
Software Requirements Specification

for

SuperPrice

Version 1.0 approved

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Group-P8-07

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1. Introduction

1.1 Product Scope

The product that will be covered in this document is SuperPrice; an application that is intended to enable an enhanced shopping experience for grocery shoppers. This document will cover the application's functional and non-functional requirements, the system architecture, the data model, the user interface design, assumptions and constraints, dependencies, as well as testing and acceptance criteria.

1.2 Purpose and Intended Audience

SuperPrice is intended to allow an easier and more efficient shopping experience for supermarket customers. Using this application, customers can find the best price option across multiple supermarkets and stores near them for the products that they intend to purchase. There is also an option for customers to have their items delivered to their doorstep. The project aims to develop a user-friendly platform to make it available for a wide range of users. This is done by prioritising a smooth and easy experience for everyone through an intuitive and straightforward user-interface. Furthermore, this document is drafted for the product's stakeholders; specifically - the software developers, the project manager, and the client.

2. Overall Description

2.1 Product Perspective

The SuperPrice - Price Matching and Delivery Application represents an innovative, standalone solution tailored to elevate the consumer shopping journey. Its primary objective is to refine the grocery shopping paradigm by offering a sophisticated platform where consumers can effortlessly compare prices from a myriad of retailers and coordinate deliveries. This application seamlessly integrates with a diverse range of local supermarkets and retail outlets, granting users access to a comprehensive repository of products and their respective prices. Such integration guarantees that consumers are furnished with precise and contemporaneous data regarding product prices and their availability. Architecturally, the SuperPrice application is web-centric, bifurcated into backend and frontend modules, and is designed to function in real-time, ensuring users receive the most recent data.

Central to the application's ethos is its commitment to economizing both time and financial resources for its users through an all-encompassing price-matching mechanism and streamlined delivery coordination. With an intuitive user interface at its core, SuperPrice is poised to serve a diverse demographic, from shopping novices to seasoned consumers. In addition, it offers a robust platform for users to impart their feedback via reviews and ratings for both supermarkets and individual products, thereby augmenting its credibility and user trust.

2.2 Product Functions:

- Product Search and Categorization: Allows users to find specific products or browse through different categories.
- Price Comparison: Enables users to compare prices across different supermarkets.
- Delivery Organization: Facilitates the organization of deliveries with multiple options.
- Notifications and Alerts: Provides timely notifications about price drops or special offers.
- User-Friendly Interface: Prioritizes simplicity and ease of use.
- User Reviews and Ratings: Allows users to leave reviews and ratings for supermarkets and products.
- **(TO BE DECIDED)**

2.3 User Classes and Characteristics:

- Novice Shoppers: Those new to online shopping who prioritize a user-friendly interface.
- Experienced Shoppers: Users familiar with online shopping platforms and looking for advanced features.
- Bargain Hunters: Users specifically looking for the best deals and price drops.
- Reviewers: Users who rely on or provide reviews and ratings for products and supermarkets.

2.4 Operating Environment

- Web-based application with backend and frontend components.
- **TBD**

2.5 Design and Implementation Constraints

Tools and Technologies:

- Code Repository: Github
- Task Management: Github Project
- Group Communication: Microsoft Teams, Discord
- Documentation: Office 365 online
- CI/CD tool: Github Action
- Java version: 11 or later
- Back-end framework: Spring Boot
- Front-end framework: As agreed with the tutor
- Build tool: Maven
- Data-store: MySQL or another relational database
- Unit testing framework: JUnit5 for Java

(CAN BE CHANGED AS REQUIRED)

2.6 User Documentation

- Comprehensive user guide outlining the features and functionality of the SuperPrice application.
- Testing and quality assurance reports.
- Presentation and demonstration materials for stakeholders.

(TO BE DISCUSSED)

2.7 Assumptions and Dependencies

2.7.1 Assumptions:

- The application assumes that the majority of users have access to a stable internet connection.
- The application assumes that all integrated supermarkets and stores provide accurate and timely data.
- It is assumed that users will primarily use the application for grocery shopping, rather than for other types of products.
- The application assumes that users will trust and rely on the reviews and ratings provided by other users.
- The application assumes that the majority of users will be using modern browsers and devices that support the latest web standards.

2.7.2 Dependencies:

- The application's functionality is dependent on the real-time data integration with various supermarkets and stores.
- Dependency on third-party payment gateways for processing transactions.
- The application might rely on third-party APIs for additional features like maps, notifications, etc.
- The success of the application is contingent on regular updates and maintenance to ensure accurate pricing and product availability.
- The application's performance might be influenced by the server's uptime and the efficiency of the hosting service.

