Linux : Get your feet wet

Bridge Course '19

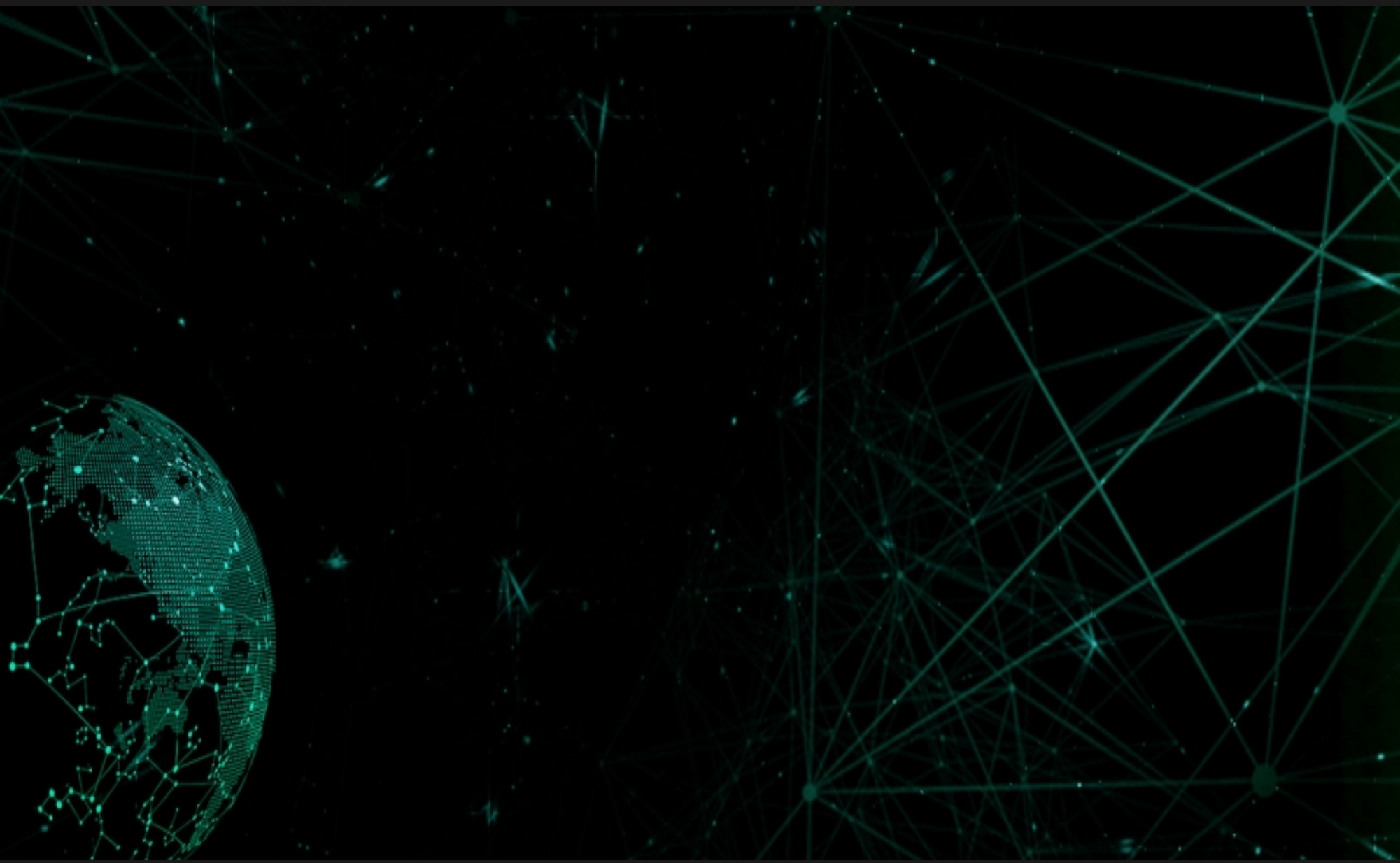
EE Dept IITB

24 July 2019

Outline

Linux is a family of open source Unix-like operating systems based on the Linux kernel, Typically packaged in a Linux distribution

Why Linux



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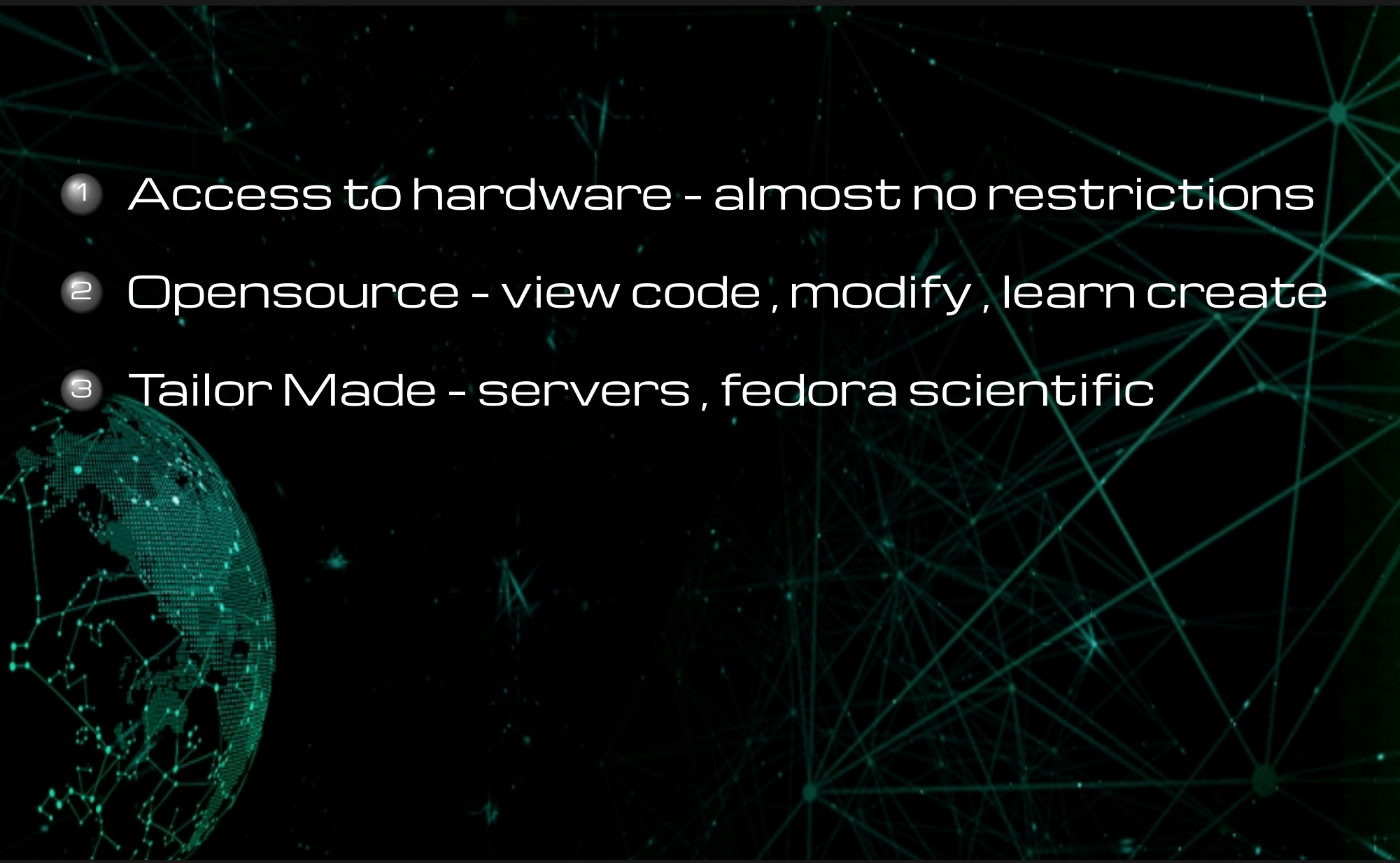

