

FIT 3175 Usability

Drive Application Part B

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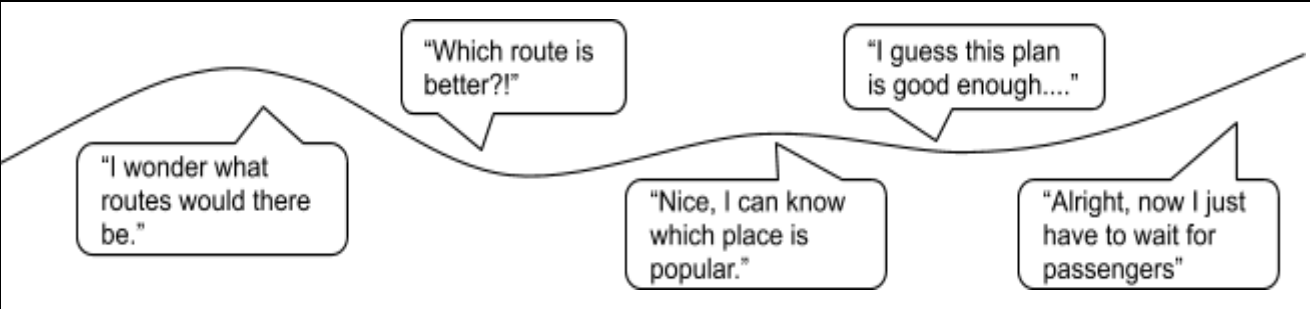
Germaine Pok Yi Min - 29797802

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1.0 Journey Map

1.1 Driver

Persona Johannus Rietveld	Scenario Johannus, who lives in the countryside, is heading to the city to sell his crops. He wants to plan a drive to the city and specify locations to pick up those who want to go to the city to reduce pollution to the environment	Expectations <ul style="list-style-type: none"> • User-friendly UI and able to know how to use it at first glance • Ability to choose start and destination locations, date and time of drive plan, and pickup points along the journey. • Able to know which place is frequented by people to be set as a pickup point • Able to get multiple route suggestions 			
Defining drive plan options and search	Waiting for route suggestions	Choosing route	Choosing pickup points	Confirming driving plan details	Driving plan completion notification
1. Defines start and destination locations, date and time of ride 2. Search for suggested routes	3. Waits for suggested routes	4. Chooses the desired route from start to end	5. Sees chosen route, start and end landmarks on map with heatmap showing which area is popular 6. Chooses pickup points along the chosen route	7. Confirms that start and end locations, date and time of ride and chosen pickup points are correct	8. Sees notification that driving plan is completed
					
Opportunities <ul style="list-style-type: none"> • Provide route suggestions such as toll-free, shortest distance or fastest route • Provide coloured landmarks for start and end locations and pickup points so that these points can be distinguished easily • Provide heatmap to show popular areas to set pickup points at these areas • Provide details of chosen pickup points • Provide confirmation request to ensure that user selection is correct 			Internal Ownership + Metrics <ul style="list-style-type: none"> • Developers: implement suggestions for locations, coloured landmarks, heatmap to show popular areas, notifications, and confirmation request 		

1.2 Passenger

Persona Kimberly Hanson	Scenario Kimberly wants to use Drive to reach university. She wants to be able to plan her transports in advance so that she can reach university in time to attend all classes	Expectations <ul style="list-style-type: none"> • User-friendly UI and able to know how to use it at first glance • Ability to choose departure and destination locations, date and time of transport, and number of passengers. • Able to choose preferred location to be picked up by the driver, the ride priority and preferred type of transport • Able to use voucher code to get discounts and choose payment mode 			
Defining ride options and search	Waits for ride search completion	Choosing pickup point	Confirming booking details	Requesting for driver	Confirming driver and ride
1. Defines start and destination locations, date and time of ride, and number of passengers 2. Search for available rides	3. Waits for available rides to be shown 4. Defines ride priority and preferred transport type	5. Sees start and end location and pickup points 6. Chooses and books the desired location to be picked up by a driver	7. Checks booking details and ensures it is correct. 8. Confirms the booking	9. Waits for acceptance by a driver	10. Confirms driver and booked ride 11. Gets notification of driver and ride
Opportunities <ul style="list-style-type: none"> • Provide suggestions when typing locations • Provide coloured landmarks for start and end locations and pickup points so that these points can be distinguished easily • Provide details of pickup points when clicked • Provide progress update when searching for rides or drivers • Prioritises booking request for high-rating driver • Provide confirmation request to ensure that user selection is correct • Provide payment mode and voucher options 			Internal Ownership + Metrics <ul style="list-style-type: none"> • Developers: implement suggestions for locations, coloured landmarks, progress update of system for searching functions, multiple payment mode, voucher effect and confirmation request, notifications • Database team: Keeps database of driver's ratings • Marketing team: Creates promo codes for discounted rides 		

