Software Requirements Specification

Search Engine for product Items.

Document Attributes

Prepared By	Magnet Consulting Associates
Division	Software Development
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Project Name	Search Engine for Product Items
References	None.

1. Introduction

1.1 Purpose

The purpose of this document is to give a detailed description of the requirements for the "Search Engine for Products". It will illustrate the purpose and features of the system. It will also explain system constraints, what the system will do, interface and interactions with other external applications. This document is primarily intended to be proposed to a customer for its approval and a reference for developing the first version of the system.

1.2 Scope

To Design and develop a system, which will provide a search engine for users/searchers to look for products around their locality, show their respective locations, Google map location redirection as well as their proximity to searchers' current location. The search results will only get provide the list of SMARTSHOP stores that are subscribed to this platform. Apart from this, the portal will use Google APIs to get directions, exact locations and proximity for users' consumption.

1.3 Assumptions

The system will be a dynamic website with the ability of rendering search friendly environment to visitor of the site

The recommended technology for the website will be Vue.Js (Frontend Javascript framework/technology) C-Sharp - c# for creating APIs (Backend), and SQL for Databases. The Web App however, will be launched as a PWA (Progressive Web App) for quick Mobile Device Accessibility.

PWAs combine the best of the website with the best of what native apps have to offer, creating a phenomenal mobile user experience. They are special web applications that are accessed like normal websites but offer benefits like offline usability, push notifications, and access to device hardware – things that were previously only available to native apps.

1   Content for the site should be provided.
2   User interface design needs to be finalized, before integration and coding.

1.4 Constraints

- No practical implementation of the project will begin till the SRS document is checked and approved.

1.5 Glossary

Term	Definition
Users/ Searchers	Any user who visits the site to search for available products
Admin/Administrator	System administrator who is given specific permission for managing and controlling the system.
Visitor	Someone who navigate the website.
Database	Collection of all the information monitored by this system.
Web-Pages	A web application which present special facilities for users and admin
Field	A cell within a form.
Software Requirements Specification	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.