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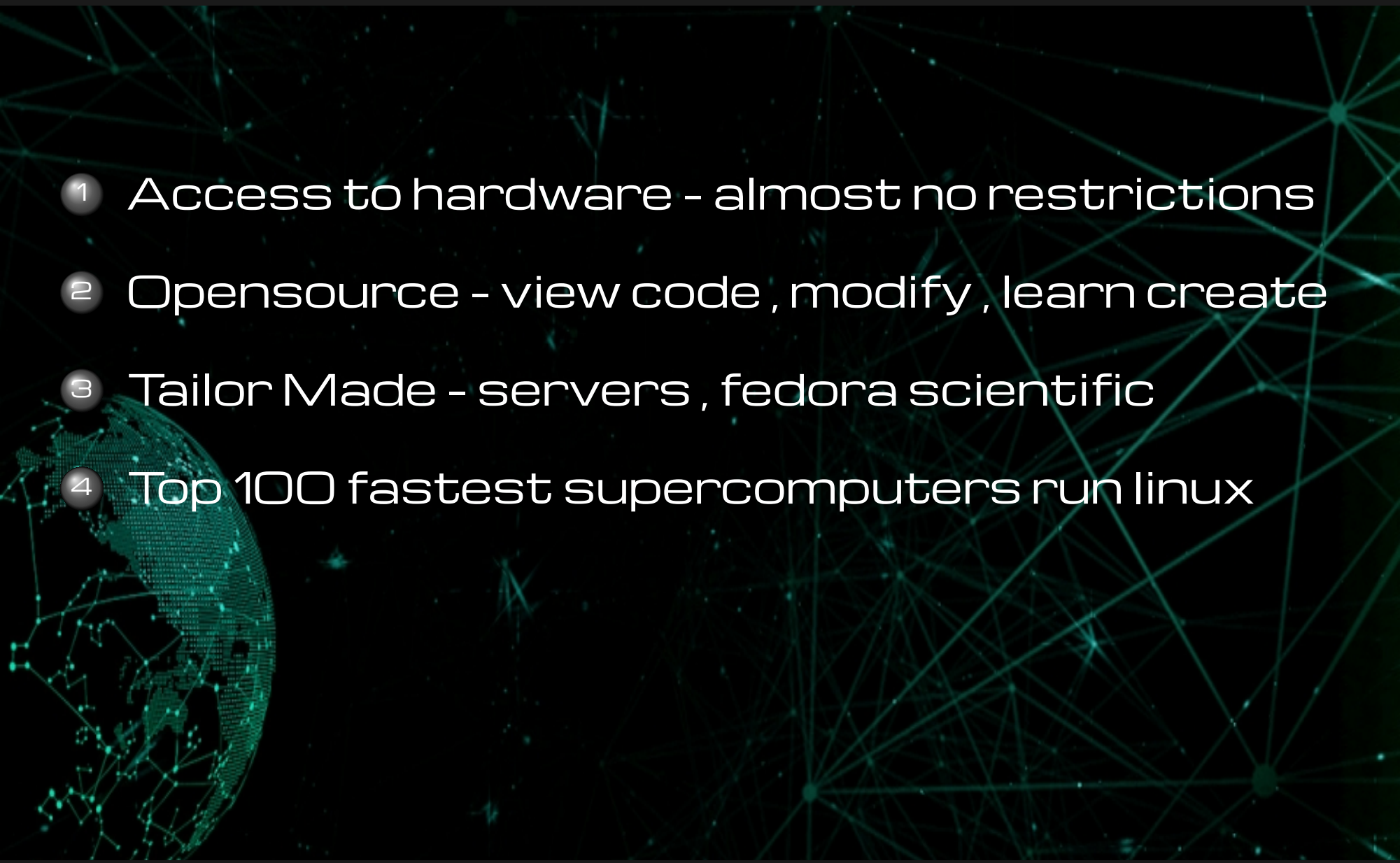

