The OS needs to **time sharing** the CPU, which means running a process for a little while, then another one, and so forth.
The challenges are:

    ➡ Performance, implement virtualisation without adding excessive overhead to the system

    ➡ Control, process shouldn't run forever or access it information that isn't allowed

A method is **limited direct execution**. The **direct execution** part is straightforward, load the program, allocate and initialise then run the main method. (**Figure 6.1: Direct Execution Protocol (Without Limits)**) Advantage of **direct execution**, its fast
Problems:

    ➡ how to be sure the process doesn't anything we wouldn't want it to do

    ➡ how does the OS stop the process and switch to another one?

How to perform restricted operations, without giving the process complete control over the system?