User Requirement Specification

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Synthesis Assignment

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Agreements

Functional requirements:

* Managing item (grocery and goods) information.
* Process of placing an order.
* Bonus Card & Collecting bonus points.
* Spending bonus points from the bonus card.
* Storing and viewing order history.
* Login/Register System.
* Clients can have default address and use it while placing an order.
* Client must have account to place an order.
* Employee must login to access item managing
* Deletion of item is understood as making item unavailable, because erasure of item from system is impossible without affecting client’s ability to view history of orders.
* Discount management system is not required, however application has to be easily extensible to implement it.
* Client management system is not required.
* Employee management system is not required.
* Item categories management system is not required.
* Items must have stock amount.

Non-functional requirements:

* Maintainable and extendable application,
* Bug free solution,
* Secure software

# Functional Requirements

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| ID | FR-01 |
| Name | Managing item information |
| Constraints | Employee provides name, category, sub-category, price, availability, unit, stock amount. |

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| ID | FR-02 |
| Name | Managing shopping cart |
| Constraints | Item must be available in online shopping and Client must be logged in. |

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| ID | FR-03 |
| Name | Placing an order |
| Constraints | Client has an account and Client has to be logged in. |

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| ID | FR-04 |
| Name | Bonus Card & Collecting bonus points |
| Constraints | Customers can collect bonus points on their virtual bonus card.  A bonus card gives a percentage-based or fixed-amount discount on  the items cost for the selected items. Customers can also accumulate points based on the amount of the purchase, can transfer (spend) the points into money for future purchase.  Every one-euro (€1) spent by a customer must be collected as one (1) bonus point on their bonus card. |

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| ID | FR-05 |
| Name | Spending bonus points from the bonus card |
| Constraints | When there are 100 bonus points collected on the bonus card, they can be transferred to one euro (€ 1) and can be spend during the next order. |

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| ID | FR-06 |
| Name | Viewing order history |
| Constraints | Order is placed before. |

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| ID | FR-07 |
| Name | Register functionality |
| Constraints | Client provides first name, last name, email, password, username. |

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| ID | FR-08 |
| Name | Login functionality |
| Constraints | Client must have an account and provides correct username and password. |

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| ID | FR-09 |
| Name | Default Address |
| Constraints | Client has an account and must provide: Country, City, Street and Postal Code. |
| ID | FR-10 |
| Name | Login to item managing system |
| Constraints | Employee must have an account and provides correct email and password. |

# Use Cases

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| ID | UC-01 FR-01 |
| Use case | Creating new Item |
| Actor | Employee |
| Trigger |  |
| Pre-condition |  |
| Main Success Scenario | 1: Actor goes to create new item.  2: System displays form for adding items  3: Actor fills in information about item and saves item.  4: System saves information and shows confirmation. |
| Extensions | 3a: Not all information is provided  .1: System displays information to provide necessary information.  .2: Return to MMS step 2. |

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| ID | UC-02 FR-01 |
| Use case | Reading Items |
| Actor | Employee |
| Trigger |  |
| Pre-condition |  |
| Main Success Scenario | 1: Actor goes to list of items.  2: System displays form for searching items.  3: Actor fills search criteria and searches for items.  4: System shows all items meeting those criteria in the system. |
| Extensions |  |

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| ID | UC-03 FR-01 |
| Use case | Updating Item |
| Actor | Employee |
| Trigger |  |
| Pre-condition | Item already exists. |
| Main Success Scenario | 1: Actor searches for item to update.  2: System displays list of items.  3: Actor selects item to update.  4: System displays all information about item.  5: Actor updates information about item and saves item.  6: System saves information and shows confirmation. |
| Extensions | 6a: Not all information is provided, or information is incorrect.  .1: System displays information to provide correct necessary information.  .2: Return to MMS step 5. |

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| ID | UC-04 FR-01 |
| Use case | Deleting Item |
| Actor | Employee |
| Trigger |  |
| Pre-condition | Item already exists. |
| Main Success Scenario | 1: Actor searches for item to delete.  2: System displays list of items.  3: Actor selects item to delete and deletes it.  4: System deletes item and shows confirmation of deletion. |
| Extensions |  |