3. User Stories

3.1 Product Search and Categorization – Saksham & Krisanahari

User Story 1: As a user, I want to be able to search for a specific grocery item.

Acceptance Criteria:

Scenario 1: Successfully search for a specific grocery item

Given: I am on the homepage of the online grocery website.

When: I enter the name of a grocery item into the search bar,

Then: The application should display a list of results that match the item name I entered. The results should include a photo of the product, the product name, and its price.

User Story 2: As a user, I want to be able to browse products by category.

Acceptance Criteria:

Scenario 1: Successfully browse products by category

Given: I am on the homepage of the online grocery website.

When: I click on a specific category, like 'Fruits' or 'Vegetables',

Then: The application should display a list of products that fall under the selected category. Each product listing should include a photo of the product, the product name, and its price.

User Story 3: As a user, I want to be able to checkout.

Acceptance Criteria:

Scenario 1: Successfully checkout

Given: I am on the cart of the online grocery website.

When: I click on checkout,

Then: The application should display the payment and delivery information screen.

3.2 Delivery Organization - Lance

User Story 1: As a user, I want to be able to select the date and time of delivery of my items.

Acceptance Criteria:

Scenario 1: Successfully select the date and time of delivery

Given: I am on the delivery setup page.

When: The application displays the calendar,

Then: I can select a date that I prefer for my delivery

Then: It will display available timeslots on that day which I can choose from. After selecting these, a summary of the details will be displayed. That is, the date and time of the delivery.

User Story 2: As a user, I want to be able to select the delivery option that I prefer.

Acceptance Criteria:

Scenario 1: Successfully choose the preferred delivery option

Given: I am on the delivery setup page.

When: the application displays the available delivery options,

Then: it will proceed accordingly to ask for further details about my chosen method of delivery.

3.3 Price Comparison - Lawrence

Agile Epic: Price Comparison

User Story 1:

As a user, I want to compare prices across different supermarkets, so I can make informed decisions and find the best deals.

Acceptance Criteria:

Given that I am on the product details page,

When I select a product,

Then I should see a list of supermarkets in the local area offering that product and their corresponding prices.

And the list of supermarkets should be sorted in ascending order based on the product prices, with the lowest price displayed first.

User Story 2:

As a user, I want to compare prices of products in different categories across multiple supermarkets, so I can make informed purchasing decisions for my groceries.

Acceptance Criteria:

Given I am a registered user of the SuperPrice application.

When I browse through different product categories.

Then I should be able to see a list of products in each category.

And the list should display the prices of the products from various supermarkets.

And the products in each category should be sorted based on the lowest price available.

User Story 3.

As a user, I want to view price trends over time for a particular product, so I can make informed purchasing decisions and take advantage of cost-saving opportunities.

Acceptance Criteria:

Given The Super Price application is installed and accessible to the user.

When I search for a particular product using the application.

And I select the desired item from the search results.

Then the application should display the price trends over time for the selected product.

3.4 Notifications and Alerts – Laura

User Story 1:

As a user, I would like to be notified of price drops and special deals on products.

Acceptance Criteria:

Scenario 1: Successfully notified of real-time price drops and special deals.

Given: I have agreed to receiving notification.

When: I agree to receiving notifications,

Then: The application must notify me anytime an item has dropped in price or when there are new special deals. The notification must include the item, its original price, and the price it has dropped to/ the new deal. It must also include (if applicable) the expiration date of these offers and deals.

User Story 2:

As a user, I want to unsubscribe to the notifications of price drops and special deals.

Acceptance Criteria:

Scenario 1: Successfully unsubscribed to the notifications and alerts.

Given: I have previously received notifications or am a new user to the application.

When: I am about to unsubscribe from the notifications feature,

Then: I am prompted to either enable or disable the notifications feature. Upon clicking the 'disable' button, I will successfully unsubscribe from receiving notifications. I can also enable the notifications function again at any time if I choose to accept them again.

3.5 User-Friendly Interface – Darby

“SuperPrice will boast a user-friendly and intuitive interface, making it accessible to a wide range of users. The application will prioritize simplicity and ease of use, ensuring a seamless experience for both novice and experienced shoppers.”

User Story 1: As an inexperienced user I want to be able to use SuperPrice without any training or prior experience.

Acceptance Criteria -

Scenario 1: Successfully navigate the website for the first time with no experience.

Given: I have no prior experience with the website, or similar websites

When: I interact with the website, to execute core functions

Then: The interface must be simple and clean enough to not overwhelm a new user, or someone who has not used a competitor's website before. Subheadings must be clearly sectioned and provide a concise description of the content that it holds.

User Story 2: As a user living with vision impairment, I wish to engage with the product in as close of a way as possible to someone without a disability.

