

[Distribution System] Requirements Specification

Version 1.0

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1. Executive Summary

1.1 Project Overview

Nowadays we live in a world where technology is helping us to improve our lives and also achieve better results in different businesses. Having the same mission which is to help businesses the aim of the software we are creating is to increase the yearly profits of a company which distributes sweets throughout Albania.

Our idea consists of creating a system where we are aiming to register all the markets and shops in Albania especially in Tirana which has the biggest number of markets.

In this software each market can view the products and can also order the what he is needing for his personal market.

1.2 Purpose and Scope of This Specification

The purpose of the Online Distribution system is to:

- Evaluate the performance of our workforce in order to have better and more efficient results
- Have more consistent and accurate results

By creating this system our business will have an easier and faster way to keep track of every data in

the business .It will also be easier to see if the products have reached the customer needs, meaning

it will refine the certainty and management levels.

2. Product/Service Description

2.1 Product Context

Our online system is going to help Kida 2001 sh.p.k, which is a distribution company that delivers products such sweets throughout the country. By the use of our system the name of the company will be better spreaded, and so products of the company will become better known from clients. We are hoping to help the company increase their profits. We are going to create an independent system which is going to be used and accessed by the admin and also by clients(shops). Clients are continuously making orders while admin is looking and accepting orders.

The system will include information about the products, inventories, accounting, currency exchange, main info about the company.

2.2 User Characteristics

There are 3 types of users that will interact with our system:

1. Client

- Can create their own account.
- Can order which products they would like to purchase.
- Can read their personal data.
- Can read information about our company.
- Can check the money exchange web page to observe currencies.
- Can contact the company.
- Can log out.

2. Admin (manager)

- Can access account anytime.
- Can check the orders that have been submitted by the clients.
- Can check the orders that have been delivered to the clients.

- Can contact clients.
- Can check the bills and orders that the company is making from the suppliers.
- Can check reports.
- Can log out.

3.Employees

- Categorized in two categories(warehouse and delivery employees)
- Their duty in the system is to mark when orders are ready or when orders are delivered.

2.3 Assumptions

It is assumed that:

1. All users have basic knowledge in English Language.
2. Users have basic knowledge in smartphone and computer usage.
3. Admin must be logged in during working hours to check orders.
4. Every customer should be limited to watching only his orders and not interfere with other customers.
5. It is assumed that the personal information of the clients is confidential.
6. Every completed order must be stored in the system for documentation and report purposes.
7. The state billing system is integrated within the software.

2.4 Constraints

- An internet-accessible electronic device is needed to access the program.
- The client needs to be registered to use our program.
- Management and security.

- Network issues.
- other design constraints (e.g., design or framework depending on the device the program is being used)

2.5 Dependencies:

- The internet connection is a must for client to use the program. A connection is needed to place
- orders.
- If the admin is not registered in the system, other users will not be registered.

3. Requirements

3.1 Functional Requirements

Priorities classification:

- Priority 1 – The requirement is a “must have” as outlined by policy/law
- Priority 2 – The requirement is needed for improved processing, and the fulfillment of the requirement will create immediate benefits
- Priority 3 – The requirement is a “nice to have” which may include new functionality

<u>Req#</u>	<u>Requirement</u>	<u>Comments</u>	<u>Priority</u>	<u>Date reviewed</u>	<u>SME reviewed/approved</u>
BR_01	Every client must have his unique username and password to access the system.	The passwords and usernames will be saved in database.	1		

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BR_02	Login constraint	Every user (client) have to be logged in to access the data of the system.	1		
BR_03	Each client can access only his own profile.	Clients cannot see orders and profiles of other clients	1		
BR_04	Every client's profile should be fulfilled with his shop address and contacts.	Company needs specific address for order delivery.	2		
BR_05	The client will be able to see all the products.	Products will be listed in database together with a picture of them.	2		
BR_06	Clients can access from our system one of the best exchange companies.	Our company has always been close to Iliria'98 for money exchange.	3		
BR_07	Clients are able to see general information about our company.	There will be an "about us" feature in the system.	3		
BR_08	Every client will be able to see his order(bill).	System should offer that at least the last order should be viewed by each client.	2		
BR_09	Clients can order immediately online or by communicating with the manager.	Client can use his account to order.	2		
BR_10	At home page client can view a catalog of top/new/promotions products	This will be as attractive and user friendly as possible.	2		

