

Project Specification

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1 Introduction

1.1 Purpose

The purpose of this document is to describe the prospective product in detail, outlining specific requirements that it must adhere to.

1.2 Definitions

- Journey - A proposed journey following a route between an origin and destination by a person.
- Hitch - When a person joins a Journey by taking up a spare seat on a Journey.

1.3 System Overview

The purpose of the Online Carpooling Service is to provide drivers with the ability to share the details of prospective Journeys, enabling non-drivers to travel in the same direction by joining them on their Journey. Many people drive long distances from one location to another without knowing they could make the journey together and save money. My motivation for this project comes from this very situation. I wish to bring together people who travel from place to place, often in parallel to each other. This site could bring together these people, enabling them to spend less money on fuel which in turn could help free up clogged roads and reduce air pollution.

2 Overall Description

2.1 Product Perspective

The Website will be the interface for the user base. Using it, they will have access to all of the features that the service offers and will be able to update their profile enabling suggestions to be put forward to them by the service.

2.2 User Characteristics

People who sign up to the site will provide personal information which will be saved in the database. This personal information will aid the service in producing Journey and Hitch suggestions.

The users accessing the site will use it to share journeys that they are partaking in with the aim of attracting other users to join them in those

journeys. Conversely, the site is also used for users who wish to find journeys that other people are driving, so that they can hitch a journey.

2.3 Product Functions

The main functions of the site will be:

- Register as a new user to the site
- Log in with existing details
- Edit profile details
- Post a Journey that the user will be driving from location to location
- Search for journeys between two locations. The search must return journeys in which the searched location appear along some points on the journeys.
- Request to Hitch a journey as a passenger
- Accept or decline a hitcher as the driver
- Send messages to other users on the site

3 Specific Requirements

The website must provide the following services:

Index Page The index page must provide:

FR.I.01 Register Form - The page must provide an easy to access register form for personal details to be entered upon registration. Basic details needed are Email address, First name, Last name and Password. More specific details can be entered after registering to the site

FR.I.02 Log in Form - There must be a section of the page dedicated to logging in existing users. It must be easily viewed and apparent to users

Home Page When a person logs into their account, they must be provided with a home page with the following:

- FR.H.01** Menu - There should be a menu giving the user access to all of the site's functions separated out into pages that group functionality
- FR.H.02** Logout - A logout option must be present
- FR.H.03** User Journeys - Users must be able to see a list of their shared journeys and view their status. This could show how many spaces they have left and new requests others have made to hitch the journeys
- FR.H.04** User Hitches - User must be able to view a list of the hitches they have requested to other journeys and view their status. The status of the hitch request depends on whether or not it has been accepted by the driver
- FR.H.05** Post Journey - The user must be able to share journeys by posting the details of the journey up on the page. the site must provide a map-style preview of the journey so that the user can be sure the correct origin and destination have been set
- FR.H.06** Search For Journeys - The site must provide a search function for the user to find journeys from one location to another. This search function must include date parameters
- FR.H.07** Make a Hitch Request - If a user a selected a journey after searching, they must be able to make a hitch request provided there are spaces remaining
- FR.H.08** Accept/Decline Hitch Requests - When another user requests to hitch a journey that a user has shared, the site must prompt them to accept or decline the new hatcher
- FR.H.09** Suggested Journeys - The site must provide suggested journeys that it predicts a user may be interested in due to their profile details
- FR.H.10** Messages - The ability to send and receive messages to and from other users on the site must be available
- FR.H.11** Profile - The user must be able to view and edit their personal and profile details
- FR.H.12** Journey Cancelling - The user must be able to cancel a journey at any time

Specific Search Requirements The 'Search For Journeys' requirement outlined in FR.H.06 needs to include the following:

FR.H.06.01 Distance Search - The search function must search not only for journeys which originate and terminate at the exact searched locations, but must return journeys which originate and terminate at locations near to that of the search. For example, within ten kilometres

FR.H.06.02 Partial Journey Search - The search function must return journeys in which the searched origin and destination are, or near to (see FR.H.06.01), points along the journey