PDP – Lab1 Documentation  
Ciupe Sergiu-Călin, 932/1

**Supermarket inventory**

We create an amount of products each with a random quantity and price and add them to our list of products. We perform an inventory check at the end of the program, checking if the quantities sold and remaining match the purchases made and if the total cost of the bills also match the profit.

The amount of threads and products vary and below are the average times for different number of threads and products:

* 10 threads, 10.000 products: 0.032 seconds
* 10 threads, 20.000 products: 0.048 seconds
* 50 threads, 20.000 products: 0.292 seconds
* 50 threads, 50.000 products: 0.381 seconds
* 100 threads, 50.000 products: 0.688 seconds
* 100 threads, 100.000 products: 1.243 seconds
* 50 threads, 1.000.000 products: 6.419 seconds
* 100 threads, 500.000 products: 7.248 seconds