2. Overall Description

2.1 Product perspective & functions

The search engine will be responsible for providing users/visitors with addresses and Google map location.
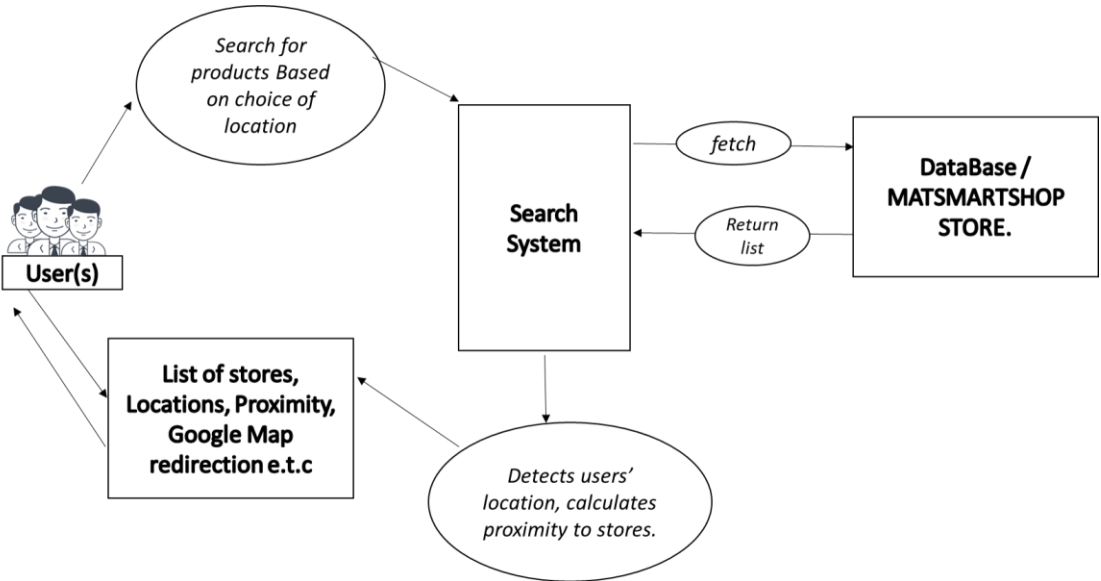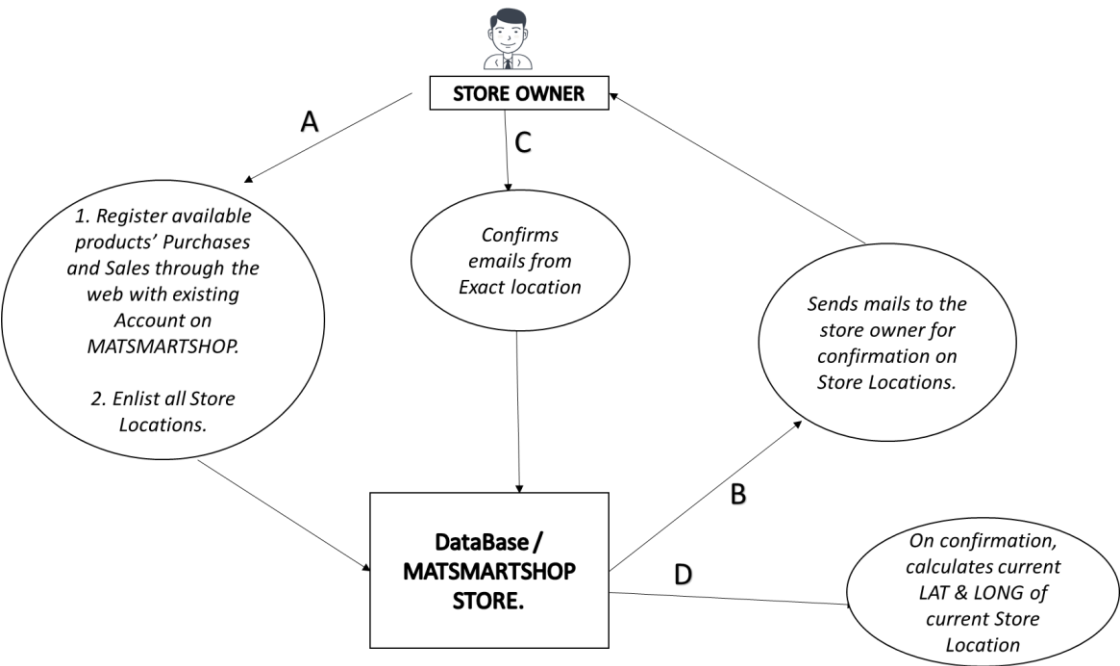
2.2 Process flow Overview

