Interaction design

## Car hire | Websites

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Objectives

01 Build on the flow diagram you created in the previous project and sketch the screens and screen states for users flowing through your desktop app

02 Address all the issues and user goals identified in your research and analysis

03 Learn how to use sketching as a tool for problem solving

04 Learn how sketching is a vital step before prototyping or digital wireframing

05 Develop great material for your portfolio

Tasks

01 Create a list of screens to design based on your flow diagram

02 Make sure to include screen state when the state differs significantly based on users' actions

03 Sketch each screen until you have completed the flow. Make note of any issues or inconsistencies that become apparent: you can tackle these in the next iteration

04 Assume that you won't get it right the first time. Keep iterating until you're happy that the flow works

05 Finalise the sketches and photograph them.

Homepage - search form
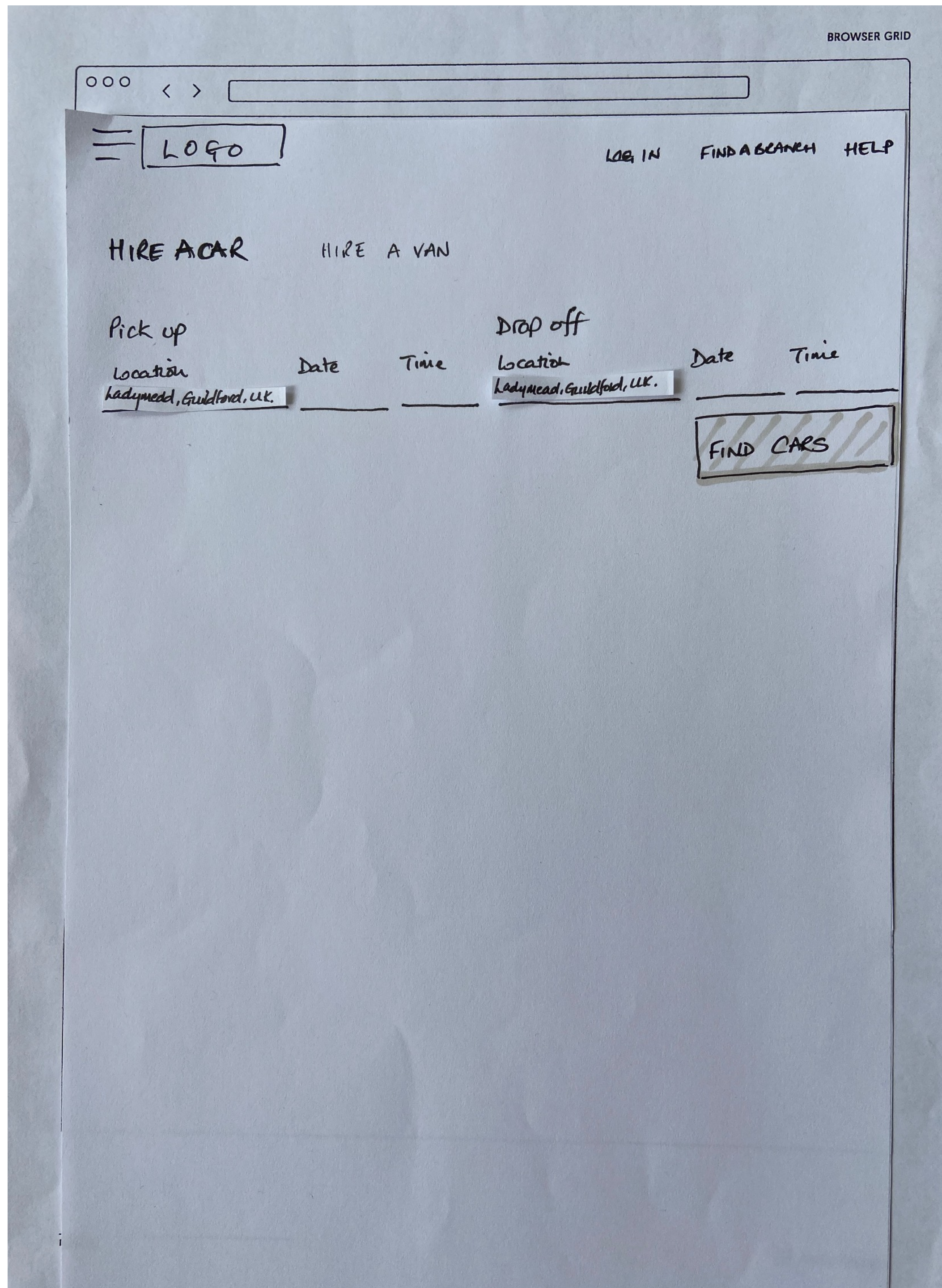
Main site navigation indicates we are in the Hire a cars tab - exact appearance TBD.

Search form near the top of the home page - the research highlights this as a positive convention. Default values in the search should be refined based on future research, but for now should be:

• Pick-up location based on GPS/IP address location

• Drop off location same as pick up location.

Large 'Find cars' call to action (CTA) below the search fields.

Option for imagery below this - according to the research this would ideally show the international or national coverage of the company to provide users with confidence about its size and reputation.

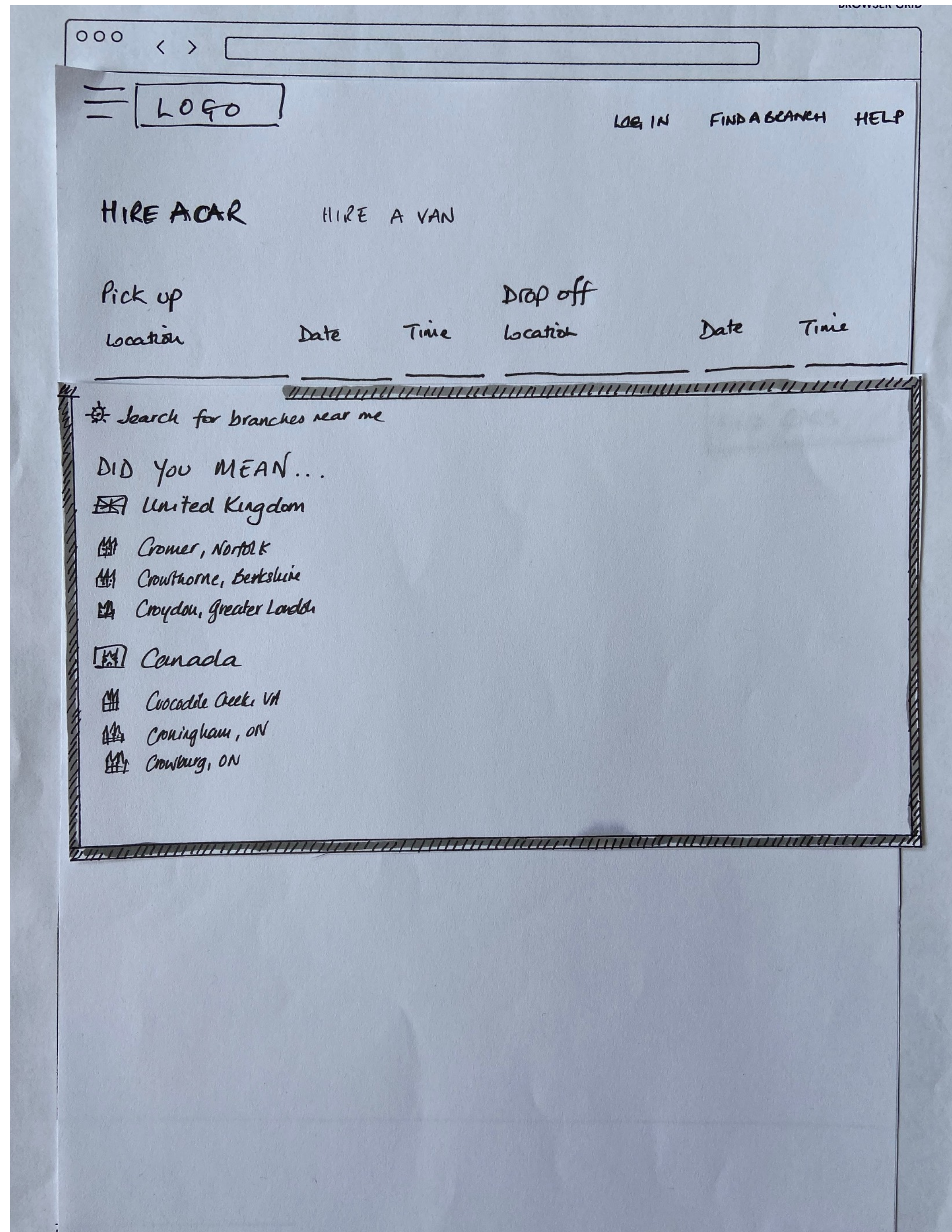## Significant previous attempts
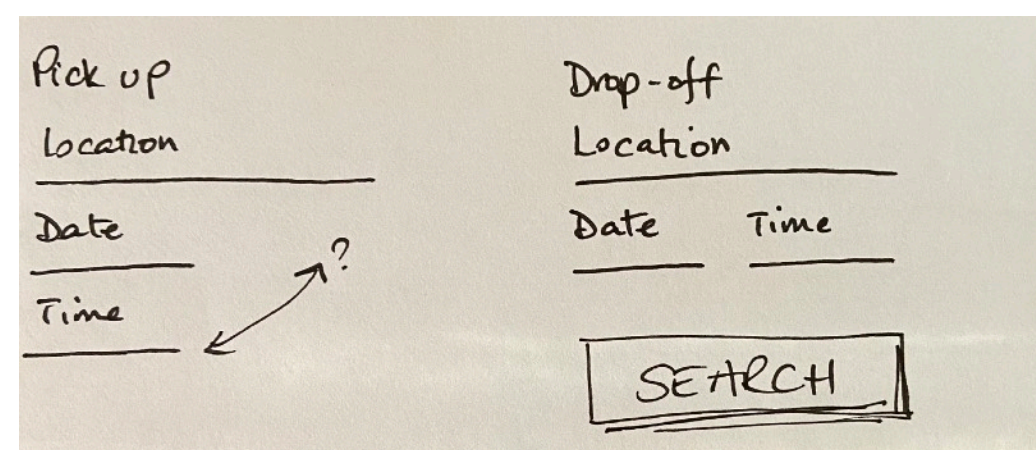
I tried to structure the form in two columns....
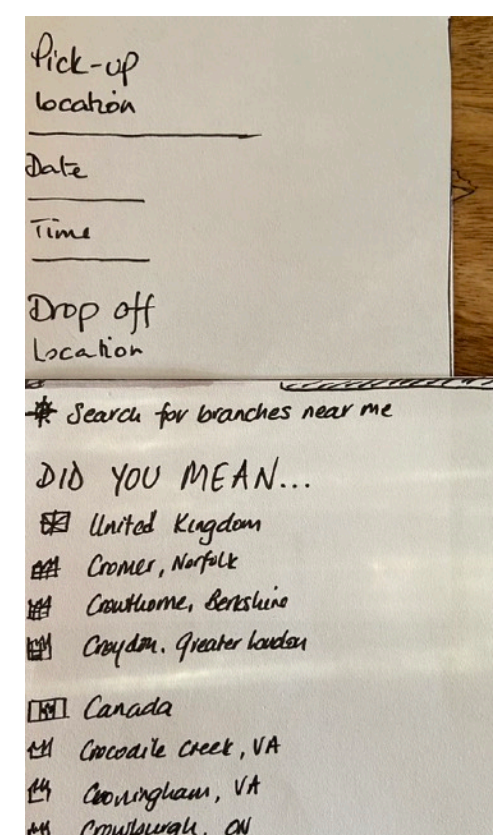
and single column, but....

