

Software Requirement Specification for Shopping Route Recommender

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1 Introduction

1.1 Purpose

1.2 Document Conventions

1.3 Intended Audience and Reading Suggestions

1.4 Project Scope

1.5 References

2 Overall Description

2.1 Product Perspective

The Shopping Route Recommender is an application used by consumers to maximise their shopping experience in terms of three preferred optimisations: minimum cost, travel distance and travel time. The consumer is able to log onto a Website or Smartphone application and create a shopping list with a route being generated. Enabling a user to optimise their shopping experience is a potential success from the start, as their daily routines can become more efficiently and effectively undertaken.

2.2 Product Features

- Interactive shopping list menu.
 - add or remove item
- Interactive optimisation selection options.
 - minimise cost
 - minimise travel time
 - minimise travel distance
- Interactive shopping area selection options.
 - select from a number of suburbs or regions
- Interactive route map displaying alternate routes for selection.
 - rotate map

- slide map
- zoom in/out
- satellite view

The aim of the application is to be as user friendly and interactive as possible, while maintaining an easy-to-use interface.

2.3 User Classes and Characteristics

The application is aimed for the general public's use as well as certain business industries.

- General Public
 - General population wanting to buy their routine shopping list
 - General population looking for more specific products and their preferred optimised route
 - Foreign individuals looking for their ideal shopping locations or travel routes
- Business Industries
 - Courier companies collecting stock or products from various distributors/stores

2.4 Operating Environment

Shopping Route Recommender is an application designed to run on the most Web Browsers as well on Google Android and Mac OS X Smartphones.

- Software Requirements
 - Internet connectivity
 - Entry level Smartphone
 - Mozilla Firefox, Microsoft Edge, Google Chrome, Microsoft Explorer, Safari
- Hardware Requirements
 - Entry level Smartphone with interactive touch screen

2.5 Design and Implementation Constraints

2.6 User Documentation

2.7 Assumptions and Dependencies

3 System Features

Shopping Route Recommender was designed with user experience as its primary concern. As a result of this the product features are simplistic in nature in order to provide the customer with only the essentials. This section provides a detailed description of each system features in order to make future system extensions as easy as possible.

3.1 System Feature 1 - Adding items to shopping cart

3.1.1 Description

The Shopping Route Recommender's primary feature is for the user to be able to continuously add shopping items to their cart. The user will be able to continuously log into the application and add items to the shopping cart on an add-hock basis. These items will remain in the basket until such time that the user wants to go shopping.

3.1.2 Stimulus/Response Sequences

The user will click in the "Add Items" field at which point a list will be displayed that will contain all previously added items listed one after the other (in the order in which they were added). Within this list the user will be able to complete one of the following actions:

- Add new item - The user will be able to select the "Add new item" button in order to be allowed to enter a new item.
- Remove existing item - The user will be able to select the cross new to a specific item at which point the item will be removed from the shopping list.
- Edit existing item - The user will be able to make modifications to the description of an existing item.

3.1.3 Functional Requirements

- The user can only add a single item at a time.
- The user can only remove a single item at a time.
- The user can only edit a single item at a time.

3.2 System Feature 2 -

3.3 System Feature 3 -

4 External Interface Requirements

4.1 User Interfaces - GUI

4.2 Hardware Interfaces

4.3 Software Interfaces

4.4 Communications Interfaces

5 Other Non-functional Requirements

5.1 Performance Requirements

5.2 Safety Requirements

5.3 Security Requirements

5.4 Software Quality Attributes

5.5 Other Requirements

References

- [1] Fluid Switch. *Airplane Fule Gauges: How they Work, Challenges, & Solutions*. Fluid Switch. URL: <http://www.fluidswitch.com/blog/airplane-fuel-gauges/>. [Accessed: February 15, 2016]