2.0 High-Fidelity Prototype

2.1 Driver

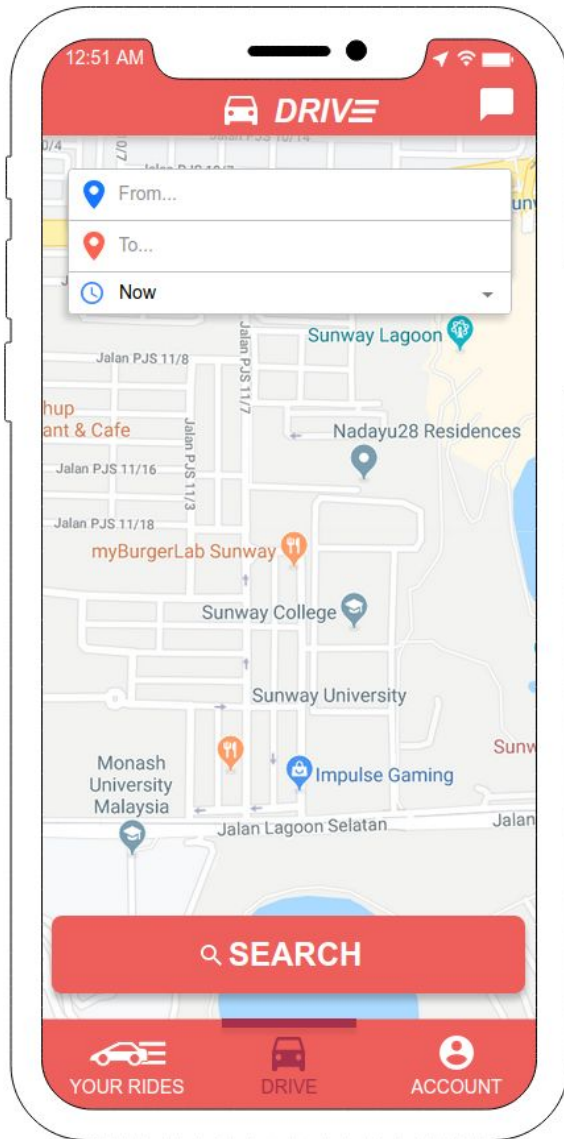


Figure 2.1.1: Main Page of *Drive* Interface for Drivers

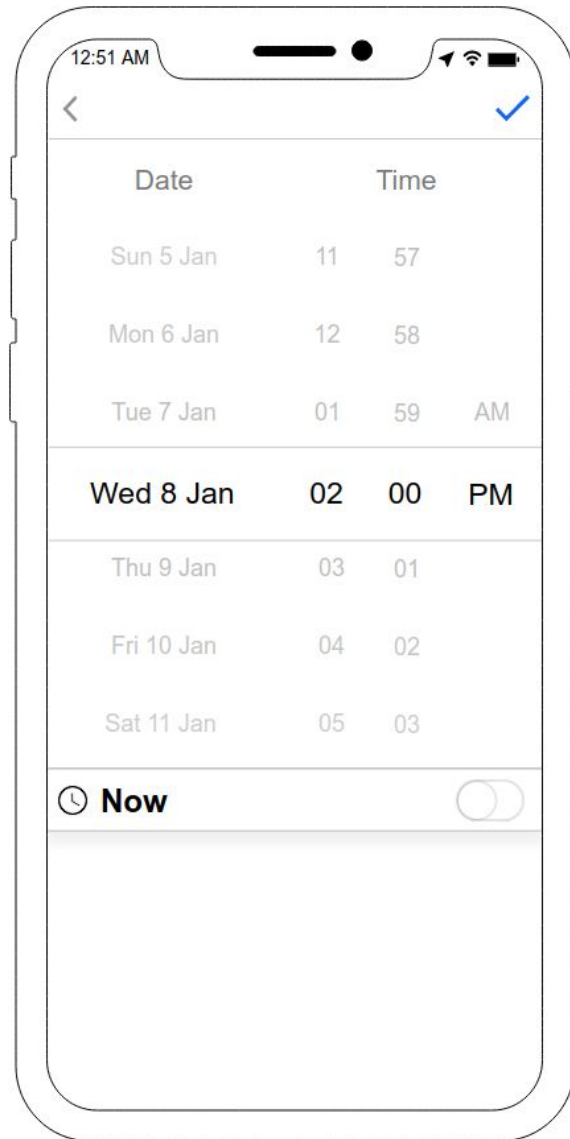


Figure 2.1.2: Page for Editing Date and Time of Drive Plan

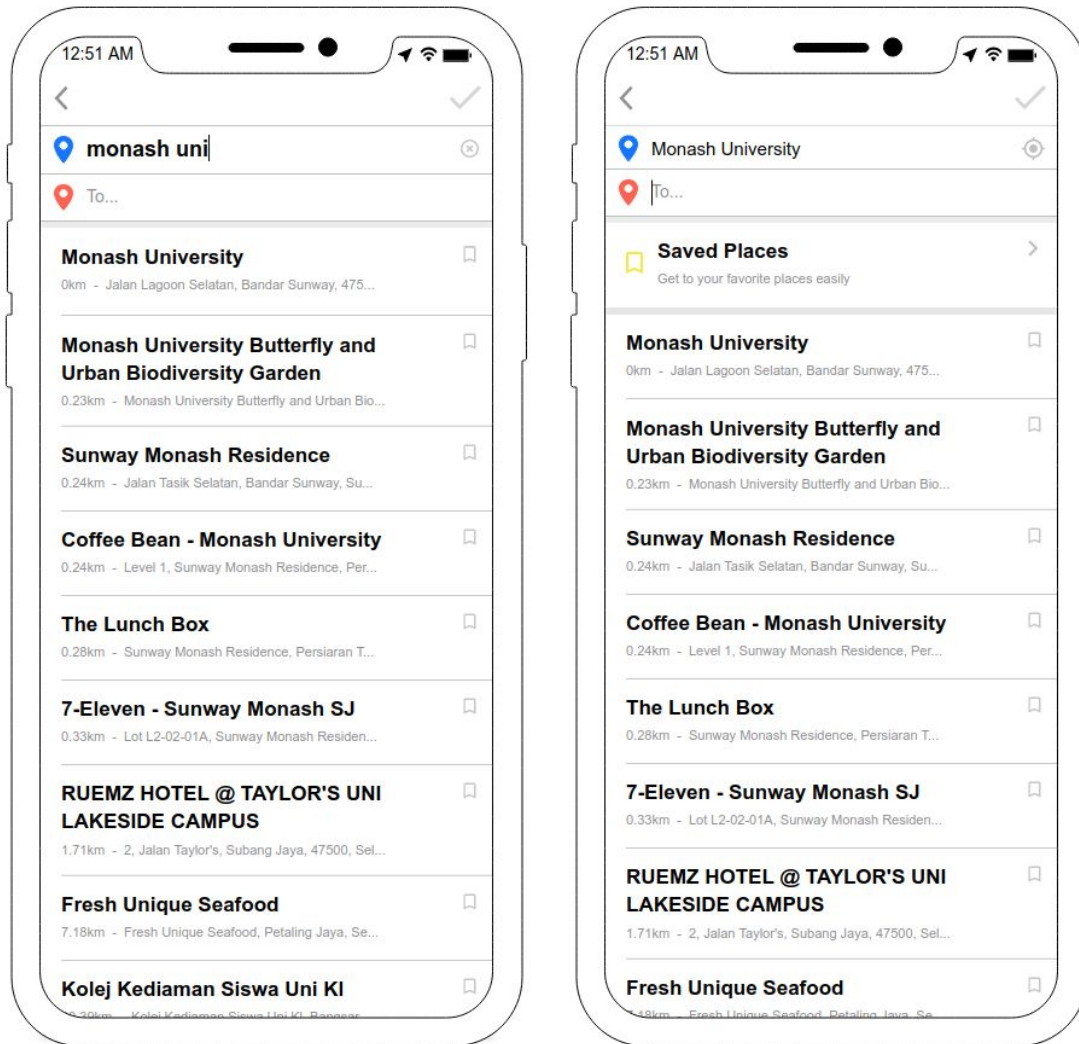


Figure 2.1.3: Page for Setting the Start and End Location of Drive Plan. “**Saved Places**” is a List Containing Places Saved by the Driver

