Software Requirements Specification

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e-commerce system

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<<Any comments inside double brackets such as these are *not* part of this SRS but are comments upon this SRS example to help the reader understand the point being made.>>

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# Introduction

## Purpose

The purpose of this document is to present a detailed description of the e-commerce system. It will explain the purpose and features of the system, the interfaces of the system, what the system will do, the constraints under which it must operate and how the system will react to external stimuli. This document is intended for both the stakeholders and the developers of the system.

## Scope of project

this software will be an e-commerce system for Syrian people.

the system will allow the users to buy, sale and show their products for future sale and improve their ability to sell more products by making their stores and product online so the other customers can see, rate, order product from home.

more specifically the system will allow the users to upload products to their personal virtual store on our system, set up a price and image for the products they offer and even add sale-off like offers for specific products. the system uses regular Syrian pound (S.P) as its core currency for payment. limitation of the system it will NOT act as a product transport service that is mean the store needs to send their ordered products using third-party services like "al-kadmous" for shipping the ordered products to the customer.

## Glossary

|  |  |
| --- | --- |
| **Term** | **Definition** |
| Guest | Any one access the system without an account. |
| User | Any person/customer who has store registered in the system. |
| Customer | Any person who has an account in our system, and can bay product from stores in the system. |
| Store | The virtual store for the user on the system. |
| Database | Collection of all the information monitored by this system. |
| Currency | The representation of the money in the system which is Syrian pound (S.P) |
| Frozen assets | the amount of currency the user can’t use, but it’s in his account. |
| Assets | The amount of currency the user/customer has in his account. |
| Software requirements  specifications | A document that completely describes all of the functions of a proposed system and the constraints under which it must operate. For example, this document. |
| Stakeholder | Any person with an interest in the project who is not a developer. |
| System | The website on the internet or the application on smartphone |
| Person | Any one open the system user, guest, customer and employee. |

## References

* *IEEE Std 830-1998 (Revision of IEEE Std 830-1993) IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements Specifications IEEE Computer Society*

## Overview of Document

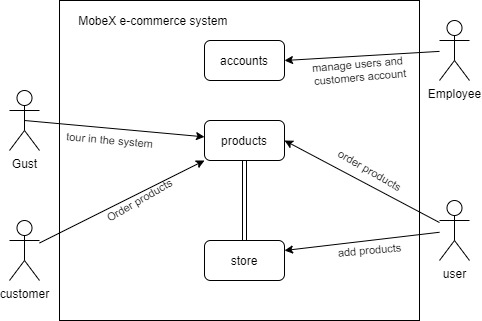
The next chapter, the Overall Description section, of this document gives an overview of the functionality of the product. It describes the informal requirements and is used to establish a context for the technical requirements specification in the next chapter.

The third chapter, Requirements Specification section, of this document is written primarily for the developers and describes in technical terms the details of the functionality of the product.

Both sections of the document describe the same software product in its entirety, but are intended for different audiences and thus use different language.

# 2.0. Overall description

## 2.1. Product perspective



**Figure 1 – High level overview**

The e-commence system has four active actors and one operation system. The gust can access the system and see the stores and product offed by them, the user and customer can see, bay and order a product form the stores, on the other hand the user can do the same thing as customer but he has the ability to add products to his store that he owns on the system. The employee manages the accounts in the system create, delete, edit, suspend and deposit money in account. The actors can’t communicate with each other directly from the system.

## 2.2. Product functions

This section outlines the use cases for each of the active actors.

### 2.2.1. Guest use cases

#### 2.2.1.1 Use case**: Guest search product by title**

**Diagram:**

guest

search product

by title

**Brief Description**

the guest inters the system and search for a product by its title and add it to his shop cart.

**Initial Step-By-Step Description**

Before this use case can be initiated, the guest has already accessed the system.

1. The guest chooses to search products by title.
2. The system displays the products that match his search.
3. The guest clicks on the product he needs.
4. The system shows the guest screen with detailed information about the product.
5. The guest adds the product to his shop cart.

**Xref**: 3.2.1. Guest search product by title

#### 2.2.1.2 Use case**: Guest** **Search store by name**

**Diagram:**

guest

search store

by name

**Brief Description**

the guest inters the system and search for a store by its name and access it to see what the store have offers and products.

**Initial Step-By-Step Description**

Before this use case can be initiated, the guest has already accessed the system.