....drop down fields then obscured the fields below them. That's how I ended up with a horizontal flow, which means that the user can always see what they have input and what's left to fill in.

3

Search - 'did you mean' list of search results

If the user clicks into the pick up location field to edit the default, the field activates. The remaining fields are visible but visually less prominent (eg perhaps label of active field gets larger or changes colour).

The drop down workspace under this field takes up the full width of the screen, masking the potentially busy imagery underneath and reducing distraction. These drop down workspaces are a feature throughout the search.

The cut out in the border of this drop down screen aligns with the search field it relates to - so in this case under 'pick up location.'

Option to 'search for locations near me' loads the next screen state when clicked.

Alternatively the user types into the pick up location and results are displayed, broken down by country (the user's country, based on IP address, first and then all countries alphabetically from A to Z thereafter). Flag displayed next to each country name.

Icons provide a hint as to type of search result (city/town, airport, train station, company branch). Results likely to be cities or towns as the user first starts to type, because branch locations are usually more precise terms.

User can click on any of these results to reveal branches near the location they clicked on (next screen state). Or they can continue typing until their search terms match a branch or a small number of branches, in which case the system will automatically switch to displaying these on the next screen.

Significant previous attempts
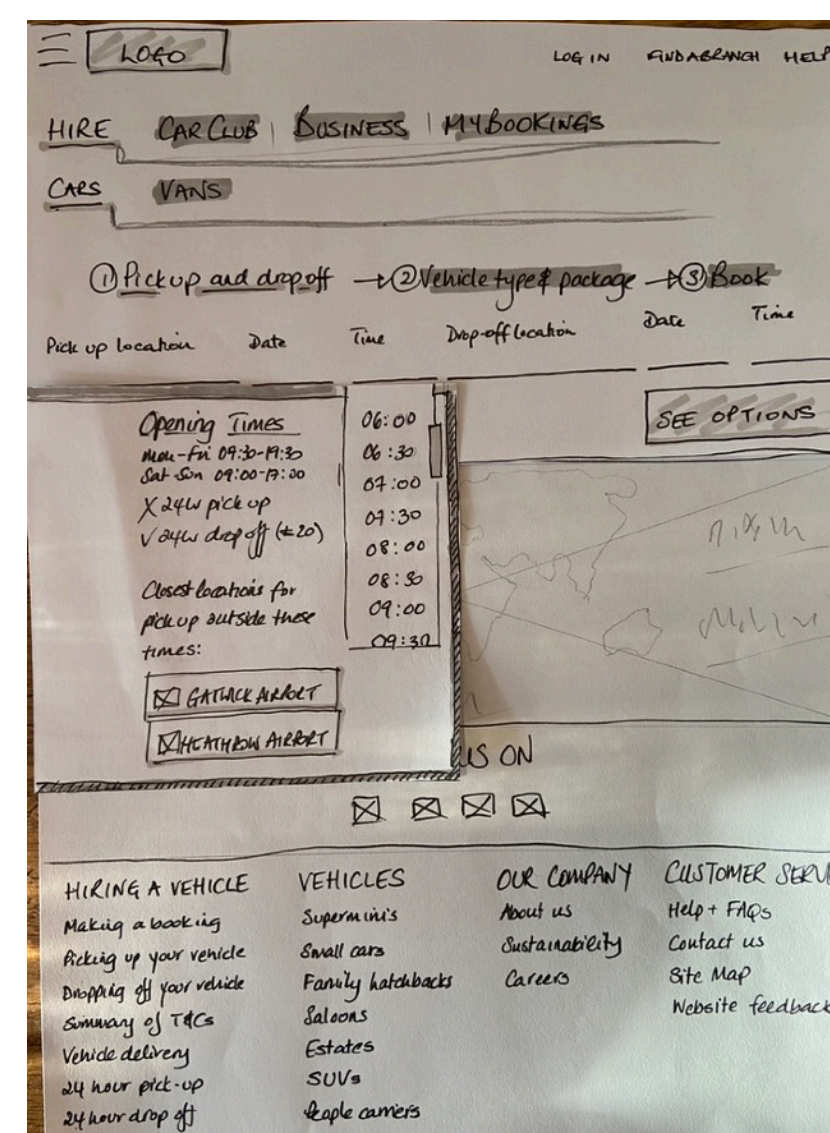
My initial sketches did not have large white drop down workspaces - the size of the drop down area matched the size of what it needed to display. But the research showed that users wanted to focus on the task and did not want the distracting imagery, so I took the opportunity to mask it while the user is engaged in detailed input, by overlaying a white workspace.

4

Search - list and map of branch location results
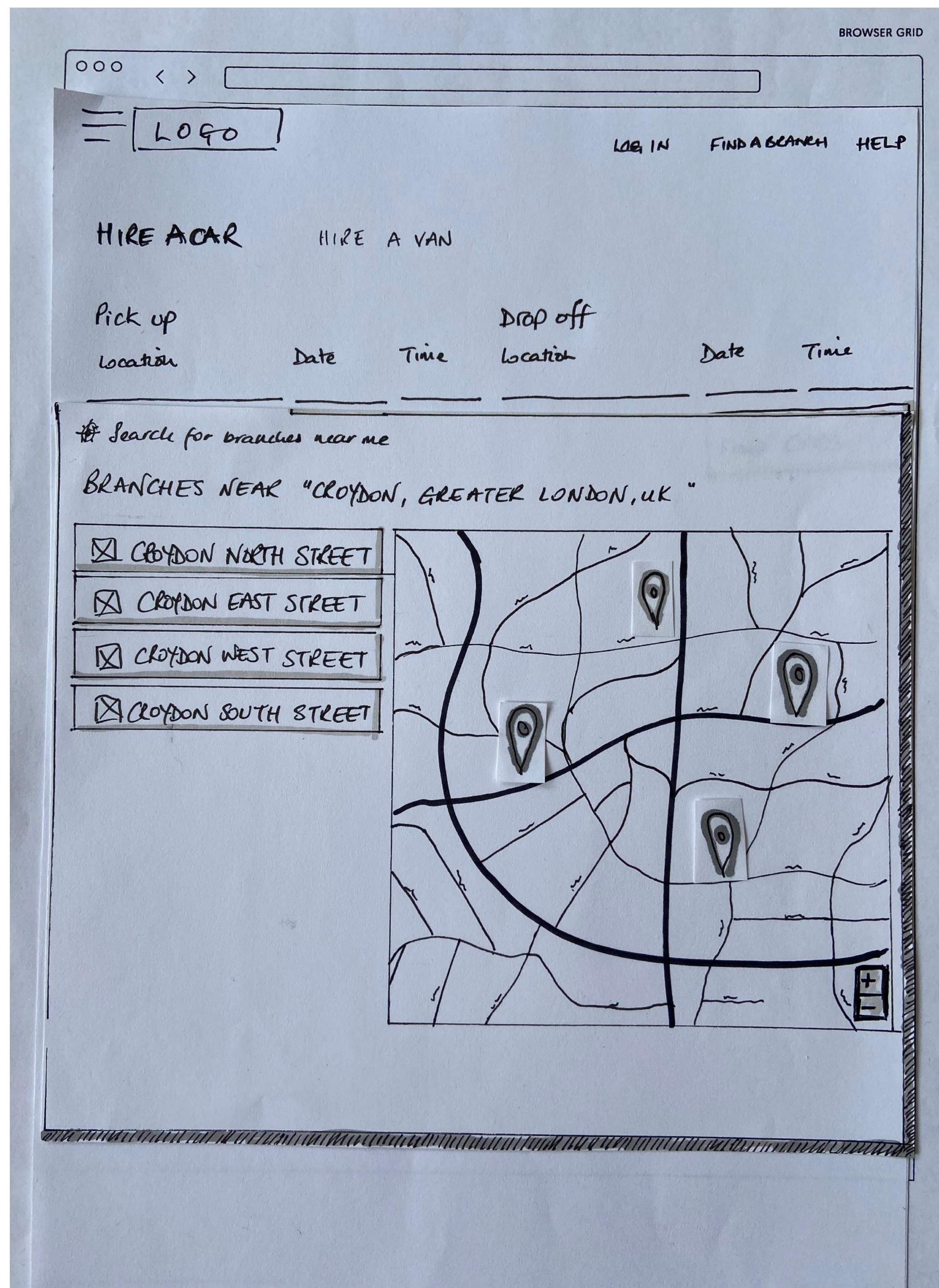
This screen state shows a list of locations in the drop down workspace, and a corresponding map view. Icons show whether these branches are at airports, train stations, or in towns.

This is shown when, on the previous screen state, the user either:

• Clicks on a town or city

• Carries on typing into the pick up location field until there is only one town or city match

• Carries on typing into the pick up location field until there are 10 or fewer branches, all within a 20 mile radius

• Clicks on 'search for branches near me'

If the user clicks on 'search for branches near me', the list and map view show the following:

• if there are more than 7 of these, the closest 7 only.

• if there are none, the closest 7 beyond 20 miles away.

The map should be zoomed in as much as it can be and all branches in the map area should be shown.