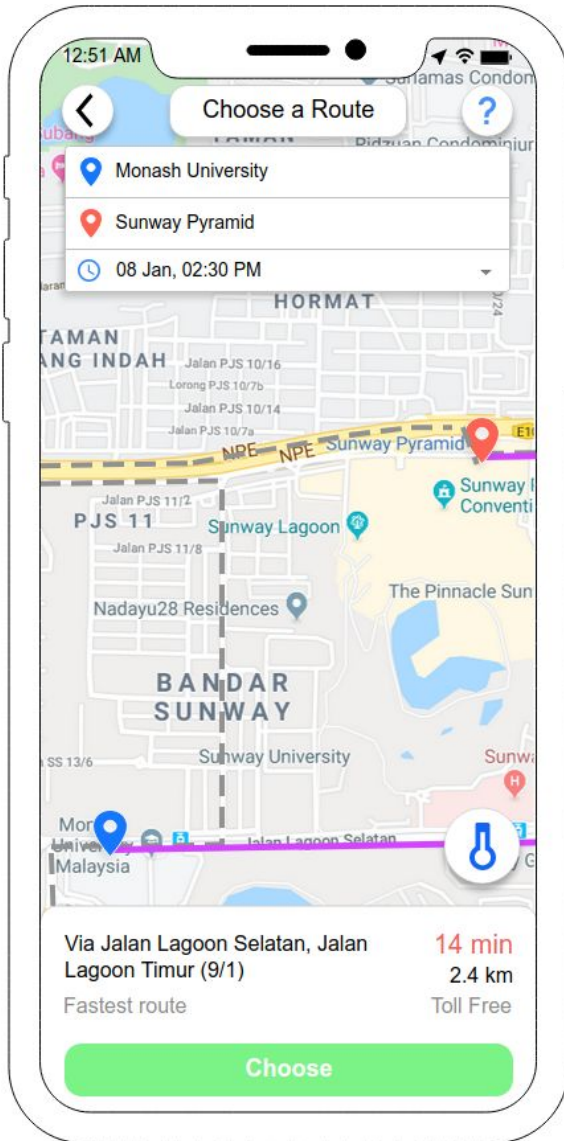


Figure 2.1.4: Page for Driver Choosing a Route for Their Drive Plan

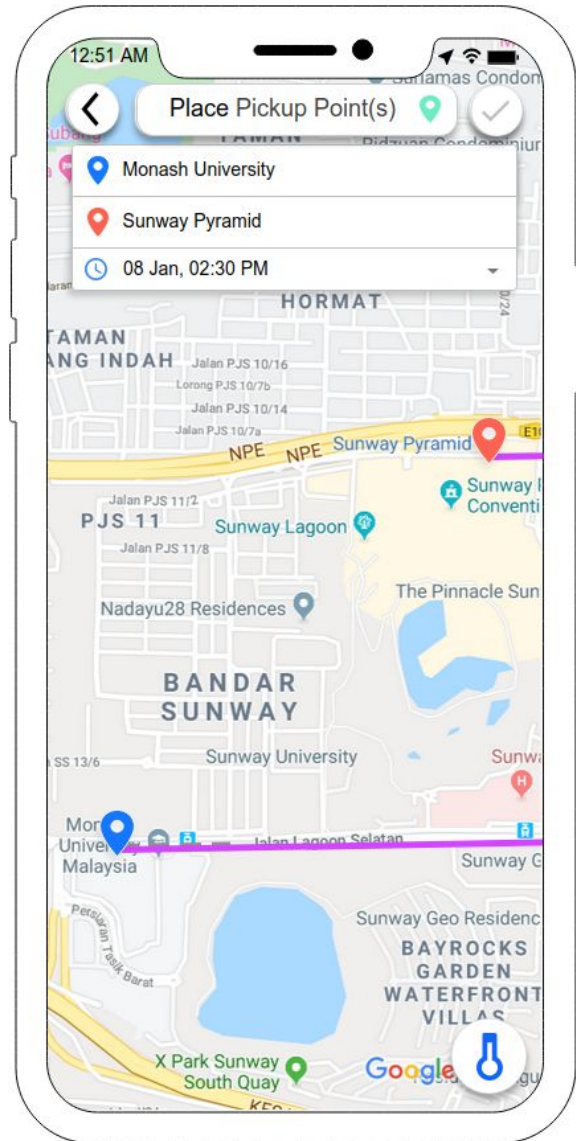


Figure 2.1.5: Page to Show Chosen Route of Drive Plan

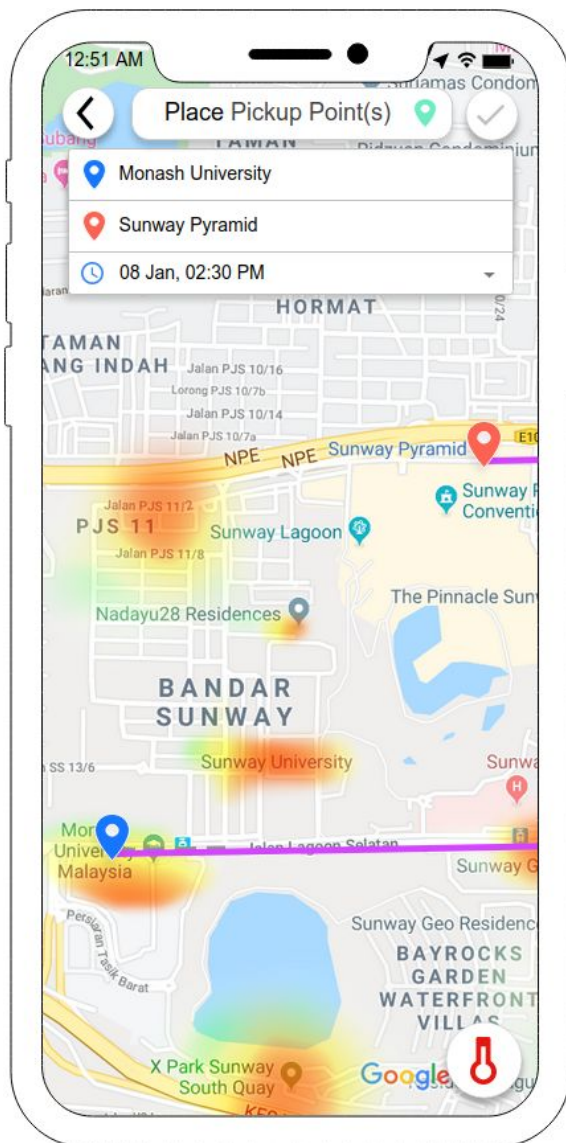


Figure 2.1.6: Page Showing Map with Heatmap