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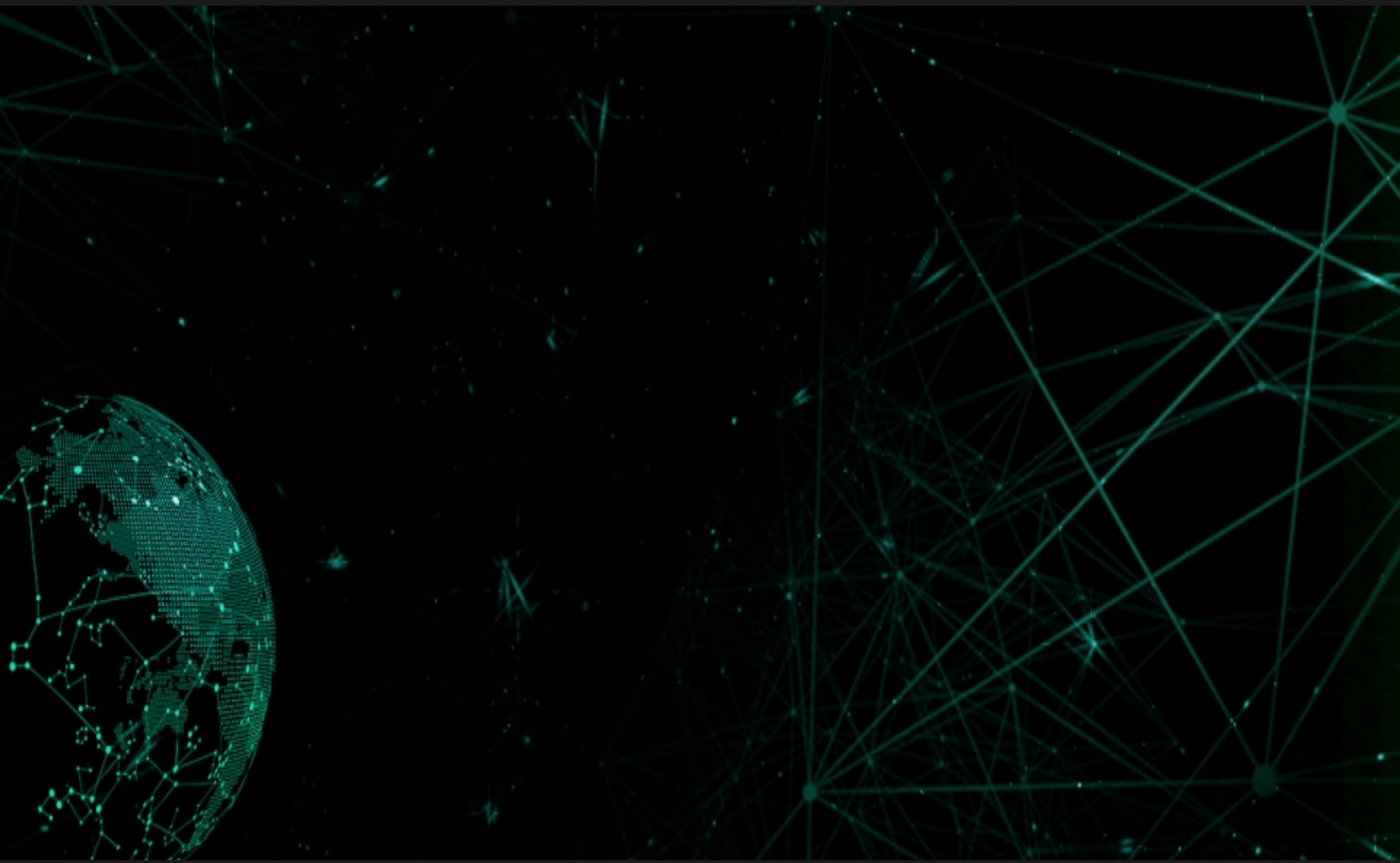
5. Almost all tech giants funds linux development

Why Linux ctd..



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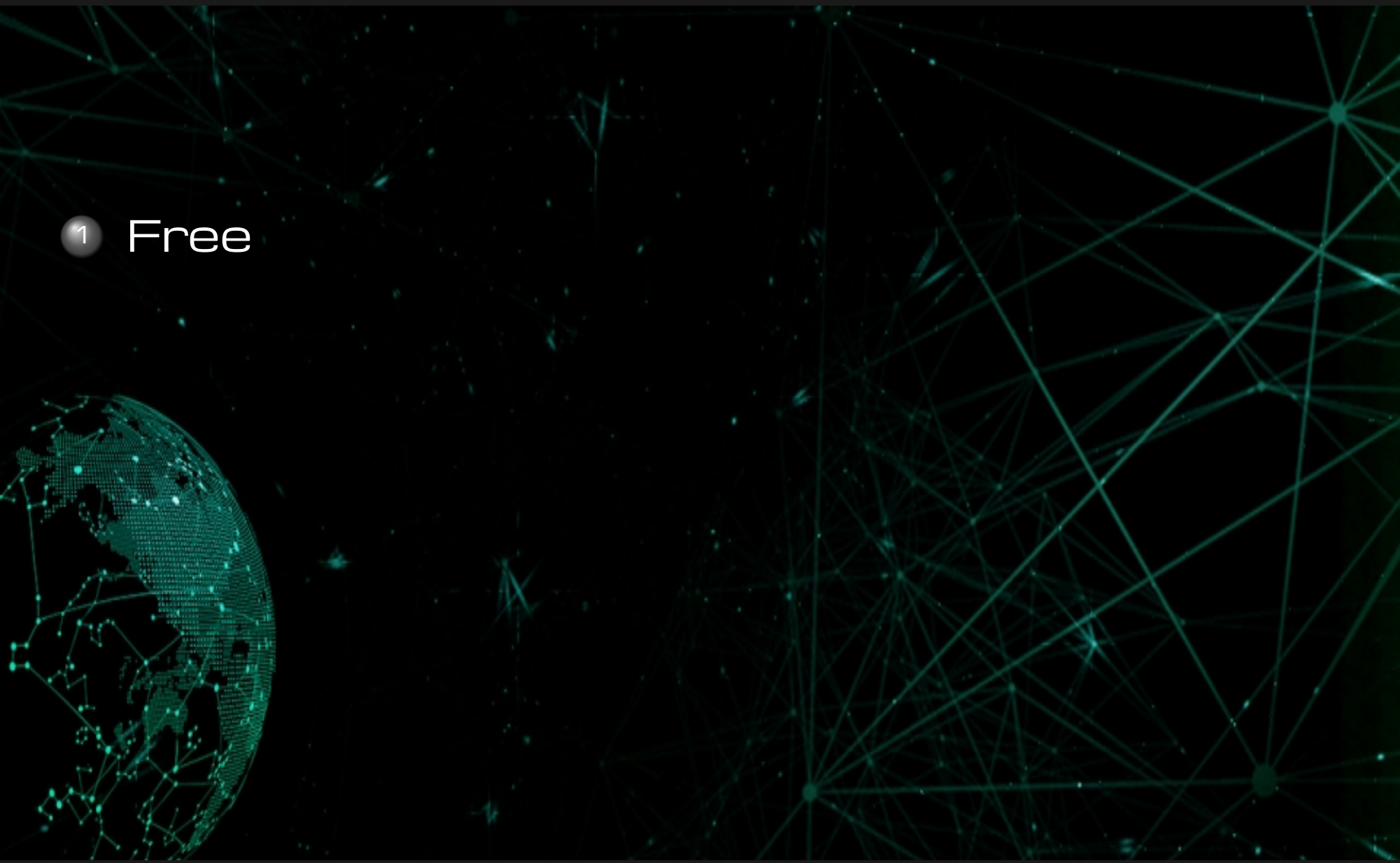

