



JAVA Special Project

Restaurant Delivery System

Document of Specifications

Version 8.2

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Introduction

The purpose of this specification is to define the requirements and developments of the Restaurant Delivery System. This system will keep track of delivery men, restaurant managers, clients, system administrators, restaurants and menus.

Your application will allow Administrators to add new Restaurant, edit them and delete them. Each Restaurant can then have a menu which can be edited and deleted. An administrator can also add a Delivery man which can be edited and deleted (disabled). The system will handle the clients and their account. Client can edit and close their account. They can also order a meal from a given Restaurant and view their order history. A Manager can view the orders accepted by any Restaurant. The Restaurateur is able to view the orders made for a given Restaurant and take charge of it. A Delivery man can view all the Orders in his Postal Code area, and take charge of it.

You will not be provided with any support infrastructure for this project. You will design and implement all the classes needed to complete the Restaurant Delivery System.

More details about the program are provided in the Specifications section.

Specification

You must implement a solution to the Restaurant Delivery System. The implementation will reflect everything you've learned during this Block. You are expected to design your implementation using Object Oriented Programming and MVC, design your own classes for representing the basic entities that the program manipulates.

You will document your implementation in a report. The number of classes you decide to use is up to you; however, you have to follow a set of restrictions specified below.

The program should be very user friendly.

Validation is a must.

Good look is a must.

NOTA BENE: This document is subject to change. Always take a look at the DS_Update.txt file for the changes.

Requirements

Entity Menu:

1. Admin
 - Restaurant
 - ✓ Create
 - ✓ Edit
 - ✓ Delete
 - Menu
 - ✓ Create
 - ✓ Edit
 - ✓ Delete
 - Delivery Man
 - ✓ Create
 - ✓ Edit
 - ✓ Delete
2. Delivery man
 - View deliveries
 - Accept deliveries
 - End deliveries
3. Client
 - Create Account
 - Edit Account
 - Close Account
 - Order Food
 - Order History
4. Restaurateur (Chef/Cook)
 - Accept Order
 - Mark Order as Ready
5. Manager (access only their own restaurant)
 - Edit Restaurant
 - Create / Edit / Delete Menu
 - View Restaurant's Order

Restaurant Form field

- Name
- Address
- Phone number
- Opening Time
- Delivery Areas

Menu Form field

- Item
- Price

Delivery Man Form Field

- Name

Food Ordering

- Delivery date
- Delivery time
- Postal Code
- Restaurants (List)
- Menus (List)
- Order (List)

- Phone number
- Delivery Area

Delivery Man Access Account

- Username
- Password

Manager Access Account / Per Rest

- Username
- Password

Restaurateur Access Account / Per Rest

- Username
- Password

Use Case Scenarios

Use Case 1: Add new Restaurant

Primary Actor	Administrator
Pre-Condition	System is running Admin is logged
Post-Condition	A new Restaurant has been created
Main Success Scenario	<ol style="list-style-type: none">1. The administrator wants to add a restaurant to the list of restaurants.2. The administrator enters:<ul style="list-style-type: none">• The name of the restaurant.• The address of the restaurant.• The telephone number of the restaurant.• The opening hours of the restaurant.• The list of postal codes for the delivery area of the restaurant• Manager (username and password)• Restaurateur (username and password)3. The system displays the information entered.4. The administrator confirms that the information is valid.5. The system saves the information and displays a confirmation message.
Extensions	<p>* a. At any time, the administrator exits without saving the information.</p> <ol style="list-style-type: none">1. The system deletes all information entered so far2. End of the use case <p>2a. Opening hours are contradictory.</p> <ol style="list-style-type: none">1. The system displays an error message to the administrator.