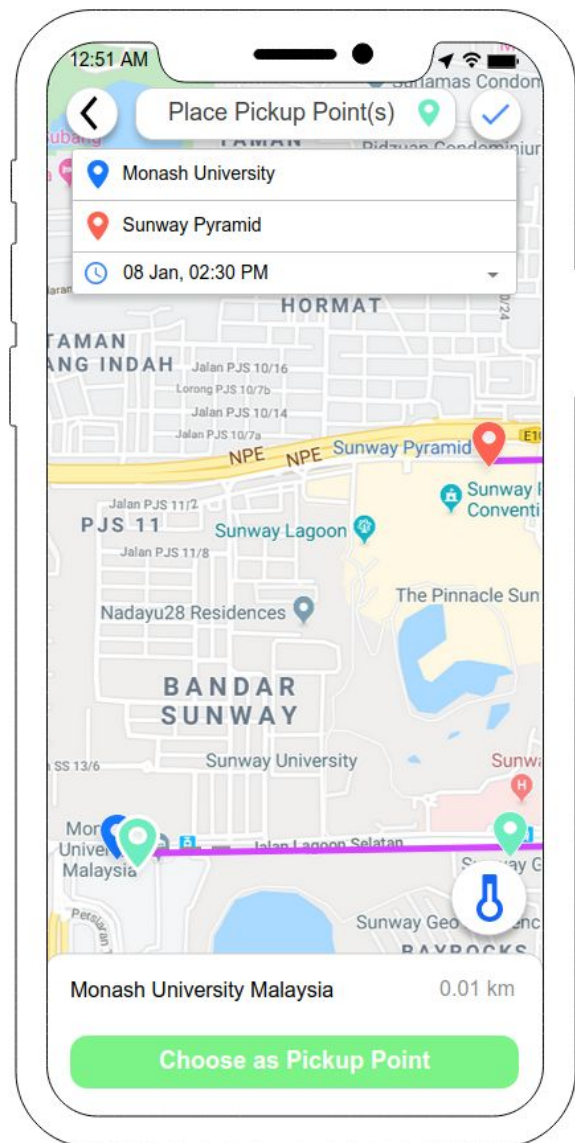


Figure 2.1.7: Page to Select and Confirm Specified Pickup Point

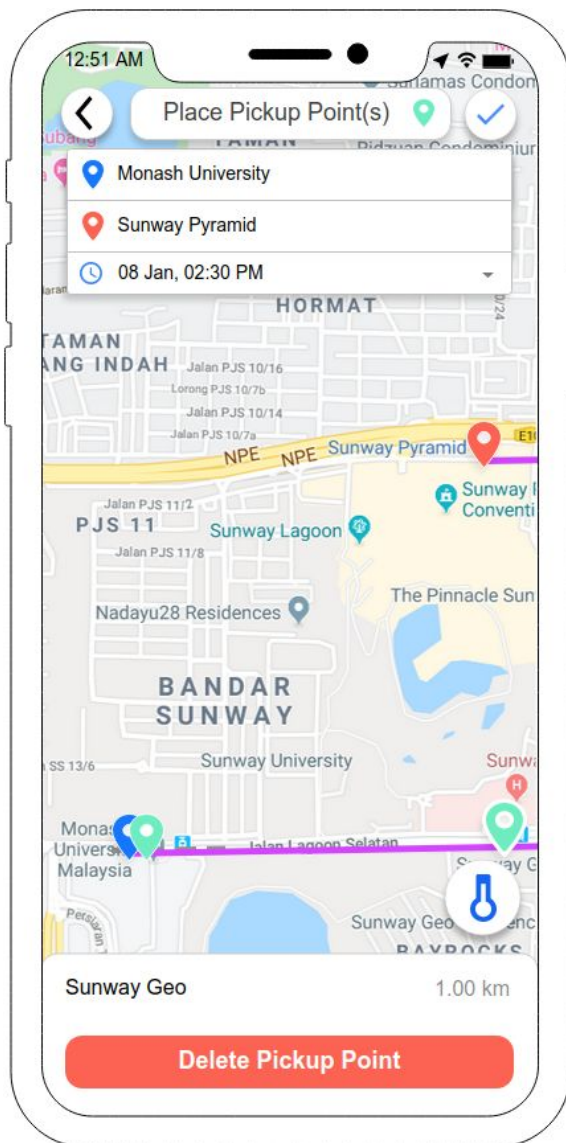


Figure 2.1.8: Page to Delete Selected Pickup Point

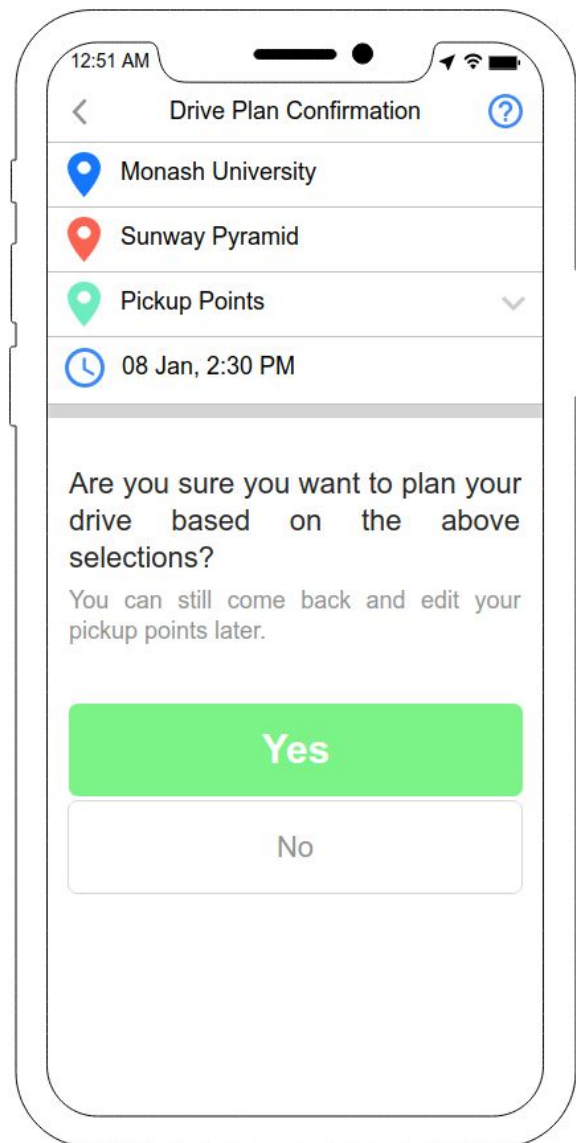


Figure 2.1.9: Page to Confirm Drive Plan Options