In order for Stores to be searchable, the **MATSMARTSHOP** store-owners (existing and new) must register their available items (with expiry dates) through the MATSMARTSHOP APP, store owners will have to list all their available stores. And then have to be in the respective stores in order for the system to register the store location to the database.
In this process of registration, the system uses a backend technology to detect current store location by calculating its Longitudes and Latitudes.
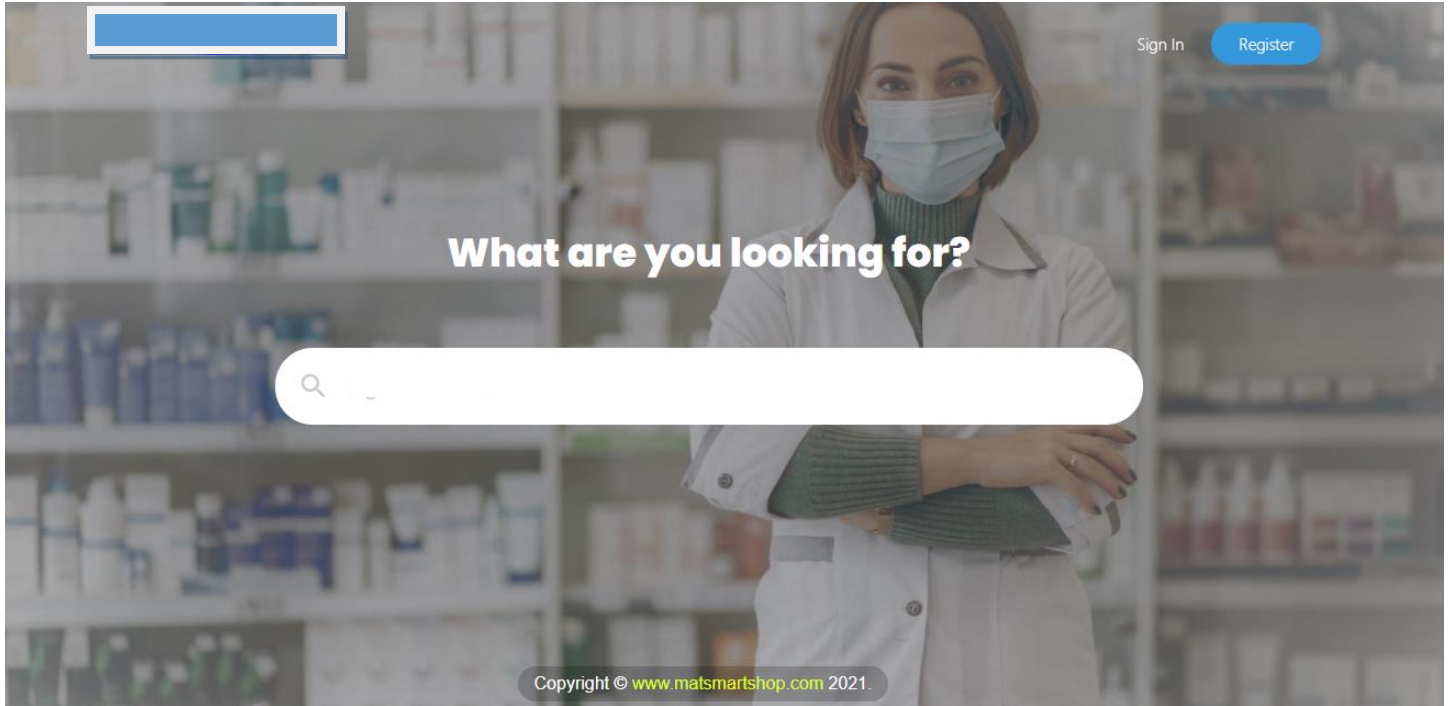When users search for a store, the system automatically detects users' current location in other to calculate proximity from where which. Users can also change the location/area of search.
When an item/Product is search for, the search results will ONLY show products that are not expired (Based on the Expiry dates provided by the store).

2.3 System Environment

STORE OWNER

A

C

1. Register available products' Purchases and Sales through the web with existing Account on MATSMARTSHOP.

2. Enlist all Store Locations.

Confirms emails from Exact location

Sends mails to the store owner for confirmation on Store Locations.

B

DataBase / MATSMARTSHOP STORE.

D

On confirmation, calculates current LAT & LONG of current Store Location

Search for products Based on choice of location

fetch

Search System

Return list

DataBase / MATSMARTSHOP STORE.

User(s)

List of stores, Locations, Proximity, Google Map redirection e.t.c

Detects users' location, calculates proximity to stores.

Search Engine Data Flow Diagram – (DFD)

Sample Interface of proposed app (in progress...)

2.4 Non-Functional Requirements

The Search engine for providing search results will be on a server with high speed Internet capability. The speed of the User's connection will depend on the hardware used rather than characteristics of this system. The software developed here assumes the use of the following tools highlighted in the software/hardware requirement sub-sections.

2.4.1 Software/ Hardware Requirements

- HTML, CSS3, Javascript, VueJs technology (Frontend) with C# (Backend)
- Apache Web Server
- SQL Database
- Web Browser.
- PWA Technology