**Report**

In this phase (the last phase ), we were required to land on the third stage and the final stage of the bootloader. The first task was displaying the output on the screen by implementing a simple scroller driver to be able to show all parameters of disks and PIT timer on the screen, without overflowing the VGA memory. In this task, we used a clear screen function to put the cursor back into the beginning of the screen (QEMU window) and we adjusted the code to be able to print the PIT timer status sequentially, in order to test the feature of scrolling. Secondly, we scanned all PCI devices and all ATA disks and printed the corresponding parameters in the PCI database onto the screen. Finally, we adjusted the PIT timer to increment by 1000 interrupts. The PIT timer is appearing sequentially and the previous outputs on the screen are removed in order to shift the screen and give a space for the new PIT values.

**The steps needed to run the code:**

* Run the makefile by using the following line in the terminal of the code’s folder

make run\_myos

* Type your password if needed
* Enter your password and follow the instructions of the QEMU window.
* Use : make clean, if needed when running multiple times ( if an error occurs)

**Limitations :**

* Some PIT timer parameters are showing in a wrong way ( in the middle of the QEMU window, not sequentially)