5

Search (alternative flow - move map area)
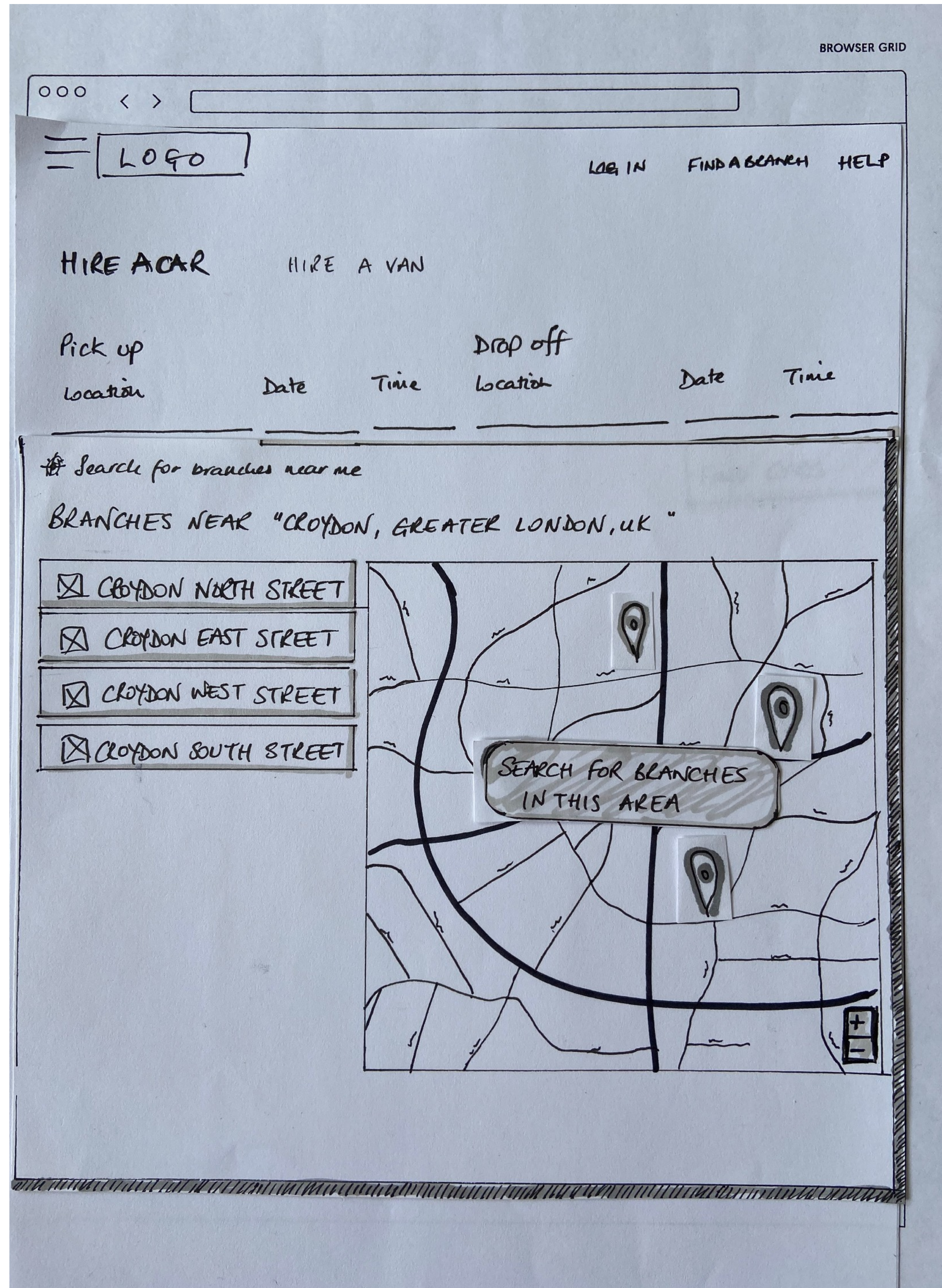
The user can manipulate the map, which then reveals a 'search for branches in this area' button to refine the search.

Until this floating button is pressed, the map and corresponding list view to the left continue to display the original search results (including map pins). Thus the results on the map and list are always consistent with each other. This also guards against user irritation, which the research highlighted, occurs when the search refreshes every time they touch the map.

Search - view branch details and select
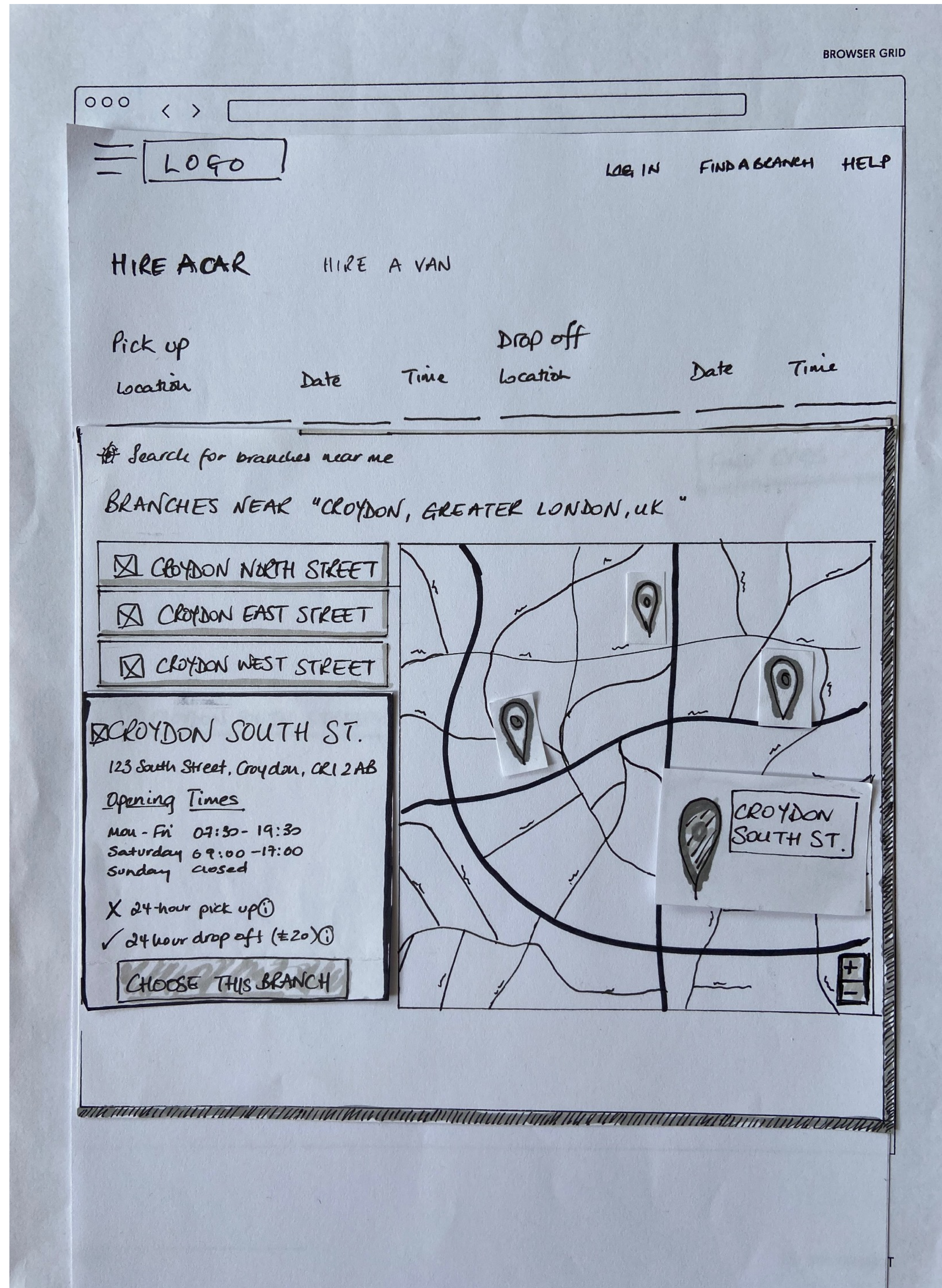
Users can click on pins on the map OR list items, and this

1. Makes the map pin bigger and reveals its name.

2. Expands the list item to show its address, opening times, pick up and drop off options (all help the user to understand whether they can pick up and drop off a vehicle when they need to) and the 'Choose this Branch' call to action (CTA).

Clicking on the 'Choose this branch' call to action has the following effects:

1. Closing the pick up location workspace

2. Populating the pick up and drop off location form fields with the selected branch

3. Opening the pick up date form field (next screen state).

Significant previous attempts

I tried 'choose a different location' tickboxes which I had seen during the competitive benchmarking exercise but ultimately this was logically more complicated raised further questions about wording ('same location' vs 'different location' which would require different default values - ticked for the former and unticked for the latter, and ultimately more user testing for which there is little scope on this course). It seemed much simpler and clearer to simply automatically populate the drop off location field with the pick up location, and allow the user to edit it, but we'll have to check whether automatically populating the drop off field presents a mental barrier to editing it.
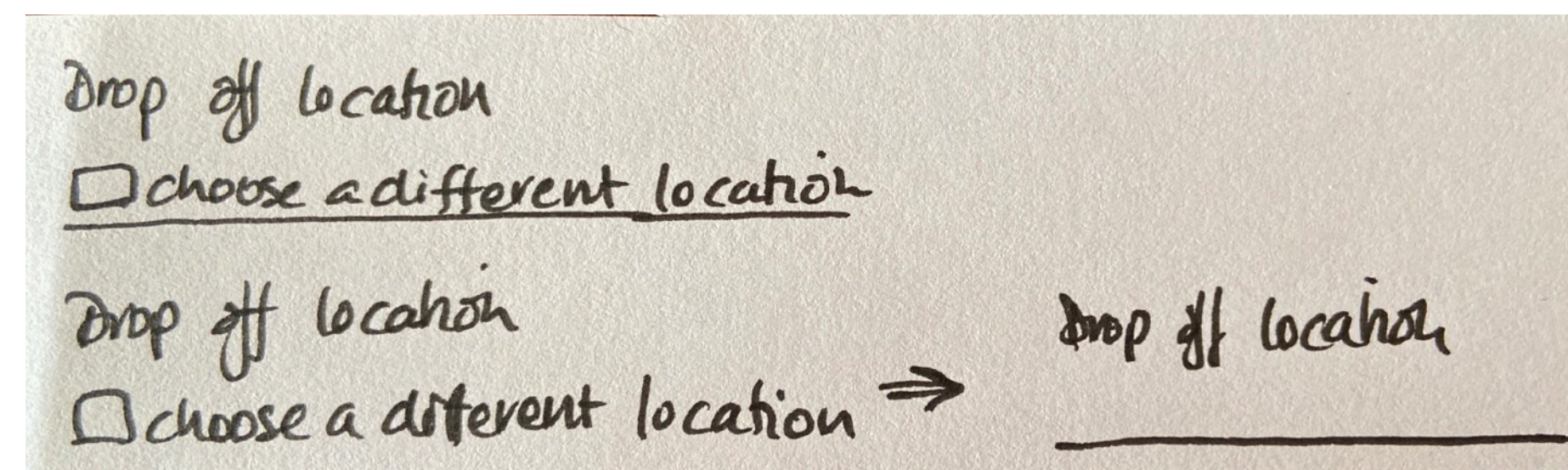
Search - select pick up date
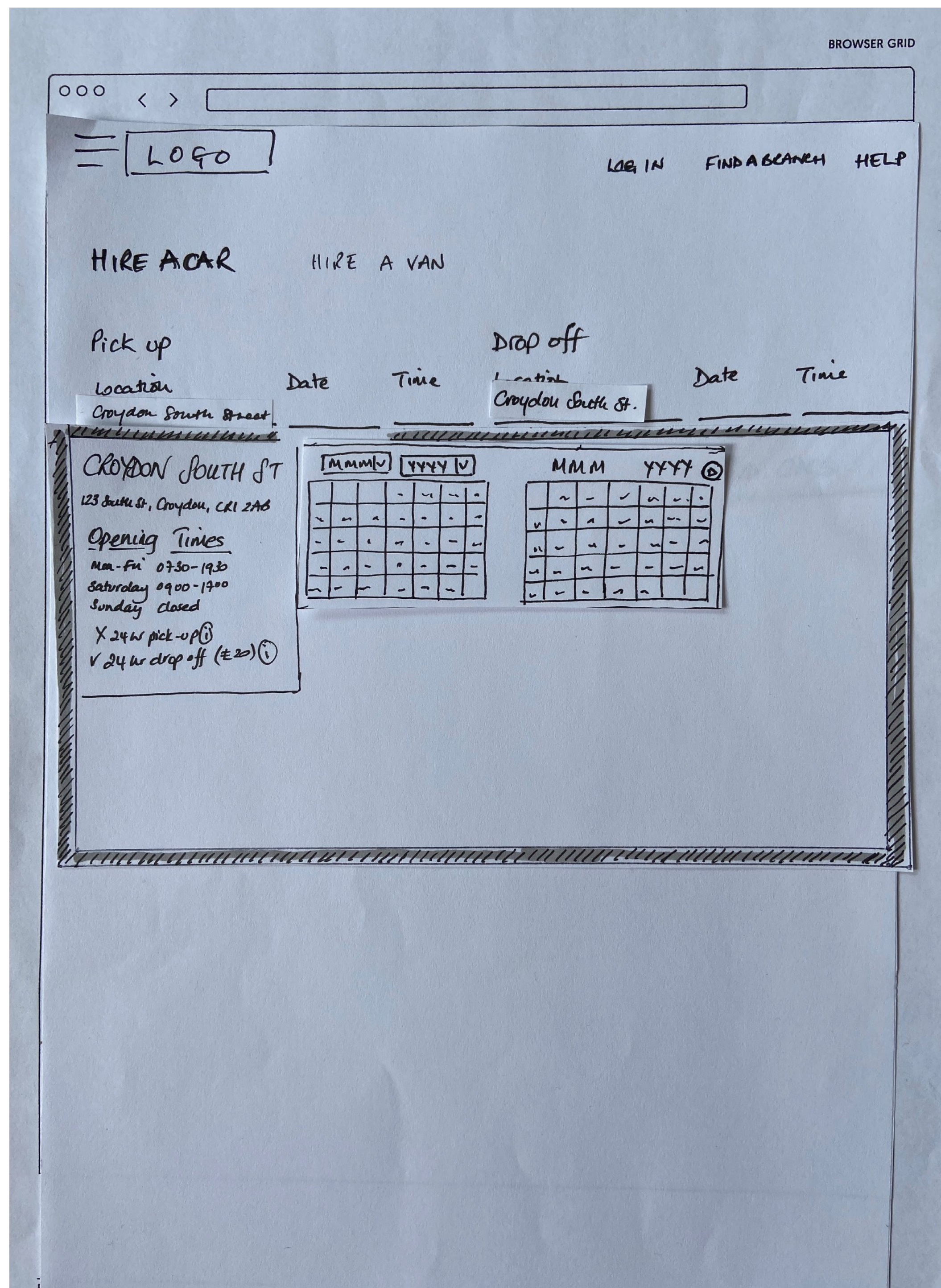
When the pick up date field is activated a new drop down workspace appears, with the cut out in its border aligned with the date field. The remaining fields are visible but visually less prominent (eg greying out, perhaps labels slightly smaller).

The opening times and pick up/drop off options at the selected branch persist to help the user choose dates when the branch is open.

The date picker shows a two month range (research shows that users prefer minimal effort to scroll forward or backwards) and can be navigated by forward/back arrows or drop downs for month and year.

To prevent users from booking dates in the past:

- The current month and year are the earliest that are shown on the drop down fields in the calendars

- The back arrow is not shown when the current month is showing

- All dates before 'today' are greyed out and clicking on them has no effect.

Significant previous attempts

My earlier attempts only displayed a single month at a time, which would only really work well for people booking a vehicle in the current month. It did not include the opening times of the branch which would make attempts to book a vehicle on days the branch is closed more likely. And it did not cover the image under the form, which could be distracting.

8
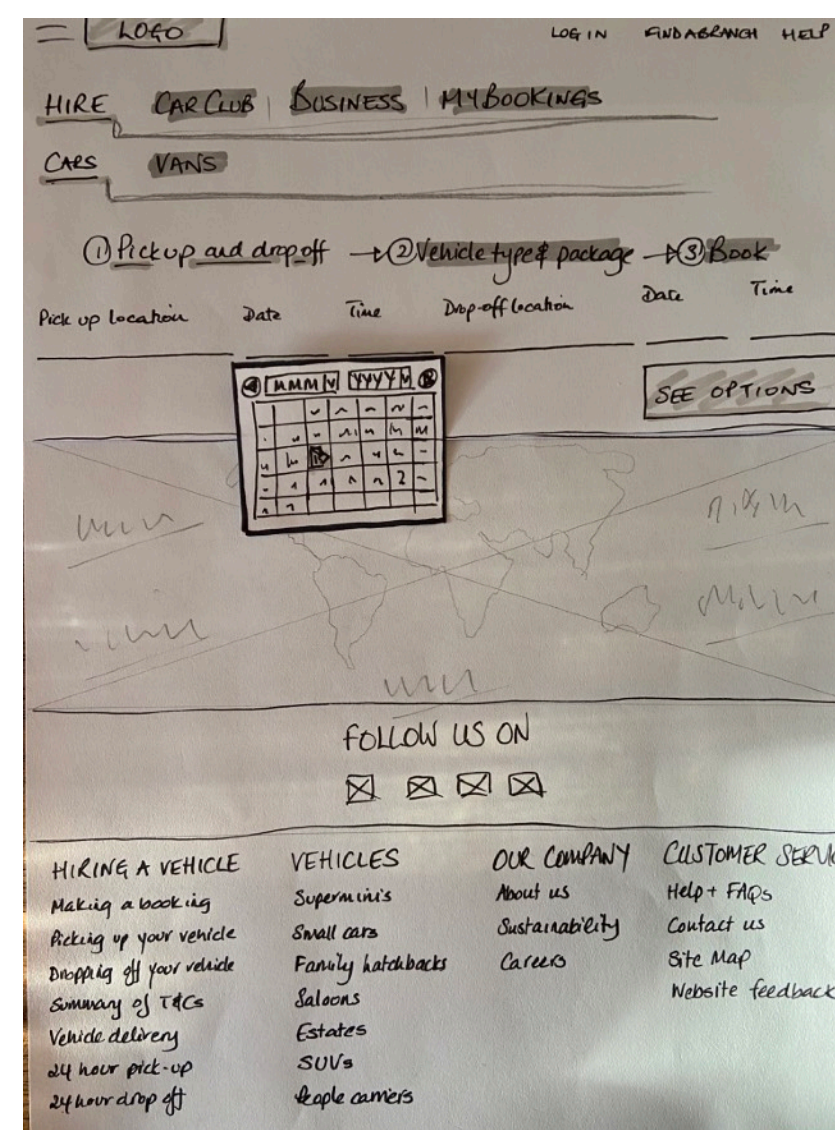
Search (alternative flow - branch closed on selected date)
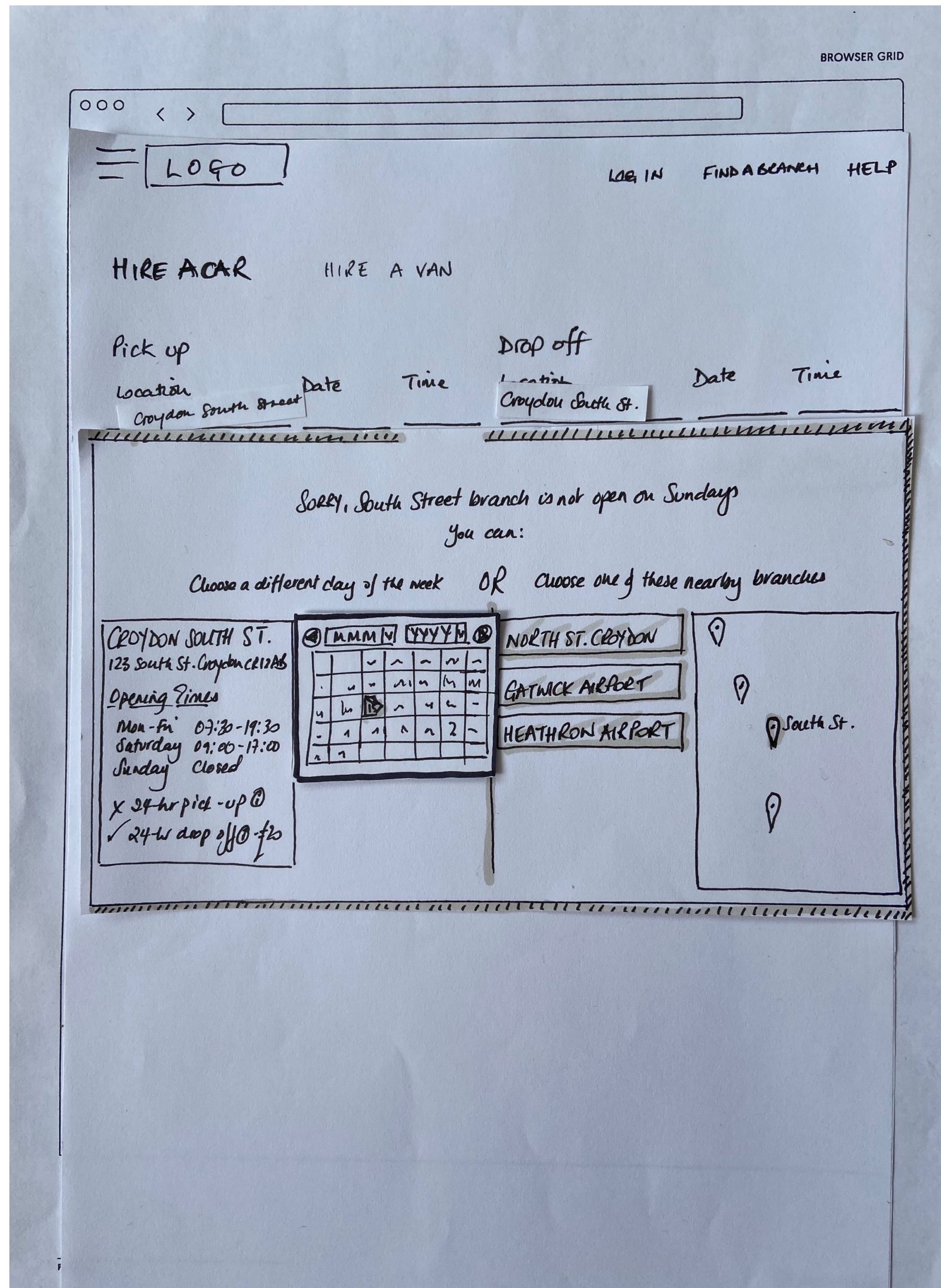
This expanded version of the date selection screen is only shown if a day of the week is selected when the branch is closed.

