

Contents

| | | |
|----------|-------------------------------------------------------|----------|
| 1 | Specifications for MyNextRide website | 1 |
| 1.1 | Users | 2 |
| 1.1.1 | Registered Guests | 2 |
| 1.1.2 | Product Advisors | 4 |
| 1.1.3 | Dealers | 4 |
| 1.2 | Chose a Car | 4 |
| 1.3 | The Car Wizard | 4 |
| 1.4 | MyNextDilemma | 5 |
| 2 | Description of "Chose your price" feature | 7 |
| 3 | Priorities | 8 |
| 3.1 | Timelines | 8 |
| 3.2 | Essential for first version | 8 |
| 3.3 | Specified for first version: priority order | 8 |
| 3.4 | Extension components | 9 |
| 3.5 | To be added | 9 |
| 4 | External components | 9 |
| 4.1 | Chat module candidate | 9 |
| 4.2 | Survey module candidate | 10 |
| 4.3 | Vehicle selection module candidate | 10 |
| 4.4 | Chose your price module candidate | 10 |

1 Specifications for MyNextRide website

The MyNextRide website is designed to help customers select and buy vehicles, Since human advice is often necessary for this, the website also has a social networking component.

Vehicles will be selectable by make and model (conventional method), or by using a **feature search engine**. If desired the customer can get some automated advice on his situation (**dilemma**) before asking a human (product advisor).

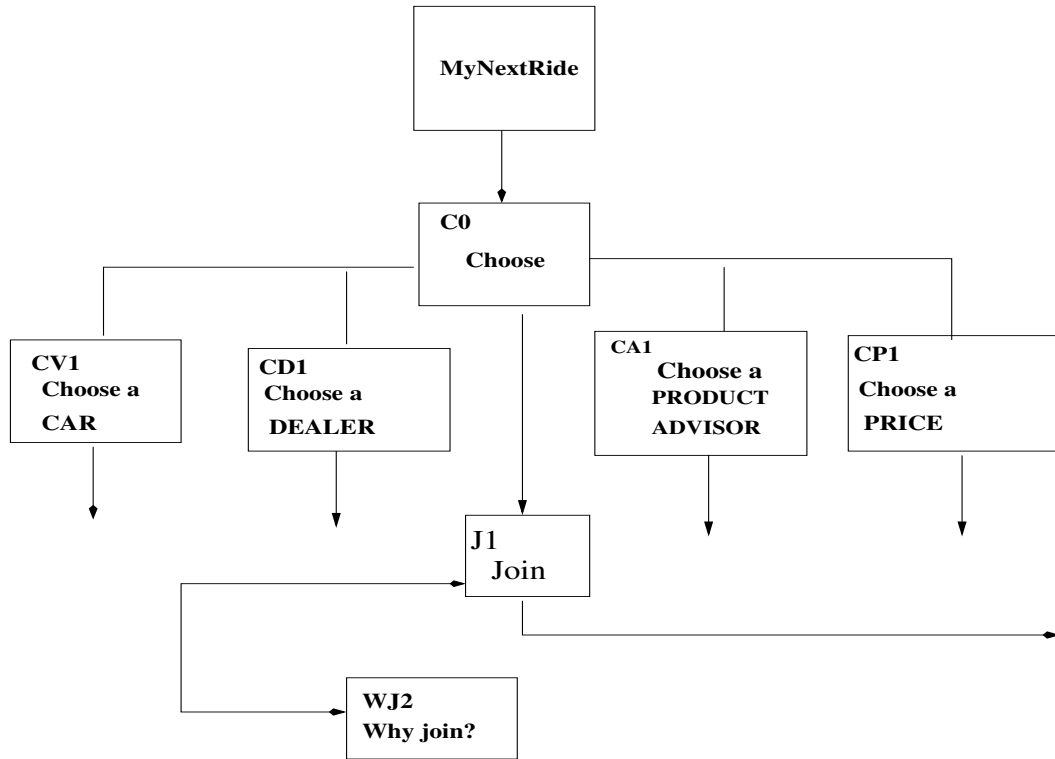


Figure 1: Map for introductory customer pages. Customers will be able to **chose a car, chose a dealer, chose a product advisor** or **chose a price**. Node labels C0, CV1 etc will be referenced in subsequent figures and on sample content pages. Sample content: CV1, CP1 (partial), J1 (partial)

Once a vehicle has been selected, the customer will have the option to call for price offers on the vehicle in a **chose your price** tool after paying a fee.