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BR_11	Employees will be registered or divided in 2 categories.	There will be delivery employees and warehouse employees.	3		
BR_12	Warehouse employees will be responsible for loading the shipments.	This process will be controlled by the manager.	2		
BR_13	Warehouse employees will have to mark the order.	Mark the order if ready or not.	1		
BR_14	Delivery employee will be responsible for taking the order from the warehouse and transporting it to the right address.	The main task of this employee will be delivering.	2		
BR_15	Delivery employee has to mark the order after delivery.	Delivery employee will have to mark the order Delivered or not.	1		
BR_16	The manager(admin) has access to clients/database/employees	Manager requires to approach details for employees and clients.	1		
BR_17	Manage inventory	Only manager can add new products and see the stocks.	1		
BR_18	Manager can view the bills from our suppliers.	This will help managers manage the stock.	1		
BR_19	Inventory should show the live stock in warehouse.	This will be accessed by the manager.	2		
BR_20	Admin will be able to add or remove employees.	New employee will be registered	2		

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		in one of the categories.			
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3.2 Non-functional Requirements

3.2.1 Product Requirements

3.2.1.1 Usability

- It will be easy to access in real time from different browsers online since the system is web based.
- It shall be easy for the user to understand and use the system.
- The system should allow users to practically and reliably manage their data.
- The system is designed to be fast and efficient.

3.2.1.2 Efficiency Requirements

3.2.1.2.1 Performance Requirements

- Our system will be a web-application that will be stored in a web server.
- It will be designed to support multiple users at the same time, by multiple interfaces.
- The system will need a good ISP with strong internet to work properly.

3.2.1.2.2 Space Requirements

3.2.1.2.2.1 Capacity

There is no need for capacity occupation in our mobile phones, computers or other devices, since our system is web-based. Internet connection is a key element when performance is considered but we will make sure that the application works even if there is low internet strength provided.

The system can be accessed by multiple users anytime, but as a medium-size organization, it is not expected to be accessed by a very large number of users. Being said that, the database that is going to be used will not be very complex, but also it will be capable enough to store everything that is needed.

3.2.1.2.2.2 Availability

The system will operate 7 hours a day, each day of the week and it can be accessed by users for as long as they have internet connection.

The system will be distributed only in Albania and can be used only in English language.

Different types of users will have different availability and access.

3.2.1.2.2.3 Latency

The website loading will be completed within less than 4 seconds. On average a simple process shall not take more than 2 seconds to complete. In order to be efficient and productive, DMS is expected to fulfil some time limitations such as (also depending on internet speed and database size).

3.2.1.3 Dependability Requirements

3.2.1.4 Security Requirements

Protection

To protect data in system from destruction, etc. a validation of data is required before entering to the database.

Functions by using regular expressions, will check for authentication of:

- Ø password
- Ø Email address
- Ø Username

By encrypting information such as password, using hash methods to protect privacy.

Admin will control information of other users while employees will check only information related to them.

Some methods are taken when added new employee or when changing employee data.

Security of the system will be achieved by:

- Ø Encryption
- Ø Activity logging
- Ø Data integrity check

3.2.2 Organizational Requirements

3.2.2.1 Environmental Requirements

The user must have an internet connection so they can use the application.

This application will be focused on being as efficient as possible for both, the company(admin,employees) and also the clients(users).

Users should be able to operate properly by accessing the system and the menu(main tab) so they can select proper products.

