Data Science Workshop Series

S01-SS02

Linux: what and why?

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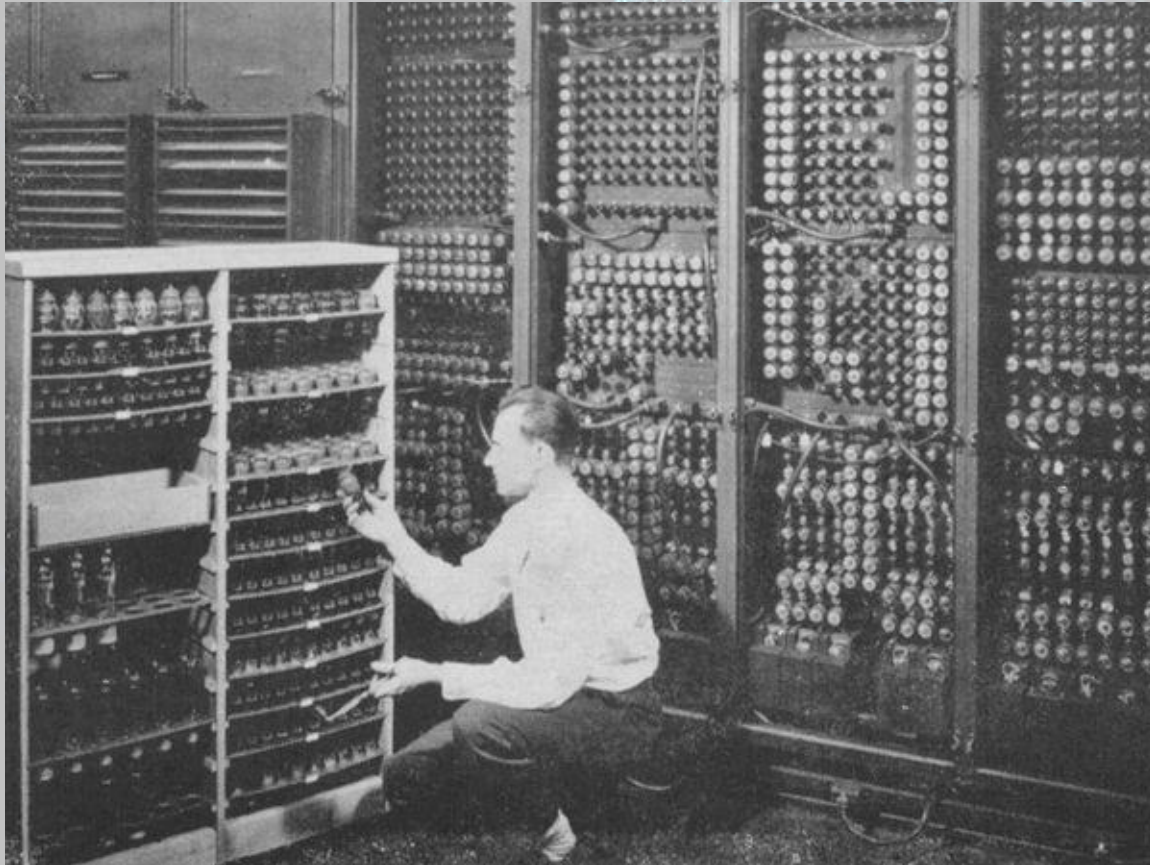
May-2019-IPM

- Computer
- Operating System
- Linux

Computer:

1613-1950

Computer:

- Logical
- Arithmetic
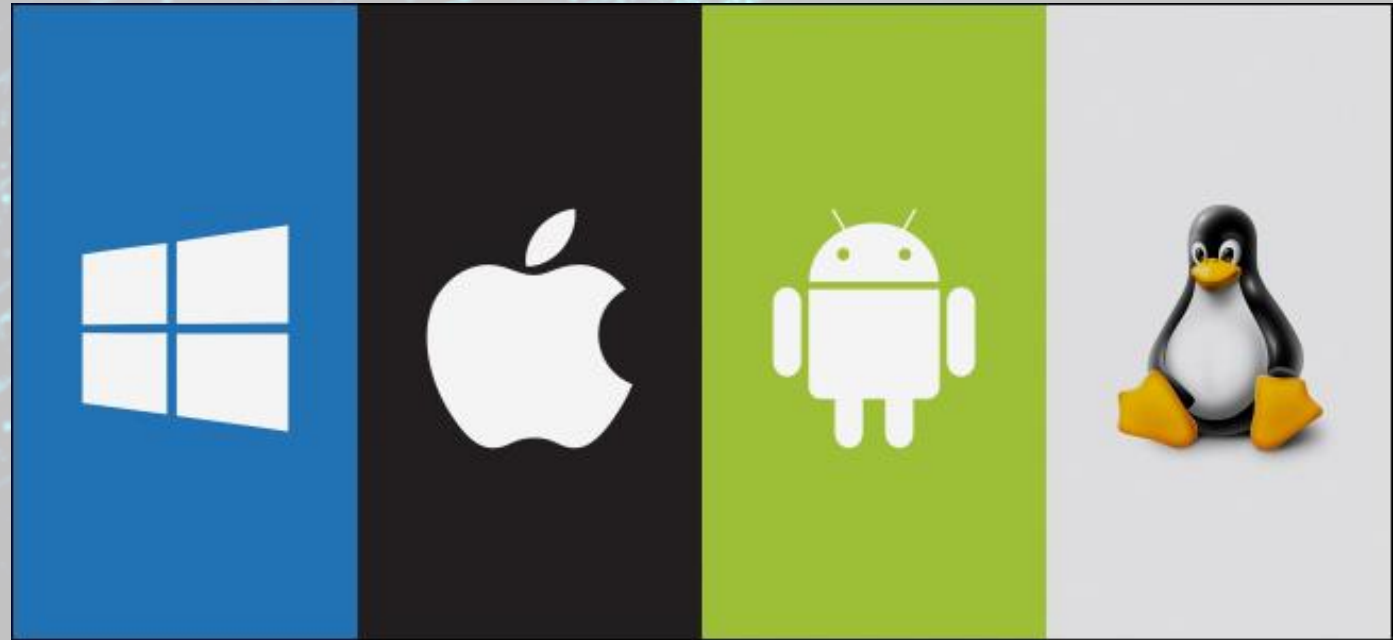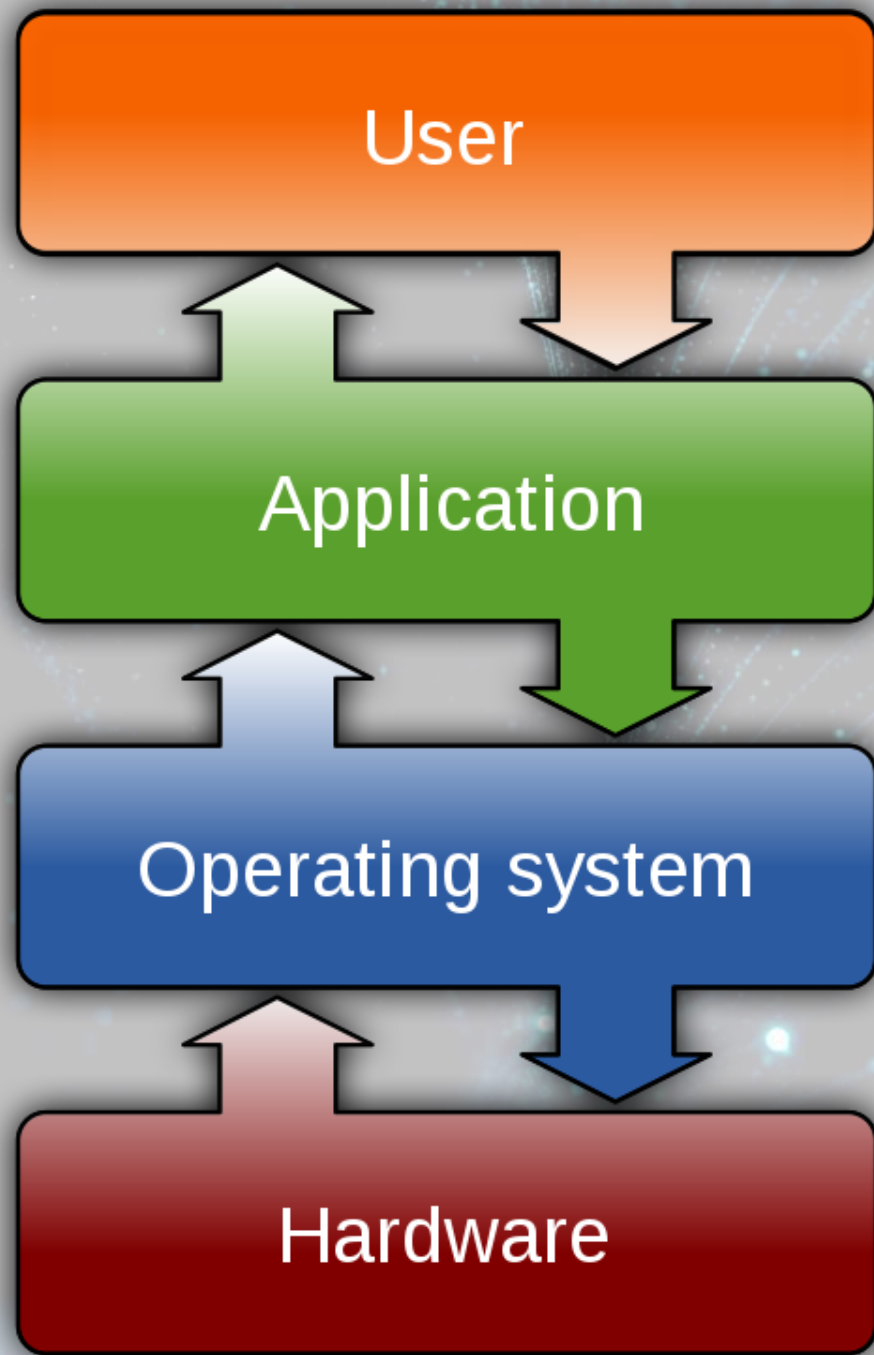
Computer:

Computer:

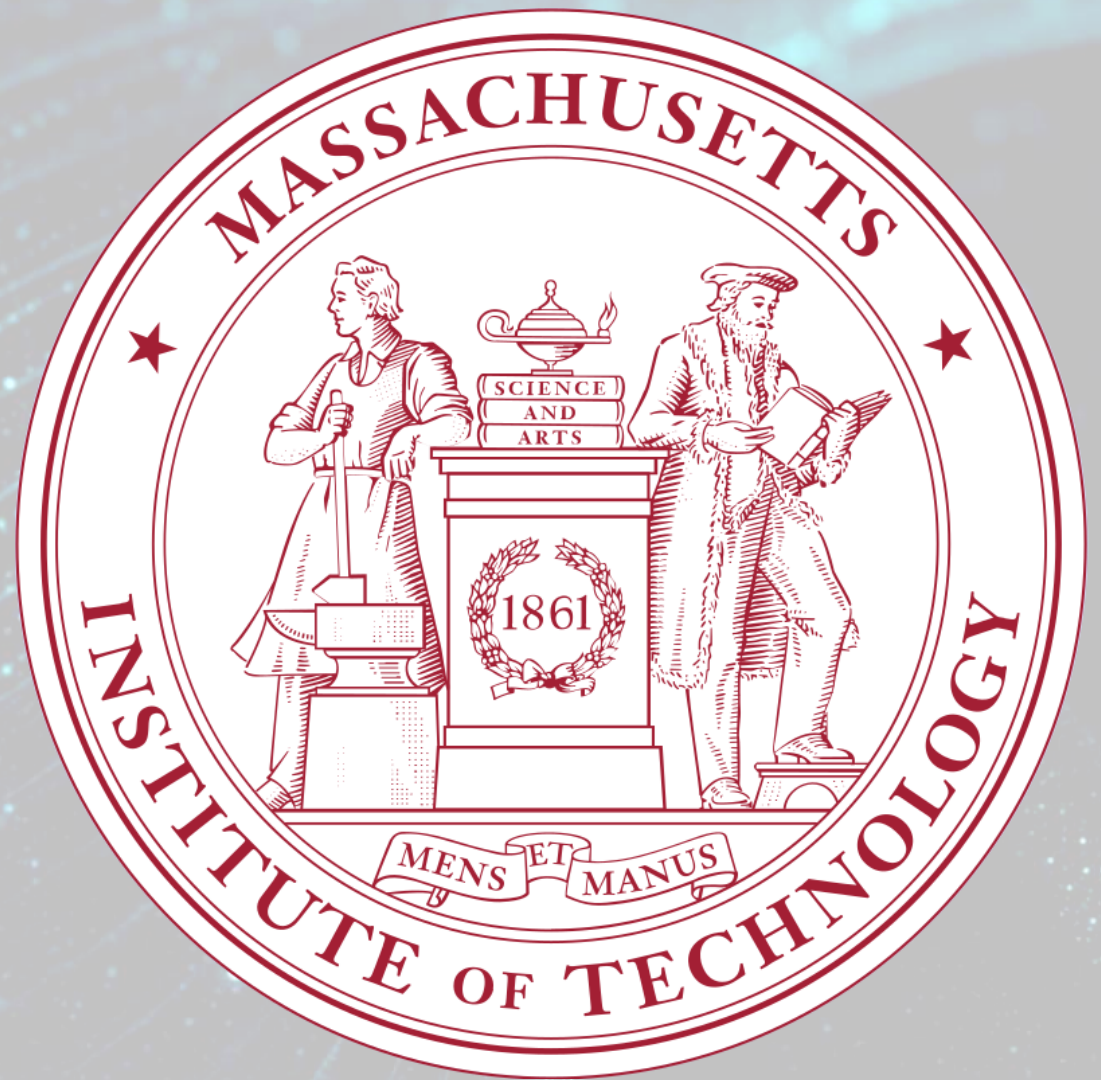November 3, 1971, beginning of the story:

Richard Stallman

https://stallman.org/

Richard Stallman

BSD

GNU

- 0) The freedom to run the program as you wish, for any purpose.
- 1) The freedom to study how the program works, and change it so it does your computing as you wish. Access to the source code is a precondition for this.
- 2) The freedom to redistribute copies so you can help your neighbor.
- 3) The freedom to distribute copies of your modified versions to others. By doing this you can give the whole community a chance to benefit from your changes. Access to the source code is a precondition for this.

Linus Torvalds
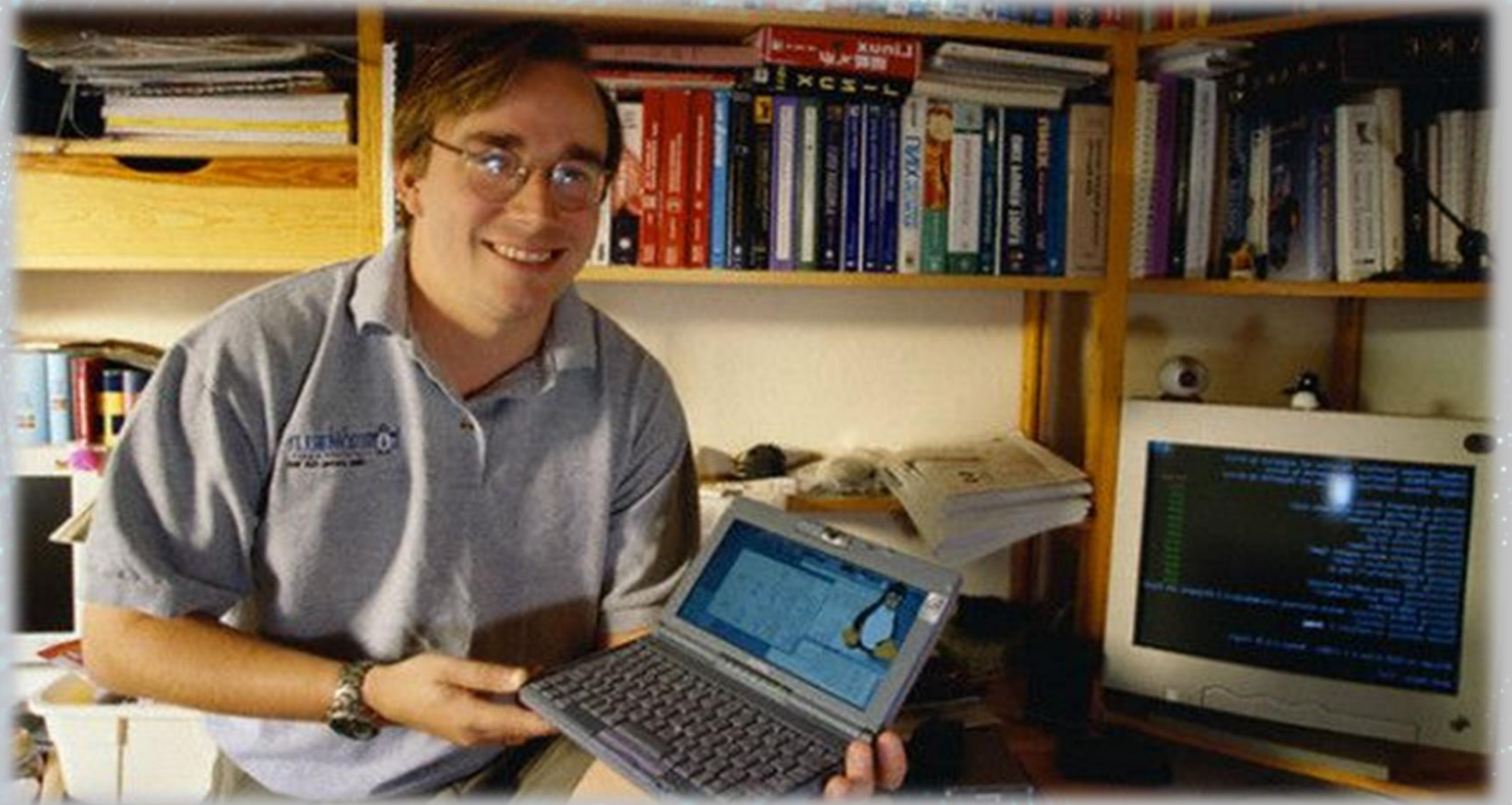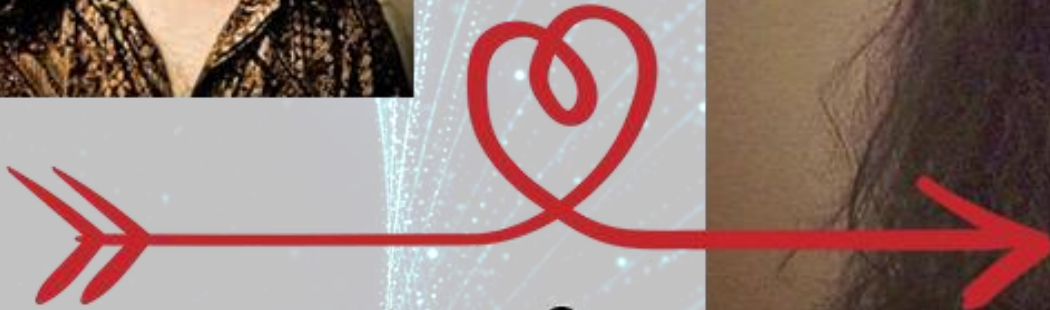
GNU/Linux