1.1 Users

The classes of user will be 1. **Guest**, 2. **Registered Guest** (RG) 3. **Product Advisor** (PA) and 4. **Dealer**. Each Product Advisor (PA) is associated with one Dealer.

Guests may browse the site, and select a vehicle, but may not communicate to a product advisor or use the **chose a price** tool.

1.1.1 Registered Guests

Registered guests will login with an email and a password.

In order to become a **Registered Guest**, a **Guest** must **join** the site. They will do this by completing a survey, and writing a brief **shopping profile**. The survey (J5) is available as

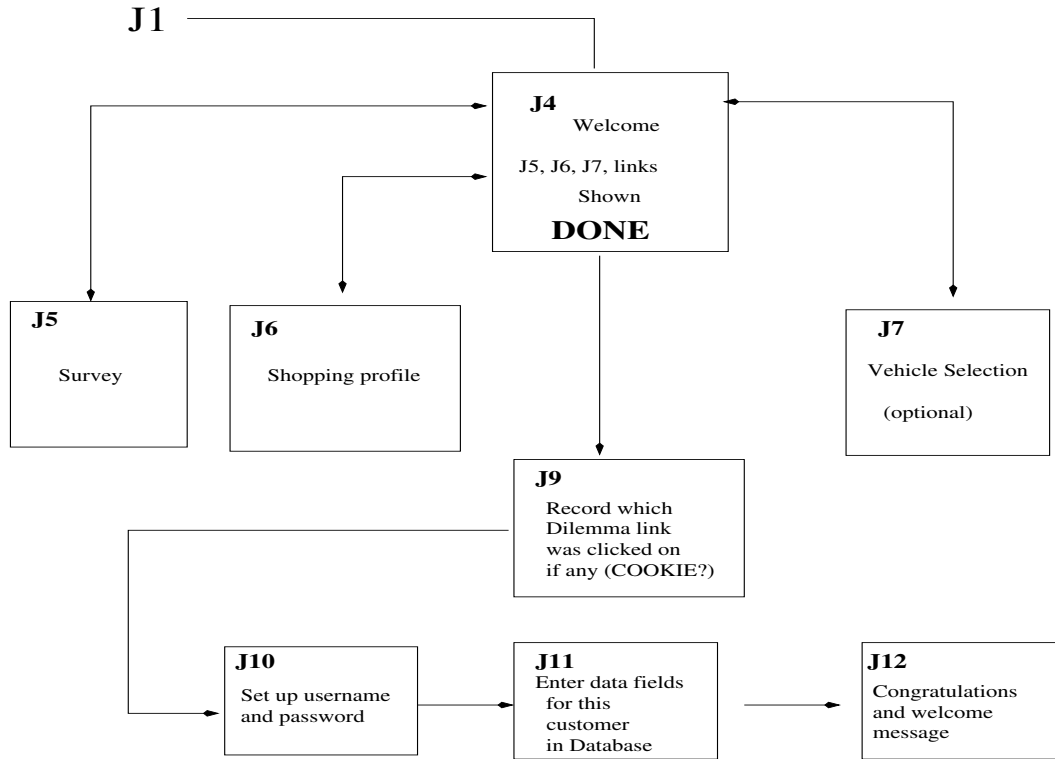


Figure 2: Map for **join** procedure. Customers complete a **shopping profile**, a survey and possibly a vehicle selection. If they have clicked a **dilemma** link (see VD3 figure 3 and figure 4), or selected a vehicle, this will be added to the information which can be shown to a product advisor. Dilemma links clicked by the customer could be tracked with Cookies, as could vehicle selection. Sample content: J5 survey

sample content.

When a registered guest talks to a PA, his survey information is visible to the PA he selects. The PA will also know if the Guest has clicked on specific links on the **dilemma** page (figure 4). once the customer decides to contact a PA.

Registered guest (RG) data fields include survey items, shopping profile, dilemma link(s) and vehicle selection. Dilemma link and vehicle selection can be tracked using unique numerical ids- ie. a numerical hashcode which summarizes dilemma links and vehicle selection choice (hash tables to be specified later).

