

## FUNCTIONAL REQUIREMENTS.

The system must be able to:

**Req1: Simulate** the store's purchase process inside the preestablished limits receiving off a few of basic data.

Req1.1: Simulate the purchase process while a client enters the store, pick his videogames and go out of the store.

Req1.2: Receive and create the game catalog which contains the videogame code, number of copies, shelf which contains it and the price of the game.

Req1.3: Receive and simulate the number of cashiers during the working day.

Req1.4: Receive and simulate the client's codes or id, based on the order they entered the store.

Req1.5: Receive and create the list of videogames purchasing for each client.

**Req2: Create** a client while he enters the store using his ID as an identifier and making a list with the videogames he's going to buy.

- Req2.1: Identify the client by his ID.
- Req2.2: Use the videogames codes to create a shopping list.

**Req3: Measure** in time units what it takes to pick the videogames.

**Req4: Create** a queue with the clients who are ready to buy.

**Req4: Add every client to the sorted queue**

- Req4.1: Add clients based on the delay in the video game collection process.
- Req4.2: Add clients to the sorted queue with a unit of time difference

**Req5: Simulate** cashiers which are going to attend the clients from the sorted queue.

Req5.1: Simulate the shopping bag which contains the videogames whose are going to be checked by the cashier using a stack.

Req5.2: Simulate the cashier packaging process, based in the videogames pile stacked besides the cashier once he checked all the videogames, he'll say the totally price to pay.

Req5.3: Every videogame takes an unit of time to be checked.

Req5.4: The cashier attends one client per time.

**Req6: Simulate** the videogames list by using the data received.

Req6.1: Create the videogame catalog, saying it's code, its price, its shelf place and its price.

**Req7: Create** and use a hash table to organize video games on the shelves.

**Req8: Implements** two organize methods which are going to be selected and their functionality is going to give the video games list.

Req8.1: **Implements** an insertion sort to organize the list which the client is going to pick the video games from the shelves.

Req8.2: **Implements** an selection sort to organize the list which the client is going to pick the video games from the shelves.