Ubuntu

Fedora

Debian

Arch

Gentoo

Linux
From
Scratch

Linux, unixoide, ZETA

- **/** [Wurzelverzeichnis]
  - **bin/**
  - **lib/**
  - **etc/**
  - **dev/**
    - **sda1** [Gerätedatei]
    - **sda2** [Gerätedatei]
  - **home/**
    - **benutzername/**
    - **anwendername/**
      - Office Dokument.odt
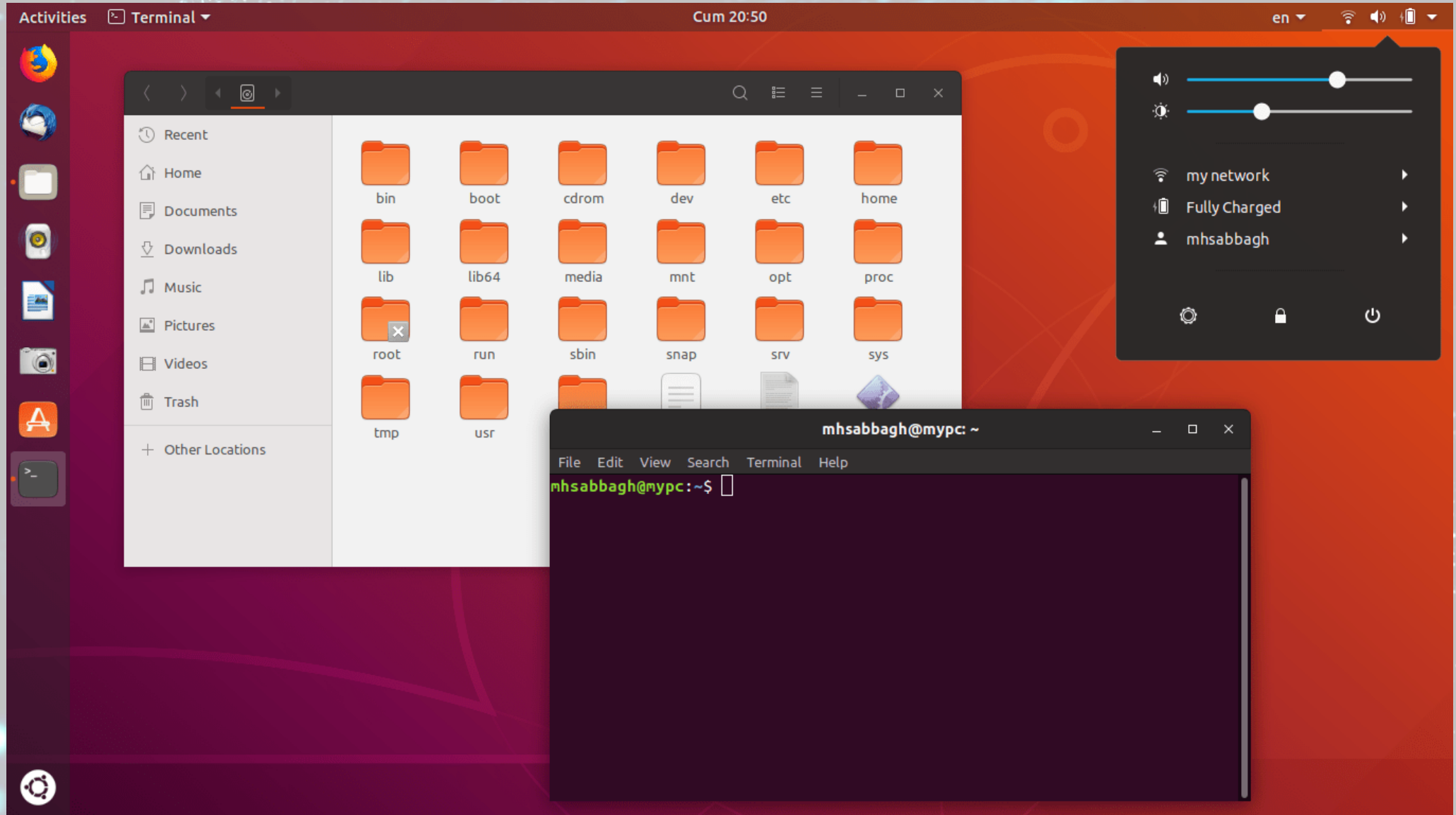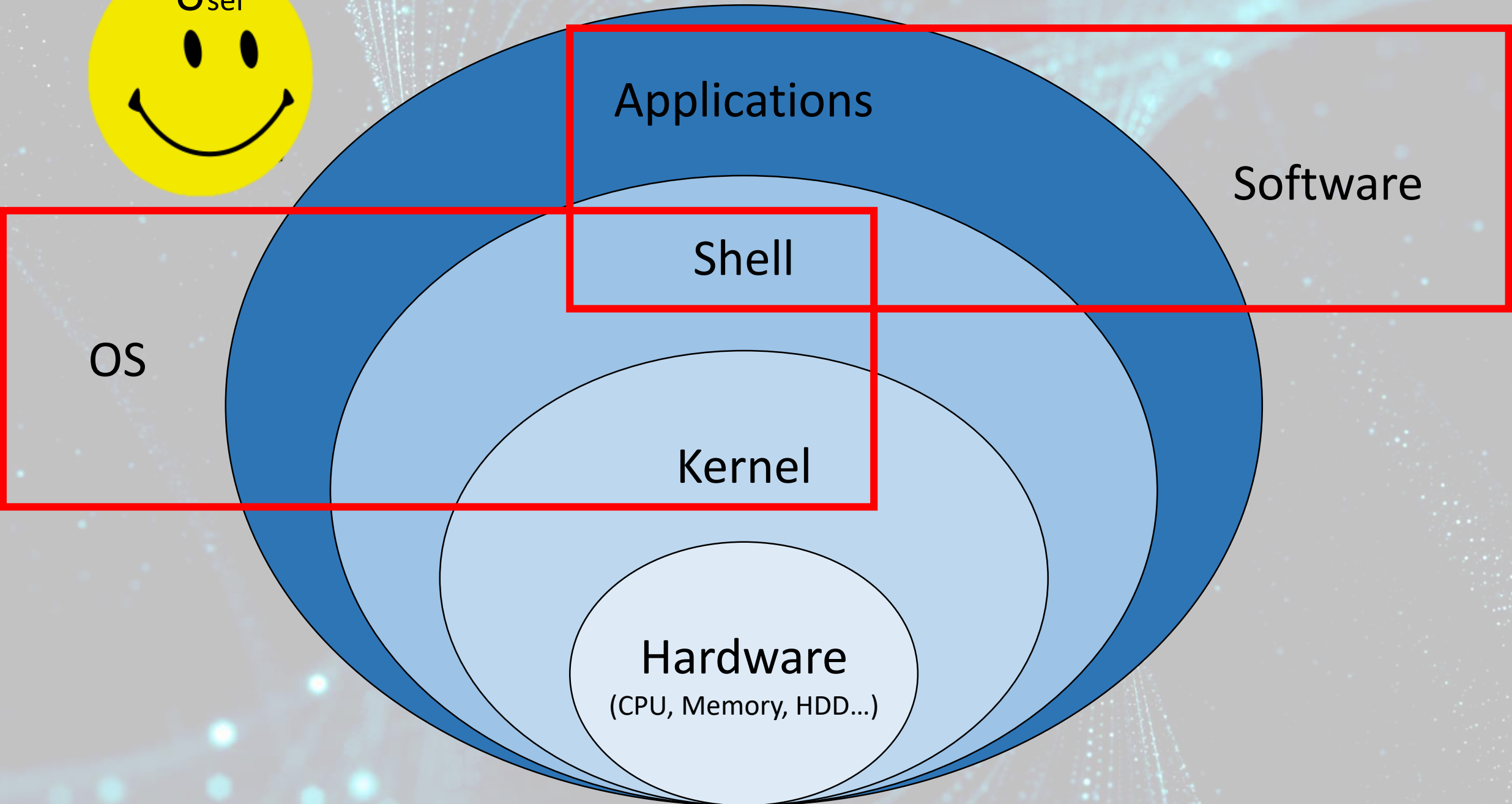   - Foto.png
      - **Verzeichnis/**
  - **media/**
    - **disk1/** [Einhängpunkt für Datenträger]
    - **usbdisk1/** [Einhängpunkt für Datenträger]
      - tabelle.ods
      - Bild.jpg
      - Text.txt
      - **Unterordner/**
  - **usr/**