When registered guests (RG) talk to PAs, they do so in a private chatroom with the conversation only visible to each other.

When registered guests (RG) have a query they may ask (1) a particular PA, or (2) broadcast to PAs from a specified dealer Or broadcast to (3) any PA in the city. When the query is broadcast to multiple PAs, the first PA to respond will receive a private chatroom with this RG.

Customer information (survey result, links clicked, and vehicle selection) is shown only to the responding PA. Customer shopping profile is shown to all PAs.

1.1.2 Product Advisors

Product advisors will login with an email and a password.

PAs must be registered as PA's on the site and they will pay a fee to join. They will complete a brief profile which will be publicly visible, including a headshot. PA profile information includes, city they are in, dealership they are associated with and years of experience.

PA's will be able to view an individual menu showing which customers they are talking to with the ability to switch to that conversation.

PAs are able to enter counter offers on the reverse auction **chose your price** component for any guest who is using the reverse auction component even guests they have not contacted. However, when they do, the customer will not see the name of the PA, only the name of the dealer.

The dealer will know which PA's have entered offers.

1.1.3 Dealers

Dealers will login with an email and a password.

Dealers may add content under their own links,-ie what is in the showroom today or they may simply link to an external website.

Dealers must certify that product advisors who say they work at this Dealership actually do. They might do this by manually clicking a certification box - one time only.

Dealers may enter the features lists for new cars into the feature engine database.

Dealers may see the conversation in the PA chatrooms for PAs who work at that dealership via a dealer control panel.

1.2 Chose a Car

The **chose a car** page display a link to the **CarWizard**, and a link to **chose a car by make and model**. This offers a choice to the customer to chose on their own, or with help from MyNextRide.

1.3 The Car Wizard

The Car Wizard (figure 3, VW2 with sample content) automates part of the car selection process. It includes a

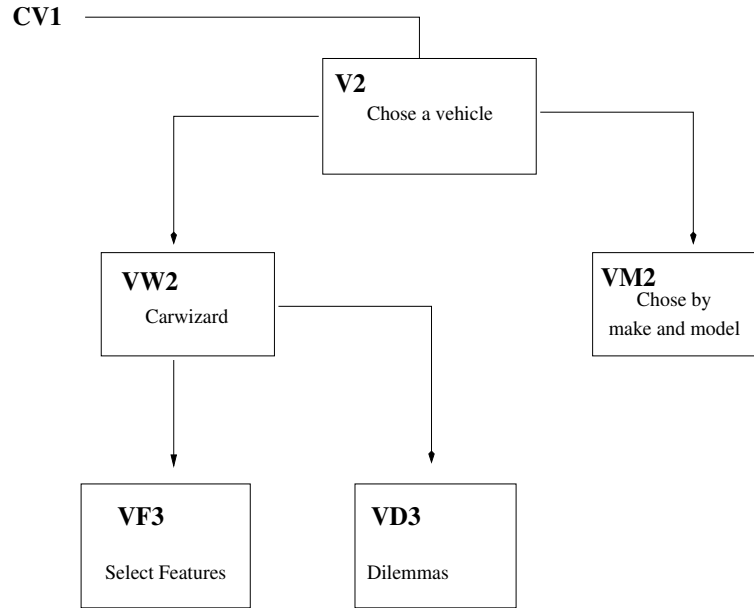


Figure 3: Map for the **chose a car** section. The CarWizard (VW2), Select Feature (VF3) , and Dilemmas(VD3) pages are available as sample content.

1. a link to the survey (J5) **Questionnaire** which lets a Guest complete the survey anonymously,
2. a link to the **dilemma** page **MyNextDilemma** and
3. a link which leads to a **feature search engine**.

Customers must complete the survey to proceed to the **dilemma** page or **feature search engine**. Mostly this is a way to influence customers to complete the survey.

1

Anonymous survey responses could be tracked as PHP session array variables and transferred to the Registered Guest survey data fields if the Guest goes through the **join procedure**.

1.4 MyNextDilemma

The **dilemma** page is a list of commonly encountered problematic situations encountered by vehicle buyers and sellers. Balloon text (not included in this description) will give advice about each item. Guests or RGs may tick up to 3 boxes.