3.2.2.2 Operational Requirements

There are three types of users:

- Admin
- Employee(divided in two groups)
- Clients

The user will be able and responsible for these operations:

1. Create a user/Login(clients)
2. Make orders(clients)
3. Edit/Modify personal information(admin)
4. Check stock inventory(admin)
5. Check last orders(clients)
6. Check the orders of the clients and company's bills to suppliers(admin)
7. Complete/delivered orders(employee)

3.2.2.3 Development Requirements

The system is going to operate as long as it is supported by a database in phpMyAdmin platform. Once the construction and the design of the application is finished and its system interface is accordingly connected with the database it is its duty to manage the avoidance of any possible error occurrence. Also the administrator and the manager of the company who have the most system access can make any changes in the database, if needed.

3.2.3 External Requirements

3.2.3.1 Legislative Requirements

3.2.3.1.1 Safety/Security Requirements

Safety requirements ensure a safe design. System requirements must address the expectations of the customer in terms of safe system operation.

Warehouse employees will work in groups so they can face different problems when loading the shipments because sometimes the boxes of products can be heavy and cause injuries.

Clients together with delivery employees should arrange the boxes of products cooperating together when the order is delivered to specific client.

3.2.3.1.2 Accounting Requirements

Regarding the Client relationship, the billing format of each of the clients' orders will be made according to the Law: Nr.92/14 "**Për Tatimin mbi Vlerën e Shtuar**" which states that value with VAT must be included and represented according to a specific standard.

Regarding the Employees relationship, everything will be done according to the law standards of "Inspektoriati i Punes".

The Law on Accounting and Financial Statement No. 9228 of 2004 determines the financial reporting requirements applicable in Albania. For general purpose financial reporting, two reporting frameworks are applicable in the jurisdiction: (i) National Accounting Standards (NAS) and (ii) IFRS as issued by the IASB, translated and published in Albanian language by the National Accounting Council (NAC).

The following entities are required to apply IFRS: (a) listed companies and subsidiaries of listed companies; (b) banks and non-banking financial institutions; (c) investment firms; and (d) large non-listed companies meeting defined thresholds determined by a Government decree.

Other entities, mostly small and medium-sized entities, use NAS issued by the NAC and approved by the Ministry of Finance of Albania in accordance with the procedures established under Law No. 9228. NAS are based on the international standards. In 2015, the NAC with the assistance of the World Bank completed the revision of NAS to bring them closer in line with the requirements of IFRS for SMEs.

The Law on Statutory Audit and Organization of the Accountancy Profession No. 10091 of 2009 modified in April 2016 by Law No. 47/2016, stipulates provisions governing audit of financial statements. The law requires application of ISA in statutory audits of entities that meet certain thresholds, including those entities which apply IFRS and joint stock companies which apply NAS.

The Albanian Institute of Authorized Chartered Auditors is responsible for the translation of ISA in Albania and, as of 2019, has translated the 2016 version of the standards.

3.2.3.2 Ethical Requirements

Every clients personal information, more importantly his orders and bills will be seen only by client itself and the admin or manager. His information will not be able to be accessed by other clients or other employees of the company.

3.2.3.3 Regulatory Requirements

3.3 Domain Requirements

The system manages and covers everything related to the distribution process for an existing medium-size business. It should be able to add and update employees and clients and store tabs of information on the database. The idea is that the program should operate to make it more efficient and easier for clients and the company to communicate by using this system.

4. User scenarios/ Use Cases

1. Client signs up

- a) Enters email
- b) Uploads shop name, phone number, address, username.
- c) Sets and confirm password
- d) Submits his info which are stored to database.

2. Client Successful Login

- a) Enters username and password
- b) Press “Log In” button
- c) If matched in the database, client is redirected to the client home page

3. Client Failed Login

- a) Enter username and password
- b) The user presses “Log In” button
- c) If not matched in the database, it is displayed an error message.

4. Manager Login ()

- a) Enters username
- b) Enters password
- c) Username and password are checked with admin’s info in the database.
- d) If matched in the database successfully redirected to admin home page.

5. Manager registers employee

- a) Upload general information about employees(name, surname, email, address, phone number)
- b) Defines username and password for employee

- c) Determines the category of employee
- d) When clicked “register” button information uploaded to database

6. Manager deletes employee

- a) After opening employees list
- b) List of employees is shown with each employees’ name, surname and category and a “Delete” button at the end
- c) When clicked “Delete” employee is deleted from database.

