## Online Drinking Store

# Under supervision of:

# dR.RADWA TAWFIK

# MADE BY:

* Mohammed Mahmood Hamed (ID: 221001026)
* Mohamed Mahmoud Ahmed (ID: 221001856)
* Menna Ahmed Reda (ID: 221001720)
* Mostafa Mohamed (ID: 221001602)
* Aliaa Nagdy (ID: 222000114)

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# 1. Document Information

# 1.1. Purpose of the Document

The document presents system objectives followed by technological specifications and system boundaries combined with end-user identification in addition to displaying the operational summary of the online drinking store.

# 1.2. Scope of the Project

The system development builds a user-friendly interface which allows customers to perform secure online beverage purchases through easy shopping procedures. The shopping platform offers safe financial operations and user-friendly maintenance capabilities which enable seamless user interfaces for all users.

**1.3. Technologies Used**

# These following technological elements must be implemented in order to deploy the designed system:

• Frontend: React.js

• Backend: Node.js with Express

• Database: MySQL

• Hosting: AWS or Heroku

• Payment Integration: Stripe API

# 1.4. Intended Audience

The proposed platform is designed to serve a diverse range of users who prioritize convenience, variety, and well-being in their beverage shopping experience. This includes:

* **Everyday Consumers** seeking quick and seamless access to a wide selection of beverages, both alcoholic and non-alcoholic, through an intuitive and user-friendly online interface.
* **Health-Conscious Shoppers** interested in nutritional transparency, low-calorie or organic options, and detailed ingredient information to support informed and responsible consumption.
* **Exploratory Buyers and Enthusiasts** who are drawn to discovering unique, premium, or regionally exclusive beverage offerings not easily found in traditional retail outlets.
* **Security-Conscious Users** who value safe and secure payment processing, data privacy, and responsible age verification during online transactions.

The platform is tailored to meet the expectations of modern consumers who demand not only product variety but also a trustworthy, efficient, and enjoyable shopping experience.

# 1.5. Overview of the Document

This documentation outlines the complete development framework and implementation strategy for the **Online Drinking Store** platform. It is structured to guide stakeholders, developers, and reviewers through every essential phase of the system's lifecycle — from conceptualization to technical execution.

The document begins with an **Introduction**, providing a clear purpose statement, project scope, a summary of the technologies used, and a definition of the target audience. It establishes the foundational vision and goals that drive the system design and development.

Following the introduction, the **Overall Description** delves into the platform's user-centric approach, highlighting how the system addresses gaps in traditional beverage retail and enhances the customer journey with personalized recommendations and a broad product range.

The core of the documentation lies in the **Functional and Non-Functional Requirements** section. This chapter defines the system’s primary capabilities, including user account management, product browsing, secure checkout, order tracking, and administrative controls. It also sets forth quality benchmarks for performance, scalability, security, usability, and accessibility to ensure robust and sustainable operation.

The documentation concludes with a **project summary** emphasizing the innovation, security, and service reliability embedded into the platform. The approach taken throughout the document ensures all stakeholders have a clear understanding of the platform’s objectives, functionality, and compliance measures necessary for successful deployment.

# 2.1. Overall Description

he *Online Drinking Store* is designed to deliver a seamless and modern e-commerce experience tailored to the beverage industry. This platform addresses the common limitations of traditional beverage retail by introducing a streamlined digital solution that emphasizes convenience, product diversity, and customer personalization.

Users can effortlessly browse, filter, and purchase a wide range of beverages through an intuitive and responsive interface that accommodates both desktop and mobile environments. The system caters to a diverse user base, from casual shoppers and beverage enthusiasts to health-conscious consumers, by offering personalized recommendations and secure, efficient purchasing processes.

Key features include comprehensive product catalogs, real-time inventory updates, secure user authentication, and robust order management tools. For administrators, the platform includes a powerful backend dashboard that supports inventory control, customer analytics, and real-time order tracking.

By integrating advanced technologies and adhering to high performance, accessibility, and security standards, the Online Drinking Store delivers a scalable, reliable, and user-centric solution to meet the evolving demands of the digital beverage market.

