

# Software Requirement Analysis

## 1- Introduction:

### 1.1. The Purpose:

The purpose of this document is to build a Store Management system that can manage store's products, customers', employees' information, and can ease the processes of purchasing and store management.

### 1.2. Target Audience:

This project is a prototype for stores' management and purchasing system . It will be useful for both: customers seeking shopping and store's employees.

## 2- Overall Description

### 2.1. Product Perspective

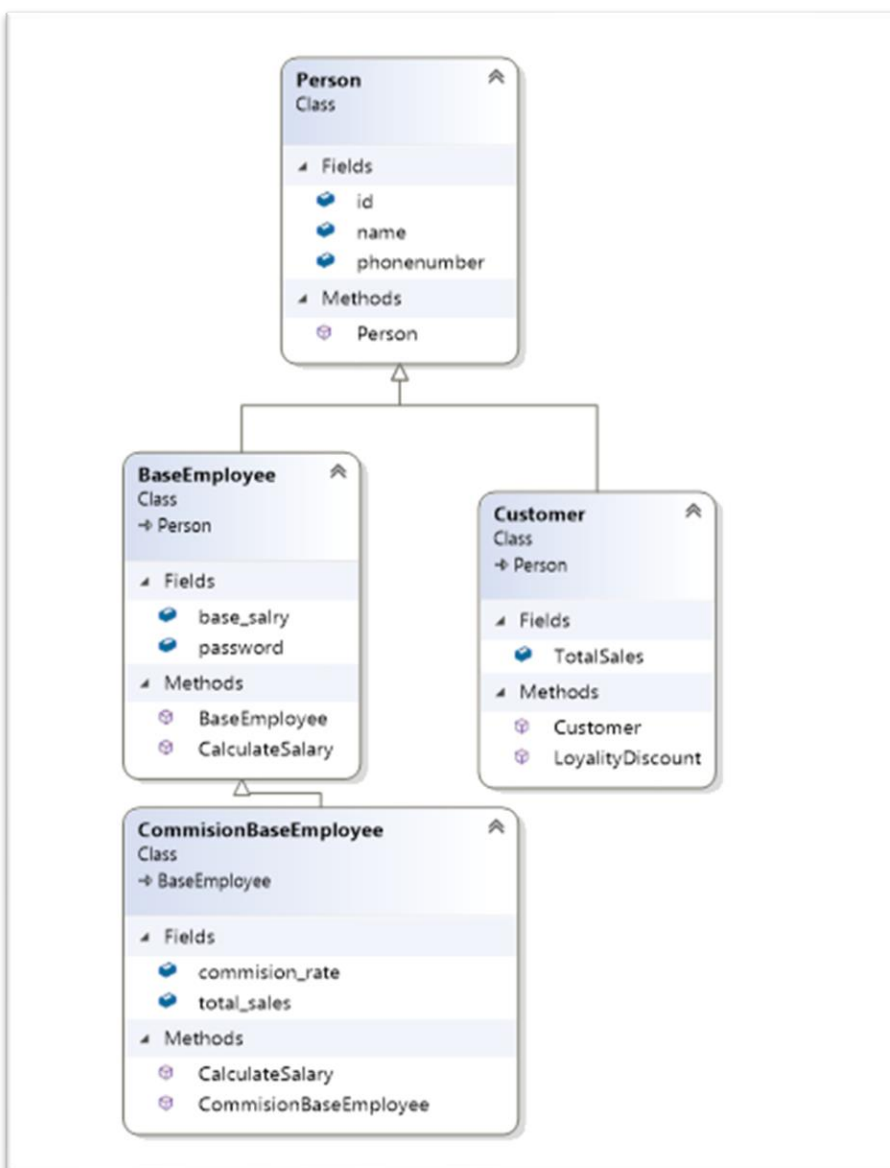
It a store's online management and purchasing system that stores the following information:

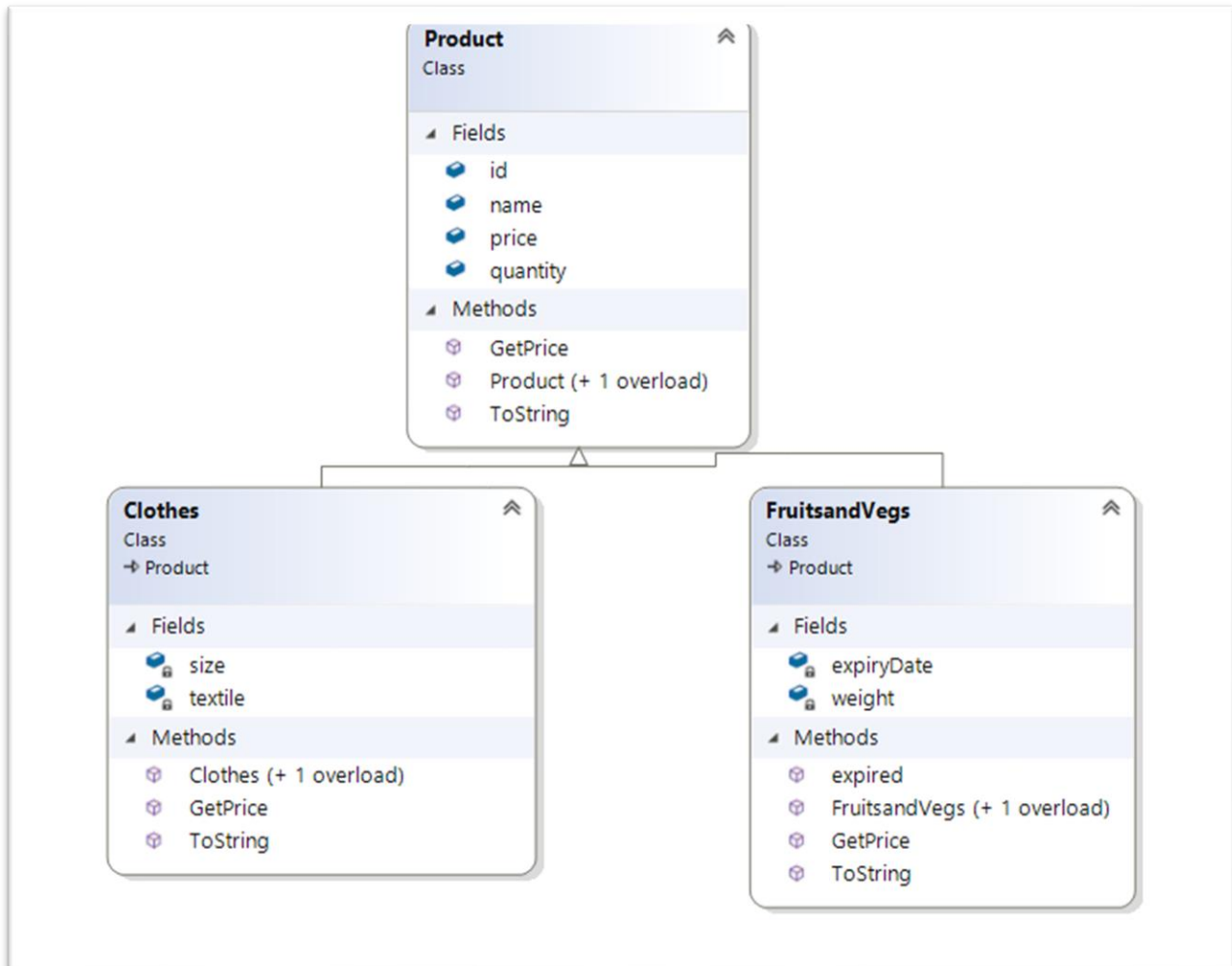
- **Products Details:** It includes product's name and id, in addition to product's price and quantity inside the store.
- **Customer Description:** This shows customer's personal information, such as customer's Name, and Phone Number.
- **Employee Description:** It shows the employee's personal information, in addition to his base/ commission-based salary.

- **Bill description:** It includes the bill details: products purchased and the quantity and price for each product.

## 2.2. Product Features

The major features of Store's management and purchasing system are shown in the UML below:





**BaseEmployee:** -It is a class that refers to Employees who receive base salary.

-**CalculateSalary():** Method that returns the base salary for each employee.

**CommissionBaseEmployee:**

-It is a class that refers to Employees who receive a commission-based salary.