The message is shown above the date selector in a contrasting colour, providing the user with the options of:

A. selecting a different date using the calendars already on screen, or

B. Selecting a different branch. The system offers up a list and map of alternative branches, albeit with the current branch selection highlighted on the map.

Search (alternative flow - alternative branches)
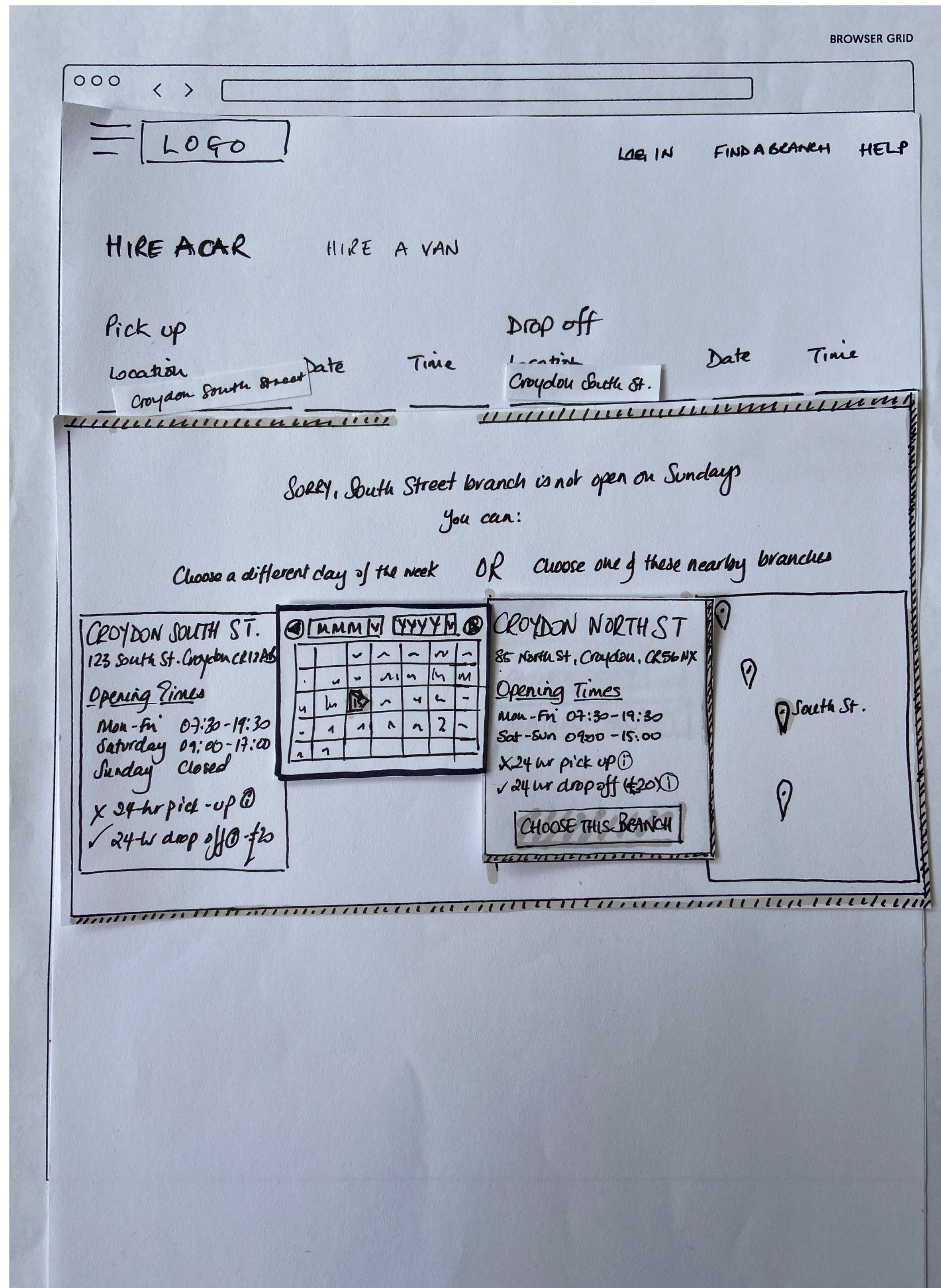
The user can click on the list items or map pins, which results in:

1. The map pin of the selected branch being highlighted and

2. The list item being expanded to show branch details including the address, opening times and pick-up / drop-off options at the branch. There is also a 'Choose this branch' CTA within the expanded list item

If the Choose this Branch CTA is selected, this

1. Replaces the pick up and drop off branch values that were previously in the form

2. Enters the date that was previously selected into the date field.

In the scenario shown here the user selects a different date when the original branch is open which leads to:

1. This date being put into the form field.

2. The closing of the date drop down workspace.

3. The activation of the pick up time field (next screen).

Search - select pick up time
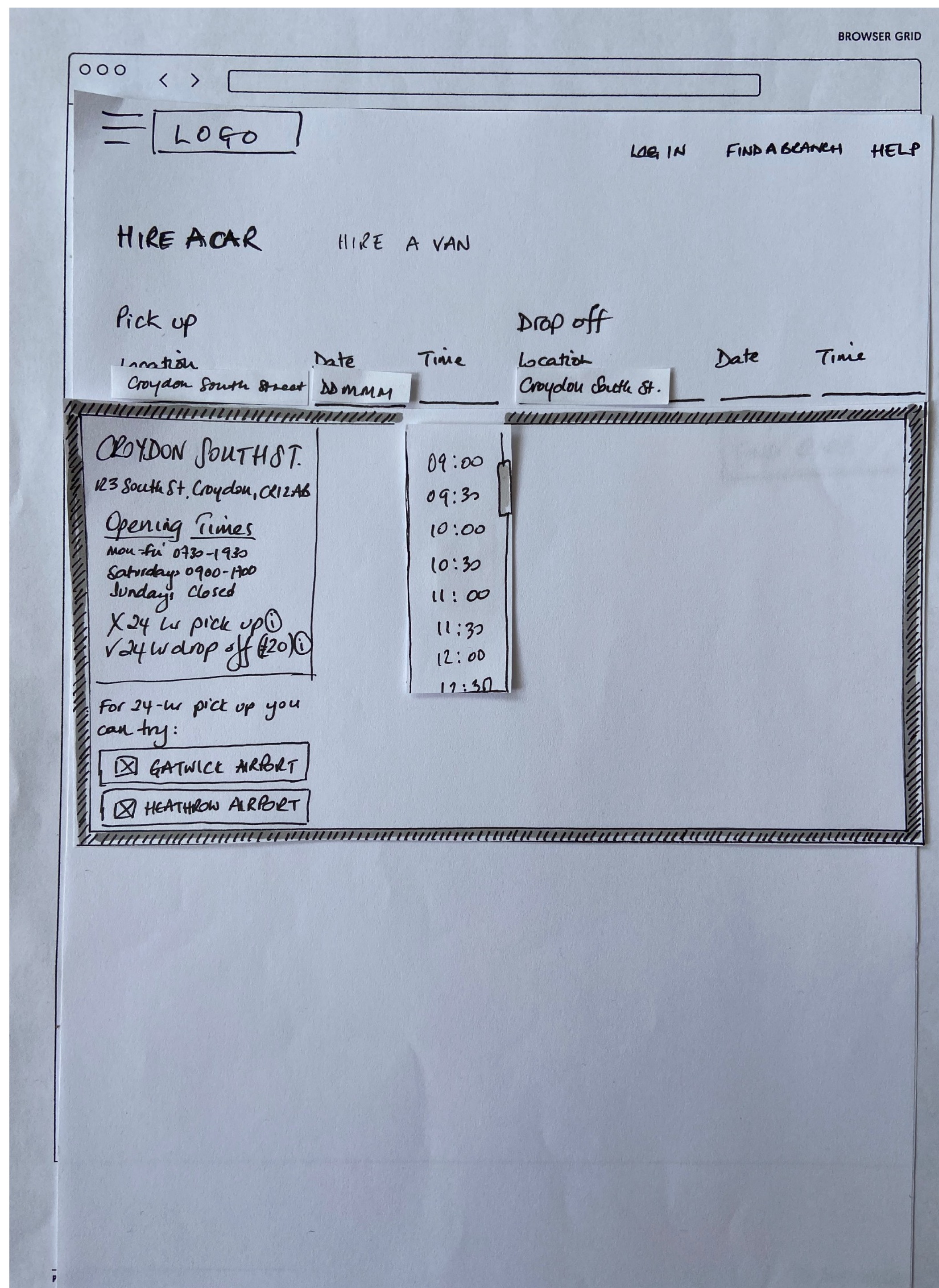
When the pick up time field is activated, the other fields are greyed out and a new drop down workspace appears, with the cut out in its border aligned with the time field.

The opening times and pick up/drop off options at the selected branch persist to help the user choose a time when the branch is open.

The system also lists two of the closest branches that have out of hours pick up and drop off options, in case the the user has got this far and the opening times of their selected branch still do not work for them.

