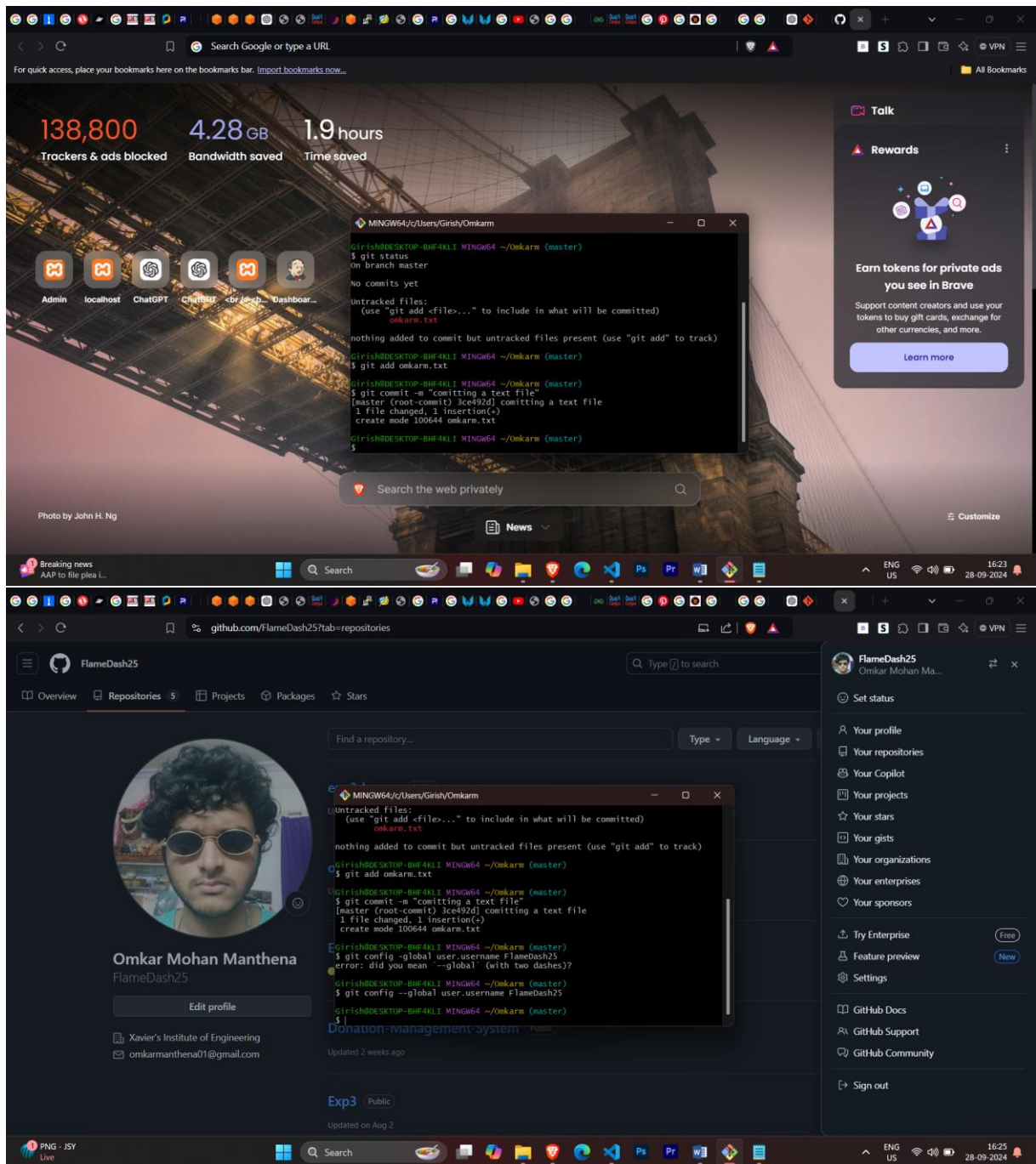
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github.com/new

New repository

Type to search

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere?
[Import a repository.](#)

Required fields are marked with an asterisk (*).

Owner *

Repository name *

FlameDash25 / omkaerm

omkaerm is available.

Great repository names are short and memorable. Need inspiration? How about [jubilant-system](#)?