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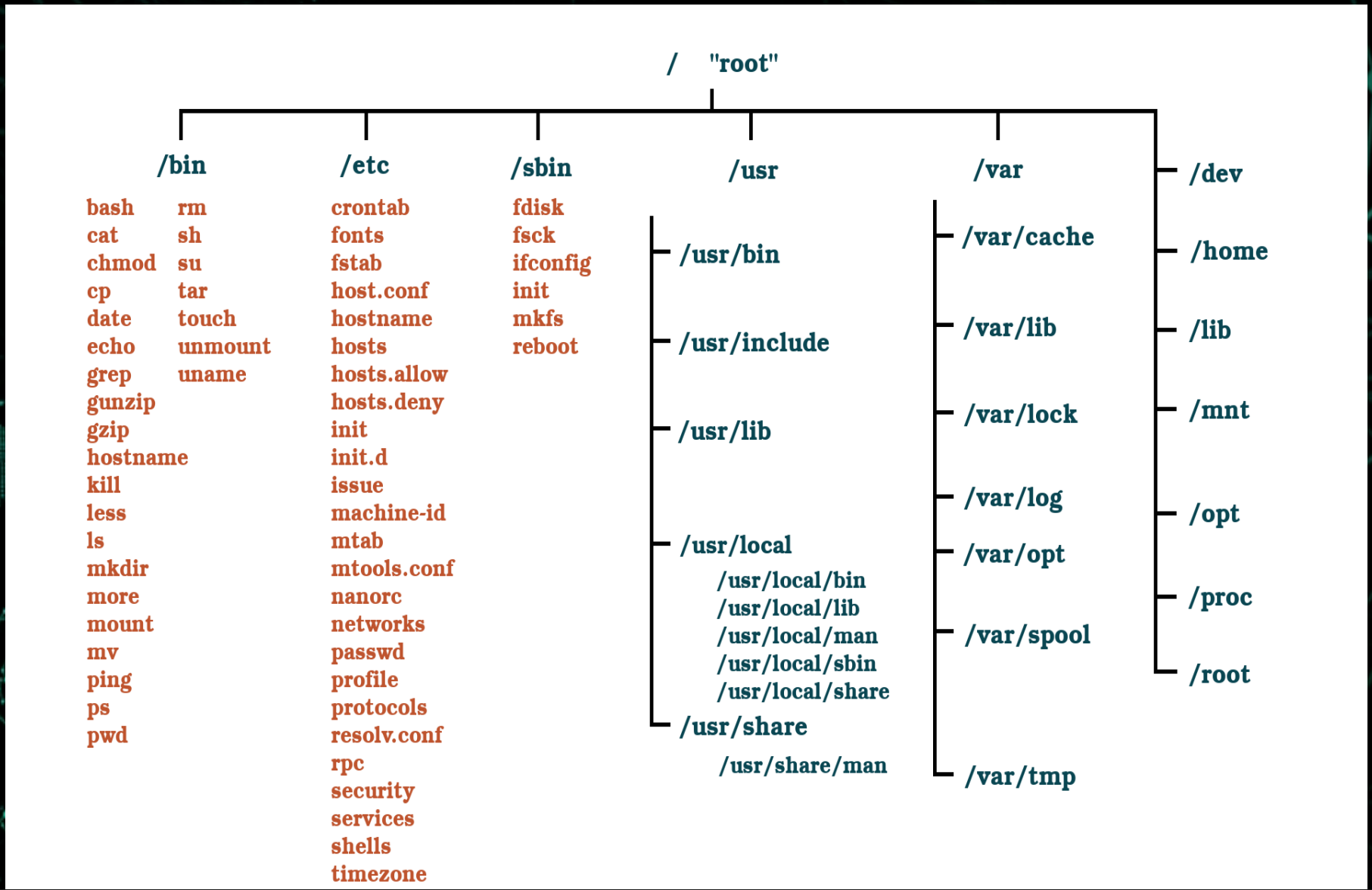
4. Microsoft gives you windows. Linux gives you whole house

File System Hierarchy



Linux File System: Basic commands

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use : man <command> - to get the full details regarding any

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5. cd - change directory

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Users, Group and Permissions

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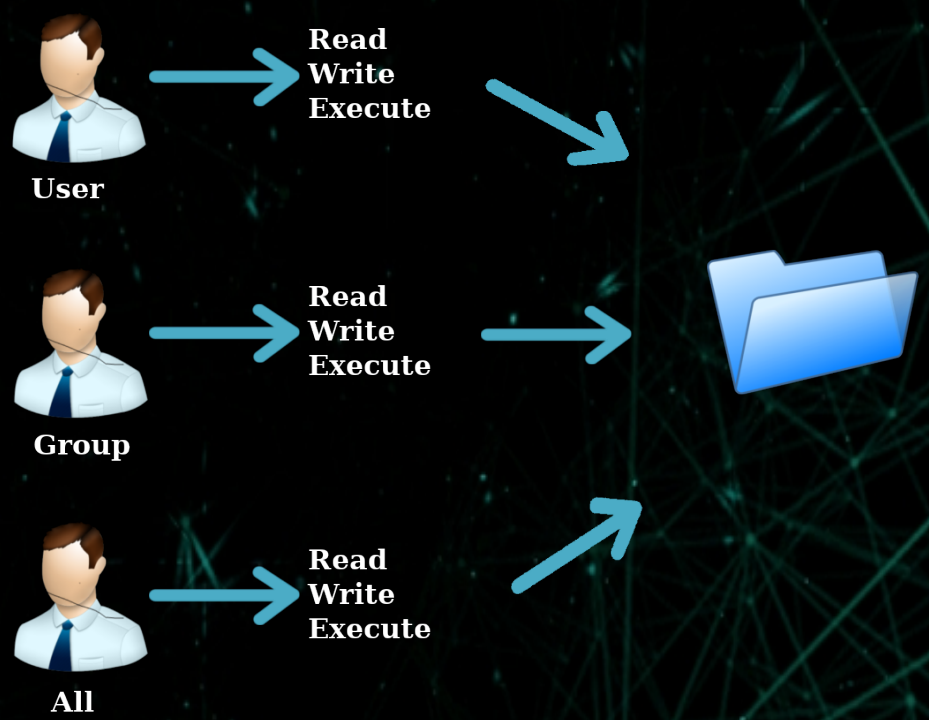
For each file, permissions are given in three categories.

Users, Group and Permissions

Owners assign permisssion on every file and directory



TODO

hint

OWNER|GROUP|ALL.

RWX-RWX-RWX

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RWX-RWX-RWX

1. use ls -l command to find out permission of files given to you.
2. try executing
3. ./hello_perm.sh
4. what do you see

5. change permission the file using
6. chmod 111 hello_perm.sh
7. try executing now .