# 2.2. Functional Requirements

The Online Drinking Store provides a comprehensive set of features designed to deliver a smooth and secure user experience from product discovery to order completion. The following core functionalities are included:

1. **User Account Management**  
   The system allows users to register, log in securely, and manage their personal profiles. This includes updating account details, viewing order history, and managing saved preferences.
2. **Product Browsing and Filtering**  
   Customers can explore a wide range of beverages using advanced filtering options (e.g., by category, brand, or price). Each product includes detailed information such as ingredients, nutritional value, and user ratings.
3. **Shopping Cart and Checkout**  
   Users can add items to their shopping cart, modify quantities, or remove products. The checkout process supports secure payment via Stripe, offering a streamlined and safe transaction experience.
4. **Order Management**  
   The platform provides real-time order tracking, allowing customers to monitor the status of their purchases. All past orders are stored in the user profile for easy access and reference.
5. **Admin Dashboard**  
   Administrators have access to a dedicated panel for:
   1. **Inventory Management**: Add, edit, or remove product listings and manage stock levels.
   2. **Order Tracking**: Monitor order statuses, shipping progress, and fulfillment.
   3. **Analytics Dashboard**: Review performance metrics, customer behavior insights, and sales trends to support decision-making.

## 2.3.Non-Functional Requirements

Beyond core functionalities, the Online Drinking Store ensures high standards of performance, security, accessibility, and user satisfaction through the following non-functional requirements:

1. **Performance and Scalability**  
   The platform is built to handle up to 500 active users simultaneously without degradation in service quality. It must deliver each webpage within 2 seconds and complete payment transactions within 3 seconds.
2. **Security Standards**  
   All user and transaction data is protected using TLS 1.3 encryption. The platform complies with industry-standard security protocols and undergoes biannual security audits to maintain data integrity and privacy.
3. **Usability**  
   The system offers a clean, intuitive, and responsive user interface that supports both desktop and mobile devices. The user experience is designed to minimize friction and guide customers smoothly through their journey.
4. **Reliability and Availability**  
   The platform ensures 99.9% uptime annually, supported by daily automated backups and a robust disaster recovery strategy to prevent data loss and service interruptions.
5. **Accessibility**  
   The website adheres to the WCAG 2.1 AA accessibility guidelines, ensuring inclusive access for users with disabilities. This includes keyboard navigation, screen reader compatibility, and proper color contrast.

**3. Interface**

**3.1 System Interface**

**3.3 Hardware Interface**

# 4.1 Use Case Diagram

# A black and white image of a bird AI-generated content may be incorrect.

# 4.2.Sequence diagram-Place order( Nile&BeAn)

A diagram of a product

AI-generated content may be incorrect.

# 4.3.Sequence diagram-pay online( Nile&Bean )

A diagram of a payment process

AI-generated content may be incorrect.

# 4.4.Sequence diagram for the whole project system

A screenshot of a computer

AI-generated content may be incorrect.

Conclusion:

The *Online Drinking Store* project presents a modern, secure, and efficient solution for purchasing beverages online, addressing the growing demand for convenience, variety, and reliability in the digital retail space. Through the thoughtful integration of advanced web technologies such as React.js for the frontend, Node.js and Express for the backend, and MySQL for structured data management, the platform delivers a smooth and user-friendly shopping experience.

This system is not only designed to meet functional expectations—such as product browsing, secure transactions, and order management—but also adheres to high standards in performance, security, accessibility, and usability. With built-in scalability, comprehensive admin control, and adherence to WCAG 2.1 AA accessibility guidelines, the platform is well-equipped to serve a diverse customer base and adapt to future growth.

Overall, this project demonstrates a balanced approach to software engineering by aligning technical development with

# gethub link: https://github.com/Mohammed-004del/Sw\_project\_Deliverable-\_2

user needs and business goals. The result is a dependable e-commerce solution that enhances the beverage retail experience while setting a strong foundation for continued innovation and expansion.