**GENERAL INFORMATION**

Project Name: Smart Grocery Assistant

Purpose: Our goal is to develop a **Smart Grocery Assistant** that provides users with a streamlined shopping experience by offering:

1. **Real-time price comparison** across nearby grocery stores.
2. **Inventory monitoring** to inform users about product availability.
3. **Grocery list integration**, allowing users to optimize their lists and compare total costs across different stores.

Scope:

So our overall goal is to improve the grocery shopping experience by offering various kind of tools such as real time price comparison of stores., inventory notifications and a grocery list manager to assist the customers in the most efficient cases.

Various kind of functions can be added like accounts creation, balanced shopping/cart list, notifications regarding the flyers and product status.

1.3 Team

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| --- | --- | --- |
| Name | Role | Email/Phone |
| André Rodríguez | Full stack Developer | Arodriguezovall7747@conestogac.on.ca |
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**Functional Requirements**

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| --- | --- | --- | --- | --- | --- |
| **#** | **Functional Requirement** | **Category** | **Notes** | **Priority** | **Owner** |
|  | User shall be able to create an account using an email and password. | Authentication | Standard account creation flow. | High | Vats |
|  | User shall be required to login and logout of the system. | Session Management | Users must authenticate to access the system. | High | Vats |
|  | User shall be able to reset their password using their email. | Password Recovery | Includes an email recovery process. | Medium | Diego |
|  | User shall be able to update their password. | Password Update | Users can change their password from within their account. | Medium | Andre |
|  | User shall be able to edit profile information, including name, phone number, and address. | Profile Management | Editing profile details after account creation. | Low | Vats |
|  | User shall be able to add a profile photo. | Profile Photo | Allows users to upload and manage profile pictures. | Low | Andre |
|  | User shall be able to mark specific stores as favorites for easier access. | User Preferences | Favorited stores will be easily accessible in the system. | Medium | Zeel |
|  | User can filter the items in the grocery list. | List Management | Filtering the items by categories (e.g., fruits, vegetables, etc.). | High | Zeel |
|  | User shall be able to share the grocery list with other users. | Collaboration | Allows list sharing for joint planning or collaboration. | High | Vats |
|  | User shall be able to delete a grocery list. | List Management | Allows complete removal of grocery lists. | Medium | André |
|  | User shall be able to delete an individual item from a grocery list. | List Management | Enables the removal of specific items from saved grocery lists. | Medium | André |
|  | System shall provide real-time price comparison between different stores. | Price Comparison | Allows users to view price differences between stores in real-time. | High | Zeel |
|  | System shall display product prices based on the user’s location. | Location-Based Pricing | Geolocation is used to provide accurate pricing for the user’s location. | High | Zeel |
|  | System shall display prices of nearby stores. | Price Comparison | Displays a list of nearby stores and their respective product prices. | Medium | André |
|  | System shall display the offered price validity | Price Comparison | Displays the validity of the product price (flyer start date, flyer end date) | High | Dev |
|  | System shall display the product limit of the items (if specified) | Price Comparison | Displays the product limit for buying (e.g. Lays Classic Quantity limit-4) | Medium | Dev |
|  | Grocery store manager shall be able to add or update the grocery stores they price match | Price Comparison Stores | Displays the grocery stores names for a particular store they can price matches (e.g. No Frills offers price match with Walmart, FreshCo, Food Basics) | High | Dev |
|  | Grocery Store manager shall be able to add or update the quantity of items they can price match | Price Comparison Quantity | Displays the product quantity offered by grocery store they can price match (e.g. No-Frills price match quantity for a particular product is 4) | High | Diego |
|  | Users shall be able to search for items based on categories. | Search | Allows searching for products categorized by type (e.g., groceries, electronics). | High | Zeel |
|  | System shall implement a sort filter to allow users to sort prices and items. | Sorting | Sort options: Low to High, High to Low, A-Z, and by Date added. | Medium | André |
|  | Users shall be able to search for items using a product’s name. | Search | Provides search functionality using keywords related to the product name. | High | André |
|  | Users shall be able to search for a product by grocery store name | Search | Provides search functionality using keywords related to product and grocery store name (e.g. Lime in Walmart) | High | Dev |