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8. try to read file using
9. cat hello_perm.sh
10. chmod 755 hello_perm.sh
11. cat hello_perm.sh

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5. substitutions , echo ‘cat test-file‘
6. echo ”current directory is ‘pwd‘”

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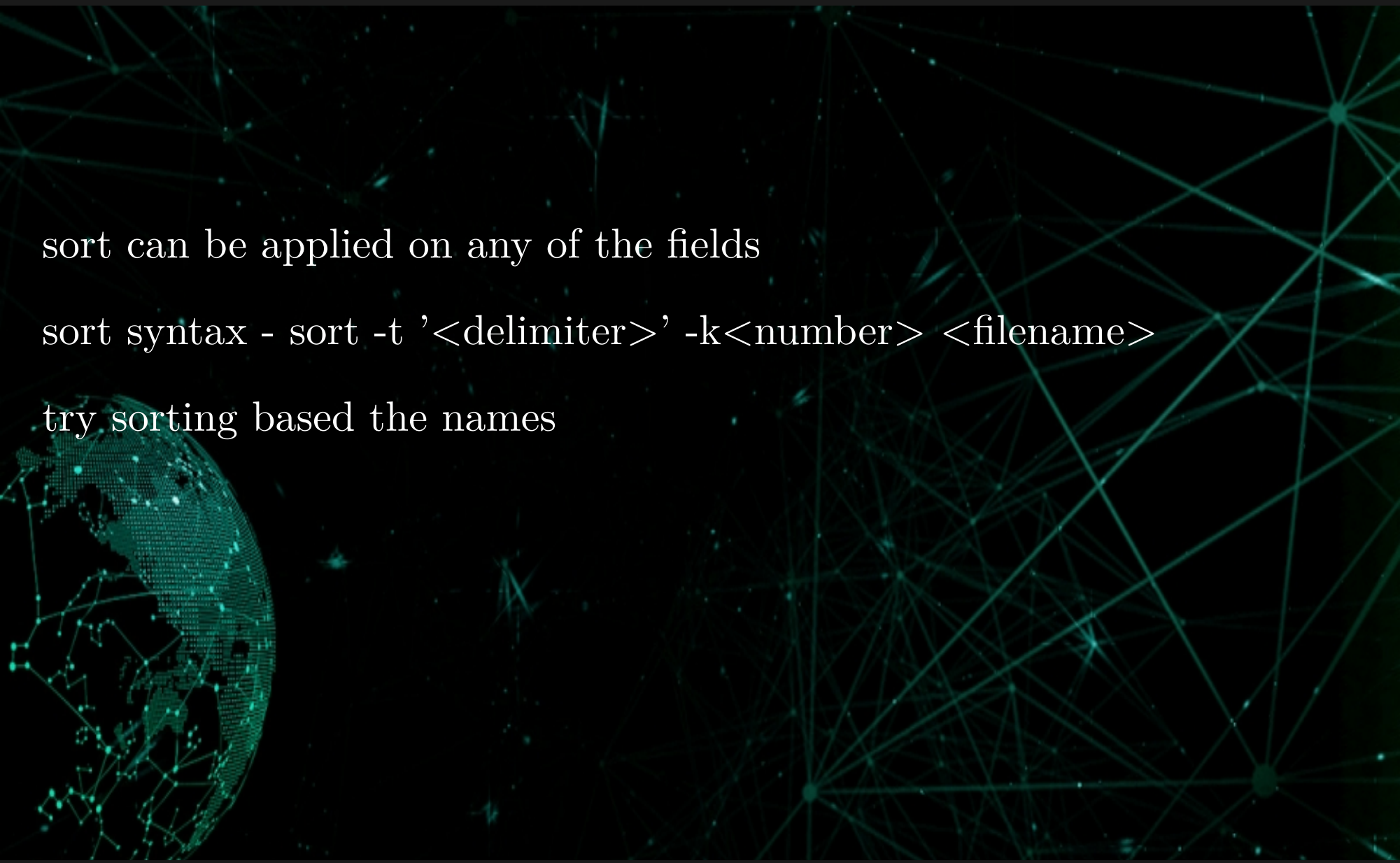

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5. grep with regexes

pipes(|) and the Unix philosophy

Pipe allows us to redirect the output of one command as the input of another command

common syntax - command1 input-file | command2

eg: cat test-file | sort

Q: write the command to get only the sorted names from file cut-input2

use cat cut-input2 to inspect the file

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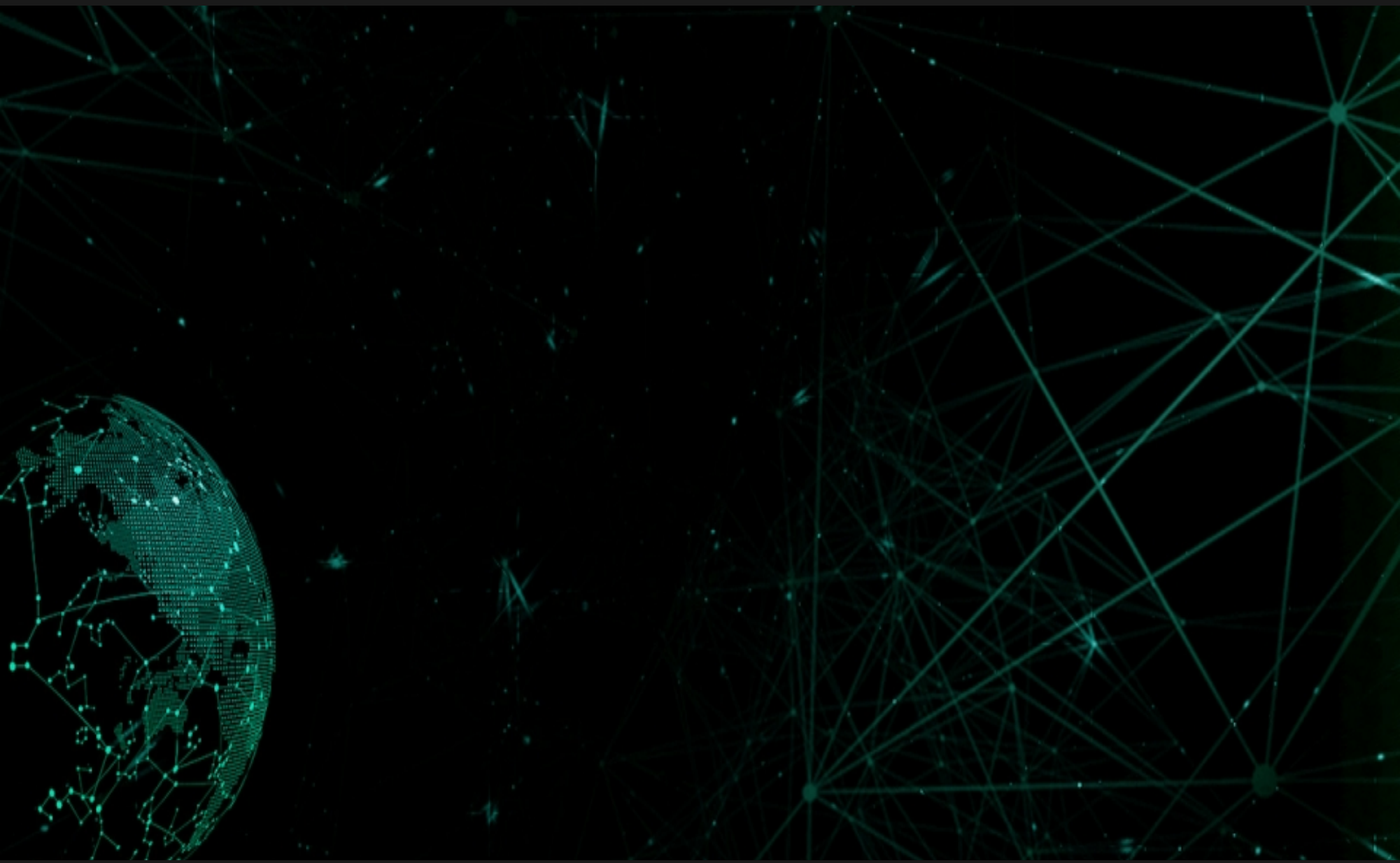
grep -i ee1 | sort -t ',' -k1

Git - What Why?