Description (optional)

☒ Public

Anyone on the internet can see this repository. You choose who can commit.

☐ Private

You choose who can see and commit to this repository.

Initialize this repository with:

☐ Add a README file

This is where you can write a long description for your project. [Learn more about READMEs.](#)

Add .gitignore

gitignore template: None

Choose which files not to track from a list of templates. [Learn more about ignoring files.](#)

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Type to search

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

omkaerm Public

Pin Unwatch 1 Fork 0 Star 0

Set up GitHub Copilot

Use GitHub's AI pair programmer to autocomplete suggestions.

Get started with GitHub Copilot

Quick setup — if you've done this kind of project before

Set up in Desktop or HTTPS SSH

http://github.com/FlameDash25/omkaerm.git

Get started by [creating a new file](#) or [uploading an existing file](#).

...or create a new repository on the command line

```
echo "# omkaerm" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/FlameDash25/omkaerm.git
git push -u origin main
```

nothing added to commit but untracked files present (use "git add" to track)

```
GirishDESKTOP-BHF4KL1 MINGW64 ~/omkaerm (master)
$ git add omkaerm.txt

GirishDESKTOP-BHF4KL1 MINGW64 ~/omkaerm (master)
$ git commit -m "committing a text file"
[master (root-commit) 3ce492d] committing a text file
1 file changed, 1 insertion(+)
create mode 100644 omkaerm.txt

GirishDESKTOP-BHF4KL1 MINGW64 ~/omkaerm (master)
$ git config --global user.username FlameDash25
error: did you mean --global (with two dashes)?

GirishDESKTOP-BHF4KL1 MINGW64 ~/omkaerm (master)
$ git config --global user.username FlameDash25

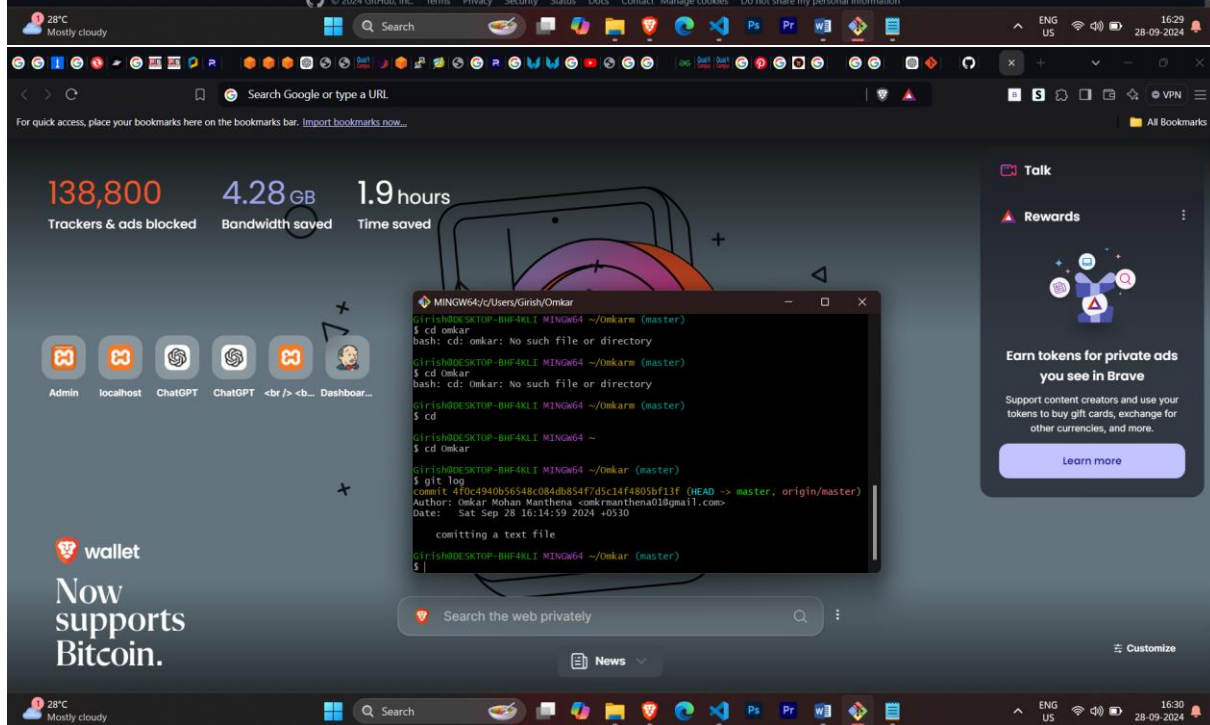
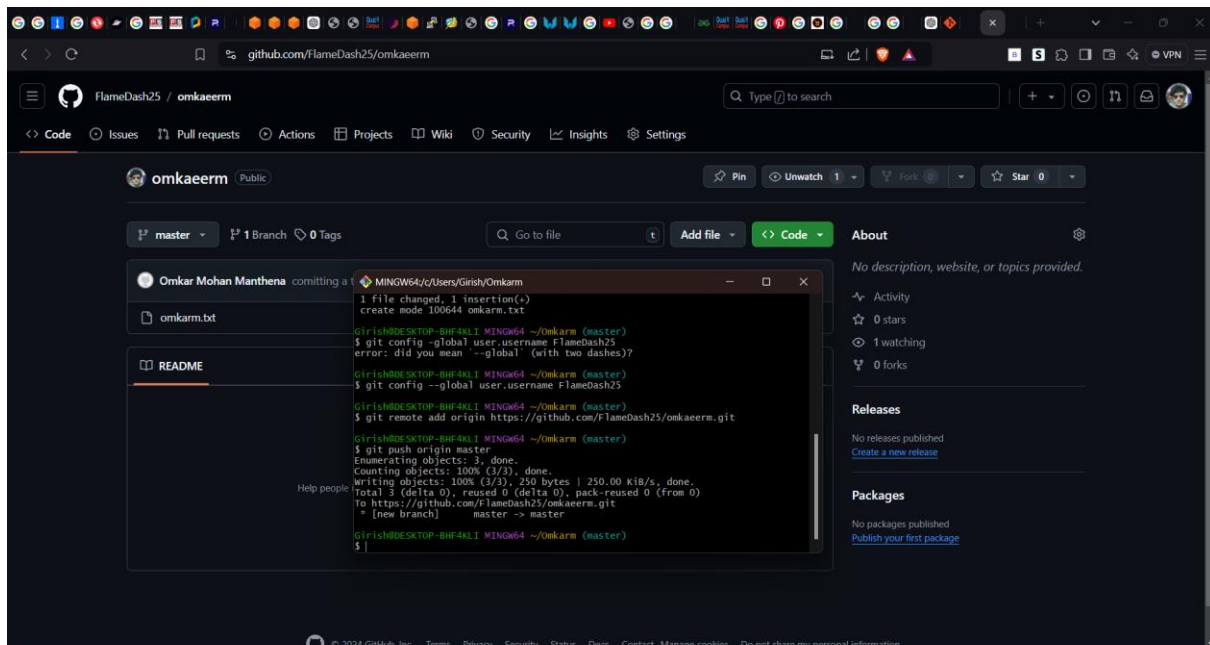
GirishDESKTOP-BHF4KL1 MINGW64 ~/omkaerm (master)
$ git remote add origin https://github.com/FlameDash25/omkaerm.git

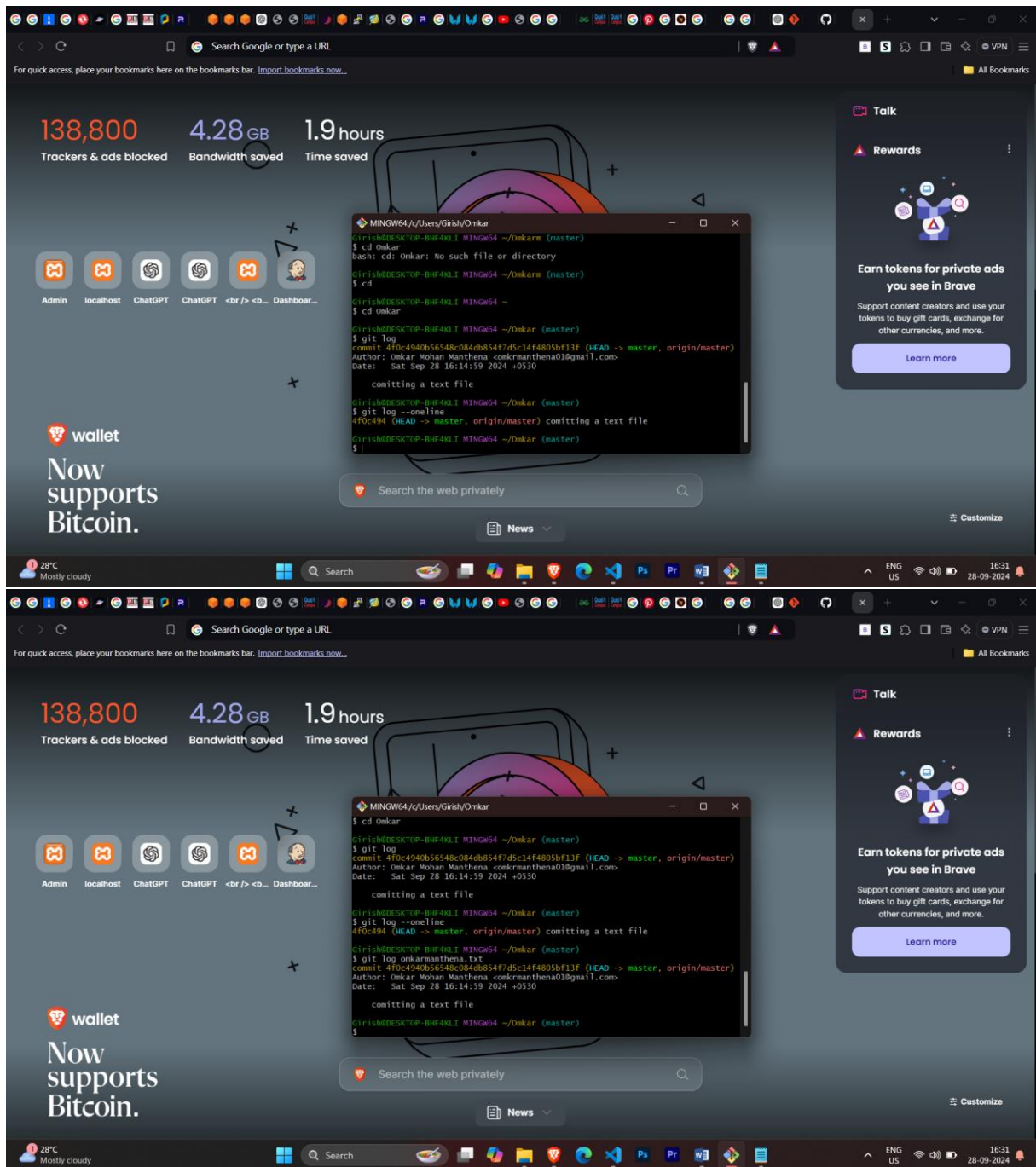
GirishDESKTOP-BHF4KL1 MINGW64 ~/omkaerm (master)
$
```