Clicking on one of these expands the drop down workspace (next screen)

Search (alternative flow - pick up outside office hours)
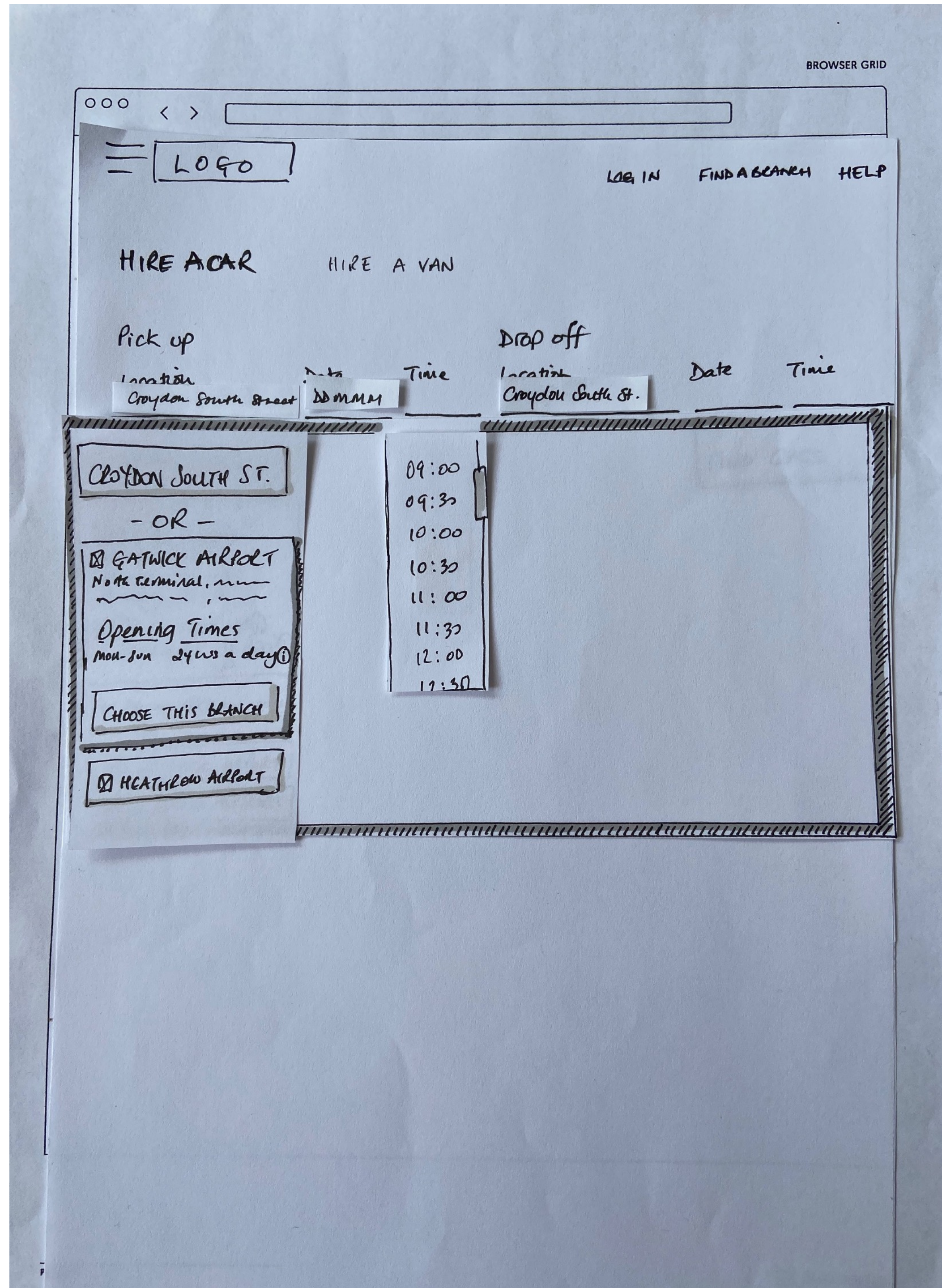
The selected branch with 24 hour pick-up is expanded in the list, showing its address, opening times, pick up and drop off options, and a 'Choose this Branch CTA. Clicking on this

1. Populates the pick up and drop off location form fields with the newly selected branch.

2. Replaces the details of the previous branch with those of the current branch on the drop down workspace.

3. Removes the map and shrinks the workspace.

So far this effectively looks like the previous screen.

4. It shows a drop down list of times spanning a full 24 hours, rather than just the business hours of the previous branch.

Selecting a time from this list enters the value in the time field.

Search - drop off location

At this stage all of the pick up fields have been populated by the user and the system as auto-populated the drop off location field to match the pick up location.

Modifying the drop off location initiates a process identical to selecting the pick up location. This is not repeated in this document.

The drop off date and time have slightly different screen states compared to their pick up equivalents, and are shown in the coming slides.

Search - select drop off date
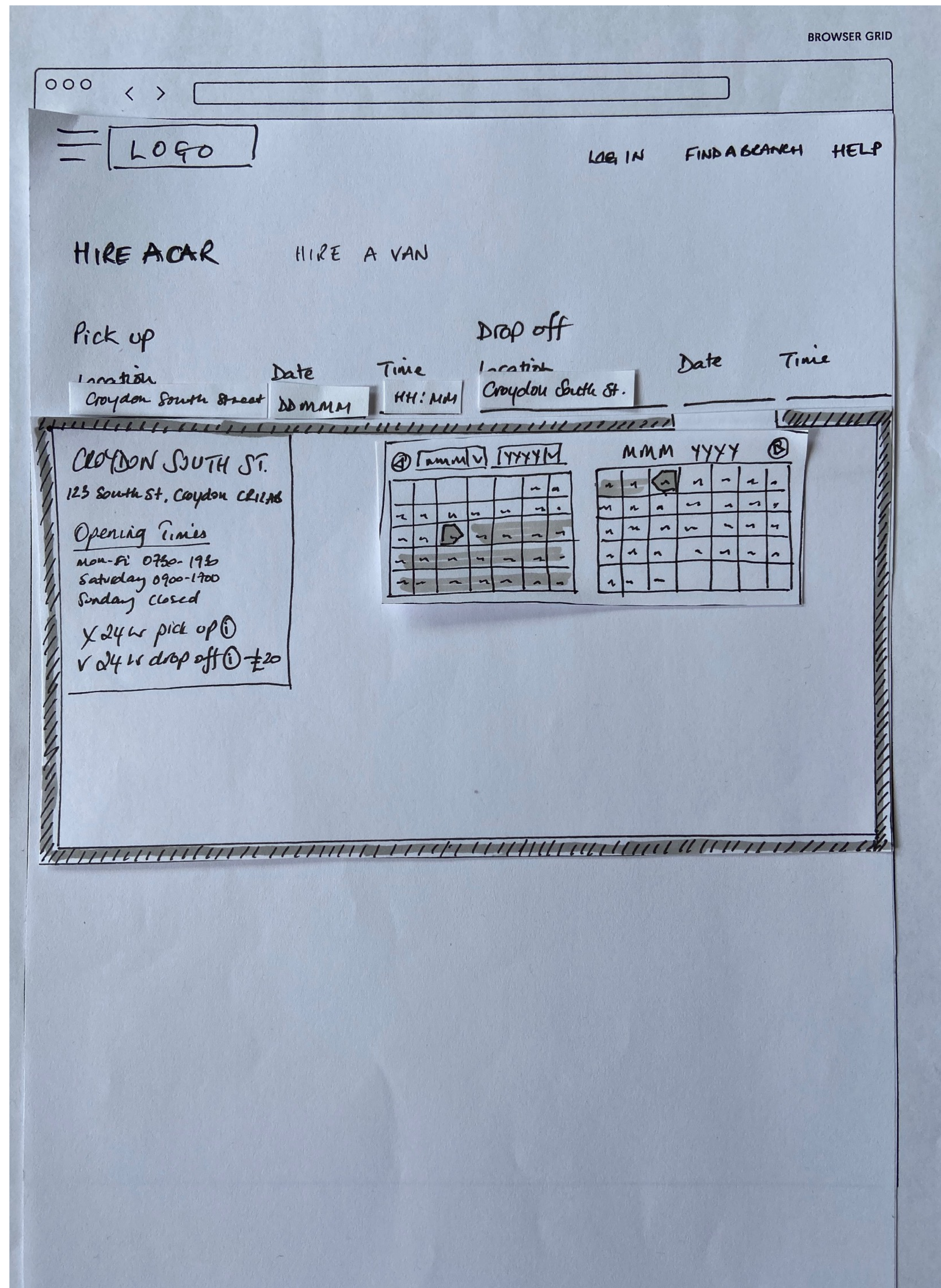
The drop off date screen state looks very similar to that of pick up date, but the calendar defaults to the month of the pick up date and that date is highlighted with a forward arrow shape as shown on screen.

As with the pick up date, the calendars show a two month range and can be navigated by forward/back arrows or drop downs for month and year.

As the user hovers over dates, the drop off date moves, as indicated by the back arrow, and the highlighted rental duration also moves.

When the user clicks a return date, this window closes, and the date value is put into the form.

This separation between pick up and drop off date selection means that if the user makes an error with their selection, they can come back into this field and make a new selection. Research has shown that this is better than combined start/end date pickers, in which error correction is much more fiddly - after an end date the system expects a start date, whereas the user wants to input a new end date.