1. The guest chooses to search store by its name.
2. The system displays the stores that match his search.
3. The guest clicks on a store to see what the store has products and offers.
4. The system shows the guest screen with detailed information about the store.

**Xref**: section 3.xx.xx , Guest search store by name.

#### 2.2.1.2 Use case**:** **Guest show products categories**

**Diagram:**

guest

Show products categories

**Brief Description**

the guest inters the system and sees the products categories listed and he can click one of them to see more products fall in this category.

**Initial Step-By-Step Description**

Before this use case can be initiated, the guest has already accessed the system.

1. The system displays a list of available categories with some product associated with the same category.
2. The guest clicks on one of the categories to see more products fall in the category.

**Xref**: section 3.xx.xx , Show products categories.

#### 2.2.1.3 Use case**:** **Show high rated products**

**Diagram:**

guest

Show high rated products

**Brief Description**

The guest inters the system and sees the high rated products, the guest can click one of the products to see more details.

**Initial Step-By-Step Description**

Before this use case can be initiated, the guest has already accessed the system.

1. The system displays a list of high rated products with their rate for the guest.
2. The guest clicks on one of the products to see more details about it.

**Xref**: section 3.xx.xx , Show high rated products

#### 2.2.1.4 Use case**:** **Guest show product**

**Diagram:**

guest

Show product

**Brief Description**

The guest opens a product to see more details about it.

**Initial Step-By-Step Description**

Before this use case can be initiated, the gust clicks on a product.

1. The system displays a detailed information about the product, it shows product name, product owner (store name), product image, product price, product offer (if there is), product rate, product description.

**Xref**: section 3.xx.xx , GuestShow high rated products

### 2.2.2. Customer use cases

#### 2.2.2.1 Use case**:** **Login**

**Diagram:**

Customer

Login

**Brief Description**

The customer login to the system.

**Initial Step-By-Step Description**

Before this use case can be initiated, the customer has to have an account in the system database.

1. The customer opens the system application/website.
2. Attempt to login using his username and password.
3. The system checks the customer credentials.
4. The system login the customer to his associated account.

**Xref**: section 3.2.2, login

### 2.2.3. User use cases

#### 2.2.3.1 Use case**:** **Add product**

**Diagram:**

User

Add product

**Brief Description**

The User add new product to his store.

**Initial Step-By-Step Description**

Before this use case can be initiated, the User has to have a store associated with his account.

1. The User opens the system application/website.
2. The user navigates to his store in the system and add new product.
3. The user provides the required information about the new product (name, price, image, description).
4. The system adds the product to database.

**Xref**: section 3.2.3, Add product

### 2.2.4. Employees use cases

#### 2.2.4.1 Use case: **D****eposit money**

**Diagram:**

Employee

Deposit money

**Brief Description**

The employee deposit money in a user/customer account.

**Initial Step-By-Step Description**

Before this use case can be initiated, the employee has to login using his login credentials.

1. The user/customer comes to one of the company branches.
2. The user/customer confirmed his identity using his ID card.
3. The user/customer deposit the amount of money he needs.
4. The employee adds the deposit to user/customer account

**Xref**: section 3.2.4, Deposit money

## 2.3. User Characteristics

The user and the customer are expected to be Internet literate and be able to use a search engine. The user and the customer are expected to have Syrian ID. The user and the customer are expected to have a basic knowledge about how to use a smart phone application and basic knowledge about the internet and how to open a website and navigate in it. The user is expected to be familiar with sending products using one of the third-party shipping services, and the customer expected to be familiar with receiving products using one of the third-party shipping services.

## 2.4. Apportioning of requirements

## 2.5. Non-Functional Requirements

The Online system will be on a server with high-speed Internet capability. The software developer her assumed to use web tools to build the system and the database and application development tools to build the smartphone application. The employee should have PC with internet connection to operate with the system. The user and customer should have smartphone or PC with internet connection to use the system.

# 3.0. Specific requirements

## 3.1. External interfaces

The system does not have any external interfaces, it’s self-contented.