Acceptance Criteria-

Scenario 1: successfully navigate the website and complete all tasks and functions required.

Given: I have a vision impairment

When: I interact with the website

Then: The system must have clear alternate text for images, and clearly labelled and positioned heads and sub heads for users with screen readers so they can navigate the website and interact with/digest content the same as any other user.

4. System Architecture

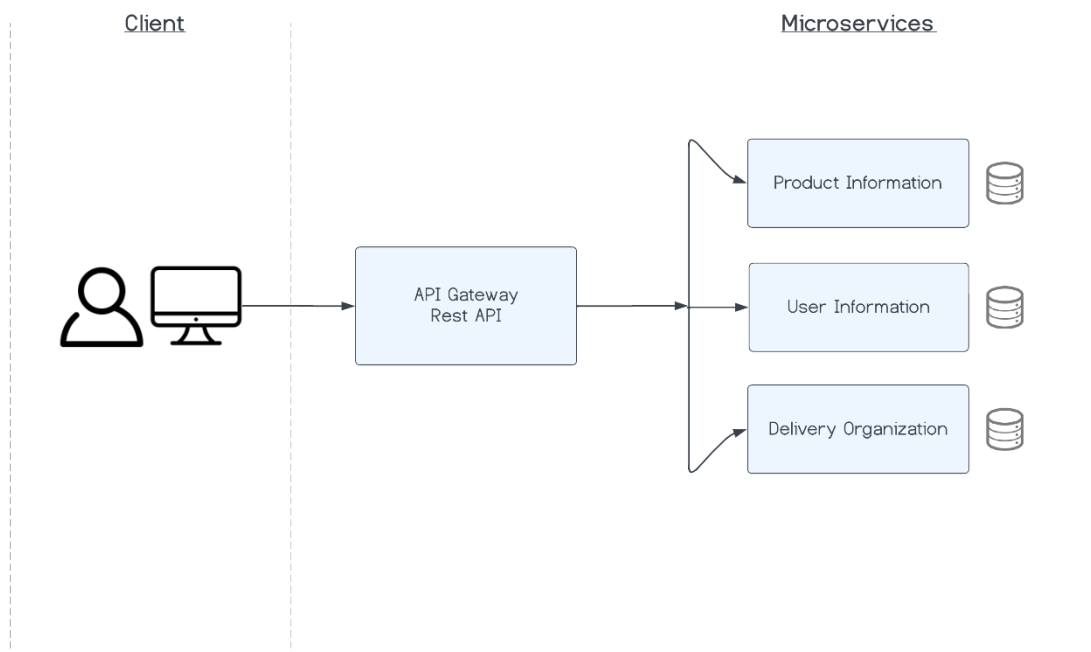
The system components include the Client, API Gateway (Rest API) and the services of the application.

The API Gateway being followed is REST API. This component serves as the gateway between the client and the server when the application's resources are required or requested.

Next, are the services of the application, namely, Product Information, User Information, and Delivery Organization.

- The Product Information component involves any product-related functionality within the application. For example, the product search and the product prices.
- The User Information component is composed of user-related, such as their name, purchases, order delivery details, and notification preferences.
- The Delivery Organization component involves the application's delivery feature.

The interaction of these components starts with the client-side of the system. A request is sent to the server by the client which the API Gateway handles. As the request is made, the server validates this and proceeds to communicate with the system's services/resources and database. Finally, the system captures the result that will be conveyed to the client as a response to the request.



5. Other Nonfunctional Requirements

5.1 Performance Requirements

Response Time: The application should display search results within 2 seconds of the user initiating a search.

Load Time: The web pages of the application should load within 3 seconds under normal network conditions.

Scalability: The system should support up to 100,000 concurrent users without any degradation in performance.

Real-time Data: Price updates and availability checks should be reflected in real-time to the end-users.

5.2 Safety Requirements

Availability: The system should achieve a minimum uptime of 99.9%.

Backup: All data should be backed up daily, and there should be a mechanism in place for quick data restoration in case of any failure.

Disaster Recovery: A disaster recovery plan should be in place to ensure the application's availability in case of any catastrophic events.

Error Handling: The application should provide clear error messages and should be able to handle unexpected failures gracefully, ensuring that users do not experience abrupt crashes.

5.3 Security Requirements

Data Encryption: All data transferred between the client and the server should be encrypted using industry-standard encryption protocols.

User Authentication: The application should implement multi-factor authentication for user accounts.

Data Privacy: User personal and financial information should be stored in encrypted formats and in compliance with GDPR or other relevant data protection regulations.

Session Management: User sessions should automatically expire after 15 minutes of inactivity.

Audit Logs: All user activities and system transactions should be logged and stored for at least 6 months.