	<ul style="list-style-type: none">2. The system indicates or is wrong.3. Return to 24a. The administrator decides to change the information.<ul style="list-style-type: none">1. Back to 24b. The administrator does not confirm the information.<ul style="list-style-type: none">1. Back to 2
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Use Case 2: Modify Restaurant

Primary Actor	Administrator or Manager
Pre-Condition	System is running Administrator or Manager is logged At least one restaurant is in the system.
Post-Condition	Restaurant's information has been updated.
Main Success Scenario	<ol style="list-style-type: none">1. The administrator or manager wants to change the information of a restaurant.2. The administrator or manager selects a restaurant already registered in the system.3. The system displays the information of the selected restaurant.4. The administrator or manager changes either:<ul style="list-style-type: none">• The name of the restaurant.• The address of the restaurant.• The telephone number of the restaurant.• The opening hours of the restaurant.• The list of postal codes5. The system asks to confirm the changes.6. The administrator or manager confirms the changes.7. The system saves the new information.
Extensions	<p>* a. At any time, the administrator exits without saving the information.</p> <ol style="list-style-type: none">1. The system deletes all information entered so far2. End of the use case <p>4a. The administrator or manager leaves an empty field.</p> <ol style="list-style-type: none">1. The system displays an error message.

	<p>2. Return to 4.</p> <p>4b. Opening hours are inconsistent.</p> <ol style="list-style-type: none"> 1. The system displays an error message 2. Back to 4 <p>6a. The administrator or manager does not confirm the changes he has made.</p> <ol style="list-style-type: none"> 1. Back to 4 <p>.</p>
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Use Case 3: Delete Restaurant

Primary Actor	Administrator
Pre-Condition	System is running Administrator is logged At least one restaurant is in the system.
Post-Condition	The selected restaurant has been mark as inactive. All orders made from this restaurant are kept for tax purposes.
Main Success Scenario	<ol style="list-style-type: none">1. The administrator wants to remove a restaurant from the system.2. The administrator selects a restaurant.3. The system displays the information of the restaurant.4. Administrator deletes the restaurant.5. The system displays an informational message and request confirmation from the administrator.6. The administrator confirms he wants to remove the restaurant.7. The system set the restaurant as inactive.
Extensions	6a. The administrator does not confirm his intention. <ol style="list-style-type: none">1. The system maintains the restaurant.

Use Case 4: Create Restaurant Menu

Primary Actor	Administrator or Manager
Pre-Condition	System is running Administrator or Manager is logged Restaurant exists in the System. Restaurant has no Menu
Post-Condition	A new menu has been created for the giving Restaurant
Main Success Scenario	<ol style="list-style-type: none">1. The administrator or manager wants to add the menu of a restaurant.2. The system displays a list of restaurants with no menu.3. The administrator or manager selects a restaurant.4. The system displays information about the restaurant.5. The administrator or manager clicks on add a new menu.6. The administrator or manager enters a new menu item and its price.7. The system displays the contents of the menu. <p>Steps 6 and 7 are repeated until the administrator indicates that it has finished.</p> <ol style="list-style-type: none">8. The administrator or manager completes the menu.9. The system displays the menu and the prices for each item and asks the administrator or manager for confirmation.10. The administrator or manager confirms the menu.11. The system saves the menu and displays a confirmation message.
Extensions	10a. The administrator does not want to save the menu. <ol style="list-style-type: none">1. The system deletes all items entered and saves nothing.

Use Case 5: Modify Restaurant Menu

Primary Actor	Administrator or Manager
Pre-Condition	System is running Administrator or Manager is logged Restaurant exists in the System. Restaurant has a Menu
Post-Condition	The giving Menu has been updated
Main Success Scenario	<ol style="list-style-type: none">1. The administrator or manager wants to update the information of a menu.2. The system displays a list of restaurants with a menu.3. The administrator or manager selects a restaurant.4. The system displays the menu of the restaurant.5. The administrator or manager selects an item and changes the name or the price of the item.6. The system displays the new information from the item. Steps 5 and 6 are repeated until the administrator or manager indicates that it has finished.7. The administrator or manager indicates that he has finished updating the menu.8. The system displays the changes and prompts the administrator to confirm.9. The administrator or manager confirms the changes.10. The system saves the changes.
Extensions	5a. The administrator or manager adds a new item to the menu. <ol style="list-style-type: none">1. The administrator or manager enters:2. The name of the new item.3. The price of the new item.

