

# Computers

# I/O & File System

## Exercises

*Grau en Ciència i Enginyeria de Dades*

---

Facultat d'Informàtica de Barcelona (FIB)

Universitat Politècnica de Catalunya (UPC)

2021-2022 Q2

# Creative Commons License

---

This work is under a Creative Commons Attribution 4.0 Unported License



The details of this license are publicly available at <https://creativecommons.org/licenses/by-nc-nd/4.0>

# Exercise 1

---

- Implement a particular cat, reading from the terminal and writing through the file descriptor 20

# Exercise 2

---

- Append the contents of a given file
  - ./prog file.txt

# Exercise 3

---

- Invert the contents of a given file into a new file
  - `./prog input.txt output.txt`

# Exercise 4

---

- Implement a code that inserts the character 'X' in the middle of any **text** file

File contents before execution

abcdef

File contents after execution

abcXdef

# Exercise 5

---

- What are we doing with the following code?
- The program is called by the command line: **#>echo hola | ./program file.dat**

```
...
char c;
int fd;
fd=open(argv[1],O_WRONLY|O_CREAT|O_TRUNC, 0640);
lseek(fd,0,SEEK_END);
while(read(0, &c, 1) > 0){
    write(fd, &c, 1);
}
...
```