**Software Requirements Specification**

**PRJ566 – Fall 2024**

**PRJ566 – Team No: 7**

**Name of Project:  AI Integrated Grocery List Application**

Project Leader: **Jeevanjot Khehra**

**Last updated: September 29, 2024**

**Team Members:**

**1. Arashdeep Singh**

**2. Jeevanjot Khehra**

**3.**  **Mustafa Toygar Baykal**

**4. Vedant Sharma**

**1 - Introduction/Overview - Document Information**

1.1 Document Authors

* Arashdeep Singh
* Jeevanjot Khehra
* Mustafa Toygar Baykal
* Vedant Sharma

Each team member has contributed to the various sections of the project, including research, drafting requirements, and creating the system architecture. This SRS document is a collective effort that outlines all critical components of the AI Integrated Grocery List Application project.

1.2 Document Purpose

This document serves as the foundation for developing the AI Integrated Grocery List App. It defines the software’s functional and nonfunctional requirements, user needs, and operational expectations. The purpose is to ensure that all stakeholders have a clear understanding of the system’s specifications, which will guide the design, development, and deployment processes. This SRS will also serve as a reference for project management, helping track milestones, deliverables, and ensuring the app meets its intended goals.

1.3 Intended Audience

The SRS is written for the following audiences:

* **Development Team:** To guide the app’s architecture, coding, and implementation.
* **Project Stakeholders:** Including sponsors, investors, and users, to understand what the application will deliver.
* **Testers:** To design test cases and ensure the application meets functional and nonfunctional requirements.
* **End Users:** To ensure their needs and preferences are considered during the development process, ensuring a user-friendly final product. This document should be accessible to both technical and non-technical team members.

1.4 Group Agreement

**TEAM AGREEMENT**

**Team #: 7**

**Project Title:** AI Integrated Grocery List Application

**Project Time Frame:** Two Semesters (Fall 2024 and Spring 2025)

**Team Members:** Arashdeep Singh, Jeevanjot Khehra, Mustafa Toygar Baykal, Vedant Sharma

**Team Leadership: J**eevanjot Khehra

**Team Functions:**

* *We will share information through MS Teams, OneDrive, WhatsApp, e-mail and meetings.*

**Team Meetings:** The team will meet twice a week: one meeting to review progress and plan next steps, and another to address any obstacles or risks encountered. Additional ad-hoc meetings may be arranged when necessary, ensuring smooth workflow and prompt problem-solving.

**Team Problems:**

**Team Commitment**

**The undersigned members agree to work together on the project until the end of the PRJ666 next Semester. They recognize that as a team and individually they are responsible for the quality of all deliverables.**

**Name Date**

|  |  |
| --- | --- |
| Jeevanjot Khehra | September 21, 2024 |
| Mustafa Toygar Baykal | September 22, 2024 |
| Arashdeep Singh | September 22, 2024 |
| Vedant Sharma | September 22, 2024 |

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**2 - Project Overview**

2.1 Project Proposal

Project Background

In the fast-paced world we live in today, grocery shopping often turns into a time-consuming task where consumers walk through numerous aisles, leading to wasted time and impulsive purchases. Recognizing this inefficiency, our AI Integrated Grocery List App aims to change the way consumers shop for groceries by leveraging AI technology. By analyzing users’ past grocery purchases and preferences, the app can predict their current needs and suggest optimal shopping lists that save time, money, and promote healthier decisions.

**Problem Statement**

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| --- | --- |
| The Problem of: | Many consumers face challenges when grocery shopping because they do not plan their grocery lists ahead of time and often make spontaneous decisions while in the store. This lack of planning causes inefficiencies, as shoppers tend to buy unnecessary items or forget important ones. As a result, they waste time walking through aisles, making impulsive choices that don't align with their budgets or dietary preferences. These behaviors contribute to an overall inefficient shopping experience, making the process more time-consuming, expensive, and often frustrating. |
| Affects: | Shoppers who often waste time and money while grocery shopping, purchasing unnecessary items and failing to stick to budget or dietary preferences. These consumers frequently make impulse buys, which further complicates their grocery shopping experience. |
| The impact of which is: | Increased shopping times, higher grocery costs due to impulse purchases, and poorly structured shopping habits that fail to consider important factors like budget constraints and dietary goals. This leads to overall inefficiency in the shopping process and increased financial stress for the consumer. |
| A successful solution would: | Streamline grocery shopping by offering an AI-powered solution that anticipates users' shopping needs based on previous purchases and preferences. The solution would recommend products aligned with the user’s budget and health-conscious goals, while providing real-time product offers. This would lead to reduced shopping times, better adherence to personal preferences, and an overall efficient shopping experience. |

**Product Vision**

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| --- | --- |
| For | Grocery shoppers who regularly face inefficiencies during their shopping trips and need a solution to optimize their experience. These are individuals looking to save time, stick to a budget, and follow specific dietary preferences or health-conscious goals. |
| Who | Need a more efficient, time-saving, and cost-effective way to plan their grocery shopping trips. They also seek to meet specific dietary or budget goals without having to spend unnecessary time or make impulse purchases in stores. |
| The Product Name | AI Integrated Grocery List App |
| That | Helps users save time by predicting their grocery needs based on past purchases, reduces unnecessary in-store purchases by providing a pre-planned and personalized list, and recommends products that fit their health-conscious and budget goals. The app also integrates real-time discounts and offers to provide additional value. |
| Unlike | Traditional grocery list apps that merely allow users to manually create a shopping list without offering AI-driven personalized recommendations or suggestions based on the user’s previous purchases or health goals. Competitors, like "Out of Milk" or "AnyList," lack intelligent prediction and customization features. |
| Our product | Provides AI-powered grocery list generation, personalized product suggestions, real-time discount alerts, and tailored recommendations based on user preferences like dietary needs and budget constraints. It enhances the overall shopping experience by ensuring efficiency, cost-savings, and adherence to personal goals. |