	<ol style="list-style-type: none"> 4. The system adds the item to the menu. 5. Return to 4. <p>5b The administrator or manager removes the item that was selected.</p> <ol style="list-style-type: none"> 1. The system removes the item from the menu. 2. Return to 4. <p>9a. The administrator or manager does not confirm the changes.</p> <ol style="list-style-type: none"> 1. The system does not save the changes.
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Use Case 6: Delete Restaurant Menu

Primary Actor	Administrator or Manager
Pre-Condition	System is running Administrator is logged Restaurant exists in the System. Restaurant has a Menu
Post-Condition	Restaurant Menu have been deleted
Main Success Scenario	<ol style="list-style-type: none">1. The administrator wants to delete the menu of a restaurant.2. The system displays a list of restaurants.3. The administrator selects a restaurant.4. The system displays the menu of the restaurant.5. The administrator removes the menu.6. The system prompts the administrator to confirm his choice.7. The administrator confirms his choice.8. The system deletes the restaurant menu and save changes.
Extensions	7a. The administrator does not confirm his choice. <ol style="list-style-type: none">1. The system does not delete the restaurant.

Use Case 7: Create New Delivery Man

Primary Actor	Administrator
Pre-Condition	System is running Administrator is logged
Post-Condition	New Delivery Man have been created
Main Success Scenario	<ol style="list-style-type: none">1. The administrator wants to add a new driver.2. The administrator enters:<ul style="list-style-type: none">• The name of the driver.• The telephone number of the driver.• The delivery area covered by the driver.• The username of the driver• The password of the drive3. The system displays information and prompts the administrator to confirm.4. The administrator confirms the information.5. The system adds the driver and registers it in the system.
Extensions	<p>6A. The administrator does not confirm the information.</p> <ol style="list-style-type: none">1. The system deletes the driver and not recording. <p>7a. A delivery of the same name already exists in the system.</p> <ol style="list-style-type: none">1. The system displays an error message.1. Return to 4.

Use Case 8: Edit Delivery Man

Primary Actor	Administrator or Manager
Pre-Condition	System is running Administrator or Manager is logged At least one Delivery man exist in System
Post-Condition	Delivery Man have been updated
Main Success Scenario	<ol style="list-style-type: none">1. The administrator or manager wants to change the information of a driver.2. The system displays the list of delivery men.3. The administrator or manager selects a driver.4. The administrator or manager updates:<ul style="list-style-type: none">• The name of the driver.• The telephone number of the driver.• The delivery area of the driver.5. The system asks for a confirmation of the changes.6. The administrator or manager confirms the changes.7. The system saves the changes.
Extensions	<p>* a. At any given time the administrator or manager leaves without confirming the changes.</p> <ol style="list-style-type: none">1. The system clears the changes and does not save anything. <p>6a. The administrator does not confirm the changes.</p> <ol style="list-style-type: none">1. The system rejects the changes.

Use Case 9: Delete Delivery Man

Primary Actor	Administrator
Pre-Condition	System is running Administrator is logged At least one Delivery man exist in System
Post-Condition	Delivery Man is set to inactive in the system. All deliveries made by the driver are kept for tax purposes.
Main Success Scenario	<ol style="list-style-type: none">1. The administrator wants to delete a delivery man from the system.2. The system displays the list of delivery man.3. The administrator selects a driver.4. The system displays information about the selected driver.5. The administrator removes the driver.6. The system asks for confirmation before deleting.7. The administrator confirms his decision.8. The system makes the driver inactive.
Extensions	<p>* a. At any time, the director leaves without confirmation.</p> <ol style="list-style-type: none">1. The system does not record anything. <p>7a. The administrator does not confirm its decision.</p> <ol style="list-style-type: none">1. The system does not delete the driver.

