

Software Requirements Specification

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Kontra Covid Essentials

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1. Introduction

1.1 Purpose

The purpose of this document is to build an online website named Kontra Covid Essentials (KCE) which showcases various products that can limit the spread of the Coronavirus disease (COVID); from its name, "Kontra Covid" Essentials, which sells essentials/necessities to fight/combat COVID, answer the queries of the customers, read the feedback of other customers, as well as know more about the store and the owner. It would be easier for the customer to browse through this website first before going to the physical store.

1.2 – 1.3 Intended Audience and Intended Use

The software developers, testers, project managers, and the rest of the project team are the ones who have access to the SRS. The SRS serves as the basis of the entire project; it provides the framework that everyone involved in the development, quality assurance, operations, and maintenance must follow.

1.4 Scope

The benefits we intend to have for this product are: (1) it will become an information resource, (2) it will reach new customers, (3) it will improve your brand identity, and (4) it is very accessible to product information and customer service. The objectives or goals we intend to have for this product are: (1) increase overall brand awareness, (2) strengthen customer service, and (3) maintain or increase profits.

1.5 Definition and Acronyms

The possible risks in the project are: (1) the customers will not know the entire details of the product (for example: the thickness of the mask, the ingredients of the disinfectant, etc.), (2) competitors will be able to see your products and will be able to know the prices and any information regarding the products if they ask through the Queries Section, and (3) some might provide feedback with false information. For (1), add complete details regarding the products and don't only show the picture and the name of the product. For (2) and (3), there are no solutions to these since we cannot stop the competitors from going to our website and we cannot control the customers whether they will give out true or false information. The one who is in charge of these risk items is the encoder.

2. Overall Description

2.1 User Needs

Anyone who is interested in buying essentials that are “kontra-COVID” will use the product. They are considered as primary users since the customers are the ones who are interacting with the system. Yes, the end user should be known since you cannot enter the site without an account.

2.2 Assumptions and Dependencies

For the frontend, Hypertext Markup Language (HTML), Cascading Style Sheets (CSS), and JavaScript (JS) are utilized. As for the backend, PHP and MySQL (an open-source relational database management system) are used. This project is dependent on our previous project in CMSC 126 wherein in this project, a login page, a registration page, a logout page, and session handling are incorporated or added.

3. System Features and Requirements

3.1 Functional Requirements

- User Story 1: As a customer, I must be able to register and enter the website.

Functional Requirements:

1. Registration and Login Page
 2. Signup feature must check whether or not the username they're trying to register already exists
 3. Signup feature must check that the password consists of at least 8 characters, containing at least 1 capital letter, 1 number, and 1 symbol
 4. Password field must have the feature which toggles password visibility
 5. Clicking the Login button shall proceed to the homepage if the correct username and password are provided, otherwise, inform the user that it is invalid
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- User Story 2: As a customer, I must be able to view the products (PPEs, disinfectants, and accessories) in the Products Section.
 1. In the Products Section, there are three categories: PPEs Section, Disinfectants Section, and Accessories Section.
 2. In each section, it contains the pictures of the products with labels.
 - User Story 3: As a customer, I can give feedback regarding the products.
 1. In the Reviews Section, I can share my thoughts regarding the products that I bought (for example: Everything that they sell are very affordable and are of good quality).

2. I can see the feedback of other customers as well.

- User Story 4: As a customer, I can ask questions through the Queries Section.

1. Input name, phone number, email, and inquiry
2. Your question will be answered through text

- User Story 5: As a customer, I can log out voluntarily.

1. There is a logout button at every page.
2. Clicking the logout button will proceed you to the logout page

3.2 External Interface Requirements

The only link to an external system is the link to the MySQL database to store the registration and queries details of the user. The database, login_database, has two tables named register and queries. For the register table, the fields of interest are username, email, and password. For the queries table, the fields of interest are name, email, phone, and inquiry. These are all required fields.

3.3 System Features

- Description and Priority

This is the online website of Kontra Covid Essentials (KCE) which showcases the products, contains information regarding the store and the owner, avenue for inquiries regarding the store, and where the feedback board can be seen. This project is not much of a high priority but it can be considered a really useful site since the number of COVID cases is rising thus more people should be aware of Kontra Covid Essentials as it sells almost all the necessities needed to protect one from getting the Coronavirus disease; the products are very essential currently.

- Stimulus/Response Sequences

Stimulus: User requests to write his/her own review.

Response: System provides a virtual post-it note for the user to input his/her review.

Stimulus: User requests to delete his/her review.

Response: The review is removed from the display.

Stimulus: User requests to ask a query.

Response: System provides a form for the user to enter his/her name, email, phone, and inquiry.

- Functional Requirements

Other system features include:

Relational Database:

In a relational database, relation exists between the data tables. MySQL is an open-source relational database management system.

Client/Server System

MySQL falls under the client/server DBMS category.

A client/server DBMS is divided into two components:

- The server component, together with the database files, occupies the same computer and is the one in charge for all the interactions in the database
- The second component is the client

3.4 Nonfunctional Requirements

Performance Requirements

The step involved to perform the implementation of the login_database is listed below.

A. Normalization

Normalization is a database design technique that reduces data redundancy which means that information is stored only once. Storing information more than once wastes storage space and increases the size of the data stored.

If the database objects are not structured in a normalized manner, Insertion, Updation, and Deletion anomalies may arise. The database system will be inefficient and inaccurate. Database Normalization is the solution to these.

Normalization is the process of breaking down a table into several smaller tables so that it is more organized because each table deals with a single theme. As much as possible, do not violate the three rules of normalization.

Safety Requirements

If the SQL database will fail, these are the following steps to recover it:

- Close existing connections to destination database
- Switch SQL Server to single user mode
- Restore SQL Server database with recovery
- Change the default database back to master
- Restart the SQL Server service thoroughly
- Alternative to SQL database without error

Security Requirements

Security systems require database storage. The special requirements of the security market is that the vendors must choose their database partners properly.

Software Quality Attributes

- **Functionality:** The website should be easy to navigate, easily find the information that they are seeking, and customers will be able to purchase the product that they want. The web design must be easy to understand and the user experience (UI) is clean.
- **Reliability:** The website, Kontra Covid Essentials, must be positioned as a resource and not just a sales pitch. It should be a place consumers can turn for information.
- **Portability:** Kontra Covid Essentials should be both web-friendly and mobile-friendly.
- **Maintainability:** The information found on the site should be maintained once in a while and should be timely.
- **Availability:** The products shown on the site that Kontra Covid Essentials is selling must be available on the store.