## 3.2. Functional requirements

### 3.2.1. Guest search product by title

|  |  |
| --- | --- |
| **Use case ID** | GS1 |
| **Use case name** | Guest search product by title. |
| **Actors** | Guest |
| **XRef** | section 2.2.1.1 Use case: Guest search product by title |
| **Trigger** | The guest opens the system and click on search button. |
| **Precondition** | The system opened search screen and product search is selected. |
| **Basic path** | 1. the guest opens the application or the website and click on search button. 2. If the search with out price range the system displays a list of products that matches the search terms the guest entered form the database. 3. The guest selects one of the products and open to see more about it. 4. The system displays new screen with all product details. 5. The guest adds the product to his cart. 6. If the guest wants to rate the product the system open login screen telling the guest that he needs to **Login** to rate a product. 7. The guest returns to search screen. |
| **Alternative Paths** | In step 2 if the search with price range the system displays a list of products that matches the search terms and price entered by the guest. |
| **Postcondition** | The system adds the product to guest cart if the guest added the product to his cart. |
| **Exception Paths** | The guest may abandon the search at any time. |
| **other** | The product price is determined by the user that owns the product. |

### 3.2.2. login

|  |  |
| --- | --- |
| **Use case ID** | CL1 |
| **Use case name** | Login |
| **XRef** | section 2.2.2.1 Use case**:** Login |
| **Actors** | * Guest * Customer * User |
| **Trigger** | The gest wants to:   * rate a product. * checkout. * Click on login button.   The customer/user login to his account. |
| **Precondition** | The person has to have an account in the system database created by one of the company employees at any branch. |
| **Basic path** | 1. The system open login screen. 2. The person enters his username and password. 3. The system run a validation on these credentials. 4. If the validation passed the person login to his account on the system. |
| **Alternative Paths** | In step 4 if the validation did not pass the system shall promote the person who tries to login that there is an error in his credentials and should try again or create an account in the system.  In Alternative Paths step 4 if the person clicks on it to create a new account, the system opens a webpage contenting step-by-step instructions the user should take to create an account in the system. |
| **Postcondition** | The person on the home page of the system. |
| **other** | The system should remember the person who just logs in, so the authentic- cated person does not need to login every time he opens the system. |

### 3.2.3 Add product

|  |  |
| --- | --- |
| **Use case ID** | UA1 |
| **Use case name** | Add product. |
| **XRef** | Section 2.2.3.1 Use case**:** Add product |
| **Actors** | User. |
| **Trigger** | The user wants to add new product to his store. |
| **Precondition** | The user account not suspended. The user should have store attached to his username in the database. |
| **Basic path** | 1. The user opens the app or the website then navigates to its store. 2. The user clicks on a button to add a new product to its store. 3. The system opens a new screen to the user to enter product information. 4. The system validates the information entered by the user if the information is complete and nothing is missing (all required field is not blank), then the system tries to upload the product to the user’s store. 5. If the product is uploaded successfully, the system shows a message indicating that the product was uploaded to the user store. |
| **Alternative Paths** | In step 4 if any one of the requested information is missing (blank fields)   1. The system shall show a message to the user pointing to the missing information about the product and the user should enter some values to upload the product. 2. The system revalidates the entered information if every requested information for the product is entered, then the system tries to upload the product to the user store.   In step 5 if the system has trouble while uploading the product   1. The system shall show a message to the user indication that there is an error while uploading the product and the user should try again latter. |
| **Postcondition** | The product is uploaded to user store, and added to store database. |
| **Exception Paths** | The user may abandon the adding process at any time. |
| **other** | The product required information is Product name, Product price, Product image, Product name, product description. |

### 3.2.4 Deposit money

|  |  |
| --- | --- |
| **Use case ID** | ED1 |
| **Use case name** | Deposit money. |
| **XRef** | Section 2.2.4.1 Use case: Deposit money |
| **Actors** | Employee. |
| **Trigger** | The user or the customer wants to deposit money in their accounts through an employee in one of company branches. |
| **Precondition** | The user or the customer should have an account in the system database. |
| **Basic path** | 1. The user or the customer come to one of the company branches. 2. The user or the customer identify himself using his ID. 3. The employee confirms that there is an account associated with this ID, by searching the accounts in the database that matches the ID, using the employee control panel that show all the information about the user or the customer. 4. If the account is not suspended, the user or customer can make a Deposit using as much as he need in his account. 5. The employee using his control panel adds the money to the user or the customer account. |
| **Alternative Paths** | In step 4 if the account is suspended   1. The employee should inform the user or the customer that his account is suspended and he needs to resolve the suspension. 2. The employee resolves the suspension if possible, right away if not the user or customer should follow the company rules and Provisions about that suspension to resolve it. |
| **Postcondition** | The user or customer deposit the amount of money he needs in his account. |
| **Exception Paths** | The user or customer may cancel the process if the deposit not finished yet and the transaction not completed yet. |
| **other** | The rules and provisions are set up by the QA team and determined later. |