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| ID | UC-05 FR-02 |
| Use case | Adding item to shopping cart |
| Actor | Client |
| Trigger | Actor goes to item page. |
| Pre-condition | Actor must be logged in and item must be available. |
| Main Success Scenario | 1: Actor selects the item to add and the amount.  2: System displays selected amount.  3: Actor adds items to shopping cart.  4: System displays confirmation message that item was added. |
| Extensions | 1a: Actor wants to add more item unit than is in stock.  .1: System restricts Actor from adding more item unit.  .2: Return to MMS step 1.  1b: Actor wants to add 0 of item unit.  .1: System restricts Actor from adding 0 of item unit.  .2: Return to MMS step 1.  4a: Cannot add item to shopping cart  .1: System displays error message that item couldn’t be added.  .2: Return to MMS step 1. |

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| ID | UC-06 FR-02 |
| Use case | Viewing shopping cart |
| Actor | Client |
| Trigger | Actor goes to shopping cart page. |
| Pre-condition | Actor must be logged in. |
| Main Success Scenario | 1: System displays contents of shopping cart and price of items in shopping cart. |
| Extensions | 1a: No items in shopping cart  .1: System displays information that shopping cart is empty. |

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| ID | UC-07 FR-02 |
| Use case | Deleting item from shopping cart |
| Actor | Client |
| Trigger | Actor goes to shopping cart page. |
| Pre-condition | Actor must be logged in and items must be in shopping cart |
| Main Success Scenario | 1: Actor selects the item to delete.  2: System deletes item form shopping cart and updates page. |
| Extensions |  |

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| ID | UC-08 FR-03 |
| Use case | Placing an order |
| Actor | Client |
| Trigger |  |
| Pre-condition | Items added to shopping cart and Actor is logged in. |
| Main Success Scenario | 1: Actor views shopping cart.  2: System displays shopping cart.  3: Actor buys items in shopping cart.  4: System displays items from shopping cart, payment, and shipping form (address consisting of: country, city, street, and postal code).  5: Actor selects payment method and provides shipping information.  6: System saves order information and displays confirmation. |
| Extensions | 4a: Not all items form the shopping cart are available.  .1: System displays information that some items were removed.  .2: Return to MMS step 4.  5a: Not all information is provided  .1: System displays information to provide all information.  .2: Return to MMS step 5.  6a: Order couldn’t be placed  .1: System displays information that order couldn’t be placed.  .2: Return to MMS step 1. |

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| ID | UC-09 FR-04 |
| Use case | Placing an order with Bonus Card |
| Actor | Client |
| Trigger |  |
| Pre-condition | Items added to shopping cart, Actor must be logged in and Actor has Bonus Card. |
| Main Success Scenario | 1: Actor views shopping cart.  2: System displays shopping cart.  3: Actor buys items in shopping cart.  4: System displays items from shopping cart, discounts, payment, and shipping form (address consisting of: country, city, street, and postal code).  5: Actor selects payment method and provides shipping information.  6: System saves order information, adds points to Actor Bonus Card and displays confirmation. |
| Extensions | 4a: Not all items form the shopping cart are available.  .1: System displays information that some items were removed.  .2: Return to MMS step 4.  5a: Not all information is provided  .1: System displays information to provide all information.  .2: Return to MMS step 5.  6a: No bonus points for order  .1: System does not add Bonus Points to Actor account.  .2: Return to MMS step 5.  6a: Order couldn’t be placed  .1: System displays information that order couldn’t be placed.  .2: Return to MMS step 1. |

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| ID | UC-10 FR-04 |
| Use case | Applying for Bonus Card |
| Actor | Client |
| Trigger | Actor goes to Client Details page. |
| Pre-condition | Actor does not have bonus card and Actor must be logged in |
| Main Success Scenario | 1: System displays Actor details.  2: Actor applies for bonus card.  3: System adds Bonus card to Actor account and shows confirmation. |
| Extensions | 3a: System could not add new Bonus Card.  .1: System shows error message that Bonus Card could not be added.  .2: Return to MMS step 2. |