Git - What Why?

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2. Manages source code history
3. Git is local

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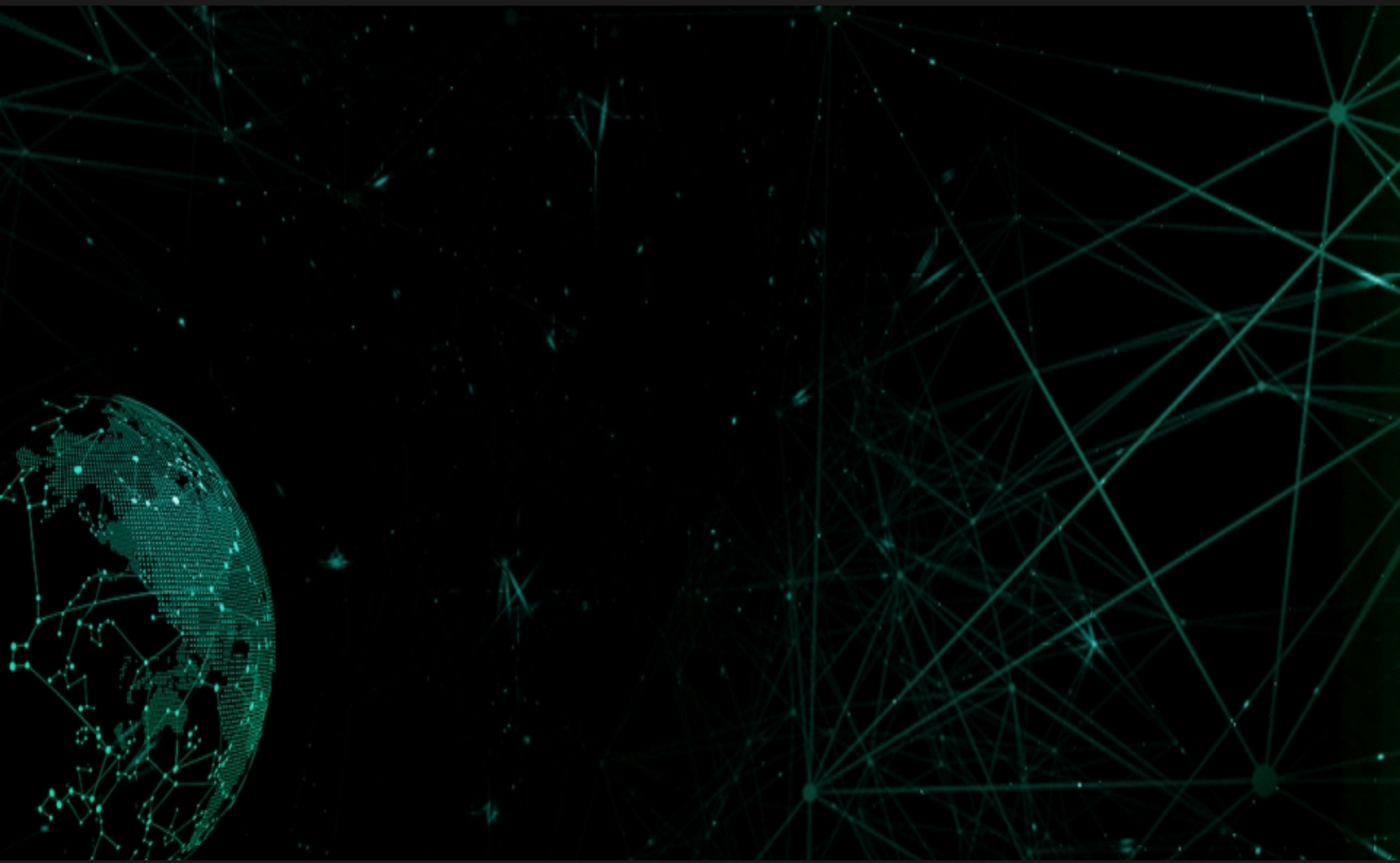
1. Version control system
2. Manages source code history
3. Git is local
4. Free and open source
5. Fast and small

GitHub



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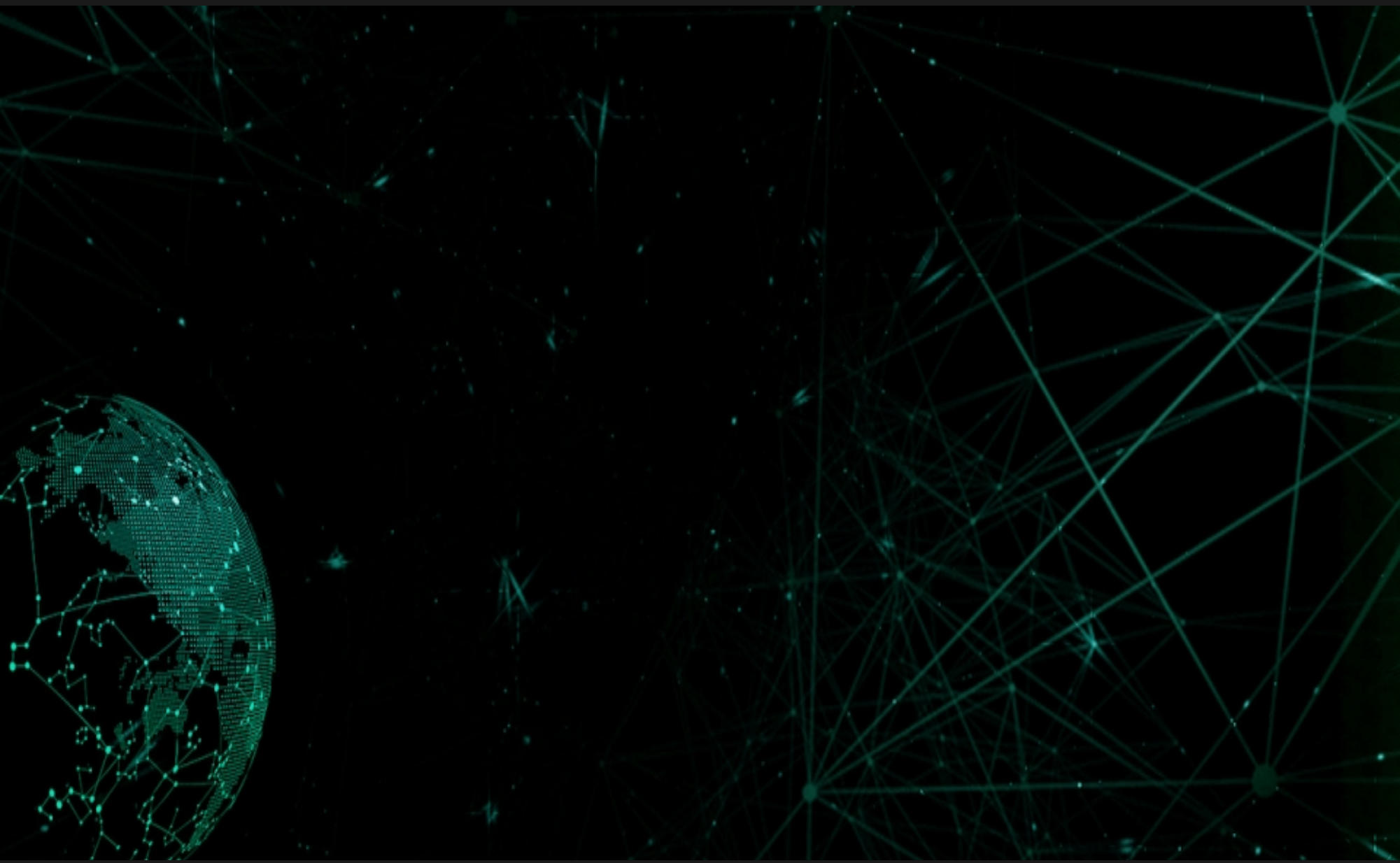
4. Can be used for issue tracking, documentation, and wikis