Mac OSX

- **/** [Wurzelverzeichnis]
  - **bin/** [versteckt]
  - **System/**
  - **etc/** [versteckt]
  - **dev/** [versteckt]
    - **disk** [Gerätedatei]
    - **disk2** [Gerätedatei]
  - **Users/**
    - **benutzername/**
    - **anwendername/**
      - Office Dokument.odt
      - Foto.png
      - **Verzeichnis/**
  - **Volumes/**
    - **macosx/** [Einhängpunkt für Datenträger]
    - **usbmedium/** [Einhängpunkt für Datenträger]
      - tabelle.ods
      - Bild.jpg
      - Text.txt
      - **Unterordner/**
  - **Applications/**
  - **usr/** [versteckt]

Windows NT/2000/XP

- **C:** [Laufwerk]
  - **Programme**
  - **Dokumente und Einstellungen**
    - **Adminstrator**
    - **Benutzername**
      - Office Dokument.odt
      - Foto.png
      - **Verzeichnis**
  - **Windows**
    - **System32**
- **E:** [Laufwerk]
- **F:** [Laufwerk, USB-Medium]
  - tabelle.ods
  - Bild.jpg
  - Text.txt
  - **Unterordner**

CLI vs. GUI:

- Linux has a super administrator named "root"
- "root" is the most powerful account, don't mess with it!
It is able to create, modify and delete anything.
- Linux is case sensitive.
- It's usually better to avoid using space in names.
- Linux is going to give you freedom, take it. Try to posses your computer.
- Keep you home clean!
- You want to install something? No more "next"!

LET'S DIVE!