Use Case 10: View Restaurant's Order

Primary Actor	Manager
Pre-Condition	System is running Manager is logged There's at least one order in the System
Post-Condition	No Changes
Main Success Scenario	<ol style="list-style-type: none">1. The Manager wishes to see orders of a restaurant.2. The system displays a list of restaurants the Manager has access to.3. The Manager selects a restaurant.4. The system displays a list of orders of the restaurant.5. The Manager selects an order.6. The system displays information on the selected command. <p>Operations 4-6 are repeated until the Manager says it has finished.</p> <ol style="list-style-type: none">7. The Manager indicates he had finished viewing commands.
Extensions	4a. There is no order for the selected restaurant. <ol style="list-style-type: none">1. The system informs the Manager that there is no order placed at selected restaurant.

Use Case 11: List of deliveries

Primary Actor	Delivery Man
Pre-Condition	System is running Delivery Man is logged There is an order ready to be delivered in the area served by the driver.
Post-Condition	No Changes
Main Success Scenario	<ol style="list-style-type: none">1. The deliveryman wishes to consult deliveries.2. The system displays a list of orders ready to be delivered in their area.3. The deliveryman selects an order.4. The system displays the information of the selected order. <p>The steps 2 to 4 are repeated until the driver indicates it has finished.</p> <ol style="list-style-type: none">5. The deliveryman said he had finished viewing the list of delivery.
Extensions	None

Use Case 12: Accept a delivery

Primary Actor	Delivery Man
Pre-Condition	System is running Delivery Man is logged There is an order ready to be delivered in the area served by the Delivery Man.
Post-Condition	The order is now associated to the Delivery Man
Main Success Scenario	<ol style="list-style-type: none">1. The delivery man wants to make a delivery.2. The system displays a list of orders ready to be delivered in his area.3. The delivery man selects an order.4. The system displays summary of delivery.5. The delivery man accepts to delivers the order.6. The system asks the delivery man to confirm.7. The delivery man confirms his choice.8. The system marks the order to be delivered be this delivery man in the delivery book.
Extensions	<p>* a. At any given time the driver leaves without confirming delivery.</p> <ol style="list-style-type: none">1. Selected order remains free to deliver. <p>7a. Another delivery man has confirmed its choice before.</p> <ol style="list-style-type: none">1. The system indicates to the driver that another driver already accepted the order.2. Return to 2. <p>7b. The deliverer does not confirm his choice.</p> <ol style="list-style-type: none">1. Return to 2.

Use Case 13: Indicate that a delivery has been made

Primary Actor	Delivery Man
Pre-Condition	System is running Delivery Man is logged There is at least one order associated to the driver.
Post-Condition	Delivery is indicated as delivered.
Main Success Scenario	<ol style="list-style-type: none">1. The delivery man wishes to confirm the delivery of an order.2. The system displays the list of deliveries associated with the delivery man.3. The delivery man selects an order.4. The system displays the summary information related to the selected order.5. The delivery man indicates the order was delivered.6. The system asks for confirmation.7. The delivery man confirms the delivery of the order.8. The system marks the order has been delivered and displays a confirmation message to the delivery man.
Extensions	<p>* a. At any given time the driver leaves without confirming delivery done.</p> <ol style="list-style-type: none">1. The system returns to the state before the start of the scenario. <p>3a. The delivery man has the wrong order.</p> <ol style="list-style-type: none">1. Return to 2. <p>7a. The deliverer does not confirm delivery.</p> <ol style="list-style-type: none">1. The system leaves the order in its current state.2. Return to 2.