5.4 Software Quality Attributes

User Interface: The UI should be intuitive and user-friendly, with a focus on ease of navigation.

Mobile Responsiveness: The application should be fully functional and responsive on various devices including desktops, tablets, and mobile phones.

Accessibility: The application should be accessible for users with disabilities, adhering to the Web Content Accessibility Guidelines (WCAG) 2.1 Level AA.

Multilingual Support: The application should support at least English and one other local language, with capabilities to easily add more languages in the future.

API Integration: The system should support seamless integration with various supermarket and store databases through well-defined APIs.

Notifications: The notification system should be capable of sending instant notifications to users without any delay.

5.5 Business Rules

Automated Testing: The system should support automated unit and integration tests to ensure the robustness of the application.

Code Quality: The source code should adhere to industry-standard coding practices and should be well-commented for easier maintainability.

Updates & Patches: The system should support seamless updates and patches without causing significant downtime.

6. Use Cases

Use Case 1	Search for an item/product	
Actors	User/Customer	
Preconditions	The user must be on the homepage.	
Postconditions	A list of items that match the name of the product entered and the corresponding price.	
Flow of activities	Actor	System
	1. The user selects the search bar 2. The user enters the product that they want to purchase.	1. The search bar allows the user to enter a text. 2. The application redirects the user to another page to show the result of their search.
Alternative Flows/ Exceptions	1. The product entered cannot be found (I.e., it is not in the system) - The application will then display a prompt to the user that this is the case.	

Use Case 2	Select the date and time of delivery	
Actors	User/Customer	
Preconditions	The user must be on the delivery setup page.	
Postconditions	The available timeslots on that selected day will be displayed and a summary of the delivery's details will be shown.	
Flow of activities	Actor	System
	<ol style="list-style-type: none"> 1. The user first selects the date of delivery. 2. The user selects their preferred timeslot for their delivery. 3. The user selects proceed. 	<ol style="list-style-type: none"> 1. The application gets the available timeslots for the selected day and displays this. 2. --- 3. The application displays a summary of the delivery details (date and time).
Alternative Flows/ Exceptions	<ol style="list-style-type: none"> 1. The selected date does not have the user's preferred timeslot - The user selects the "back" button to go back to the calendar and choose another preferred date. - Then proceeds to number 2 of flow of activities. 	

Use Case 3	Compare prices across different supermarkets	
Actors	User/Customer	
Preconditions	The user must be on the product details page.	
Postconditions	A list of supermarkets in the local area offering the selected product will be displayed.	
Flow of activities	Actor	System
	<ol style="list-style-type: none"> 1. The user selects a product. 	<ol style="list-style-type: none"> 1. The application fetches all the supermarkets that sell the product and displays a list.
Alternative Flows/ Exceptions	<ol style="list-style-type: none"> 1. The product selected cannot be found in the local area. - The application will then display a prompt to the user that this is the case. 	

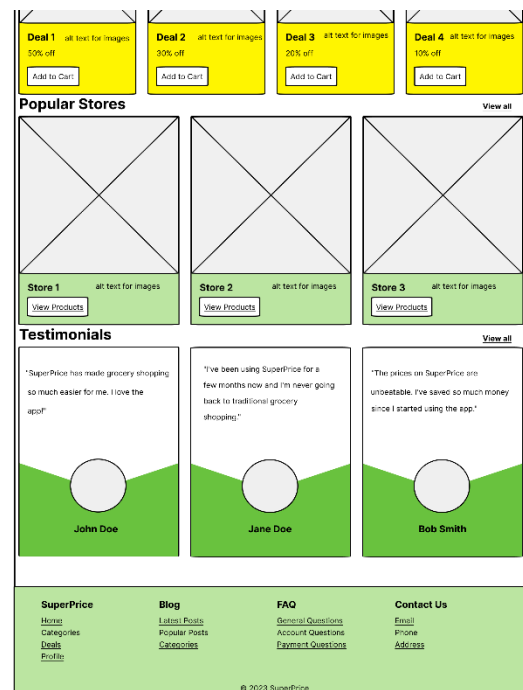
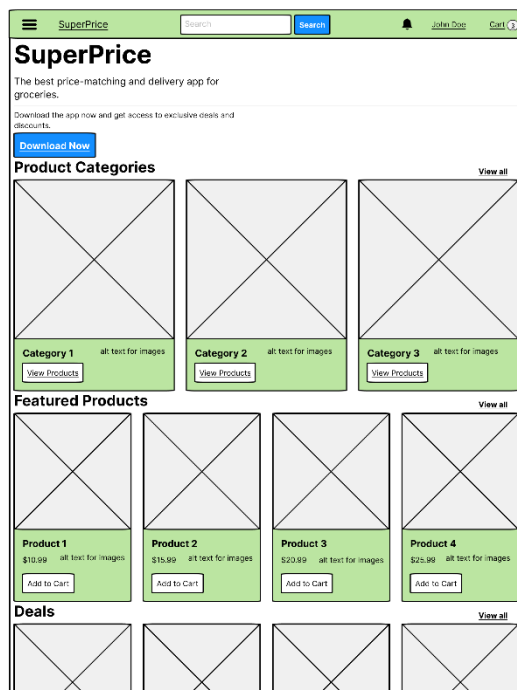
Use Case 4	Allow notifications for price drops and special deals on products.	
Actors	User/Customer	
Preconditions	The user must be on the homepage.	
Postconditions	The user's notification preference is allowed/enabled.	
Flow of activities	Actor	System
	<ol style="list-style-type: none"> 1. The user selects "settings". 2. The user chooses "allow notifications". 	<ol style="list-style-type: none"> 1. The application redirects the user to the settings page. 2. The application updates the user's preference and displays a prompt that this has been successfully done so.
Alternative Flows/ Exceptions	<ol style="list-style-type: none"> 2. The notification setting has already been allowed for the user. 	

