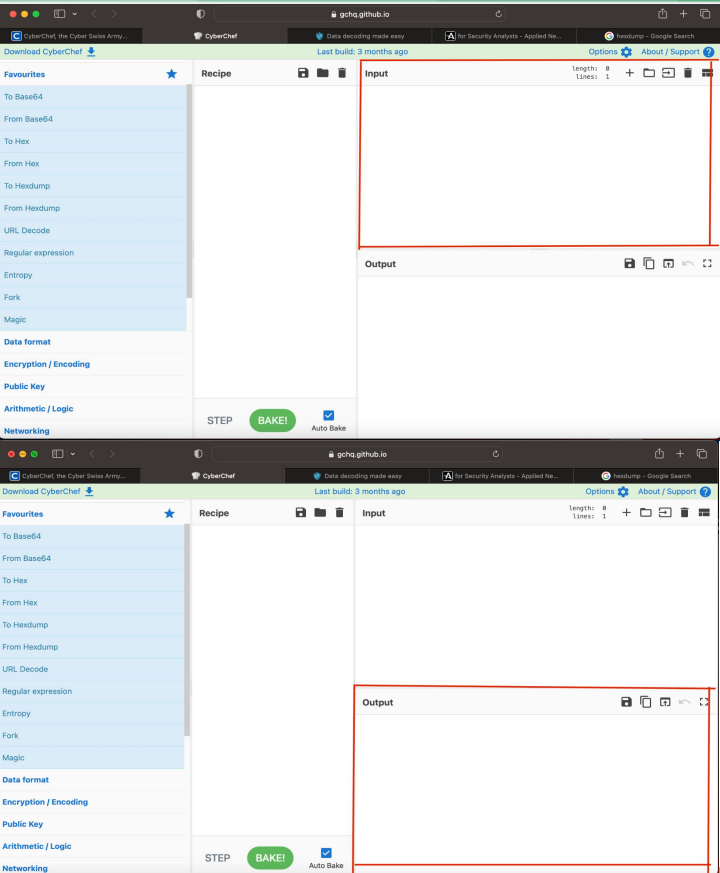# CyberChef

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What is CyberChef?

- CyberChef is a web-application that gives users access to multiple cyber tools in one application and enables the user to accomplish multiple tasks including but not limited to:
    - Encoding
    - Decode
    - Formatting Data
    - Magic: The magic tool analysis the file you have selected to be analyzed and chooses which tools will help you best analysis that file.

- Cyberchef was created by GCHQ.
    - GCHQ is UK's Government Communications Headquarters.

Main Areas In CyberChef

- The four **main** sections of CyberChef are:
  - Input box which is located on the top right corner

  - Output box which is located on the bottom right corner

Main Areas In CyberChef
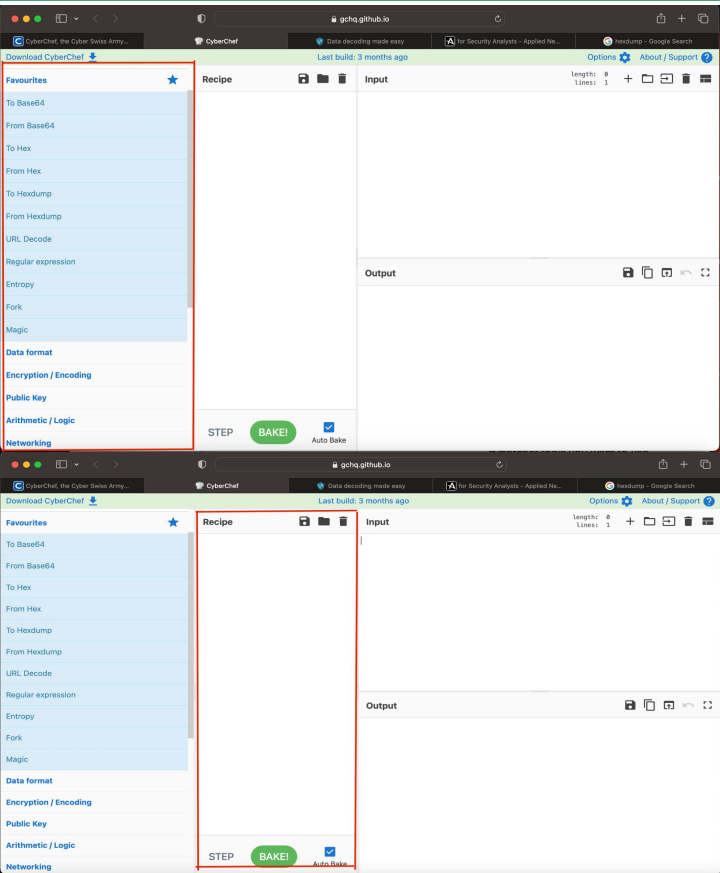
- The four **main** sections of CyberChef are:
  - Operations list which is located on the left side of the page
  - Recipes which is located in the middle of the page.

Sorting Challenge

CyberChef to the Rescue

- Our Professor gave us a text file that was way too big to sort by eye.