7. Client is at home page

- a) Client is successfully logged in
- b) He is redirected to Home page
- c) Client can see our top products
- d) Can see products which are in promotion
- e) Can see new products
- f) No action performed by client in Home page.

8. Client orders

- a) Client is successfully logged in
- b) Client clicks “Order Now” tab
- c) A list of all our products is displayed
- d) List consists of product photo, name and price and a text box where he can enter the amount he wants to order for each product.
- e) “Submit order” button stands at the end of the list and when it is clicked order is sent to the manager account.

9. Client views his last bill

- a) Client is successfully logged in
- b) Client clicks “My Account” tab
- c) He can view his last bill(order)

10. Client updates his account

- a) Client is successfully logged in
- b) Client clicks "My Account" tab
- c) His account info is shown there below his last order
- d) At the end of personal info there is an update button
- e) When clicked Client can update his account.

11. Client views information about our company

- a) Client is successfully logged in
- b) Client clicks "About Us" tab
- c) He can see there general information about our company.

12. Client looks currency exchange

- a) Client is successfully logged in
- b) Client clicks "Currency Exchange" tab
- c) He can click there a link which redirects him to "Iliria 98" official page(an exchange company which has cooperated with our company since the beginning of our company)

13. Manager is at home page

- a) Manager is successfully logged in
- b) He is redirected to Home page
- c) Manager can see our top products
- d) Can see products which are in promotion
- e) Can see new products

14. Manager is edits home page

- a) Manager is successfully logged in
- b) He is redirected to Home page
- c) At the bottom of the page there is an “edit” button where he can updates top, promotion and new products

15. Manager edits info about the company

- a) Manager is successfully logged in
- b) He clicks the “About us” tab
- c) He can view general information about company
- d) He can edit this information by clicking an “edit” button at the end of the page

16. Manager looks currency exchange

- a) Manager is successfully logged in
- b) Manager clicks “Currency Exchange” tab
- c) He can click there a link which redirects him to “Iliria’ 98” official page(an exchange company which has cooperated with our company since the beginning of our company)

17. Manager confirms orders

- a) Manager is successfully logged in
- b) Manager clicks “Orders” tab
- c) A list of orders is shown there with corresponding order number, time when order was submitted by the client, username of the client ordering.
- d) By the side of each order there is a button “Confirm Order” which is clicked by the manager to confirm the order.
- e) When order confirmed it is updated to employees.

18. Manager checks the orders delivered

- a) Manager is successfully logged in
- b) Manager clicks "Accounting" tab
- c) He clicks there "Orders delivered" to see marked deliveries by the delivery employees.

19. Client checks the warehouse's stock

- a) Manager is successfully logged in
- b) Manager clicks "Accounting" tab
- c) He clicks there "Check stock" to see the stock available in warehouse.

20. Manager updates stock

- a) Manager is successfully logged in
- b) Manager clicks "Accounting" tab
- c) He clicks there "Check stock"
- d) By the side of the stock list there is an update button used to update stock at the end of each day by the manager.

21. Manager checks Accounting information

- a) Manager is successfully logged in
- b) Manager clicks "Accounting" tab
- c) He clicks there "Accounting Info" where he can see balance sheets and financial statements for each month.

22. Manager updates Accounting information

- a) Manager is successfully logged in
- b) Manager clicks "Accounting" tab
- c) He clicks there "Accounting Info" where he can add the financial statements at the end of each month given to him by the company's accountant.

23. Warehouse employee successfully logs in

- a) He enters the username and password given to him by the manager
- b) If they match with the username and password in the database he is logged in.

24. Warehouse employee views the orders

- a) He views the order when confirmed by the manager
- b) Orders are ordered with numbers

25. Warehouse employee marks the orders

- a) He views the order when confirmed by the manager
- b) Orders are ordered with numbers
- c) He marks the order when the shipment is loaded.