Other Git repo hosting platforms

1. AWS codecommit
2. Gitlab - you can also create your own git server using gitlab
3. Bitbucket
4. Sourceforge
5. ...
6. git.ee.iitb.ac.in

Getting Started



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3. Check installation
4. git - -version

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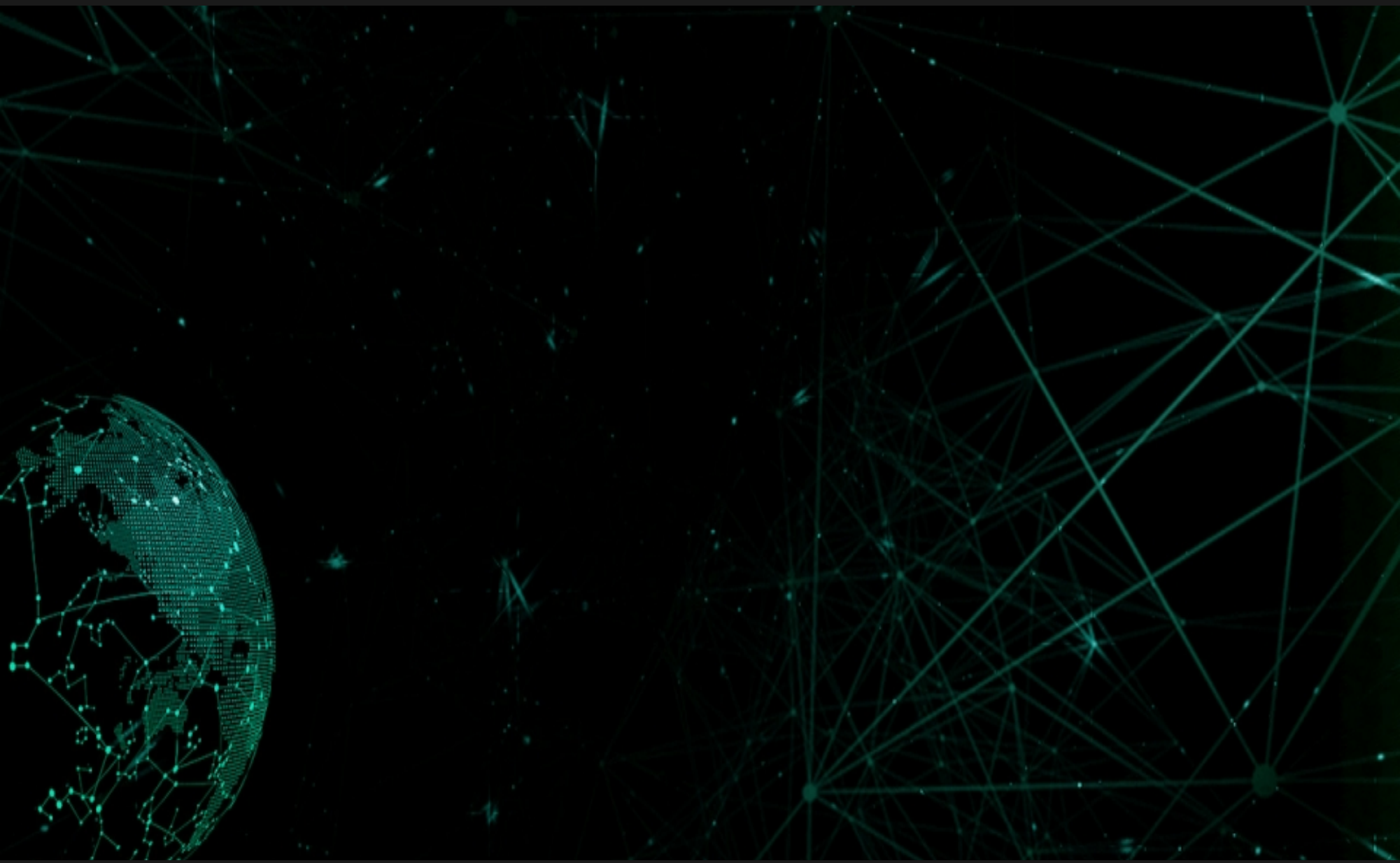