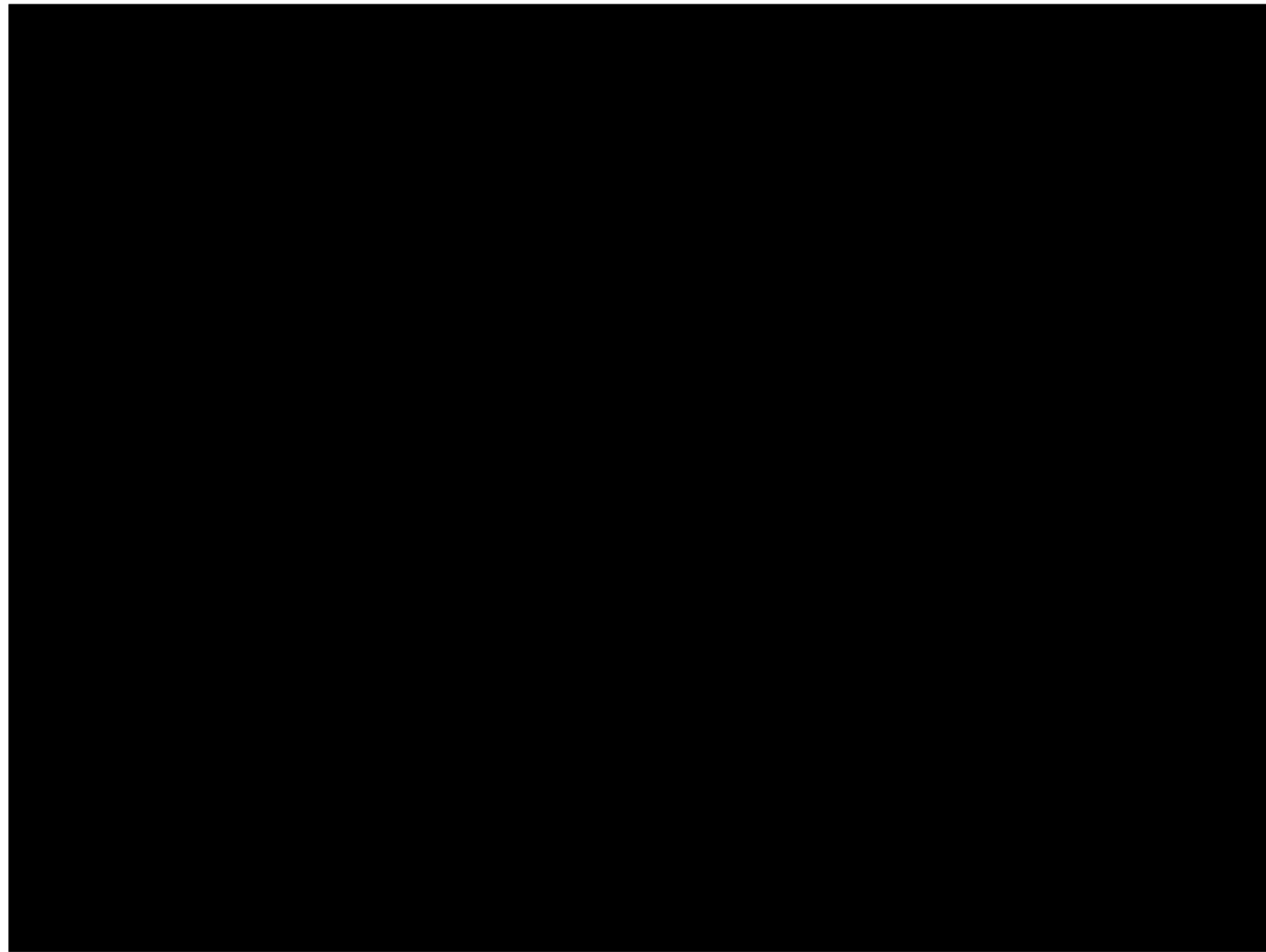- Goal: Find which name occurs the most!

Recipes Used:

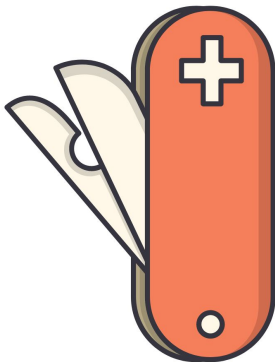- Find/Replace
- Unique
- Sort

Sorting Large Files:

Video Link ➡

Benefits:
- Real time feedback
- Quick recovery

CyberChef is Versatile

Often called:

"The Cyber Swiss Army Knife"

Why CyberChef?

Versatility:

- The abundance of tools it contains has earned it the title of "The Swiss Army Knife" of cybersecurity.
- Capable of data analysis, forensics, brute force, encryption, description, URL extraction, morse code, and much more.

Convenience:

- Recipes can be saved for later.
- Recipes can be shared with others via URL.
- Recipes are carried out on your web browser only. (Client Side)
- It's free.

Additional Research

Availability:

- While CyberChef can be used in a browser it can also be downloaded and ran locally.
  - This is best when working on sensitive data.

Security:

- From what we have read input data is not stored on a server side database.
  - Your input data is not being stored anywhere.
- CyberChef has been vulnerable to XSS in the past (2019).
  - It has since been patched.

References

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