26. Delivery employee views the orders

- a) He views the order when marked by warehouse employees
- b) Orders are ordered with numbers

27. Delivery employee marks the orders

- a) He views the order when marked by warehouse employee
- b) orders are ordered with numbers
- c) he marks the order when delivered to the client.

Use Cases

Name	User signs up
Summary	User creates an account in our system
Actor	Client
Description	User enters personal information such as email, address, phone nr and creates his username and password
Precondition	User must have valid email address and existing phone number.
Alternative	
Post Condition	Account is created and user is ready to log in

Name	User logs in
Summary	User enters the system by providing credentials
Actor	Client, manager, employees
Description	User enters correct username and password
Precondition	User must have valid and existing account
Alternative	
Post Condition	User enters the system

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Name	Registering employees
Summary	Manager creates account for employees
Actor	Manager
Description	Manager provides personal information such as email, address, phone nr and creates username and password for the employees
Precondition	Manager must be logged in first
Alternative	
Post Condition	Employee is created and stored in database.

Name	Manager deletes employees
Summary	Manager can delete employees from database anytime.
Actor	Manager
Description	Manager deletes employees by clicking “delete” next to the name of the employee
Precondition	Manager must be logged in first
Alternative	
Post Condition	Changes saved in database and the employee is deleted

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Name	Client orders
Summary	Client makes an order
Actor	Client
Description	Client can enter the amount he wants to order for each product which are displayed to him first. The he clicks "submit order" button.
Precondition	Client must be logged in first
Alternative	
Post Condition	Order is now at the manager account.

Name	Client updates account
Summary	Client can update his account by filling information they need to change
Actor	Client
Description	Client can change personal information at "My Account" tab by clicking the "update " button
Precondition	Client must be logged in first
Alternative	
Post Condition	Client information is updated in the database

Name	Client access currency exchange page
Summary	Client is directed to "Iliria 98 " official exchange page

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Actor	Client
Description	Client clicks “currency exchange” tab under which is displayed a link that sends him to “Iliria 98” web page to view the currency exchange.
Precondition	Client must be logged in first
Alternative	
Post Condition	Client is directed to “Iliria 98” web page

Name	Manager edits Home page
Summary	Manager updates the Home page of our system
Actor	Manager
Description	Manager clicks “edit” button at the home page where he can change the view and update some features found there.
Precondition	Manager must be logged in first
Alternative	
Post Condition	Home page is changed

Name	Manager edits “About us” info
Summary	Manager can update or change general info about the company
Actor	Manager
Description	Manager by clicking an “edit” button at the “About us” page can edit and update info and pictures about the company

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Precondition	Manager must be logged in first
Alternative	
Post Condition	"About us" information is updated

Name	Manager access currency exchange page
Summary	Manager is directed to "Iliria 98 " official exchange page
Actor	Manager
Description	Manager clicks "currency exchange" tab under which is displayed a link that sends him to "Iliria 98" web page to view the currency exchange.
Precondition	Manager must be logged in first
Alternative	
Post Condition	Manager is directed to "Iliria 98" web page

Name	Manager confirms order
Summary	Manager views order with some detail about it and confirms it.
Actor	Manager
Description	Manager clicks "Orders" tab under which orders are shown with details such as the time the client has submitted the order and the username of the order. He can confirm the order by clicking "Confirm Order" button

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Precondition	Manager must be logged in first. Clients must have submitted orders.
Alternative	
Post Condition	When order is confirmed it is updated to warehouse employees accounts.

Name	Warehouse employee marks the order
Summary	When the order is loaded warehouse employee should mark it in the system
Actor	Warehouse employee
Description	Warehouse employee must mark the order after it is fully loaded and it is ready to be transported.
Precondition	Warehouse employee must be logged in first and there must be orders not marked in his account
Alternative	
Post Condition	Order is updated to delivery employee account.

Name	Delivery employee marks the order
Summary	When the order is transported to the client, delivery employee marks the order.
Actor	Delivery employee
Description	Delivery employee must mark the order after it is successfully transported to the client.
Precondition	Delivery employee must be logged in first and there must be orders not marked in his account
Alternative	
Post Condition	Manager receives confirmation in his account