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5. git add updated-filename

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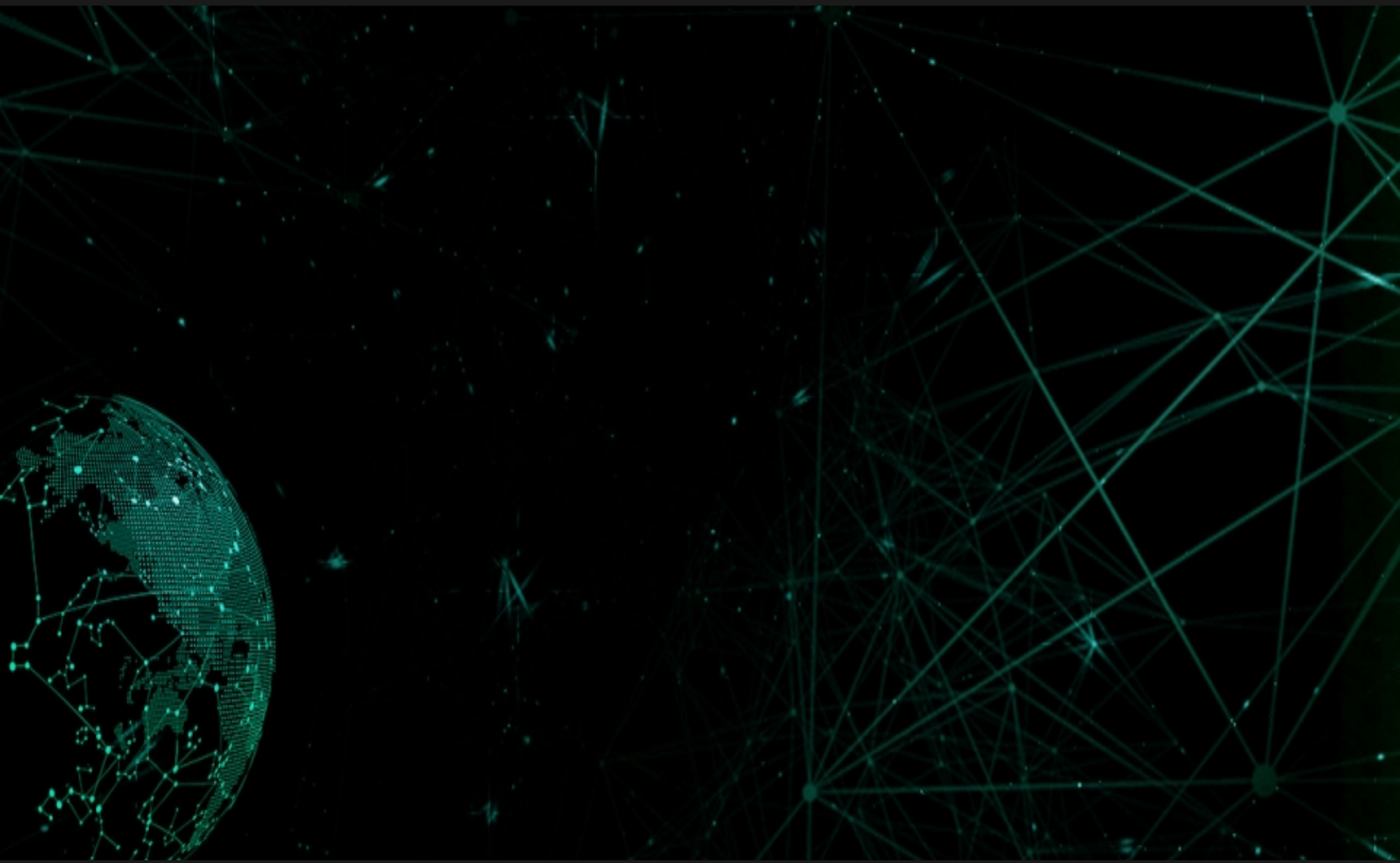

Getting Started

6. Committing changes
7. git commit -m "Commit message" <3->

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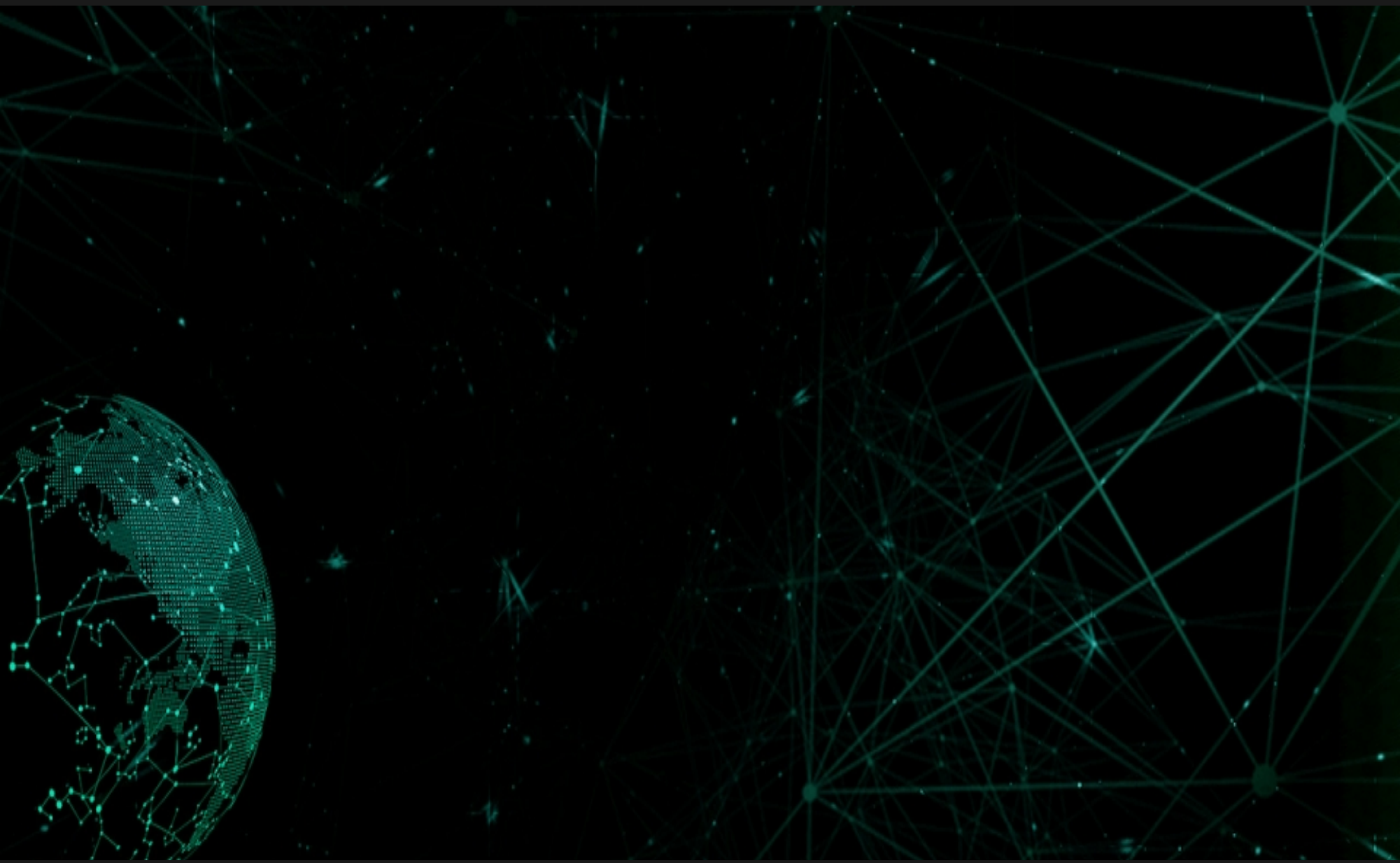

Getting Started

11. Other useful commands
12. git branch
13. git status
14. git diff filename