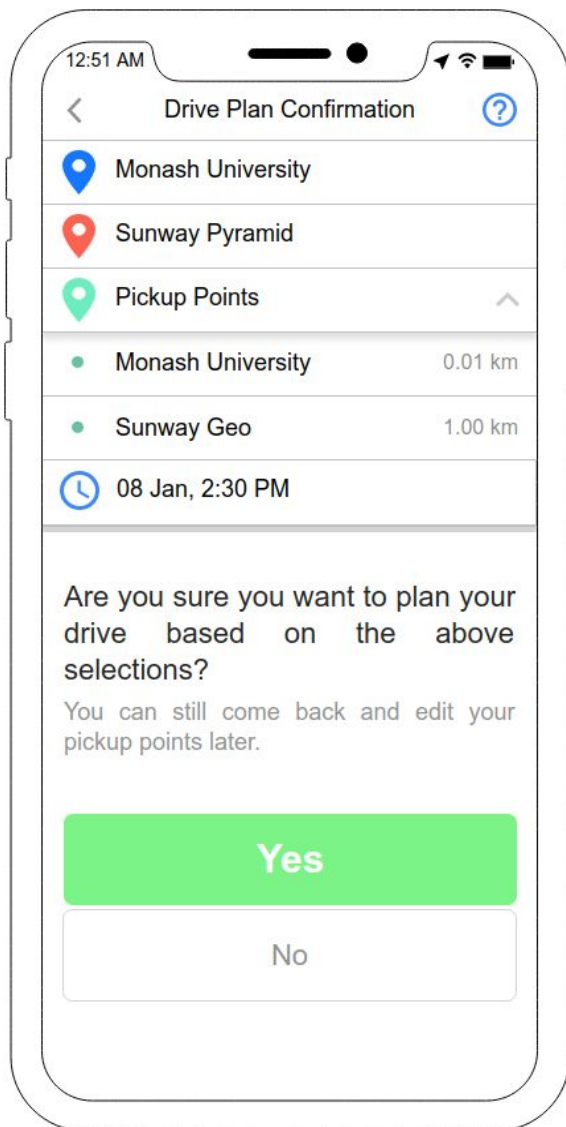


Figure 2.1.10: Page to Show Chosen Pickup Points During Confirmation

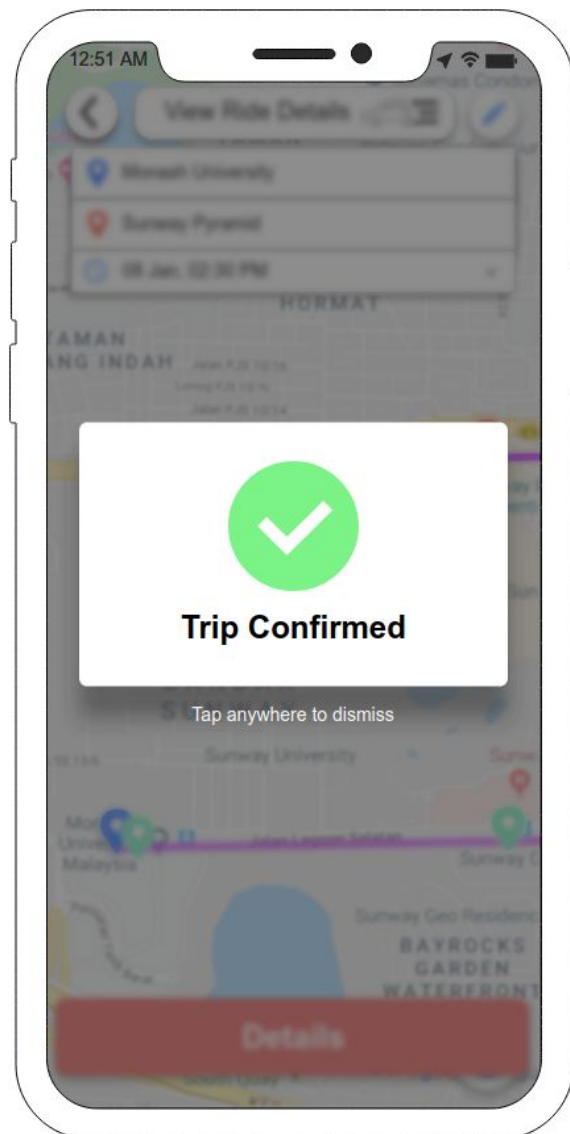


Figure 2.1.11: Page Showing Drive Plan Completion

2.2 Passenger

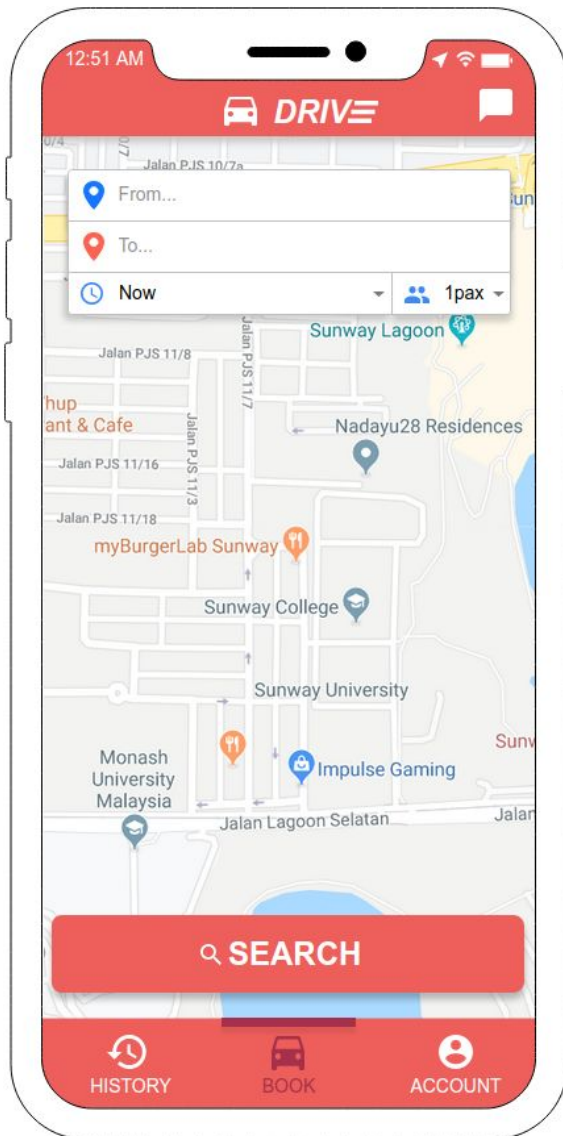


