הפקולטה למדעי ההנדסה המחלקה להנדסת מערכות מידע Faculty of Engineering Sciences
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# Super-Lee software

## Requirements specification

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### Table1: Requirements

| In          | Module     | Description  | Dwi awit | D:~1- | Т    | Ctatura    |
|-------------|------------|--|----------|-------|------|------------|
| ID          | Module     | Description The matter MIST satisfactor of the sati | Priority | Risk  | Type | Status     |
| 1.          | Inventory  | The system <b>MUST</b> notify if specific item quantity is below a minimum amount that need to be stored   | MH       | HIGH  | F    | Completed  |
| 2.          | Inventory  | The system MUST support "CRUD" for inventory products  | MH       | Low   | F    | Completed  |
| 3.          | Inventory  | The system <b>MUST</b> store for each item the following information: quantity, manufacture, location, amount on   | MH       | Low   | F    | Completed  |
|             |            | shelves, amount in stock, buying price, selling price  |          |       |      |            |
| 4.          | Inventory  | The system <b>SHOULD</b> support creating and updating discounts on products and categories in a given date  | NTH      | Low   | F    | Completed  |
| 5.          | Inventory  | The system <b>SHOULD</b> support classification by category and subcategories for each item stored   | NTH      | HIGH  | F    | Completed  |
| 6.          | Inventory  | The system <b>SHOULD</b> allow to generate inventory reports   | NTH      | Low   | F    | Completed  |
| 7.          | Inventory  | The system <b>SHOULD</b> keep track of damaged items and expired date items  | NTH      | Low   | F    | Completed  |
| 8.          | Inventory  | The system <b>MUST</b> support reporting an item as a damaged product.   | M        | Low   | F    | Completed  |
| 9.          | Inventory  | The system <b>SHOULD</b> allow to generate damaged\expired reports.  | NTH      | Low   | F    | Completed  |
| 10.         | Inventory  | The system MUST detect expired products.   | MH       | Low   | F    | Completed  |
| 11.         | Supplier   | The system MUST support adding suppliers cards.  | MH       | Low   | F    | Completed  |
| 12.         | Supplier   | The system <b>MUST</b> support supplier's personal details saving.   | MH       | Low   | F    | Completed  |
| <i>13</i> . | Supplier   | The system MUST support suppliers deletion.  | MH       | Low   | F    | Completed  |
| 14.         | Supplier   | The system <b>MUST</b> support supplier's personal details updating.   | MH       | Low   | F    | Completed  |
| 15.         | Supplier   | The system <b>MUST</b> support supplier's contract details updating.   | MH       | Low   | F    | Completed  |
| <i>16</i> . | Supplier   | The system MUST keep track of suppliers orders history.  | MH       | Low   | F    | Completed  |
| 17.         | Supplier   | The system <b>SHOULD</b> compare between different suppliers offers by quantity lists.   | NTH      | Med   | F    | InProgress |
| 18.         | Supp & Inv | The system <b>MUST</b> support new orders due to out of stock status.  | MH       | Med   | F    | InProgress |
| 19.         | Supp & Inv | Periodical orders <b>MUST</b> be updated at least one day before order date.   | MH       | Low   | NF   | InProgress |
| <i>20</i> . | Supp & Inv | The system MUST support CRUD for periodical orders.  | MH       | Med   | F    | InProgress |
| 21.         | Employee   | The System MUST document and track the details of the company employees. The details are first name, last name, ID, bank account, salary, terms of employment and start date of employment.  | МН       | Low   | F    | Completed  |
| 22.         | Employee   | The system <b>SHOULD</b> manage a documentation of days and hours of which the employees can work at.  | МН       | Low   | F    | Completed  |
|             |            |  |          |       |      |            |