Search - select drop off time
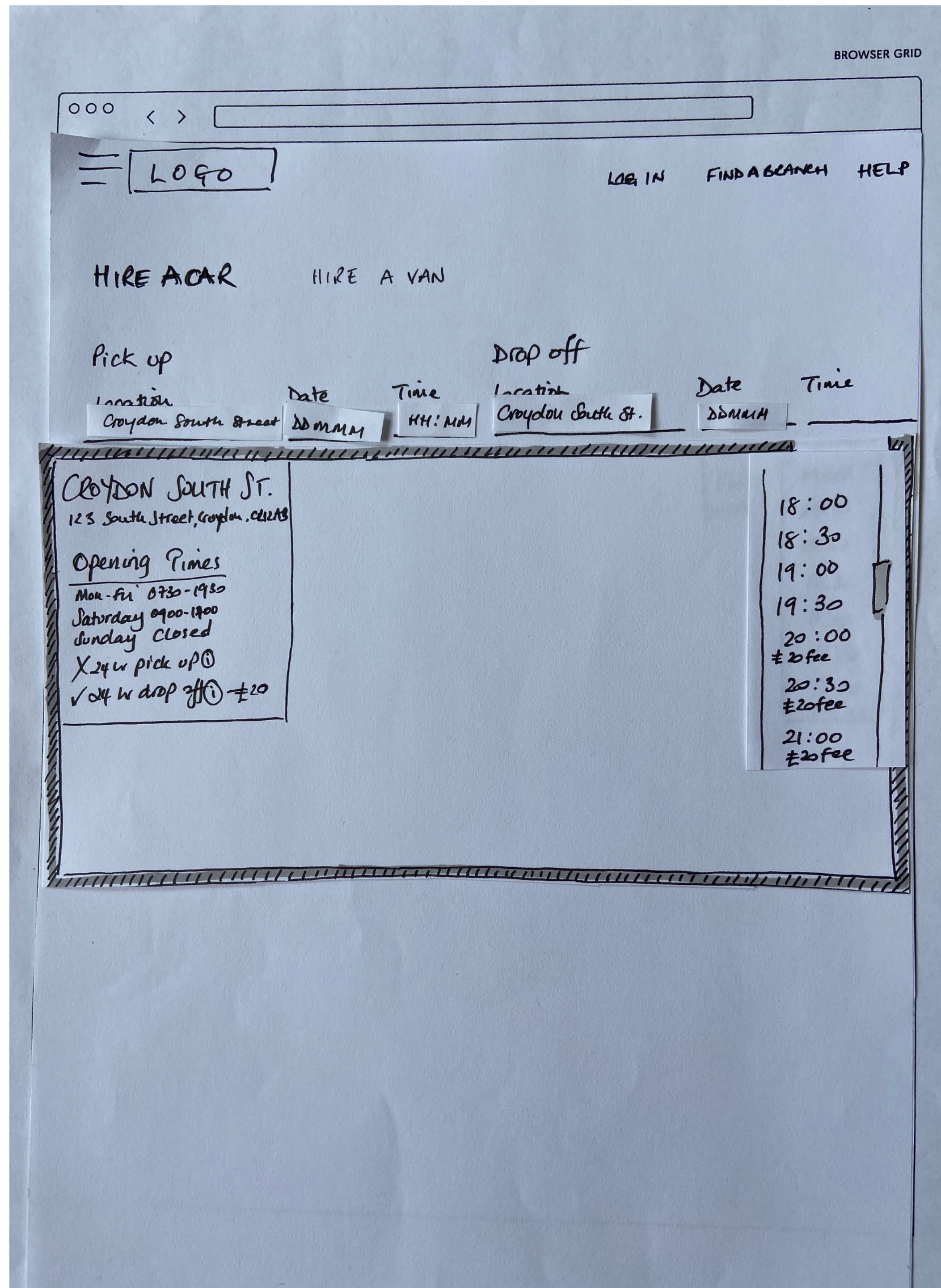
When the pick up time field is activated, the other fields are greyed out and a new drop down workspace appears, with the cut out in its border aligned with the time field.

The opening times and pick up/drop off options at the selected branch persist to remind the user when the branch is open and to show that there is a 24 hour drop off facility.

The scrollable drop down field shows all the times when drop off is possible, but for out of hours drop off the text under the time shows that there is a £20 fee.

Clicking on a time in this list puts the selected value in the drop off time field and closes the drop down workspace.

Search - completed form

The search screen only requires six inputs - we have seen the worst case scenario with all optional flows which, depending on users' car hire constraints, would support them to optimise their location, date and time choices, removing some of the dead ends that users encountered during research.

This screen shows all six fields filled in and the user clicks the 'Find cars' CTA to move onto seeing the results.

Results

Stepper shows the selections made on step 1. These are in a different font colour, clickable and take the user back to step 1 with all input values preserved in the form.

Tabs available on the homepage have been stripped out: we now want the user to follow the process.

Refined set of filters on the left. Sort above the search results.

Search results names a vehicle type rather than make or model (which is misleading). An image of an exemplar is shown but the make and model is not displayed. Vehicle details are presented with a summary of attributes including environmental credentials. These symbols would need testing for comprehension.

Three contract options and corresponding prices are displayed for each vehicle, making the range of prices comparable across the board. User can click 'show option details' to see what those details are (next slide).

Significant previous attempts
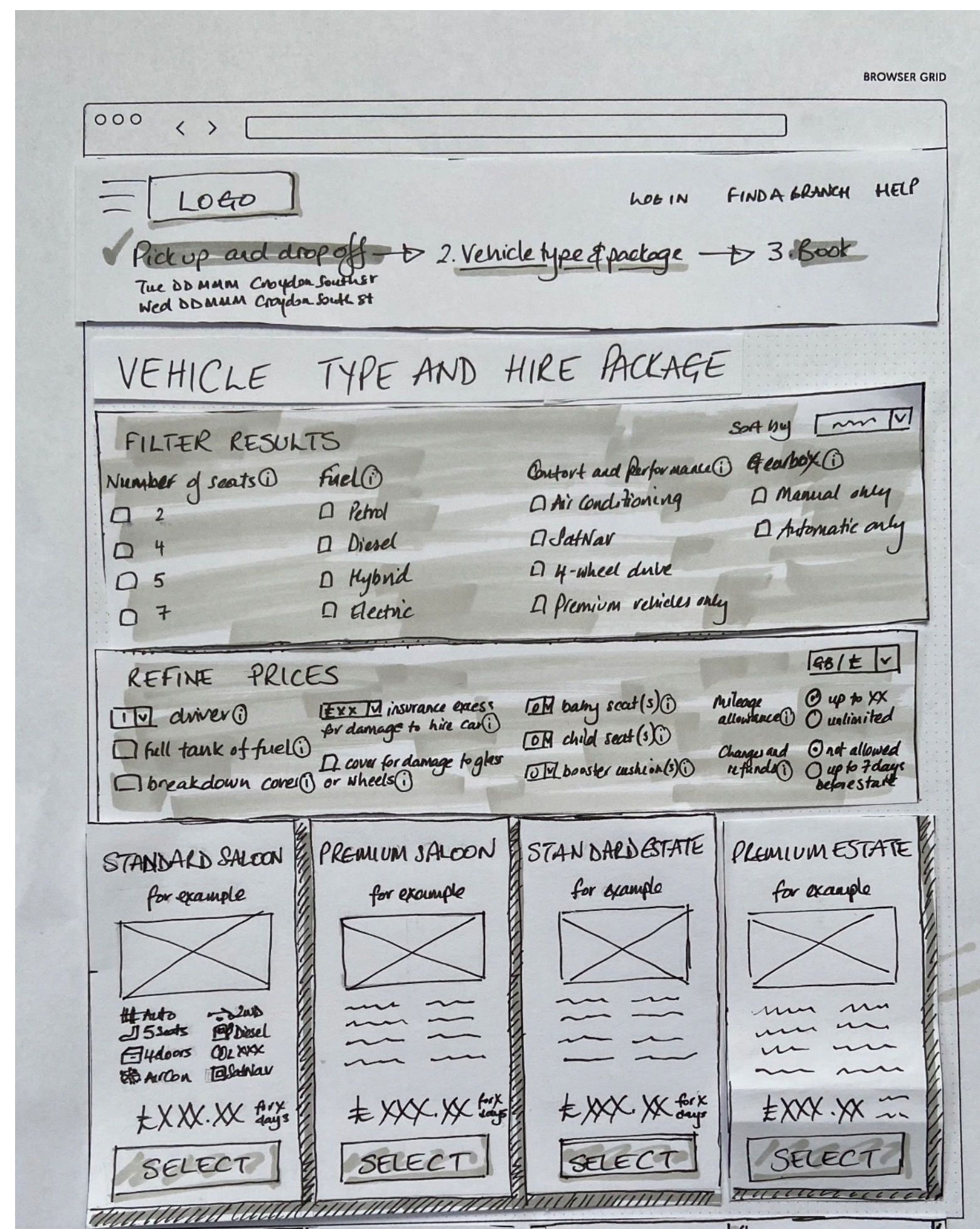
Horizontal filters and price refinement options which would update the price of all search results. However this design seemed really busy.

Customise package
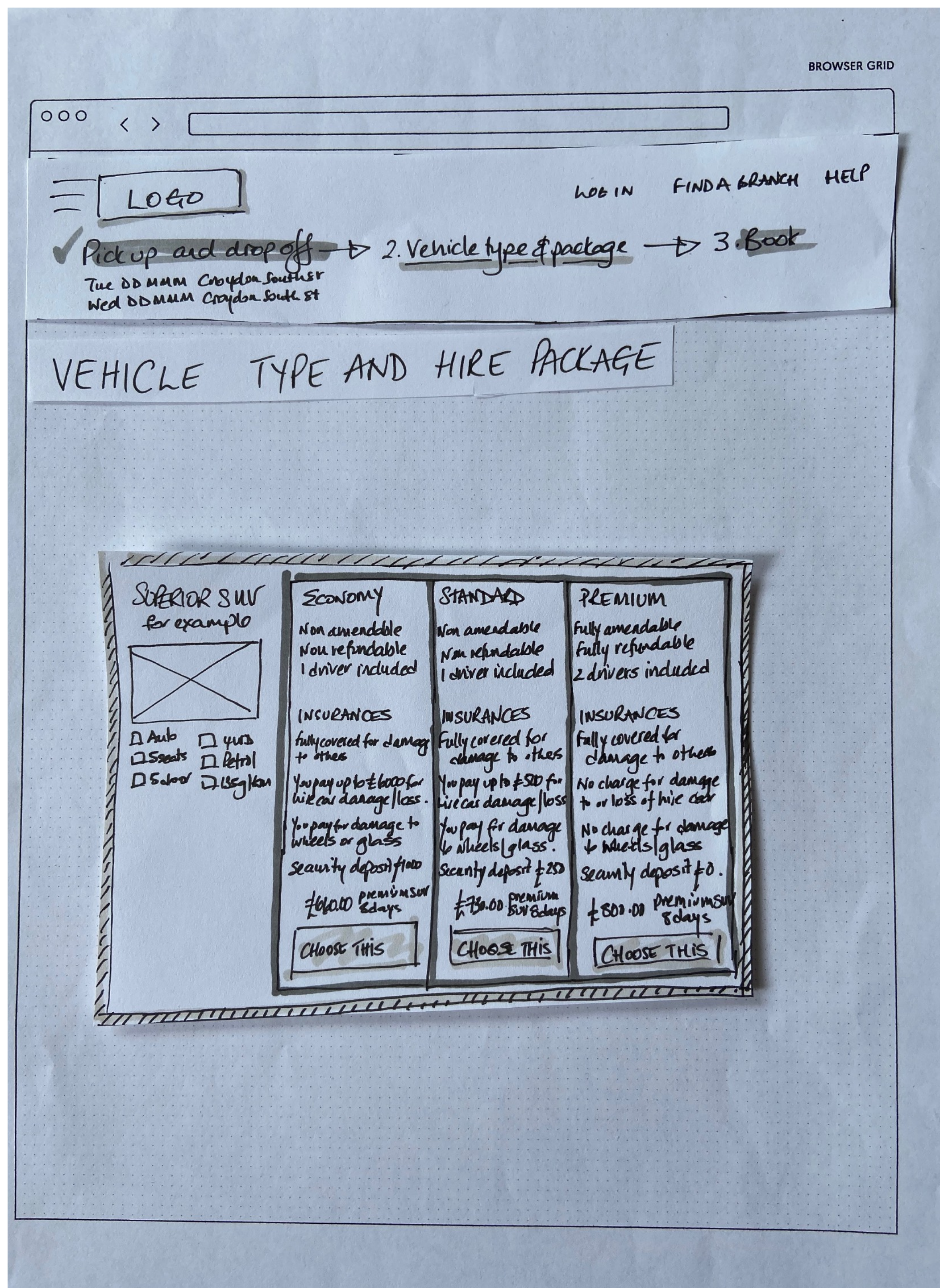
Pop-up shows information about the vehicle and the three hire options. Selecting one of these using 'Choose this' reveals a screen below to customise the package and add equipment. This forms a full price breakdown with information buttons against each item.