|  | User shall be able to search for the entire flyer of a particular grocery store | Search | Provides search functionality using keywords related to grocery store name | High | Dev |
|  | User shall be able to see some most trending search of products | Trending Search | Provides most trending search products of current week, searched by other users | Low | Zeel |
|  | User shall receive notifications regarding price drops for items of interest. | Notifications | Alerts users when the price of an item drops. | Medium | Vats |
|  | When manager changes the status regarding restocking user will receive the notification | Notifications | Notifies users when out-of-stock items are restocked. | Low | Zeel |
|  | User shall be able to set a budget and receive notifications if the budget is exceeded. | Budget Management | Helps users manage their spending by providing alerts when their set budget limit is exceeded. | Low | Vats |
|  | User shall be able to change the budget at any time. | Budget Management | Enables users to modify their budget according to their preferences. | Medium | André |
|  | User cannot access other users data by pasting the link in the browser | Authentication |  | High | André |
|  | User shall receive notifications regarding price drops or offer regarding the recent products searched by them | Price Drop Notification | Notifies user when recent searched products prices drop, or any offers related to it | High | Dev |
|  | User shall receive notifications regarding the new flyer launches every week of their favourite grocery store | Notification | Notifies user when new flyer launches every week of their favourite grocery store | High | Dev |
|  | Admin can add or delete the whole store | Store management | Provides real-time location tracking and navigation inside the store. | High | Vats |
|  | System shall implement a store layout so users can get information regarding aisle locations. | Store Layout | Displays the store layout with aisles for better user orientation. | Medium | Diego |
|  | User shall be able to see a 2D store layout. | Store Layout | Allows users to view a detailed 2D map of the store. | High | André |
|  | If the store has multiple floors, the system shall allow users to view each floor’s layout. | Store Layout | Provides a clear floor-based view for stores with more than one level. | Medium | André |
|  | Admin shall be able to create and modify the 2D store map by adding or removing aisles. | Store Management | Enables admin control to update store maps based on store changes. | Medium | Diego |
|  | Admin shall be able to add or change colours of aisles | Store Management | Enables admin control to add or change aisles colours | Low | Dev |
|  | Admin shall be able to add or update aisles names or item category | Store Management | Enables admin control to add or update aisles names or item category | Medium | Dev |
|  | User shall be able to search for a product in the store and, it will give them the aisle number for the item | Navigation | Allows user to search for a product in the store and it will give the aisle number for it | High | Diego |
|  | Admin shall be able to see stock levels and (insert, update, delete) products. | Inventory Management | Provides full control over product management for the admin. | High | Vats |
|  | Manager shall be able to see stock levels and (update) products. | Inventory Management | Manager has update permissions but cannot insert or delete products. | High | Vats |
|  | User shall only see products, and if a product is out of stock, the system will display an "Out of Stock" status. | Inventory Management | Users can view available products and see the status of availability when products are out of stock. | Low | Vats |
|  | User shall be able to add items directly to their cart. | Cart Management | Allows users to quickly add items to their cart for future purchase. | High | Zeel |
|  | Cart products shall remain cached for easy pick-up on the user's next visit. | Cart Management | Cached products in the cart allow users to resume shopping easily after their previous session. | Medium | Diego |
|  | User shall be able to check their total cart amount once they add items in the cart | Cart Management | It benefits the user to carrying necessary cash | High | Dev |
|  | User shall be able to update the product quantity in the cart (default 1) | Cart Management | Allows user to update the product quantity in the cart | High | Dev |
|  | Users can check their spending history over a period of time. | Reporting | Track spending over user-defined time frames. | Medium | Vats |
|  | Users will be able to see the demographic data of stores based on locations. | Reporting | Display store-related data based on locations. | High | Diego |
|  | User can see product ingredients information. | Product Information | Provides ingredient transparency for users. | High | Zeel |
|  | User can see spending history by category. | Reporting | Breakdown of spending into different categories. | Low | Diego |