## 3.2. Detailed Non-Functional Requirements

### 3.2.1 Conceptual schema for the database

The conceptual structure of the data to be stored in the database.

product\_No

user

username

full name

first name

last name

father name

mother name

location

city

address

phone

card ID

sex

ID image

date of birth

account creation date

Account status

profile image

balance

token

ISA

employee

customer

store

Owns

store No

store Bio

frozen assets

available assets

Store name

Over all profit

product

orders

Have

product name

product description

offer

product price

product image

product category

Product rate

rate

Customer orders

order date

order items

contains

Order\_No

Contained product

quantity

price

item transaction

transaction

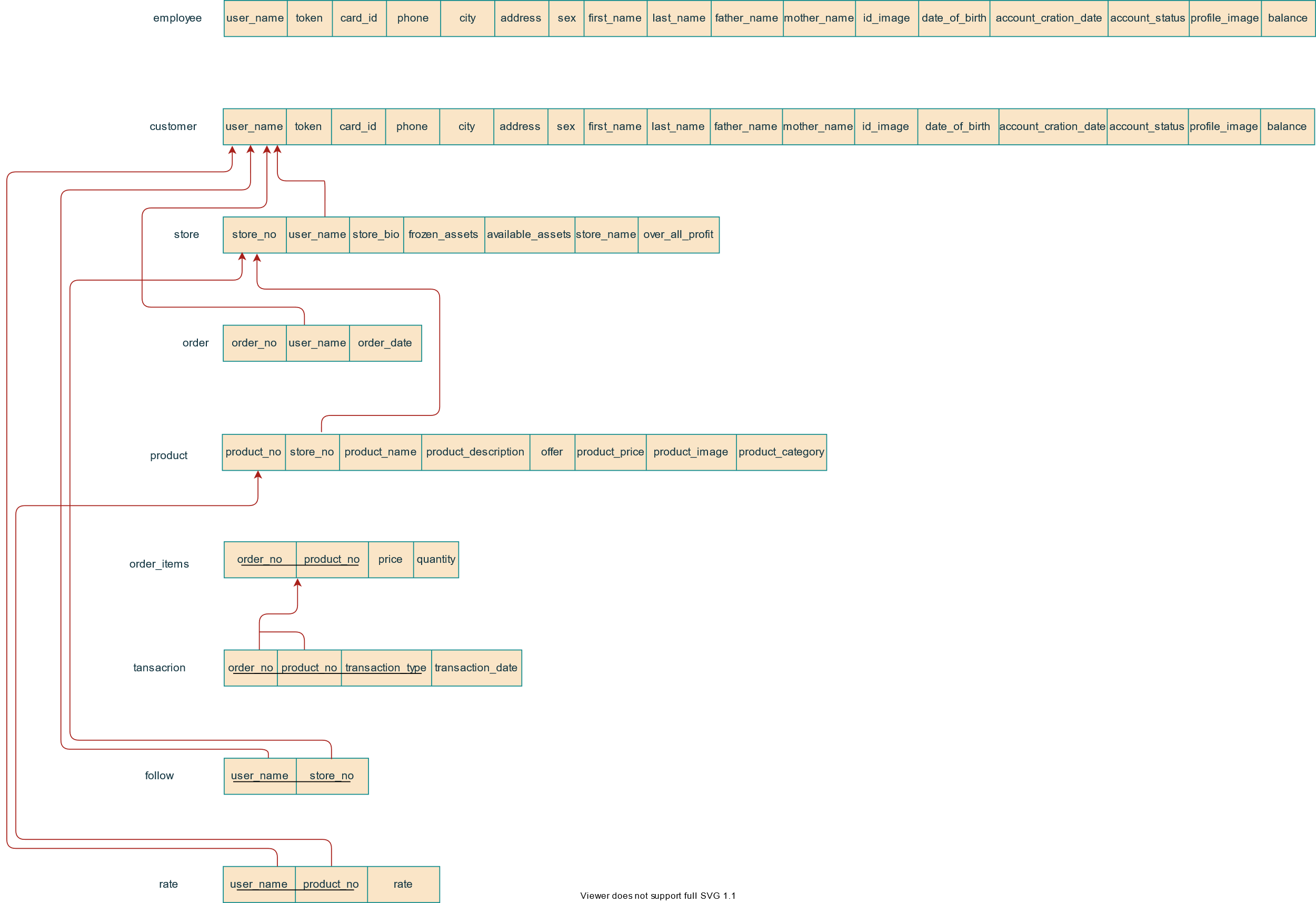
Transaction type

transaction date

follow

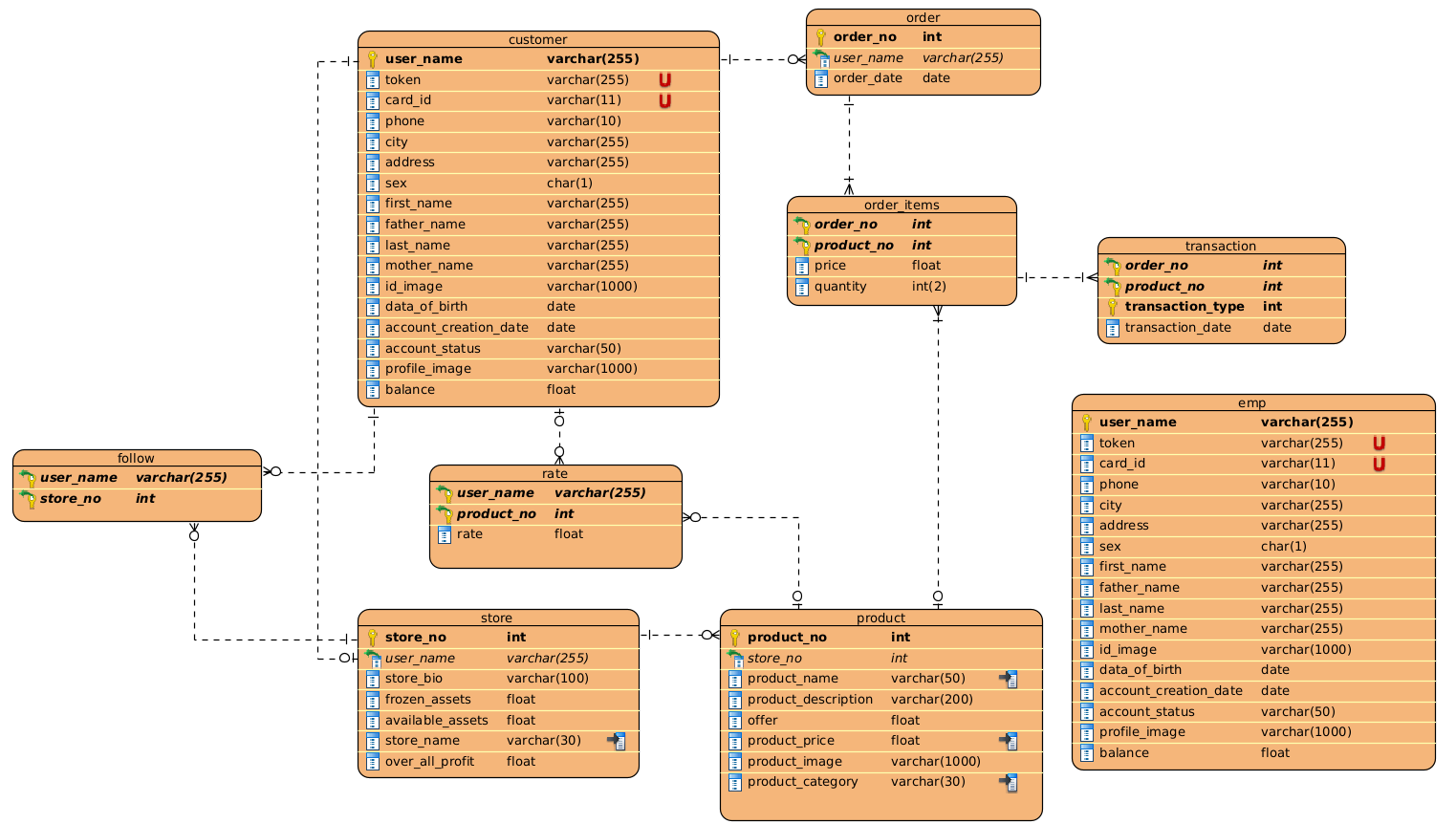
**Figure 2 - Conceptual schema for the database**

### 3.2.2 Relational‬‬



**Figure 3 - Relational‬‬**

### 3.2.3 Physical model database



**Figure 4 - Physical model database**