The user can modify these and the price instantly updates.

The user can go back by clicking anywhere outside of the pop up, or click the large 'That's all, let's book' CTA at the bottom of the screen to proceed to the third and final step.
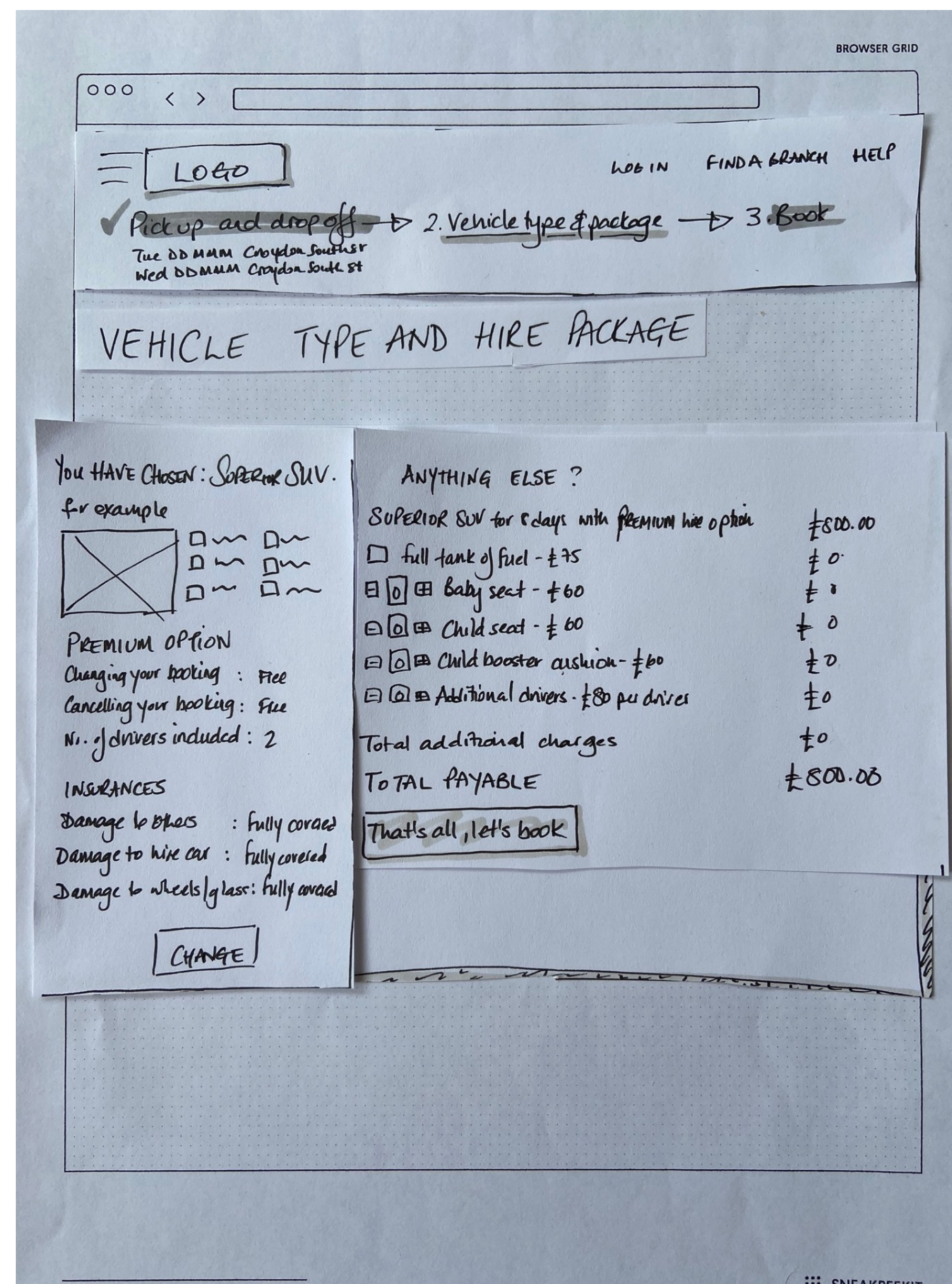
Place booking
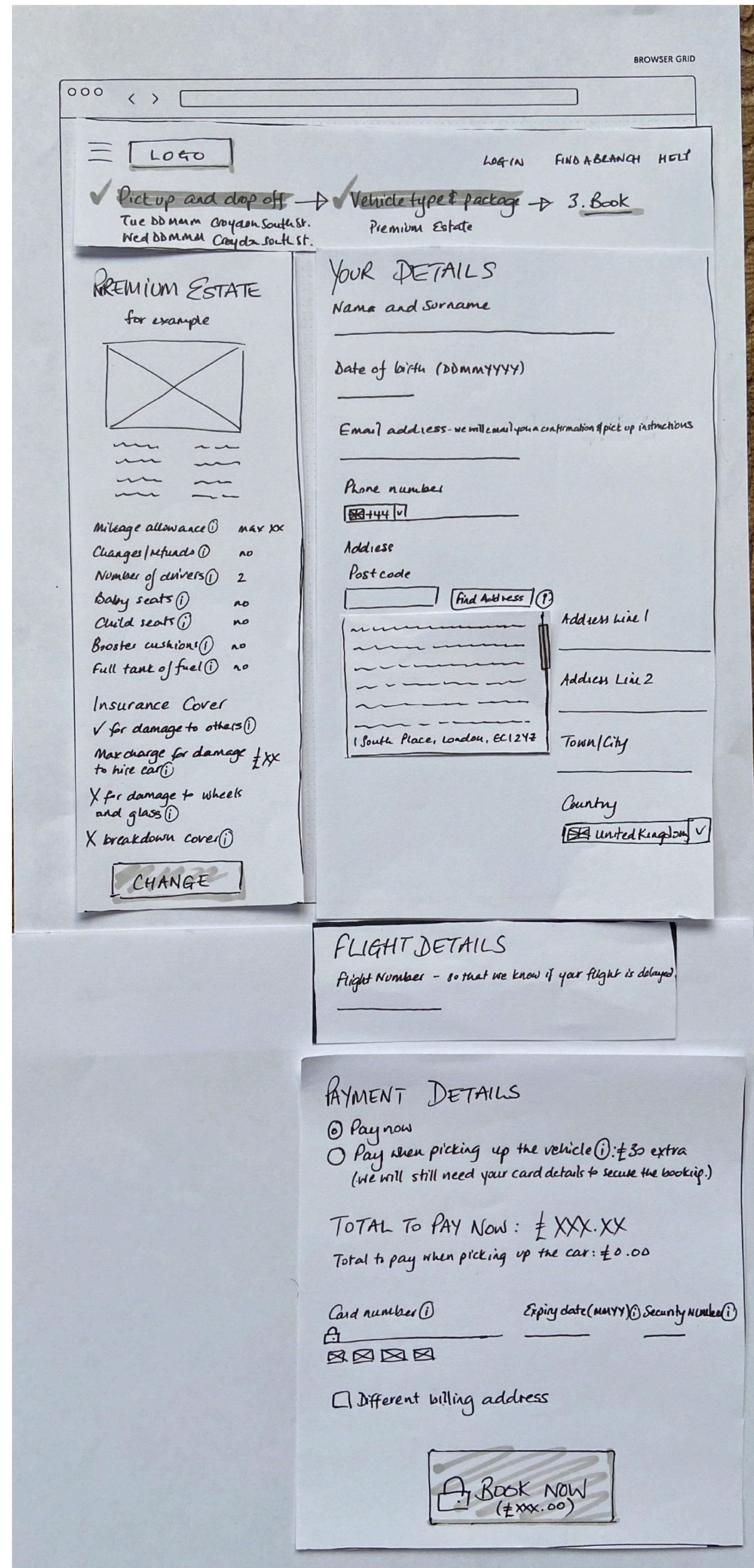
On this screen both the pick up and drop off details and the vehicle type selected are shown in the stepper. which are in a different font colour, clickable and take the user back to step 1 with all input values preserved in the form. The third and final step is highlighted, showing that this is where we are.

The details of the vehicle type and other products selected are summarised in the left hand pane, with the option to change these via the button below them. This takes the user back to the search results.

In 'Your Details' the user enters their personal details. The name field is activated on loading the page.

In-line validation messages appear in red below each field when the user leaves the field.

Date of birth is entered in DDMMYYYY format and is automatically formatted by the system into DD/MM/YYYY format.

The country code drop down is in numerical order but can be searched by typing numbers (for the code) or letters (for the country) into the field.

Phone number fields are auto formatted in 0NNNN NNN NNN or 0NNN NNN NN NN format for UK numbers.

Address picker opens up next screen but users can enter manually if they like.

Flight details pane is shown only if the pick up location is an airport.

Payment details pane allows for payment now or later. This selection changes the 'total to pay now' value, which goes to zero for payments to be taken later.

Card number is entered in NNNNNNNNNNNNNNNN format and is chunked into four groups of four by the system. Padlock and card types provide a sense of security.

Expiry date is entered in MMYY format and automatically formatted by the system into MM/YY

Large Book Now CTA at the bottom of the page. Padlock provides a sense of security.

Confirmation

BROWSER GRID

LOGO

LOG IN   FIND A BRANCH   HELP

✓ Pick up and drop off ▷ ✓ Vehicle type & package ▷ ✓ Book
Tue DD MMM Croydon South St   Premium Estate   Paid
Wed DD MMM Croydon South St

THANK YOU FOR YOUR BOOKING
REF: ABC123

We have emailed you the details and
instructions to help you find us and pick
up your car.

You can make changes to your booking
until DD MMM - just go to www.logv.com
and click on "My Bookings"

follow us on

HIRING A VEHICLE   VEHICLES   OUR COMPANY CUSTOMER SERVICE

PROJECT   ⠿ SNEAKPEEKIT

The booking confirmation refers to an email sent to the user with booking details.

The user is also informed that they can change their booking, up to a specific date, via the 'My Bookings' section of the site.