-**total\_sales:** refers to the total amount of products sold by the employee.

-**CalculateSalary():** Method that returns the total salary for commission- based employee.

## **Customer:**

- It is a class that refers to the customers seeking the Market for purchasing.
- **TotalSales:** refers to the total purchases of the customer.
- **LoyaltyDiscount():** refers to the amount of discount the customer receives based on his total purchased products.

## **Products:**

- it is a class that refers to the products available at the store.
- **GetPrice():** method that returns the price for each product.

## **FruitsandVegs:**

- It is a class that refers to the products in the Fruits and vegetables section.
- expiryDate: refers to the date of expiry for each product.
- Weight: indicates the weight purchased from each item.
- **isexpired():** it returns whether the item is expired or not based on its expiry date.
- **GetPrice():** it returns the price of the purchased item based on its weight and the price/kilogram.

## **Clothes:**

- it refers to the available products in the Clothing section.
- size: resembles the size of each clothing item.
- Textile: refers to the material from which the item is made.
- **GetPrice():** method that returns the price of each clothing item based on its size.

### **2.3. User Characteristics**

Users of the system can retrieve every product's information. The system will support types of Users: Employee, and the Owner.

The Employee is able to do the following functions:

- Add new customers.
- Enter and confirm products for billing.

While the Owner can do the following functions:

- Adding new products to the system.
- Add/Remove employees.
- Update product details.
- Update employee's information.
- Add new customers.
- Enter and confirm products for billing.

### **2.4. Operating Environment**

- client/ server system.
- Operating system: Windows.
- Database: SQL database.
- platform: C#.net

## **3- System Features**

### **- Description:**

The store's management and purchasing system maintains information on the available products as well as the customers, and Employees. Its main objective managing the products available and Employees' information in addition to providing customers with an easy and comfortable shopping experience.

## - **Functional Requirements**

### **-Distributed Data base.**

**-Client/server System:** it refers to the architecture or division of responsibilities , as the client is the application(front-end) and the server is the DBMS (back-end).

## **4- External Interface Requirements:**

### **4.1. User Interfaces:**

- Front-end software:** C#.net version.
- Back-end software:** SQL .

