

## **ASSIGNMENT 2**

In a supermarket there is a **cashier** which attends customers when they arrive. For the purposes of this scenario a cashier is an employee who totals purchases and collects payment from customers.

The time required to attend each client is variable and varies from 2 seconds to 7 seconds.

Each client will spend a time between 2 seconds and 15 seconds to collect the items. After that the client will wait for the cashier to be attended.

If there are no customers the cashier waits for the customers to come. This cashier will attend to 5 customers and will finish his shift.

The program will inform when the cashier has finished.

**Design a program in Java to solve this scenario.**

Here there is a trace of a possible execution of this program:

*Cashier: I am a happy employee. I will attend 5 customers and I will finish my shift*

*Cashier: Waiting for clients to come*

*--> A client has arrived. Number of clients waiting: 1*

*Cashier: I help the client...*

*Cashier: I have finished with a client. Number of clients waiting: 0*

*--> A client has arrived. Number of clients waiting: 1*

*Cashier: I help the client...*

*--> A client has arrived. Number of clients waiting: 2*

*--> A client has arrived. Number of clients waiting: 3*

*Cashier: I have finished with a client. Number of clients waiting: 2*

*Cashier: I have finished with a client. Number of clients waiting: 1*

*Cashier: I have finished with a client. Number of clients waiting: 0*

*--> A client has arrived. Number of clients waiting: 1*

*Cashier: I have finished with a client. Number of clients waiting: 0*

*\*\*\*\*\* End of the simulation \*\*\*\*\**