Use Case 5	Browse products by category	
Actors	User/Customer	
Preconditions	The user must be on the homepage.	
Postconditions	A list of products that fall under the selected category will be displayed. Each product will include its corresponding price.	
Flow of activities	Actor	System
	1. The user selects a specific category (for example, 'Fruits and Vegetables')	1. The application redirects the user to another page to show the result of their selection.
Alternative Flows/ Exceptions	1. The user cannot find the product that they want in their selected category. - Refer to use case 1 instead.	
	2.	

7. User Interface Design:

<https://www.figma.com/file/iTvWwwcLNZOSkjWoyK4Ptc/SEPT?type=design&node-id=0%3A1&mode=design&t=LdbC65w11mw5y7L1-1>

7.1 Home Page



7.2 Product details page

alt text for images

Compare Product

Search for supermarkets...

Supermarket 1: \$9.99

Supermarket 2: \$11.50

Supermarket 3: \$7.99

Product Name

\$9.99

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed euismod, diam eget bibendum bibendum, velit elit bibendum ipsum, euismod bibendum elit vel.

Price Trends:

Rating: ★★★★★

Quantity:

1

Size:

Small

Color:

Red

Add to Cart

Product Reviews

View all

John Doe

January 1, 2022

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed euismod, diam eget bibendum bibendum, velit elit bibendum ipsum, euismod bibendum elit vel.

Jane Doe

January 2, 2022

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed euismod, diam eget bibendum bibendum, velit elit bibendum ipsum, euismod bibendum elit vel.

Write a Review

Related Products

alt text for images

Related Product Name

\$9.99

Rating: ★★★★★

alt text for images

Related Product Name

\$9.99

Rating: ★★★★★

View all

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7.3 Cart page

alt text for images

Product Name

Product Price

Quantity

1

Total Price: \$\$\$

Remove

alt text for images

Product Name

Product Price

Quantity

1

Total Price: \$\$\$

Remove

alt text for images

Product Name

Product Price

Quantity

1

Total Price: \$\$\$

Remove

Cart Summary

Subtotal

\$100.00

Delivery Fee

1BC

Total

\$110.00

Continue Shopping

Delivery

SuperPrice

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7.4 Delivery options page

SuperPrice

Search

Search

Profile

Cart

Delivery Options

Standard delivery

\$\$\$\$

Custom Delivery

\$10.00

Date

AUGUST 2023

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Time

9:00

11:00

13:00

15:00

17:00

19:00

Delivery Summary

Date	DD/MM/YYYY
Time	00:00:00
Delivery Fee	\$\$\$

Continue Shopping

Checkout

SuperPrice

Home

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Profile

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Latest Posts

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Categories

FAQ

General Questions

Account Questions

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7.5 Checkout page

SuperPrice

Search

Search

Profile

Cart

Checkout

Address

Start searching ...