Use Case 14: Accept Order

Primary Actor	Restaurateur
Pre-Condition	System is running Restaurateur is logged There's an order placed for the giving Restaurant.
Post-Condition	Restaurateur takes charge of completing the order.
Main Success Scenario	<ol style="list-style-type: none">1. The restaurateur wants to fill a new order.2. The system displays a list of orders for the restaurant which are not yet accepted.3. The restaurateur selects an order.4. The system displays all the details of the order.5. The restaurateur indicates that he wants to complete the order.6. The system asks the restaurateur to confirm his choice.7. The restaurateur accepts the order.8. The system mark the order has being processed.
Extensions	<p>* a. At any given time without leaving the restaurant accept a new command.</p> <ol style="list-style-type: none">1. The system clears the changes. <p>5a. The restaurant does not fulfill the order.</p> <ol style="list-style-type: none">1. The system clears the changes. <p>7a. The restaurant does not confirm that he accepts the order.</p> <ol style="list-style-type: none">1. The system clears the changes.

Use Case 15: Order Ready

Primary Actor	Restaurateur
Pre-Condition	System is running Restaurateur is logged There's an order associated to the giving Restaurant
Post-Condition	The order et set as ready and no longer associated with the Restaurant
Main Success Scenario	<ol style="list-style-type: none">1. The restaurateur wishes to advise that the order is ready.2. The system displays a list of orders in the restaurant.3. The restaurateur selects a command.4. The system displays the order details.5. The restaurateur indicates that the order is ready.6. The system asks the user to confirm his choice.7. The restaurateur confirms that the order is ready.8. The system updates the order status and records information.
Extensions	<p>* a. At any time without leaving the restaurant to confirm that the order is ready.</p> <ol style="list-style-type: none">1. End of scenario. <p>4a. Bad command has been selected.</p> <ol style="list-style-type: none">1. Return to 2. <p>7a. The restaurant does not confirm that the order is ready.</p> <ol style="list-style-type: none">1. Return to 2.

Use Case 16: Open new Account

Primary Actor	Client
Pre-Condition	System is running
Post-Condition	New Client account has been added to the System
Main Success Scenario	<ol style="list-style-type: none">1. A Client wishes to open a new account.2. Client enters:<ul style="list-style-type: none">• His email address.• Password.• His name.• Address.3. The system displays the information entered.4. The Client confirms the information entered.5. The system creates a new account and save it.
Extensions	<p>* a. At any given time the client cancels.</p> <ol style="list-style-type: none">1. The system erases everything. <p>2a. The email address entered is not valid.</p> <ol style="list-style-type: none">1. The system displays an error message.2. Return to 2. <p>2b. The Client does not enter a password.</p> <ol style="list-style-type: none">1. The system displays an error message.2. Return to 2. <p>2c. The Client does not enter his name.</p> <ol style="list-style-type: none">1. The system displays an error message.2. Return to 2.

	<p>2d. The Client does not enter his address.</p> <ol style="list-style-type: none">1. The system displays an error message.2. Return to 2. <p>3a. The Client wants to change the entered information.</p> <ol style="list-style-type: none">1. Return to 2. <p>4a. The Client does not confirm his information.</p> <ol style="list-style-type: none">1. Return to 2.
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Use Case 17: Edit Client Account

Primary Actor	Client
Pre-Condition	System is running Client is logged
Post-Condition	Client's information is updated
Main Success Scenario	<ol style="list-style-type: none">1. The Client wants to modify their personal information.2. The system displays the Client's personal information.3. The Client updates either his:<ul style="list-style-type: none">• email address• Password (require old password confirmation)• password• name• address4. The system displays the personal updated information.5. The Client confirms the accuracy of the information.6. The system saves the changes.
Extensions	<p>* a. At any given time the client cancels.</p> <ol style="list-style-type: none">1. The system clears the changes. <p>2a. The Client enters an invalid email address.</p> <ol style="list-style-type: none">2. The system displays an error message.3. Return to 2. <p>2b. The Client wants to keep his current password.</p> <ol style="list-style-type: none">4. The customer leaves his old password and does not enter new password. <p>2c. The Client does not enter his name.</p> <ol style="list-style-type: none">5. The system displays an error message.