Figure 2.2.1: Main Page of *Drive* Interface for Passengers

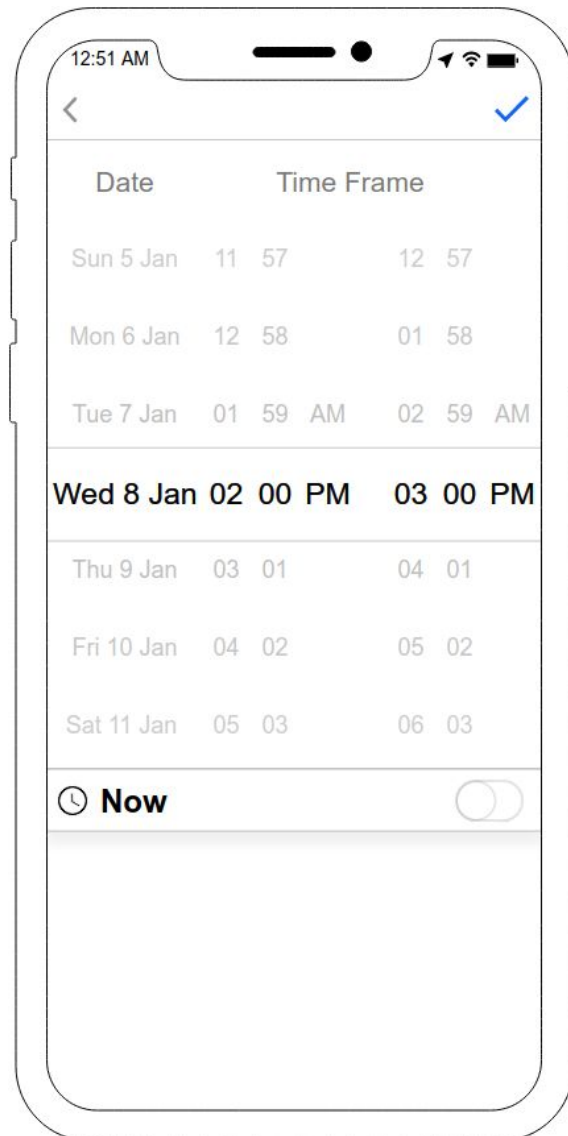


Figure 2.2.2: Page for Editing Date and Time of Drive Plan

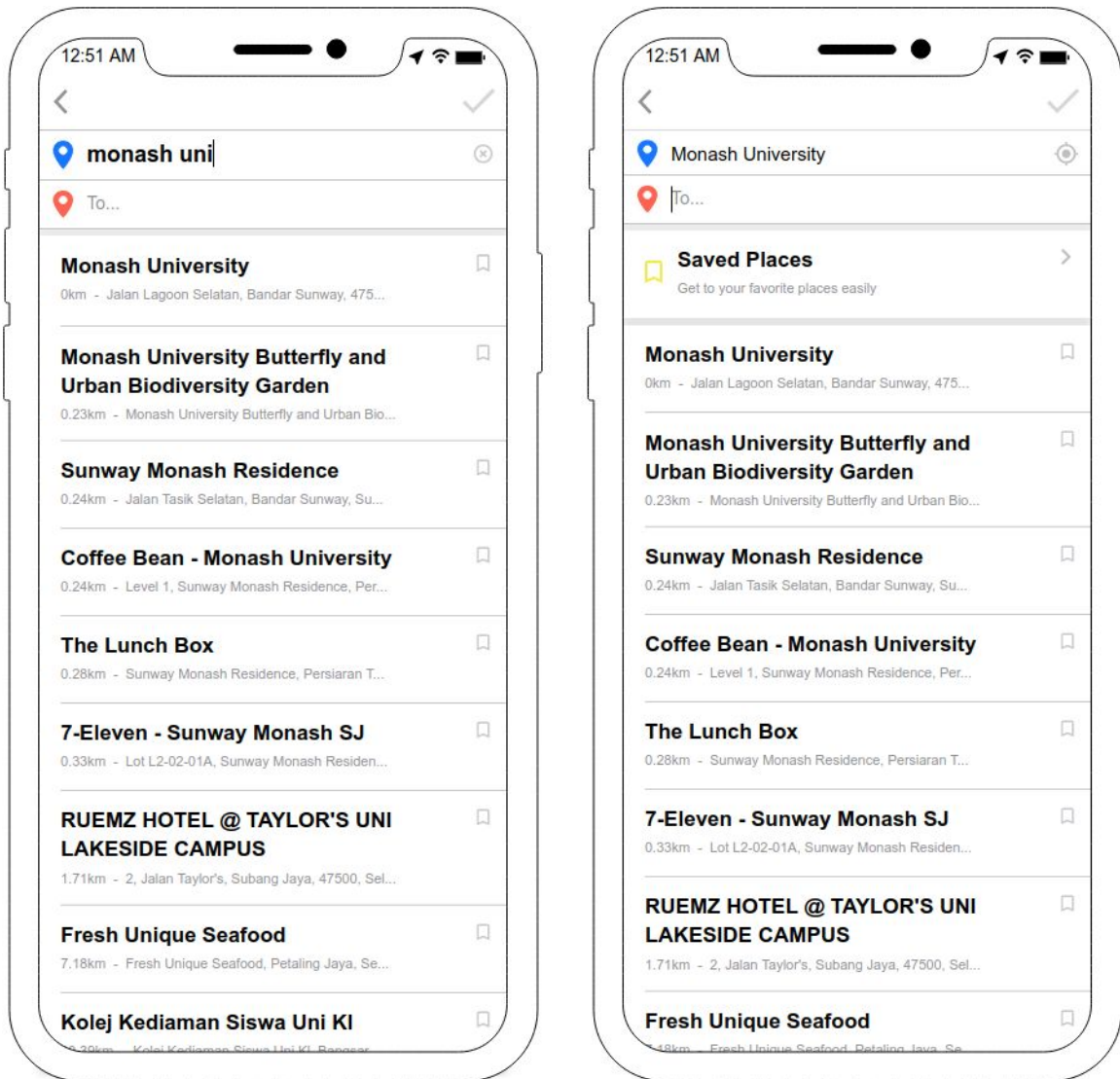


Figure 2.2.3: Page for Setting the Start and End Location of Drive Plan. “**Saved Places**” is a List