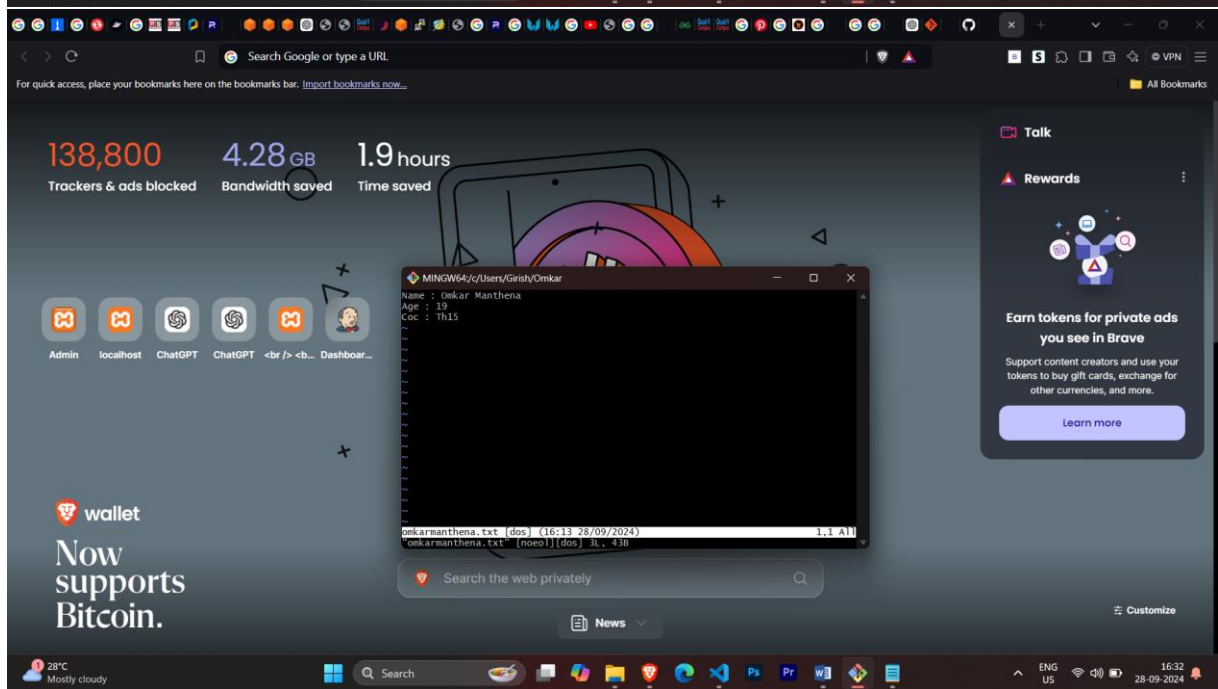
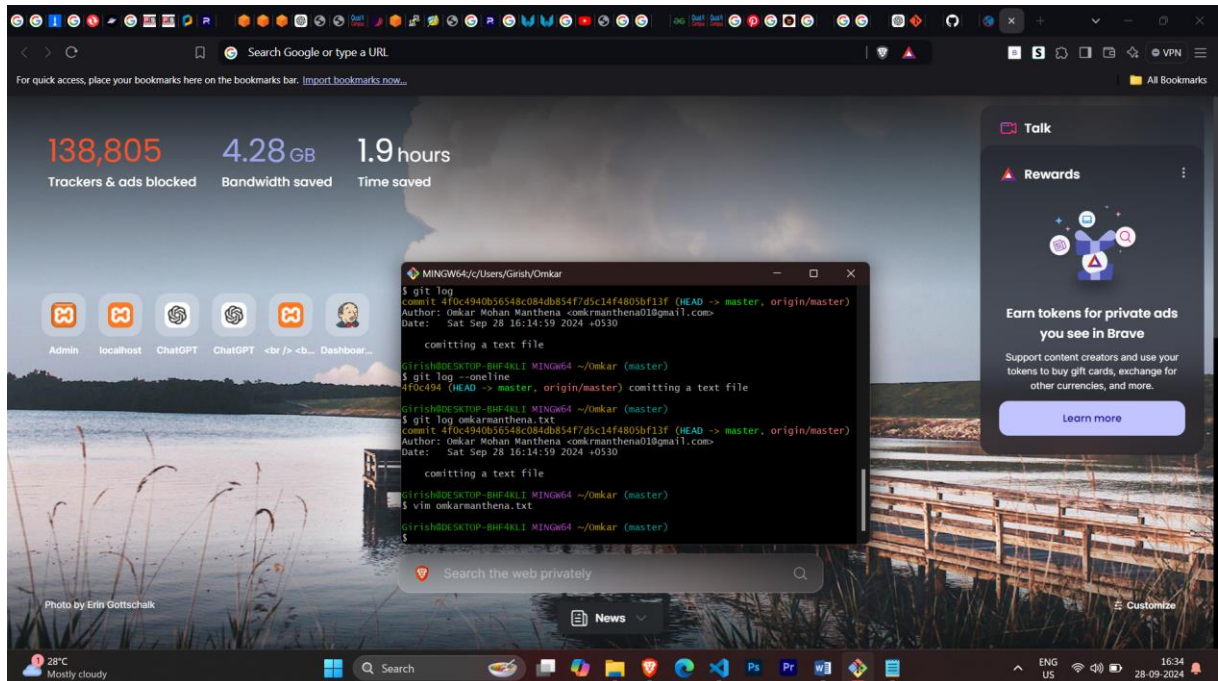
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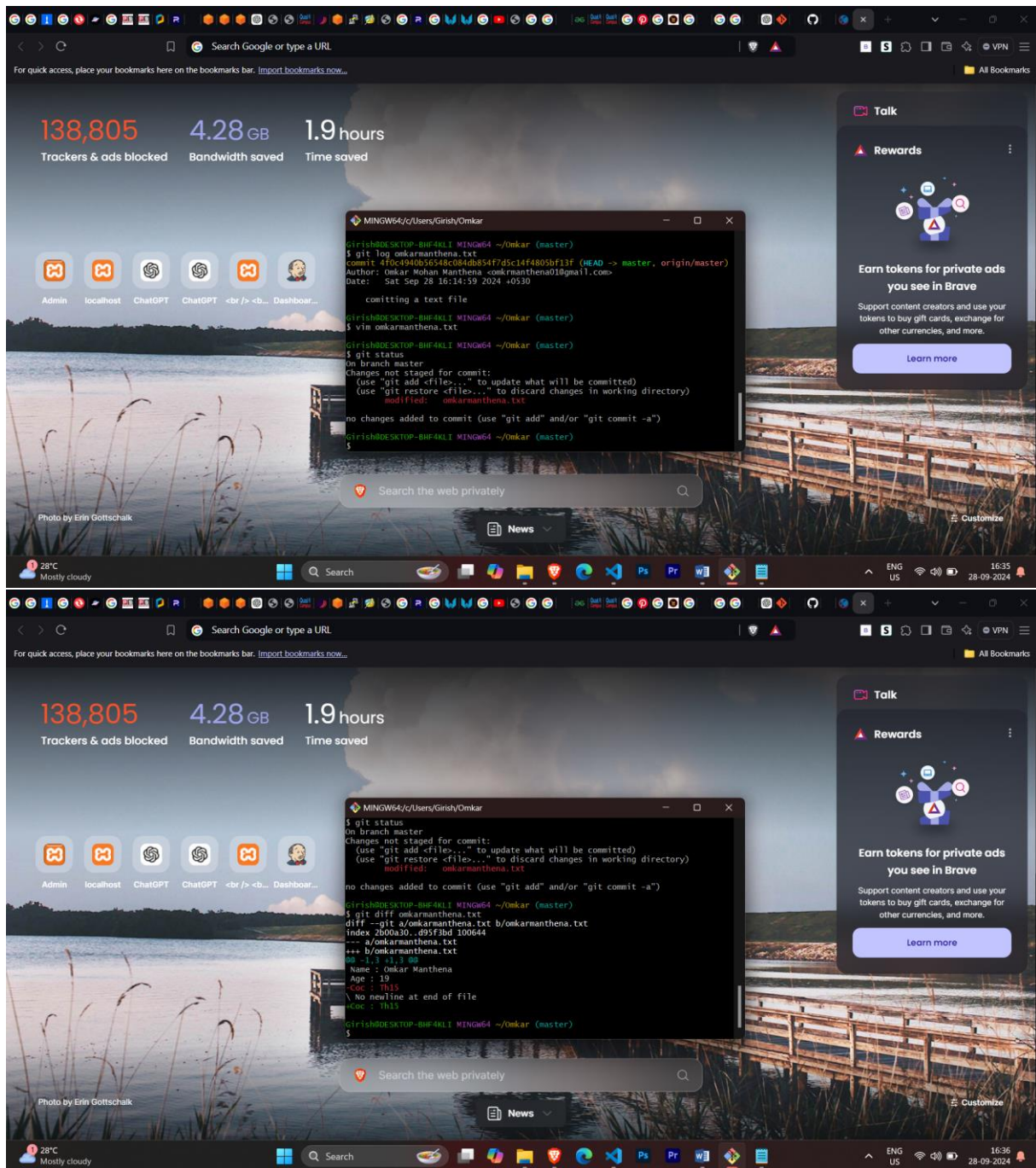
Search

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Conclusion: In this experiment, we performed various Git operations on both local and remote repositories using a Git cheat sheet. We also explored the concepts of local and global repositories. Additionally, we learned how to create repositories, configure settings, and manage changes efficiently using Git commands.

LO achieved: LO2

PO's achieved: PO1-PO5, PO8-PO10, PO12