| 23.         | Employee   | The system <b>SHOULD</b> enable editing the documentation of days and hours of which the employees can work at.   | MH  | Low  | F | Completed |
|-------------|------------|---|-----|------|---|-----------|
| 24.         | Employee   | The system <b>SHOULD</b> manage a documentation that specifies which job each employee can do.  | NTH | Low  | F | Completed |
| <i>25</i> . | Employee   | The system <b>SHOULD</b> enable assigning workers to shifts.  | NTH | High | F | Completed |
| <i>26</i> . | Employee   | The system <b>SHOULD</b> document the history of the shifts.  | NTH | High | F | Completed |
| 27.         | Employee   | The system <b>MUST</b> not enable a shift assigning without a shift manager   | MH  | Low  | F | Completed |
| 28.         | Employee   | The system <b>SHOULD</b> allow the human resources manager to select the required roles in each shift.  | NTH | Low  | F | Completed |
| 29.         | Employee   | The system <b>MUST</b> ensure that each employee has only one role at each shift.   | MH  | Low  | F | Completed |
| <i>30</i> . | Employee   | The system <b>MUST</b> allow each employee to have more than one job.   | NTH | Low  | F | Completed |
| 31.         | Employee   | The system <b>MUST</b> ensure that the store has at least these jobs: storekeeper, cashier, human resources manager, shift manger and driver                      | МН  | Low  | F | Completed |
| 32.         | Employee   | The system <b>MUST</b> allow each employee to work at more than one branch.   | NTH | Low  | F | Completed |
| <i>33</i> . | Employee   | The system <b>MUST</b> allow the human resources manager to: add, delete, update and view the employee details.   | MH  | Low  | F | Completed |
| 34.         | Employee   | The system <b>MUST</b> allow the employee to view and update its details.   | MH  | Low  | F | Completed |
| <i>35</i> . | Employee   | The system <b>MUST</b> enable both the: human resources manager and the employee enter the constraints  | MH  | High | F | Completed |
| 36.         | Deliveries | The system <b>MUST</b> document and track the details of the deliveries. The details are: Date, Leaving time, Truck number, Driver name, source and destinations. | MH  | High | F | Completed |
| <i>37</i> . | Deliveries | The system <b>MUST</b> enable entering the delivery weight and alarm on excessive weight of delivery.   | MH  | Low  | F | Completed |
| 38.         | Deliveries | The system <b>MUST</b> have a table of drivers and types of licenses to map correctly a driver to a delivery vehicle.   | MH  | Low  | F | Completed |
| <i>39</i> . | Deliveries | The system <b>MUST</b> save unique serial number for each delivery.   | MH  | Low  | F | Completed |
| 40.         | Deliveries | The system <b>SHOULD</b> maintain a database of its trucks.  The truck details are: ID, model, truck weight, max weight, license, area.                           | NTH | Low  | F | Completed |
| 41.         | Deliveries | The system <b>MUST</b> have sites database with addresses, phone numbers and names of the contacts.   | MH  | Low  | F | Completed |
| <i>42</i> . | Deliveries | The system MAY enable to define different shipping areas.   | NTH | Low  | F | Completed |
| <i>43</i> . | Deliveries | The system MAY enable to re-edit the delivery document.   | NTH | High | F | Completed |
| 44.         | Deliveries | The system <b>MUST</b> only allow a driver to drive on trucks that fits his license.  | MH  | Low  | F | Completed |
| 45.         | Deliveries | The system <b>SHOULD</b> maintain a document with the delivery content for each delivery.   | NTH | Low  | F | Completed |

| 46.         | Deliveries | The system MUST in the case of overweight delivery give     | MH    | High | F | Completed  |
|-------------|------------|---|-------|------|---|------------|
|             |            | the user the option of: removing items from destination,    |       |      |   |            |
|             |            | removing a destination or the system will find a new truck. |       |      |   |            |
| <i>47</i> . | Emp &      | The system MUST allow scheduling a driver to a shift        | MH    | Low  | F | InProgress |
|             | Dev        |   |       |      |   |            |
| 48.         | Emp &      | The system MUST make sure a driver is on shift during       | MH    | Low  | F | InProgress |
|             | Dev        | which a delivery is supposed to take place                  |       |      |   |            |
| 49.         | Emp &      | The system MUST make sure a storekeeper is on shift         | МН    | Low  | F | InProgress |
|             | Dev        | when a delivery is scheduled                                | IVITI | Low  | Γ |            |

# Table2: Open questions

| #          | Topic           | Issue                                    | Assumption                           |
|------------|-----------------|--|--------------------------------------|
| 1.         | Discount        | How often can discounts be issued by the |                                      |
|            | frequency       | suppliers?                               |                                      |
| 2.         | Damaged         | How often employee reports on a damaged  |                                      |
|            | products        | item?                                    |                                      |
| <i>3</i> . | Supplier access | How the system should provide access to  |                                      |
|            |                 | supplier in order to update discount?    |                                      |
| 4.         | Employee        | How many times can an employee work a    | We assume that he/she can work once  |
|            | Shifts          | day?                                     | a day.                               |
| <i>5</i> . | Employee        | Can a shift be deleted?                  | We assume it cannot be done.         |
|            | Shifts          |  |                                      |
| 6.         | Employee        | Can an employee change his salary?       | An employee cannot change his salary |
|            | Salary          |  |                                      |
| <i>7</i> . | Terms of        | Can an employee change the terms his of  | An employee can change the terms of  |
|            | Employment      | employment?                              | his terms.                           |
| 8.         | Order           | How often can orders be issued due to    | We assume that there will always be  |
|            | frequency       | insufficient inventory?                  | enough inventory.                    |
| 9.         | Delivery time   | Can a delivery cross between shifts?     | We assume it cannot be done; a       |
|            |                 |  | delivery length is the length of one |
|            |                 |  | shift.                               |