Personal Information

First Name

Last Name

Email address

Payment method

MasterCard

PayPal

afterpay

Apple Pay

VISA

Card number

Card name

Expiry date

CVV

Delivery Summary

Date	01/01/2024
Time	14:00-15:00
Delivery Fee	\$10.00

Cart Summary

Subtotal	\$100.00
Delivery Fee	\$10.00
Total	\$110.00

Continue Shopping

Complete Payment

SuperPrice

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Deals

Profile

Blog

Latest Posts

Popular Posts

Categories

FAQ

General Questions

Account Questions

Payment Questions

Contact Us

Email

Phone

Address

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8. Testing and Acceptance Criteria

Epic	User Story	Acceptance criteria	Testing
Product Search and Categorization	As a user, I want to be able to search for a specific grocery item	Successfully search for a specific grocery item	There is a search bar at the top of the page that will always be accessible no matter what page you are on. Upon clicking, the user is able to search for the item they want, and once they hit enter, a page will display their item or alternatives/ similar items if their desired item is unavailable.
Product Search and Categorization	As a user, I want to be able to browse products by category	Successfully browse products by category	On the home page, there is a section of the page that displays the most popular categories. The user is also able to select “view all” which will expand the page to show all categories. Alternatively, the user can also click the hamburger icon in the top left corner of the page which will also display a range of hyperlinks, including product categories. Upon selection, the user will be taken to a page where they can browse products under their desired category.
Product Search and Categorization	As a user, I want to be able to checkout	Successfully checked out	In the top corner of every page, there is a cart icon that users can click to view their cart. Once clicked and on the cart page, users can review their items and finalise their transaction

			by clicking on the “checkout” button which will take the user to another page where they can safely and successfully pay for their items.
Delivery Organization	As a user, I want to be able to select the date and time of delivery of my items	Successfully select the date and time of delivery	Once the user has clicked on the cart page/ once the user has reviewed their cart, they can continue to the delivery page. This will show options for delivery and also gives the user the ability to choose which date and time they would like the order to be delivered. The delivery summary will be updated and displayed to the user once they have clicked on their desired options, as well as any additional fees.
Delivery Organization	As a user, I want to be able to select the delivery option that I prefer	Successfully choose the preferred delivery option	Given the user is on the delivery page, they will be given the option to choose standard delivery, which would be the delivery option which delivers the users items to them as soon as possible. The other option would be the custom delivery option, where the user can select a particular date and time which may include a fee.
Price Comparison	As a user, I want to compare prices across different supermarkets, so I can make informed decisions and find the best deals	Successfully compare the prices across different supermarkets	When the user has selected on a product, the page will come up with product information. There will also be a section on the

			page that automatically shows different prices across different stores, but also allows users to search for a particular supermarket. Once searched, the page will update and show the price of the product at that store.
Price Comparison	As a user, I want to compare prices of products in different categories across multiple supermarkets, so I can make informed purchasing decisions for my groceries	Successfully compare prices of products in different categories across multiple supermarkets	The user can go onto the home page and find the categories section where they can select one of the featured categories, or click view all to see the rest. Once selected, the user can find products in that category and compare prices of that product between supermarkets once they've clicked on a specific product.
Price Comparison	As a user, I want to view price trends over time for a particular product, so I can make informed purchasing decisions and take advantage of cost-saving opportunities	Successfully viewed price trends over time for a particular product	Users can click on a particular product, and upon viewing the product details page, there will be a section of the page which shows the trends that the product price has undergone recently to give the user the best idea of when to buy the product.
Notifications and alerts	As a user, I would like to be notified of price drops and special deals on products	Successfully notified of real-time price drops and special deals	At the top of the page, there will be a bell icon which users can click. Upon clicking, the bell will have a little tick next to it to show that the user is now subscribed and will continue to be notified of special drops and deals.

Notifications and alerts	As a user, I want to unsubscribe to the notifications of price drops and special deals	Successfully unsubscribed to the notifications and alerts	At the top of the page, there will be a bell icon which users can click. If the icon has already been clicked, there will be a tick next to the bell. If the user no longer wants to be notified, they can re click the bell which will remove the tick, and unsubscribe users from receiving notifications.
User-Friendly interface	As an inexperienced user I want to be able to use SuperPrice without any training or prior experience	Successfully navigate the website for the first time with no experience	The website is very self-explanatory, with large fonts for important headings and subheadings. There are big blue buttons on the website to help users be drawn to where to click, for example “checkout” is in a big blue box to help users see where to click.
User-Friendly interface	As a user living with vision impairment, I wish to engage with the product in as close of a way as possible to someone without a disability	successfully navigate the website and complete all tasks and functions required	Throughout the website, there’s big headings for everything, with clear text. There is also alternate text for images as well.

