User Requirements Specifications Document



Group: 2-5

Version: Version 2.0

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Agreements/decisions

- The client wants a desktop application for management and administration, as well as a website for employees
- The shifts will be assigned by the department manager
- ❖ Shifts will last 8 hours

Functional requirements

- FR-01: Administrators can assign shifts
- FR-02: Employees can create restock requests
- FR-03: Administrators can add or remove employees
- FR-04: Employees can view and update their personal details
- FR-05: Employees can log in and access their shift schedules
- FR-06: Administrators can perform CRUD operations on the database
- FR-07: Managers and administrators can log in to the app
- FR-08: Managers and administrators can search for employees
- FR-09: Managers can view individual performance statistics

- FR-10: System can accommodate multiple departments
- FR-11: System Handles Employee Shift Cancellations
- FR-12: System Manages Stock
- FR-13: System Supports Employee Vacation Requests
- FR-14: System Handles Forgotten Passwords
- FR-15: System Manages User Roles and Permissions
- FR-16: System Handles Employee Additions
- FR-17: System Manages Restock Requests
- FR-18: System Supports Multiple Departments
- FR-19: System Ensures Data Integrity
- FR-20: System Manages Employee Shifts

Web Application:

FR-02, FR-04, FR-11, FR-12, FR-13, FR-14, FR-15, FR-17,

FR-18, FR-19

Win Forms Application:

FR-01, FR-03, FR-05, FR-06, FR-07, FR-08, FR-09, FR-10,

FR-11, FR-13, FR-14, FR-15, FR-16, FR-18, FR-19, FR-20

Non-functional requirements

- NFR-01: Our program requires minimal maintenance.
- NFR-02: The program is secure, accessible only to logged-in users, ensuring no outside access.
- NFR-03: The system uses a database to store website and app data.
- NFR-04: The system is easy to use for administrators, managers, and employees.
- NFR-05: The system is free from bugs and operates reliably for administrators, managers, and employees.

Use Cases

• UC-01

Use case: Login to the website

FR-07

Actor: Employee
Main Success
Scenario:

- 1. Actor provides information and confirms
- 2. System confirms credentials

Extensions:

- 1a. Login details are incorrect
 - 1. System displays an incorrect data message
 - 2. Return to MSS 1
- 1b. No login details are provided
 - System highlights text boxes that need to be filled
 - 2. Return to MSS 1

02

Use case: Employee checks their shift

FR-05

Actor: Employee
Main Success
Scenario:

1. Actor checks schedule

- 2. System displays available schedule for actor
- 3. End of use case.

Extensions:

1a. The actor doesn't have any shifts allocated 1.
 System displays a message "No shifts found."

2. End of use case.

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UC-03

Use case: Employee wants to modify their personal

data

FR-04

Actor: Employee

Main Success

Scenario:

- 1. Actor wants to change profile information
- 2. System shows actor his personal data
- 3. Actor wants to modify his data
- 4. System lets the actor update his credentials 5. Actor puts the new data
- 6. System modifies the actor's data accordingly
- 7. End of use case.

Extensions:

5a. The actor inputs invalid data

- 1.System displays a message "Invalid data, please
 try again."
- 2. Return to MSS 5

• UC-

0.4

Use case: Administrator wants to see statistics about an employee

FR-06

Actor: Administrator

Main Success

Scenario:

- 1. Actor wants to open statistics
- 2. System opens statistics
- 3. Actor types the name/ID of the person whose statistics he wishes to see.
- 4. System shows statistics about the specified person
- 5. End of use case.

Extensions:

- 2a. The wanted employee does not exist in the system.
- 1. System displays a message "Person doesn't exist"
- 2. End of use case.

• UC-05

Use case: An employee wants to create a restock request.

FR-02

Actor: Employee

Main Success

Scenario:

- 1. Actor wants to create a restock request
- 2. System displays a form where the actor can fill in the required information for the restock request
- 3.Actor fills in required information 4. System sends the request to the warehouse
- 5. End of use case.

Extensions:

- 3a. The inputted data exceeds the amount of stock left in the Warehouse
 - 1. The system displays a message "Insufficient stock in the warehouse."
 - 2. End of use case.
- 3b. The actor requests exceeds the amount of stock that can come in the shop.
 - 1.The system displays a message "Too much stock
 requested."
 - 2. End of use case.