Containing Places Saved by the Passengers

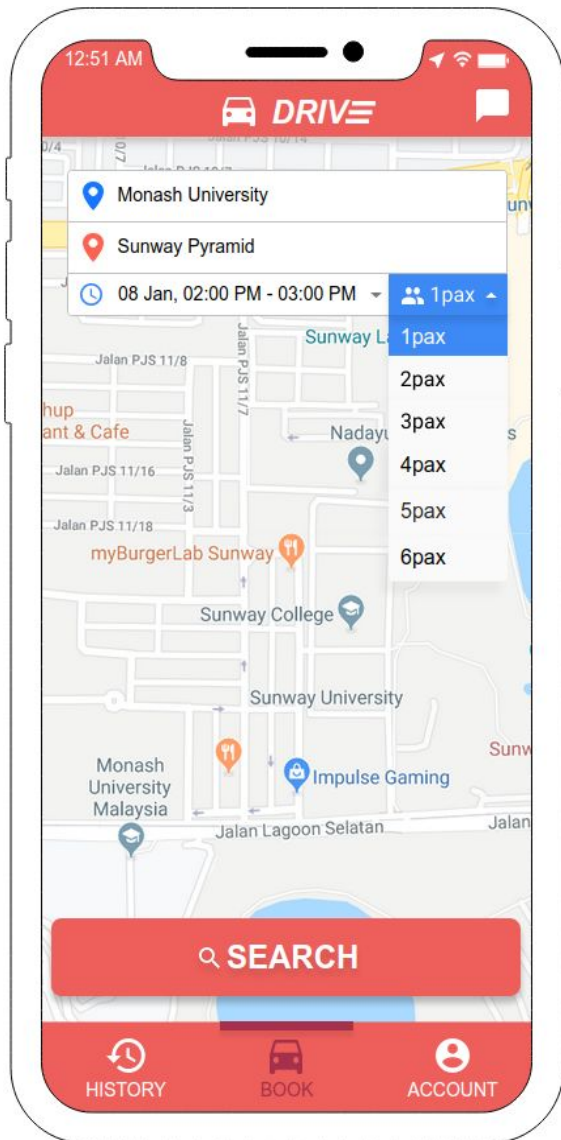


Figure 2.2.4: Dropdown Box to Select the Number of Passengers

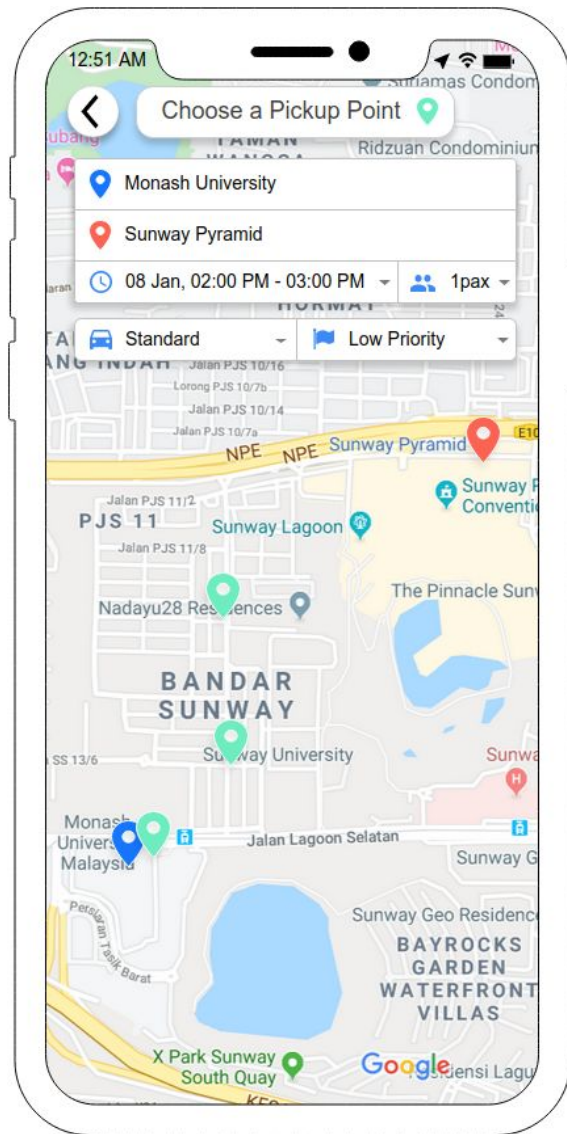


Figure 2.2.5: Page Showing the Start and End Locations and Pickup Points Near the Start Location