### **4.2. Hardware interfaces:**

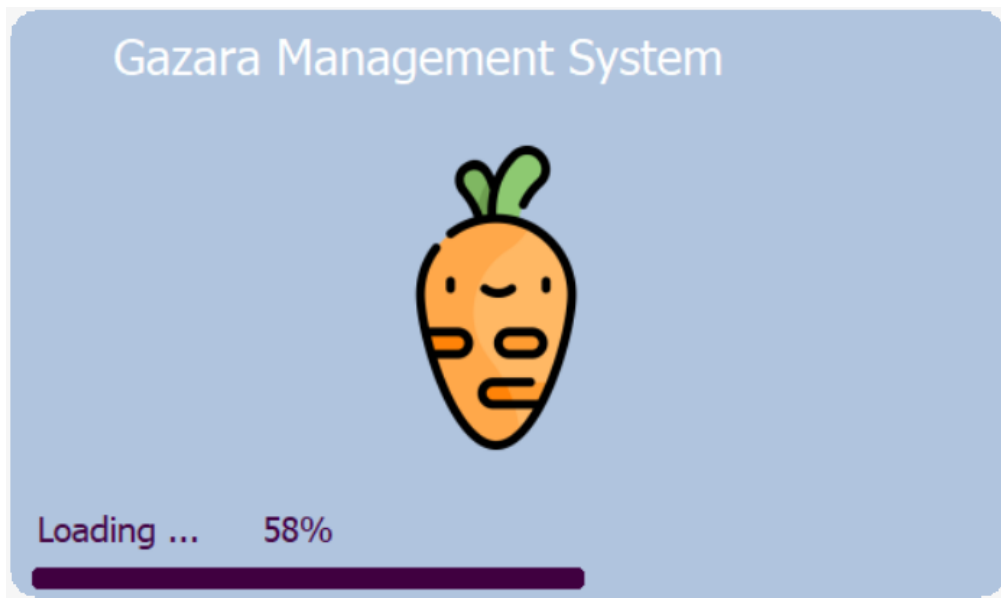
- Windows.**

### **4.3. Software interfaces:**

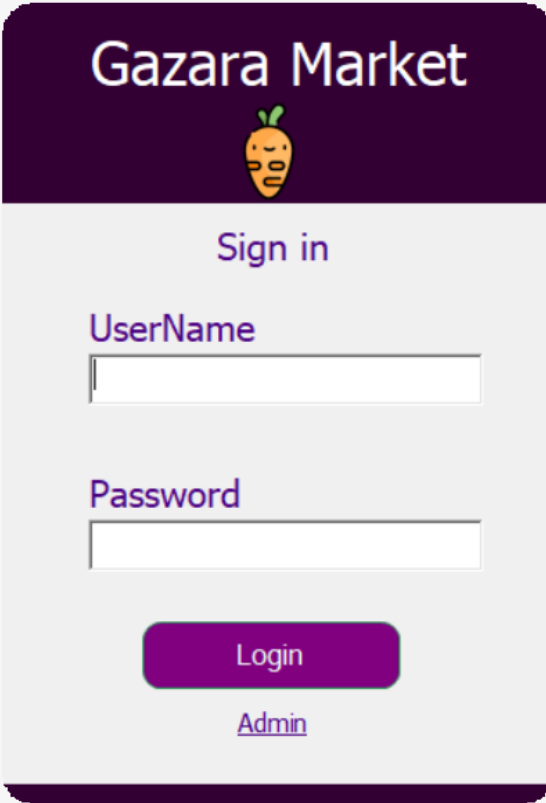
- Operating system:** windows was chosen for its support and user friendliness.
- C#.net:** This language has been chosen for its interactive support.
- Database:** SQL database has been used to store products and customer details.

# Interface Forms:

- **Loading Form:**



- **Login Form:**  
It views the login page to the system.



The image shows a login form for 'Gazara Market'. The header is a dark purple bar with the text 'Gazara Market' in white and a small orange carrot icon with a face. Below the header, the text 'Sign in' is centered in purple. There are two input fields: 'UserName' and 'Password', both with purple labels and white text boxes. Below the 'Password' field is a purple 'Login' button with white text. At the bottom, there is a purple link labeled 'Admin'.

Gazara Market

Sign in

UserName


Password

Login

[Admin](#)



## - Products management form:

Gazara Market  
  
Products  
Employees  
Customers  
Dashboard  
Billing  
Logout

### Gazara Market

Manage Items

Product Name
Price (per kg or item)
Quantity
Category

Clothes
Fruits and Vegetable

Textile
Expiry Date

Monday , January 17,


Edit Product
Add Product
Delete Product

#### Product List

Id	Name	Price	Quantity	Textile	ExpDt	Category
5	Shoes	100	48	polyester		0
6	Apples	10	50		09-Jan-22 6:18 PM	1
9	Skirt	100	28	Cotton		0
11	Pinapple	30	45		19-Jan-22 6:31 PM	1
12	Sports T-shirt	70	13	Cotton		0

- It views the details of available products at the store.

## - Employees Management form:

Gazara Market  
  
Products  
Employees  
Customers  
Dashboard  
Billing  
Logout

### Gazara Market

Manage Employees

Employee Name
Phone
Base Salary
Employee Type
Commision Rate








Edit
Add
Delete

#### Employees List

Id	Name	Phone	BaseSalary	ComRate	Sales	Salary	Type
1000	Ahmed Ali	0102856141	2000		213	2000	0
1005	Omar Khaled	0102458959	1500	5	893	1544.65	1
1007	Omar Ali	012348998	2000		154	2000	0
1009	Mohamed Ramadan	010285426	1500	4	0	1500	1

-It view the Employees personal information and base salaries.