• UC-

06

Use case: Administration assigns shifts to employees

FR-01

Actor: Administrator

Main Success

Scenario:

- 1. Actor wants to check schedule
- 2. System shows assigned shifts for employees

- 3. Actor wants to add shift
- 4. System asks for shift type and employee
- 5. Actor chooses the type of shift and the employee to assign a shift to
- 6. System confirms assigning the shift and updates the schedule with the added information
- 7. End of use case.

- 2a. Schedule is empty
 - 1. System displays that there are no shifts assigned
 - 2.Return to MSS 3
- 4a. There are no employees in the system
 - 1. System shows the message that there are no employees 2. End of use case

• UC-

07

Use case: Employee calls in sick

FR-05

Actor: Employee Main Success

Scenario:

- 1. Actor wants to check shifts
- 2. System opens available shifts
- 3. Actor wants to cancel a shift
- 4. System asks for a reason to cancel the shift

- 5. Actor chooses a reason for cancelling a shift
- 6. System displays a form where the actor can select its period of being sick
- 7. Actor selects the period
- 8. The sick request gets saved in the system
- 9. End of use case.

- 7a. The actor chooses a period that is too long
 - 1. System displays a message "The chosen period is too long. Contact the manager."
 - 2.Return to MSS 3

• UC-

0.8

Use case: Customer orders a product

FR-02

Actor: Customer Main Success

Scenario:

- 1. Actor selects a product
- 2. System adds product
- 3. Actor decides to check out
- 4. System asks for shipping information
- 5. Actor gives valid information 6. System accepts order
- 7. End of use case.

Extensions:

- 1a. No quantity left for this order
 - 1. System displays message "No quantity left"
 - 2. Return to MSS 1
- 5a. Actor gives invalid shipping information

- 3.System displays message "Invalid shipping
 information"
- 4. Return to MSS 7

• UC-09

Use case: Customer searches for a product

FR-02

Actor: Customer
Main Success
Scenario:

- 1. Actor wants to order a product
- 2. System shows an array of products
- 3. Actor wants to sort product specifications
- 4. System shows sorting options
- 5. Actor chooses sorting options
- 6.System shows sorted products
- 7. End of scenario

Extensions:

- 6a. System does not find product based on the specifications
 - 1.System displays message "No found product"
 - 2.Return to MSS 5

• UC-

10

Use case: Customer forgets password

FR-04

Actor: Customer
Main Success
Scenario:

- 1. Actor forgets password
- 2. System asks for customer's email
- 3. Actor provides the email

- 4. System sends verification code to provided email
- 5. Actor writes verification code
- 6. System lets actor change his password
- 7. End of scenario

- 4a. System does not find email
 - 1. System will not send verification code
 - 2. Return to MSS 3

• UC-11

Use Case: Administrator adds a
new employee to the system FR-03

Actor: Administrator Main Success Scenario:

- 1. The Actor wants to add a new employee.
- 2. The system prompts for the new employee's details.
- 3. The Actor provides the required information.
- 4. The system adds the new employee to the system.

Extensions:

4a: The provided information is incomplete.

- System displays a message: "Please provide all required information."
- Return to MSS 3

• UC-12

Use Case: Employee requests vacation

time

FR-05 Actor: Employee

Main Success

Scenario:

- 1. The Actor wants to request time off.
- 2. The system shows the user's upcoming shifts.
- 3. The Actor selects the shifts for which they want time off.
- 4. The system displays a form for the user to provide a reason and duration.
- 5. The Actor submits the time-off request.
- 6. The system updates the schedule with the time-off information.

Extensions:

3a: The Actor has no upcoming shifts.

- System displays a message: "No upcoming shifts found."
- End of use case.

• UC-13:

Use Case: Administrator manages
user roles and permissions FR-06

Actor: Administrator

Main Success Scenario:

- 1. The Actor wants to manage user roles and permissions.
- 2. The system provides options to view and modify user roles.
- 3. The Actor selects a user and modifies their role and permissions.
- 4. The system updates the user's roles and permissions accordingly.

3a: The Actor cancels the role modification.

- · System discards the changes.
- · End of use case.

· UC-14

Use Case: Employee manages
product inventory FR-06 Actor:
Employee Main Success Scenario:

- The Actor wants to update product inventory.
- 2. The system provides options to view and modify product quantities.
- 3. The Actor selects a product and updates its quantity.
- 4. The system updates the product inventory accordingly.

Extensions:

3a: The Actor cancels the inventory update.

- System discards the changes.
- End of use case.

