The need for **user programs**

The need for abstraction for user programs

How to write a user program like the *Bash* shell that reads keyboard inputs from the user?

➡ Read input data from the I/O device directly? But which one?

- The one connected to the PS2 port?
- The one connected to the USB?
- The one connected to the bluetooth?
- The remote one connected to the network?

◉ User programs do not operate I/O devices directly

✓ The OS abstracts those functionalities and provide them as **system calls**