9. Product Backlog

ID	ITEM	OWNER	PRIORITY	EFFORT	STATUS	DEFINITION OF DONE	NOTES	EPIC
1	Frontend-Backend Integration	Backend	High	13	Not Started	Frontend and backend communicate smoothly	Requires thorough testing and debugging	Application CI/CD
2	Delivery Management System	Backend	High	13	Not Started	Users can schedule and track deliveries	Requires integration with third-party	Product Delivery
3	Price Comparison Algorithm	Backend	High	13	Not Started	Application compares prices across stores	Requires complex algorithm development	Product Search & Comparison
4	Product Search Functionality	Backend	High	8	Not Started	Users can search for products	Implement search algorithms and filters	Product Search & Comparison
5	Product Database Setup	Backend	High	8	Not Started	Database stores product information	Integrate with chosen database (e.g., MySQL)	Product Search & Comparison
6	User Registration and Login	Backend	High	5	Not Started	User can register and log in securely	Requires encryption and validation	User Management
7	User Interface Design	Frontend	High	8	Not Started	Application has a user-friendly interface	Collaborate with UI/UX designers	UX/UI Design
8	Category Browsing	Frontend	High	5	Not Started	Users can browse products by category	Integrate with backend for category data	Product Search & Comparison
9	User Reviews and Ratings	Frontend	Medium	8	Not Started	Users can leave reviews and ratings	Integrate with backend for review storage	User Management
10	User Profile Management	Backend	Medium	5	Not Started	Users can edit profile settings	Allow users to update personal information	User Management
11	Notifications and Alerts	Backend	Medium	8	Not Started	Users receive price drop notifications	Implement notification system	Alerting & Notifications
12	CI/CD Implementation	DevOps	Medium	8	Not Started	Automatic testing and deployment set up	Integrate with GitHub Actions	Application CI/CD
13	Performance Optimization	DevOps	Medium	8	Not Started	Application is optimized for performance	Fine-tuning of backend and frontend	Application Enhancement
14	Delivery Options Setup	Backend	Medium	5	Not Started	Users can choose delivery options	Implement flexible time slot selection	Product Delivery

15	Deployment and Hosting	DevOps	Medium	5	Not Started	Application deployed to recommended env	Utilize recommended hosting environment	Application CI/CD
16	User Documentation	Documentation	Low	5	Not Started	Comprehensive user guide and documentation	Essential for user onboarding	User Management

10. Sprint 1 Planning (Estimate)

Project Sprint Planning Notes

Team: 7

Sprint: Sprint 1

Date: 20/08/2023 – 17/09/2023

Attended: (TBC)

Scrum Master: Lawrence Dawood

Product Owner: Prakash Adhikari

Development team: Darby, Laura, Lance, Saksham, Lawrence, Krisanahari

1. Goal

To establish the foundational elements of the SuperPrice application, focusing on the backend infrastructure setup, database design, and the basic product search functionality.

2. Duration of the sprint

4 Weeks

3. What is the team's vision for this sprint?

In this sprint, we aim to:

- Set up the project's backend infrastructure
- Design the database schema using SQLite to hold product data.
- Implement basic product search functionality.

4. Estimation in story points

- **Backend infrastructure setup:** 5 points.
 - Justification: This involves setting up the basic server, which is essential but not complex.
- **Database schema design:** 8 points.
 - Justification: Designing a database schema is critical and requires thoughtful planning to accommodate future scalability.
- **Product search functionality:** 13 points.
 - Justification: This involves developing the functionality, integrating with the database, and ensuring accuracy in search results.

11. Sprint 2 Planning (Estimate)

Project Sprint Planning Notes

Team: 7

Sprint: Sprint 1

Date: 20/08/2023 – 17/09/2023

Attended: (TBC)

Scrum Master: Lawrence Dawood

Product Owner: Prakash Adhikari

Development team: Darby, Laura, Lance, Saksham, Lawrence, Krisanahari

1. Goal

To create the frontend user interface for product search and establish initial price comparison functionality, integrating with the backend.

2. Duration of the sprint

4 weeks

3. What is the team's vision for this sprint?

For this sprint, we envision:

- Designing a user-friendly frontend using React.js.
- Integrating the frontend with the backends' product search API.
- Implementing the initial price comparison feature for products across various stores.

By the end of the sprint, users will be able to access a web interface where they can search for products and see price comparisons across different stores.

4. Estimation in story points

- **Frontend design for product search:** 8 points.
 - Justification: While building on top of established frameworks, designing a user-friendly interface requires attention to detail and iterative testing.
- **Integration of frontend and backend:** 5 points.
 - Justification: We already have an API from the backend, so the focus will be on connecting the frontend to this service.
- **Price comparison feature:** 13 points.
 - Justification: This feature requires the integration of multiple data sources and ensuring accurate and real-time price comparisons. It is complex and central to our application's value proposition.