	<p>6. Return to 2.</p> <p>2d. The Client enters an invalid address.</p> <p>7. The system displays an error message.</p> <p>8. Return to 2.</p> <p>5a. The Client does not confirm the changes.</p> <p>9. Return to 2.</p>
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Use Case 18: Close Client Account

Primary Actor	Client
Pre-Condition	System is running Client is logged
Post-Condition	Client's account becomes inactive All orders placed by the Client remain in the system for tax purposes.
Main Success Scenario	<ol style="list-style-type: none">1. The Client wants to close his account.2. The system displays the Client's personal information.3. The client closes the account.4. The system asks for confirmation.5. The Client confirms the account closure.6. The system mark the client account as inactive.
Extensions	<p>* a. At any given time the client cancels.</p> <ol style="list-style-type: none">1. The system maintains the account.2. End of use case. <p>5a. The Client does not confirm the account closure. The system maintains the account.</p> <ol style="list-style-type: none">1. End of use case.

Use Case 19: Consult Order History

Primary Actor	Client
Pre-Condition	System is running Client is logged
Post-Condition	No Changes
Main Success Scenario	<ol style="list-style-type: none">1. The Client wishes to see the history of all orders it has made.2. The system displays a list of orders associated with the client.3. The Client selects an order.4. The system displays details about the selected command. <p><i>The steps 2 to 4 are repeated until the client indicates that it has finished.</i></p> <ol style="list-style-type: none">5. The Client indicates that it has finished
Extensions	<p>2a. The order history is empty.</p> <ol style="list-style-type: none">1. The system displays a message indicating that there is no information to display.

Use Case 20: Order Meal

Primary Actor	Client
Pre-Condition	System is running Client is logged
Post-Condition	Order have been placed for a giving Restaurant
Main Success Scenario	<ol style="list-style-type: none">1. The Client wants to order food.2. Client enters:<ul style="list-style-type: none">• The date on which it wants to receive the food.• The name of the restaurant.• The zip code where the dishes will be delivered.3. The system displays the menu of the restaurants that serve the area of the Client.4. The Client selects a menu item and indicates the desired quantity.5. The system displays the Order. <p><i>Operations 3-5 are repeated until the client indicates that it has finished.</i></p> <ol style="list-style-type: none">6. The client indicates that it has finished.7. The system displays the order details.8. The Client confirms the order.9. The system asks the delivery address.10. The Client enters the delivery address.11. The system displays information of the delivery.12. The Client confirms the information of the delivery.13. The system displays the amount due and sends an email to the customer and the restaurant. (no real email sent)
Extensions	* a. At any given time the client cancels.

	<ol style="list-style-type: none"> 1. The system does not save the order. <p>2a. The date is prior to the current date.</p> <ol style="list-style-type: none"> 1. The system displays an error message. 2. Return to 2. <p>2b. The date is too far in the future (24hrs).</p> <ol style="list-style-type: none"> 1. The system displays an error message. 2. Return to 2. <p>4a. The Client does not order the item selected.</p> <ol style="list-style-type: none"> 1. Back to 3. <p>4b. The amount entered is invalid (not more than 10).</p> <ol style="list-style-type: none"> 1. The system displays an error message. 2. Back to 3. <p>8a. The Client does not confirm the order.</p> <ol style="list-style-type: none"> 1. Back to 3. <p>10a. The delivery address is invalid.</p> <ol style="list-style-type: none"> 1. The system displays an error message. 2. Back to 10. <p>12a. The customer does not confirm the delivery address.</p> <ol style="list-style-type: none"> 1. Back to 9.
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Report

- Introduction
 - About the project?
 - About the report
- Analysing of the project
 - How you plan on realizing the project
 - Class Diagram
- Implementation of the project
 - How did you manage to realize the project
 - Screenshots
- Discussion of the project
 - What happen throughout the project
 - Problem encounter, solution?
- Conclusion
 - Did you manage to finish the project?
 - What you would've done differently?

Correction Grid

Implementation – 85%

Code – 70%

- Each Use Case is worth about 4%

Design – 15%

- User Friendly
- Comments
- Teacher's appreciation

Report - 10%

Presentation – 5%