UC-15

Use Case: Customer provides product ratings and
reviews

FR-06

Actor: Customer

Main Success Scenario:

- 1. The Actor wants to provide a rating and review for a product.
- 2. The system prompts the user to select the purchased product.
- 3. The Actor selects the product.
- 4. The system opens a review section for the user to rate and write a review.
- 5. The Actor submits the rating and review.
- 6. The system records the rating and review for the specified product.

Extensions:

3a: The Actor has not purchased any products.

• System displays a message: "No purchased products found." • End of use case.

· UC-16

Use Case: Manager Searches for Employees Based on Department

FR-08

Actor: Manager

Main Success Scenario:

- 1. Actor wants to find employees within the department
- 2. System provides a search functionality for department.
- 3. Actor enters the desired department in the search criteria.

- 4. System displays a list of employees matching the specified department.
- 5. End of use case.

- 3a. Actor enters a department with no employees.
 - 1. System returns an empty list of employees
 - 2. End of use case

• UC-17

Use Case: Employee Views Shift

FR-05

Actor: Employee

Main Success Scenario:

- 1. Actor wants to view their shift history.
- 2. System provides an option to access shift history.
- 3. Employee selects the shift history option.
- 4. System displays a calendar with past shifts for the actor
- 5. End of use case.

Extensions:

- 2a. Actor has no previous shift history.
 - 1. System does not display past shift history
 - 2. End of use case.

• UC-18

Use Case: Administrator Modifies Employee Information
FR-03

Actor: Administrator Main Success Scenario:

- 1. Actor wants to update an employee's personal details.
- 2. System provides an interface to modify employee information.
- 3. Actor selects an employee and edits the necessary details.
- 4. System updates the employee's information in the database.
- 5. End of use case.

Extensions:

- 3a. Administrator encounters issues updating information.
- System notifies the actor that there was an issue with updating employee information
- Return to MSS 2.

• UC-19

Use Case: Employee Submits Restock Request for Urgent Items

FR-02

Actor: Employee

Main Success Scenario:

- 1. Actor identifies an urgent need for restocking certain items
- 2. Actor wants to restock
- 3. System provides a restock request
- 4. Actor submits a restock request
- 5. System checks if request data is correct 6. System accepts request
- 7. End of use case.

- 6a. System detects invalid request data
 - 1. System asks for correct request data
 - 2. Return to MSS 4

• UC-20

Use Case: System Validates Employee Login Credentials

FR-07

Actor: Employee

Main Success Scenario:

- 1. Actor attempts to log in to the system.
- 2. System validates the entered login credentials.
- 3. The system grants access to the actor.
- 4. End of use case.

Extensions:

- 3a. Actor enters incorrect login details
 - 1. System does not grant access to actor
 - 2. System asks for valid credentials
 - 3. Return to MSS 1

• UC-21

Use Case: System automatically completes shift

assignment

Actor: System

Main Success Scenario:

- 1. The actor identifies unassigned shifts.
- 2. Auto-assigns available employees to unassigned.
- 3. Updates the shift status to completed.

Extension:

1a: No Available Employees

- 1. Actor identifies unassigned shifts.
- 2. No available employees meet the criteria for autoassignment.
- 3. Actor notifies administrators about the unfulfilled shifts.
- 4. Administrators manually assign employees to the unfulfilled shifts.

• UC-22

Use Case: Admin approves/rejects vacation request

Actor: Admin

Main Success Scenario:

- 1. The actor identifies vacation requests.
- 2. Actor approves/rejects a vacation request
- 3. System updates the vacation status of the employee

Extension:

1a: No Available Vacation requests

- 1. System shows the actor that there are no vacation requests
- 2. End of use case

UC-23

Use Case: Employee Salary gets encrypted

Actor: Admin

Main Success Scenario:

- 1. The actor wants to add an employee
- 2. System allows the actor to enter the employee credentials
- 3. Actor does and approves the update
- 4. System checks for minimum requirements
- 5. System encrypts the employee salary and saves it to database

1a: Salary is 0

- 3. System shows the actor that salary cannot be 0
- 4. Return to MSS 1

• UC-24

Use Case: Send email after announcement

Actor: Admin

Main Success Scenario:

1. The actor writes a new announcement

2. System saves announcement and sends a notification to all employees

Extension:

1a: Announcement is cancelled

- 1. System does not send email
- 2. End of use case

• UC-25

Use Case: Send email after auto scheduling completed

Actor: Admin

Main Success Scenario:

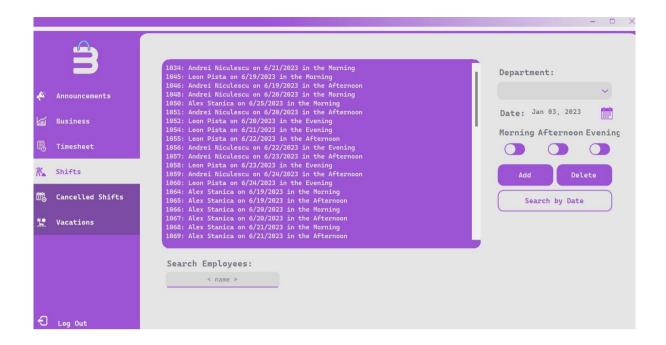
- 1. The actor generates new schedule
- 2. System assigns shifts to available employees and sends a notification to every employee

Extension:

1a: Auto scheduling is cancelled

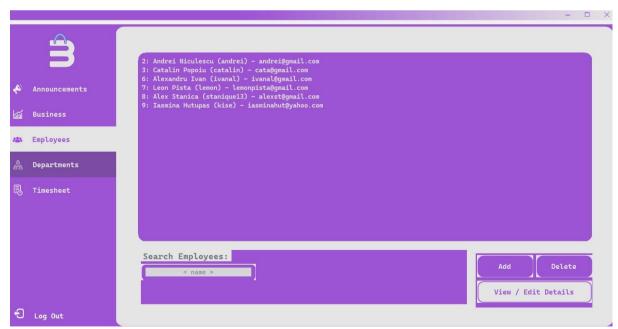
- 3. System does not send email
- 4. End of use case

GUT



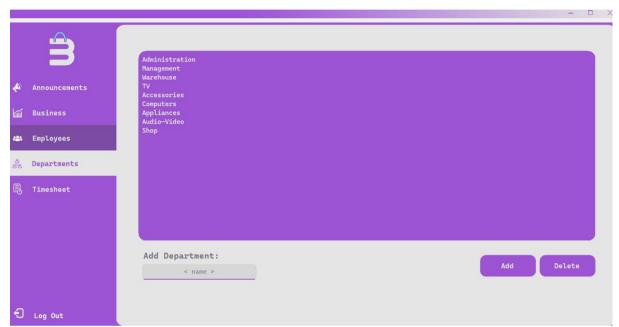
Description:

In the shift tab, as an admin, you will be able to Add and Delete Shifts and search for Employees who have an assigned shift.



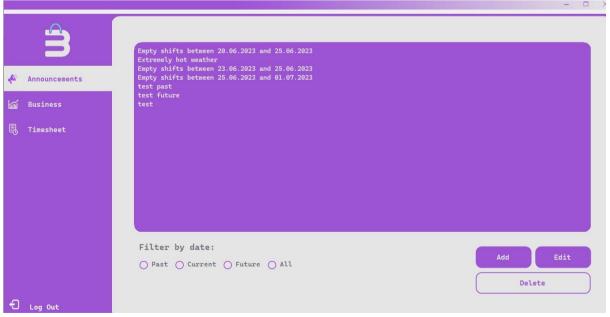
Description:

As an admin, when you open the employee tab you have the ability to add and delete an employee as well as search and edit employee credentials



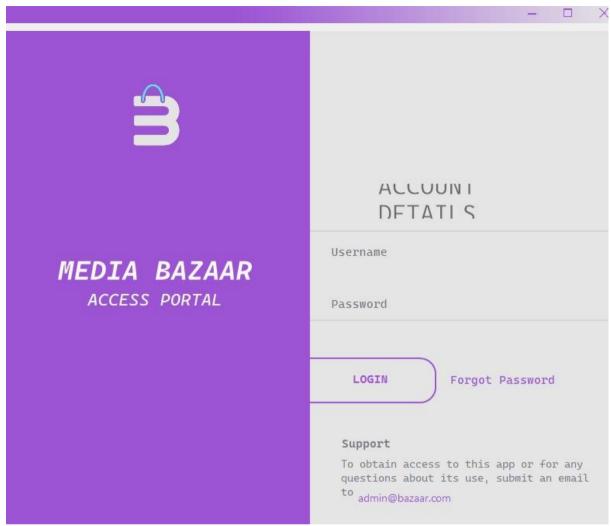
Description:

In the departments tab, you will be able to add and delete departments as well as search for them



Description:

In the announcements tab, as an admin, you are able to write a general message for all of your employees to see. If you find the message inappropriate you can choose to delete or edit it



Description:

In the login form, you will have to know your credentials in order for you to be able to access your account. If you do not remember you can press the "Forgot Password" link

Website Wireframe