12. Sprint 1 Backlog (Estimate)

PBI ID	PBI NAME	TASK ID	TASK	ASSIGNED TO	NOT STARTED	IN PROGRESS	COMPLETED	NOTES
1	Product database setup	1.1	Database schema	Lawrence	X			
		1.2	Setup the database tables	Lawrence	X			
		1.3	Add the data into tables	Lawrence	X			
2	Deployment and Hosting	2.1	Setup frontend and backend connection	Saksham, Lance, Krisanahari	X			
3	User Registration and Login	3.1	Frontend application	Saksham, Laura	X			
		3.2	Backend application	Krisanahari, Lance	X			
4	User Profile Management	4.1	Frontend application	Saksham, Laura	X			
		4.2	Backend application	Krisanahari, Lance	X			
5	Product Search Functionality	5.1	Frontend application	Saksham, Laura	X			
		5.2	Backend application	Krisanahari, Lance	X			
6	Category Browsing	6.1	Frontend application	Saksham, Laura	X			
		6.2	Backend application	Krisanahari, Lance	X			
7	Frontend-Backend Integration	7.1	Connect frontend and backend	Saksham, Laura, Krisanahari, Lance	X			
8	User Interface Design	8.1	Frontend application	Saksham, Laura	X			

PBI ID	PBI NAME	TASK ID	TASK	ASSIGNED TO	NOT STARTED	IN PROGRESS	COMPLETED	NOTES
1	Price Comparison Algorithm	1.1	Backend application	Krisanahari, Lance	X			
					X			
2	Delivery options setup	2.1	Backend application	Krisanahari, Lance	X			
		2.2	Frontend application	Saksham, Laura	X			
3	Delivery management system	3.1	Backend application	Krisanahari, Lance	X			
		3.2	Frontend application	Saksham, Laura	X			
4	Notifications and Alert	4.1	Backend application	Krisanahari, Lance	X			
		4.2	Frontend application	Saksham, Laura	X			
5	User Reviews and Ratings	5.1	Backend application	Krisanahari, Lance	X			
		5.2	Frontend application	Saksham, Laura	X			
6	User Documentation	6.1	Comprehensive user guide and documentation	Laura	X			

7	Performance Optimization	7.1	Maximise efficiency of integration of frontend and backend	Everyone	X
8	CI/CD Implementation	8.1	Setup unit testing	Krisanahari, Lance	X

14. Sprint 0 Retro

Project Sprint Planning Notes

Team: 7

Sprint: 0

Date: 07/08/23 + 15/08/23

Attended: Darby, Laura, Lance, Saksham, Lawrence, Krisanahari

Scrum Master: Lawrence Dawood

Product Owner: Prakash

Development team: Darby, Laura, Lance, Saksham, Lawrence, Krisanahari

14.1 1. Things That Went Well

What went well? What the team is happy about?

The team had a successful experience in various aspects:

The team adeptly adapted to the rhythm of two to three weekly audio calls and supplemented communication with additional direct messaging. This arrangement facilitated effective collaboration. During these scrum calls, tasks were communicated clearly and concisely.

Collaborative efforts in crafting user stories, which subsequently shaped the product backlog, proved to be a streamlined process requiring minimal adjustments.

14.2 2. Things That Could Have Gone Better

What could have gone better? What the team could improve?

Understanding and scope of the task could be displayed out at the very start of the first scrum in a sprint. We started off sprint 0 with only half the perspective of the full task ahead of us, which left us with only half the time to complete 75% of the work.

14.3 3. Things That Surprised Us

What wasn't expected?

The amount, and the depth of information required to complete an SRS document. We did not expect to have to lay out and fill in such an in-depth and massively scoped document in the small timeframe that we were given.

We also were surprised by the amount of planning, and preproduction steps required before any coding took place. We of course knew that some level of a to do list and a general guide was always necessary for larger software projects, but we didn't fully grasp the extend of, once again the SRS documentation, and how much planning goes into a project before any technical steps have been taken place.

14.4 4. Lessons Learned

What have you learned from the above points?

Using the GitHub board can be a powerful tool when realised, however many of the dev team didn't have experience with it and struggle with it more than a simple to do list for example. As time goes on, the dev team will gain experience with this tool, however, constant reminders to use it will be needed for it to become a dependable tool in the team's arsenal.

14.5 5. Final Thoughts

Things to Keep

Meetings both in and out of tutorial time slots are a must have as it allows for everyone to be updated on everyone else's work, and to ensure no one has missed any details or even larger points of the project. One to two per week and one in the tutorial session seemed to work fine during sprint 0, but we are going to monitor those needs closely as when it gets to coding and implementing the software we may need to have more/less meetings depending on the current working climate.

Things to Change

Taking in the scope of the entire milestone, and then trying to take a better estimation at how long certain tasks will take to complete would ensure that no one is rushing to complete tasks last minute, whilst others have completed a task that we thought would take a while in just a short amount of time.

Summary

The project's journey so far showcases a balance between things that have been implemented into our working process smoothly, as well as some areas that have been highlighted to need attention. Addressing identified areas for improvement and building on the lessons learned will propel the team toward greater efficiency and success as the project continues.