## - Customers Management form:

Gazara Market  
  
  
 Products  
  
 Employees  
  
 **Customers**  
  
 Dashboard  
  
 Billing  
  
 Logout

### Gazara Market

Manage Users

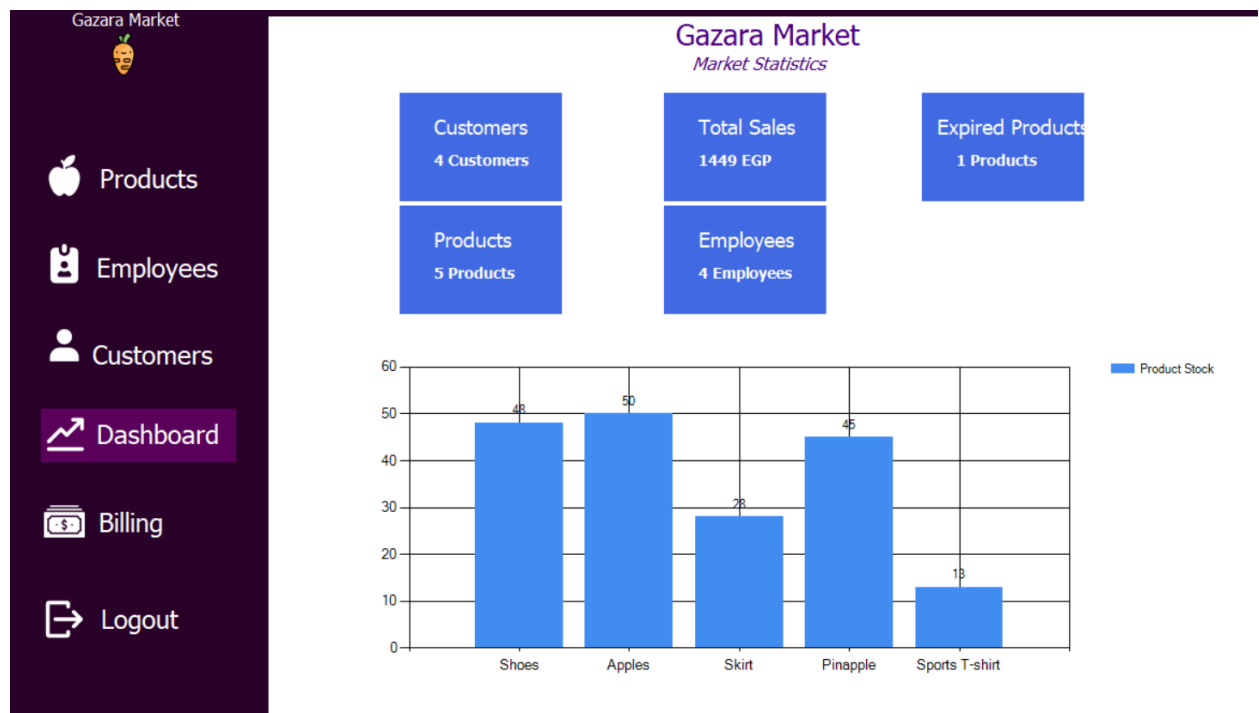
Edit
Add
Delete

#### Customers List

Id	Name	Phone	Sales
500	Ahmed Mohamed	0102894529	957
502	Ali Hassan	0121865551	790
503	Yousef Khaled	0102859456	0
504	Ahmed Ali	0101565859	0

-It views the data of customer at the store.

## -Store Dashboard form:



-It shows the summary of store's data: products, customers, and employees.

Gazara Market

Products

Employees

Customers

Dashboard

Billing

Logout

Customer

500

Employee

1000

Size

Quantity (Kg or No Clothes)

Product Name

Refresh

Add To Bill

Client Bill

ID	Product	Quantity	Price	Total

Total

Products List

Id	Name	Price	Quantity	Textile	ExpDt	Category
5	Shoes	100	48	polyester	0	
6	Apples	10	50		09-Jan-...	1
9	Skirt	100	28	Cotton	0	
11	Pinapple	30	45		19-Jan-...	1
12	Sports ...	70	13	Cotton	0	

Billing List

SId	SCustomer	SAmount	SDate
1	500	115	17-Jan-22
2	502	90	17-Jan-22
3	500	50	17-Jan-22
4	502	75	17-Jan-22
5	500	75	17-Jan-22
6	500	43	17-Jan-22
7	500	222	17-Jan-22
8	502	405	17-Jan-22
9	502	220	17-Jan-22
10	500	154	17-Jan-22

Save

- It views the billing section of the system in addition to the invoice details.