**Supermarket inventory- Documentation Tătar Flavia-Andreea, 937**

*Different running scenarios:*

1. 5 threads

**The number of threads is**: 5

**The number of products added to store inventory is**: 1000

The number of sale operations for each thread: random between 2 and 100

All products from inventory have an initial value of: Money{amount=9332154.742909562}

Threads are done, stock verification starts now: Substract from initial deposit 9332154.74 the total price made by all cashiers/ operations 6285.75 and compare it to current value of all products from store 9325868.99

=>compare: 9325868.99 and 9325868.99 The stock is ok!Verification passed.

**The time passed is**: 109 milliseconds

1. 100 threads

**The number of threads is**: 100

**The number of products added to store inventory is**: 500

The number of sale operations for each thread: random between 2 and 100

All products from inventory have an initial value of: Money{amount=4788486.983594599}

Threads are done, stock verification starts now: Substract from initial deposit 4788486.98 the total price made by all cashiers/ operations 142614.25 and compare it to current value of all products from store 4645872.73

=>compare: 4645872.73 and 4645872.7 The stock is ok!Verification passed.

**The time passed is**: 286 milliseconds

1. 500 threads

**The number of threads is**: 500

**The number of products added to store inventory is**: 800

The number of sale operations for each thread: random between 2 and 100

Threads are done, stock verification starts now: Substract from initial deposit 7533806.68 the total price made by all cashiers/ operations 678105.08 and compare it to current value of all products from store 6855701.6

=>compare: 6855701.6 and 6855701.6 The stock is ok!Verification passed.

The time passed is: 685 milliseconds

*Mutexes used*

* Mutex named \_lockMechanism of type ReentrantLock used in PayMaster class(which is runnable and handles sale operations): it protects the modification of the quantity of each product and the calculation for the total amount of money one particular thread/cashier has made.

*Hardware platform*

Processor: Intel core i5 @1.60 GHz 1.80 Ghz

Available RAM: 7,88 GB

Operating system and processor x64 bit (Windows 10 Education)