¹While search conditioning will not be incorporated into the alpha version of the MyNextRide website, survey data can be used to condition the automated vehicle selection process via a **logic engine**. This will be added in a later version of the site. For example if a customer drives less than 20,000 km a year and selects a Hybrid, they might be advised that the payoff period on a Hybrid is rather long when mileage is low. The survey can also be used to cross-check some of the **dilemma** queries. For example, if a customer indicates that "this is my first car", and then indicates on the survey they are replacing an existing car, this can generate a polite query.

VD3

mynextcar.ca-->chose-->car-->carwizard-->dilemma



Problem?

No Problem!

- | | |
|----------------------------------------------------------------|---------------------------------------------------------------------|
| <input type="checkbox"/> I dont want to waste your time | <input type="checkbox"/> I owe money on my last car |
| <input type="checkbox"/> This is my first car | <input type="checkbox"/> Is someone else getting a better price? |
| <input type="checkbox"/> I'm shopping for someone else | <input type="checkbox"/> Your car X costs more than car Y |
| <input type="checkbox"/> I just wrote my car off | <input type="checkbox"/> I dont have time to test drive |
| <input type="checkbox"/> We are making a spreadsheet of cars | <input type="checkbox"/> I dont want to pay any interest |
| <input type="checkbox"/> No one seems to have the car I want | <input type="checkbox"/> Will this car fit in my garage? |
| <input type="checkbox"/> Give me your best price | <input type="checkbox"/> Can I drop by next week? |
| <input type="checkbox"/> What's my trade worth? | <input type="checkbox"/> I had a bad experience with a sales person |
| <input type="checkbox"/> How long will it take to get the car? | <input type="checkbox"/> Why isnt feature X standard? |
| | <input type="checkbox"/> Why do I have to pay freight? |

Talk to a human

Figure 4: MyNextDilemma is a list of common problems encountered by car shoppers and PAs. The image shows Babe Ruth's famous called home run to right field. The site tracks the last 3 boxes ticked. Balloon text shows a brief text snippet (not provided in this spec) with advice.

CP1

mynextride-->chosed-->chosedprice-->whyprice

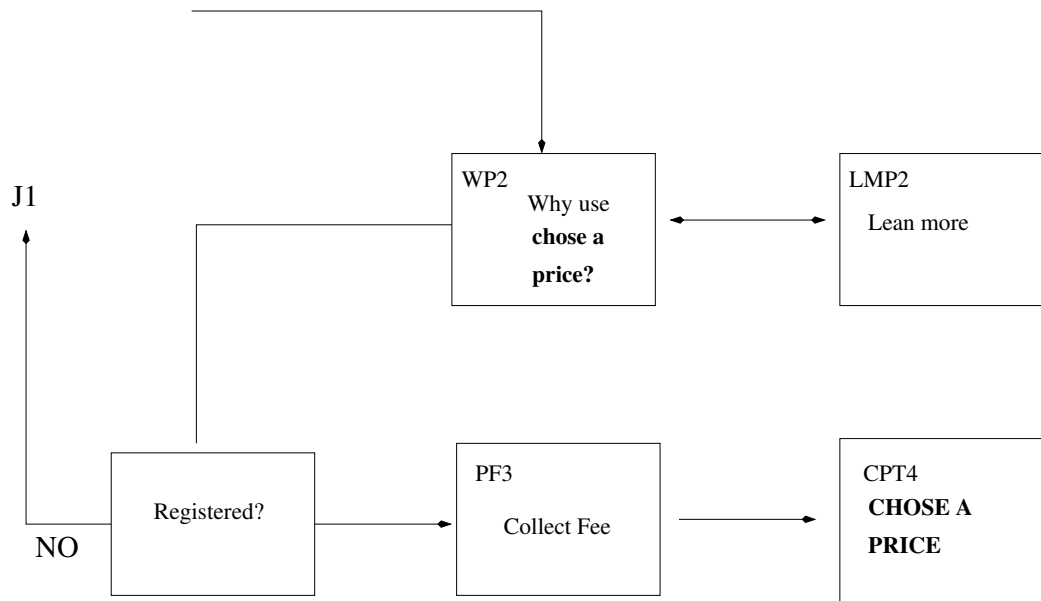


Figure 5: Registered guests may use the **chose a price** tool if they pay a fee. Sample content for WP2 and LMP2.

