

1. INTRODUCTION

PURPOSE

The purpose of this document is to build and 24/7 e-commerce web application to help customers show the products of the physical store and also help them place orders

INTENDED AUDIENCE AND READING SUGGESTIONS

This web application will be fully functional to all customers who signed in to the application. Otherwise, the application will deal with the customer as a guest.

PROJECT SCOPE

The purpose of this application is to ease the customers' purchases through a well-designed interface and thin the number of customers in the physical store, especially under the conditions of the spreading covid-19 so the application will be based on a relational database that will store information about the store products and about the customers' accounts and their purchases. Every signed-in customer will have his/her items bag related to his account information on the database which can be accessed from the interface.

2. OVERALL DESCRIPTION

PRODUCT PERSPECTIVE

- **Product information:**
Will include some images of the product, product SKU, model, name, type, price, and available colors if there is.
- **Customer information:**
When a customer visits the website for the first time it will ask him to sign in or sign up. Then his/her data will be saved in databases. After the database will start to record all his/her purchases and his/her item bag along with his account information to be able to access it again when sign in.

USER CLASS and CHARACTERISTICS

- **Customer:**

Users of the system are divided into classes. Users who didn't sign in or sign up will be treated as guests which means they will be just able to browse the website and see the products but they won't be able to place an order or have an items bag interface. For users who already have an account signed in or signed up, the website will be fully functional for them:-

- Browse the website products
- Have an items bag interface that shows their current selected products
- Checkout Page shows the total and all selected items amount and price
- Availability to place an order and choose a method to pay
- Cancel order Before it is Processed

- **Customer Support:**

Customer support employees are always available to talk to customers answer inquiries throw a chat panel on the bottom-right corner of the screen.

- **Admin:**

Admins have control over a page list of all products and a page to add a product. Admin can do:-

- Add Product
- Update existing Product
- Delete Product

OPERATING ENVIRONMENT

- distributed database
- client/server system
- Operating system: Windows.
- database: MYSQL
- platform: NodeJS/ExpressJs

ASSUMPTIONS AND DEPENDENCIES

- Customer
We have assumed this assumed that this system can run from any customer's computer and from these browsers (Chrome, Firefox, Microsoft edge)
- Provider
We have assumed that the system server should be available 24/7 and work properly to handle customers' requests

Assumptions::

- Customers and Admin passwords will be hashed because the system will handle payments
- Users can update their data
- Admin can add another admin
- Admin can delete customer account but can't delete another admin

SAFETY REQUIREMENTS

If the database suffered from extensive damage affected a large number of rows, the recovery method restores a past copy of the database that was backed up to archival storage (typically tape) and reconstructs a more current state by reapplying or redoing the operations of committed transactions from the backed-up log, up to the time of failure

SECURITY REQUIREMENTS

This system should have high security because it will handle payments and will store information about customer credit cards so, passwords have to be hashed and the vendor should choose the database partner carefully

SOFTWARE QUALITY ATTRIBUTES

- **AVAILABILITY:** The system should be always available and run properly no matter the number of users

- **CORRECTNESS:** The data shown throw the client app should be corresponding to the real products on the physical store example (if the client app show that a product is available then it should be available in the physical store storage)
- **USABILITY:-**
 - The system should have an easy and friendly interface for all customers
 - The system shall provide a uniform look between all the web pages.
 - The system shall provide a digital image for each product in the product catalog.
 - The system shall provide the use of icons and toolbars.

Provide search facility

- The system shall enable the user to enter the search text on the screen.
- The system shall enable the user to select multiple options on the screen to search.
- The system shall display all the matching products based on the search.
- The system shall display only 10 matching results on the current screen.
- The system shall enable users to navigate between the search results.
- The system shall notify the user when no matching product is found on the search.

Accessibility

- The system shall provide handicap access.
- The system shall provide multi-language support.

Provide online Tax Calculations

- The system shall calculate tax for the order.
- The system shall display tax information for the order.

GRAPHICAL USER INTERFACE

THE SYSTEM SHOULD HAVE A GRAPHICAL USER INTERFACE CONSISTING OF:

- **Main page:**
 - Header consist of (navbar, search with filters, logo, website image)
 - Body consist of (Most popular, categories, items in cards, about us)
 - Footer consist of (contact us: email, hotline, copyrights)
- **Chosen item page:**
 - Have an Image for the item
 - Some info about it
 - Colors
 - Price
 - Evaluation
- **Purchase page**
 - Pop up page shown when the user clicks the purchase button

- Having fields should be filled by him like credit card number and the address if he wants it to be shipped