Table3: Answered questions

| #   | Topic  | Issue  | Answer  |
|-----|--|--|---|
| 1.  | Jobs that employees cannot perform                   | What does the "etc." include?                            | An employee who performs one job<br>must not perform another job at the<br>same time                  |
| 2.  | Terms of employment                                  | What should the terms of employment include?             | In this stage it's a String.  |
| 3.  | Cancelation at the checkout                          | Is the system responsible for canceling at the checkout? | It is not our responsibility for right now.   |
| 4.  | Number of roles in one shift per employee            | Does each employee have only one role in each shift?     | Each employee must have only one role at each shift.  |
| 5.  | Number of roles per employee                         | Can an employee have more than one job?                  | Each employee may have more than one job.   |
|     |  |  | It's the same in Topic:" Jobs that employees cannot perform"  |
| 6.  | Jobs in the supermarket                              | Which jobs are there in the supermarket?                 | storekeeper, cashier, human resources<br>manager, shift manger, driver and<br>more.                   |
| 7.  | Number of<br>branches an<br>employee work<br>at      | How many branches can an employee work at?               | An employee may work at more than one branch.   |
| 8.  | human resources manager selecting the required roles | Is this a system requirement?                            | Yes, he should be able to choose this for each shift.   |
| 9.  | Enter the constraints                                | Who can enter the constraints?                           | The system must enable both the:<br>human resources manager and the<br>employee enter the constraints |
| 10. | Number of human                                      | How many human resources manager can there be?           | Can assume there is only one  |

|             | resources      |  |                                       |
|-------------|----------------|--|---------------------------------------|
|             | manager        |  |                                       |
| 11.         | employee edit  | Can an employee edit and view its details?     | The system must allow the employee    |
|             | and view its   |  | to view and update its details.       |
|             | details        |  |                                       |
| <i>12</i> . | human          | What can the human resources manager do?       | The system must allow the human       |
|             | resources      |  | resources manager to: edit, add,      |
|             | manager-       |  | delete, update and view the employee  |
|             | actions to do  |  | details.                              |
| <i>13</i> . | Lack of stock. | How can we know if there are missing items     |                                       |
|             |                | in the stock?                                  | There is currently no way to know     |
|             |                |  | about stock shortages.                |
|             |                |  |                                       |
| <i>14</i> . | Over-weight    | What should happen when there is no            | The delivery should be delayed.       |
|             | delivery.      | suitable truck for the over-weight delivery?   |                                       |
| <i>15</i> . | Damaged        | Is a damaged product is a part of the stock    | No. (Forum)                           |
|             | products       | amount?  |                                       |
| <i>16</i> . | Reports        | Which details need to be in the report?        | Must include quantities (Forum)       |
|             |                |  |                                       |
| <i>17</i> . | Branches       | Need to supply more than one branch?           | Need in the future.                   |
|             |                |  |                                       |
| 18.         | Orders from    | Do we need to record buying prices from        | Right now there is no option to order |
|             | Suppliers      | suppliers?                                     | from supplier, so no. (Forum)         |
| 19.         | Contacts       | Should the system support adding,              | Yes                                   |
|             | modification   | modifying and removing contacts?               |                                       |
| <i>20</i> . | G 1:           | Should the system support supplier's details   | Yes                                   |
|             | Suppliers      | modification?                                  |                                       |
| 2.1         | Modification   | D1: 1 1: 1:                                    | N. 11. 1 1.0 1.4                      |
| 21.         | Suppliers      | Delivery days are mentioned in contracts,      | No delivery days modification but     |
|             | delivery days  | modifying them means a new contract or just    | new contracts                         |
|             |                | a contract modification?                       |                                       |
| <i>22</i> . | Contracts with | How long is the contract? Does it last for     | Until deletion is made                |
|             | suppliers      | years? months?                                 |                                       |
| <i>23</i> . | Multiple       | Is it possible that a certain contact works in | Yes                                   |
|             | contact        | more than one company? meaning that he         |                                       |
|             | appearances    | might appear more than once in contacts list,  |                                       |
|             |                | for each company                               |                                       |
|             |                |  |                                       |

### Table4: Terms

| #          | Term                         | Description  |
|------------|------------------------------|--|
| 1.         | Manager                      | Primary in the EM module. Responsible for managing employees and shift assignment.   |
| 2.         | Truck                        | Primary actor in the Delivery module. Responsible for employee registration and shift assignment.  |
| 3.         | Supplier                     | Primary actor in supplier module. Has supplier-card and represents a supplier who interacts with <i>Super-Li</i> .                           |
| 4.         | Supplier Card                | Holds supplier's personal and contract details.  |
| 5.         | Supplier<br>Personal Details | Includes name, private company number, bank account number and terms of payment.   |
| 6.         | Supplier Contract Details    | Includes terms of delivery (permanent/not permanent days or not delivering), items included in contract, price and quantities list (if has). |
| <i>7</i> . | Suppliers Orders<br>History  | Includes items and its catalog number used by supplier.  |
| 8.         | Stock product                | Represents a product in the store. It includes details about its location in the store, its quantity and its price.                          |
| 9.         | Product instance             | Represent a singular, specific product in the store. It has a unique serial number, quality status (Damaged or Valid) and expiration date.   |