2 Description of "Chose your price" feature

The **chose your price** feature would allow any customer to obtain bids for his or her business on a vehicle.

The customer pays a fee and legally commits to buy at a price of his choosing.

Dealers will then provide counter offers - and the customer is entitled to receive up to 5 counter offers or keep the offer up for one month.

Deal terms should be in a standard format to avoid misunderstanding.

Dealers are bound to sell at their bids if accepted.

If customer buys, he gets the fee back and the bidding dealer pays it instead.

The lowest bid for the customer's business is always visible to all the bidding dealers but not to anyone else.

We expect to provide most of this functionality through an external module.

3 Priorities

3.1 Timelines

The first priority is to have a working website by the deadline. Some deviations from the specification can be discussed at the design review, if it allows the contractor to meet the deadline.

3.2 Essential for first version

The following elements are must haves for a first version of the site:

(A1) PAs must be able to create a profile and a login for themselves.

(A2) Guests must be able create a shopping profile and login

*(A3) Guest must complete a survey when they register. The survey data must be available to the responding PA.

*(A4) The Registered Guest and PA converse in a private chatroom, and not in a public forum.

(A5) Dealers must have a view panel which displays conversations going on with customers

*(A6) There must be a method to select vehicles by make and model.

(A7) There must be a method to track **dilemma** boxes ticked and vehicle selected and present this to responding PA.

(A8) RG's must be able to address one PA, all PAs at a dealership or all PAs in the city with a query.

3.3 Specified for first version: priority order

(B1) There should be a **feature search engine** which takes entered features and outputs a list of vehicles with those features. This is a straightforward database search.

*(B2) There should be a **chose your price** tool.

(B3) Dealers should be able to enter data fields for vehicles that will be in the catalogue for the **feature search engine**.

(B4) There must be a method to collect payments from PA's who wish to join and RG's who wish to use **chose your price**

3.4 Extension components

The * elements will largely be handled by components which we download for free or buy and will not have to be written from scratch (see below).

3.5 To be added

These parts (C1) and (C2) below will not be outsourced and are not the responsibility of the contractor.

(C1) A **logic engine** that processes survey data and dilemma links and checks for consistency, as well as modifying the list of vehicles output.

(C2) A service to purchase data on invoice prices the RG will use in naming a price.

4 External components

This is a large and ambitious project, but many of the elements described here have been written by other people and are available for purchase or download.

These include *(A3) the survey *(A4) the private chatroom, *(A6) the vehicle selection menus and *(B2) the **chose your price** tool. Some customization will be necessary for these components.

In selecting Joomla modules and extensions, I selected the ones below based on several criteria.

(i) The component should target the problem we want to solve, and not offer multiple features we do not want. For example, JOMsocial has far too many features and looks like it would bloat our application unnecessarily. Therefore, it does not make sense to use it just to get the chat feature. (ii) Any component to be used should have been added to the extension directory in the last year, be under active development and work with Joomla 3.x. (iii) The component should not have multiple negative reviews. (iv) It should be clear from documentation and other materials that the designers speak english.

4.1 Chat module candidate

After looking at many chat components, and looking at the Demo the most suitable one seems to be **X5 Ajaxchat**.

<http://extensions.joomla.org/extensions/communication/chat/15928> This is a paid component and I will be buying it for about 30 Euros. Further evaluation will be necessary before we can be sure it is suitable as is, but it seems probable that even if it is not, it could be hacked and made to work.

4.2 Survey module candidate

This survey module from tamlynsoft.com and appears to be straightforward and usable.

<http://www.tamlynsoftware.com/>

4.3 Vehicle selection module candidate

The modules would include the ordasoft vehicle manager

<http://ordasoft.com/Vehicle-Manager-Software-Joomla.html>

4.4 Chose your price module candidate

This reverse auction component

<http://extensions.joomla.org/extensions/e-commerce/auction/8771> seems like the most likely one.

Using software modules written by other people can be difficult. Therefore, any suggestion I make here is subject to testing and review.