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| ID | UC-11 FR-05 |
| Use case | Placing an order with Bonus Card and spending Bonus points |
| Actor | Client |
| Trigger |  |
| Pre-condition | Items added to shopping cart, Actor must be logged in, Actor has Bonus Card and Actor has at least 100 points on Bonus Card. |
| Main Success Scenario | 1: Actor views shopping cart.  2: System displays shopping cart.  3: Actor buys items in shopping cart.  4: System displays items from shopping cart, discounts, payment, and shipping form (address consisting of: country, city, street, and postal code).  5: Actor selects amount of Euro’s to be paid from bonus points, payment method and provides shipping information.  6: System saves order information, adds points to Actor Bonus Card and displays confirmation. |
| Extensions | 4a: Not all items form the shopping cart are available.  .1: System displays information that some items were removed.  .2: Return to MMS step 4.  5a: Not all information is provided  .1: System displays information to provide all information.  .2: Return to MMS step 5.  5b: Client does not have 100 bonus points  .1: Client cannot choose to pay with bonus points.  .2: Return to MMS step 5.  6a: No bonus points for order  .1: System does not add Bonus Points to Actor account.  .2: Return to MMS step 5.  6a: Order couldn’t be placed  .1: System displays information that order couldn’t be placed.  .2: Return to MMS step 1. |

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| ID | UC-12 FR-06 |
| Use case | Viewing orders history. |
| Actor | Client |
| Trigger |  |
| Pre-condition | Order must be placed by Actor before, and Actor must be logged in. |
| Main Success Scenario | 1: Actor goes to order history page.  2: System displays previous orders. |
| Extensions | 1a: No previous order.  .1: Information that no orders were placed is displayed. |

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| ID | UC-13 FR-06 |
| Use case | Viewing previous order. |
| Actor | Client |
| Trigger | Actor goes to order history page. |
| Pre-condition | Order must be placed by Actor before, and Actor must be logged in. |
| Main Success Scenario | 1: System displays previous orders.  2: Actor selects order.  3: System displays previous order detailed information. |
| Extensions |  |

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| ID | UC-14 FR-07 |
| Use case | Register Account |
| Actor | Client |
| Trigger | Actor goes to Register page |
| Pre-condition | Actor does not already have account with his credentials. |
| Main Success Scenario | 1: System displays form to register  2: Actor fills in needed information.  3: System checks provided credentials and creates account.  4: System redirects Actor to main page as logged in user. |
| Extensions | 2a: Actor creates account with bonus card.  .1: Actor selects option of having bonus card.  .2: Go to MMS step 2  3a: Provided credentials are incorrect.  .1: System displays information about wrong credentials.  .2: Go to MMS step 2  3b: User with those credentials already exists  .1: System displays information that this account already exists.  .2: Go to MMS step 2  3c: Cannot create account  .1: System does not create account.  .2: Go to MMS step 2 |

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| ID | UC-15 FR-08 |
| Use case | Login to system |
| Actor | Client |
| Trigger | Actor goes to Login page. |
| Pre-condition | Actor already has an account. |
| Main Success Scenario | 1: System displays form to login  2: Actor fills in needed information.  3: System checks provided credentials.  4. System redirects Actor to main page. |
| Extensions | 3a: Provided credentials are incorrect.  .1: System displays information about wrong credentials.  .2: Go to MMS step 2 |

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| ID | UC-16 FR-09 |
| Use case | Adding default address. |
| Actor | Client |
| Trigger | Actor goes to Client Details page. |
| Pre-condition | Actor must be logged in |
| Main Success Scenario | 1: System displays Actor details.  2: Actor updates his default address.  3: System updates Actor’s default address and shows confirmation. |
| Extensions | 2a: Client does not have default address.  .1: System displays empty default address.  .2: Client provides new default address.  .3: Return to MMS step 3.  2b: Client provided incorrect information.  .1: System displays information about wrong information.  .2: Return to MMS step 2. |

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| ID | UC-17 FR-10 |
| Use case | Login to item managing system |
| Actor | Employee |
| Trigger | Actor opens item managing application. |
| Pre-condition | Actor already has an account. |
| Main Success Scenario | 1: System displays form to login  2: Actor fills in needed information.  3: System checks provided credentials.  4. System redirects Actor to managing application. |
| Extensions | 3a: Provided credentials are incorrect.  .1: System displays information about wrong credentials.  .2: Go to MMS step 2  3b: Not all information is provided.  .1: System displays information to fill in all credentials.  .2: Go to MMS step 2 |