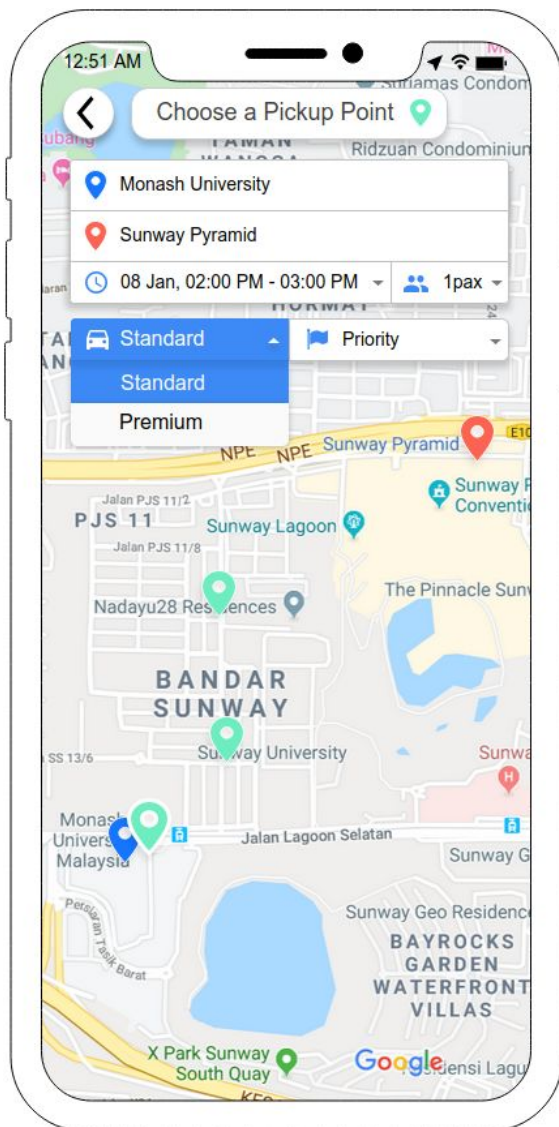


Figure 2.2.6: Dropdown Box to Select Preferred Car Type to Filter Pickup Points Based on Selected Car Type

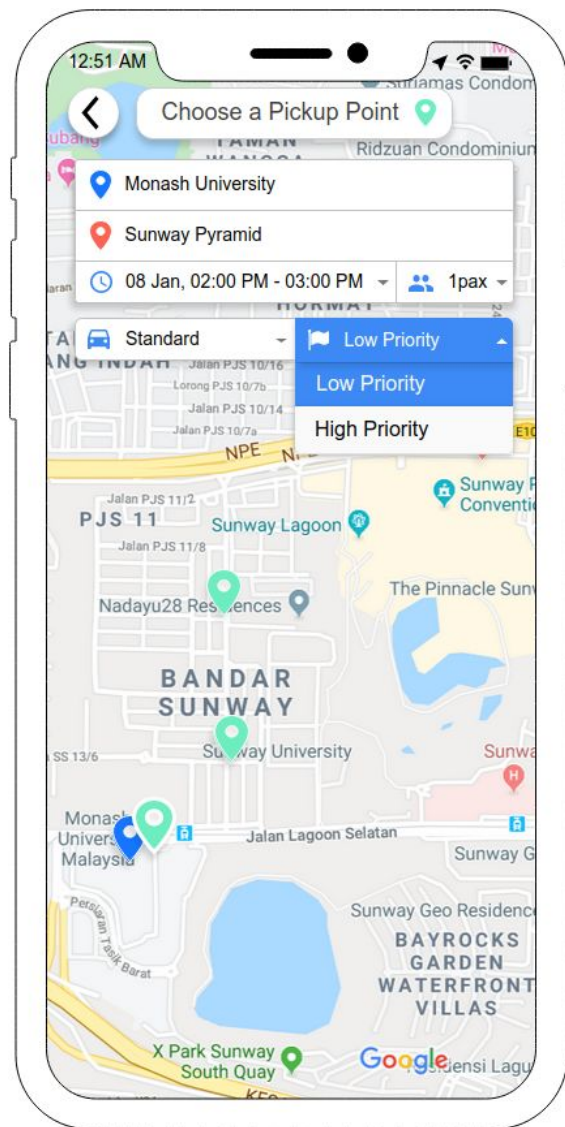


Figure 2.2.7: Dropdown Box to Select the Priority of Ride

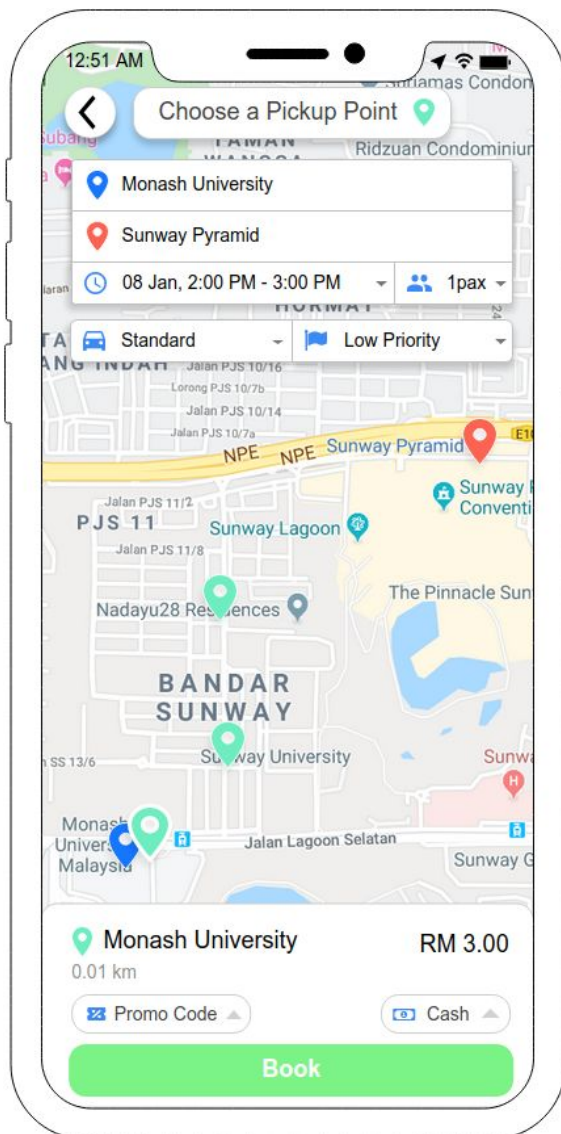


Figure 2.2.8: Page Showing Chosen Pickup Point and Price of Ride

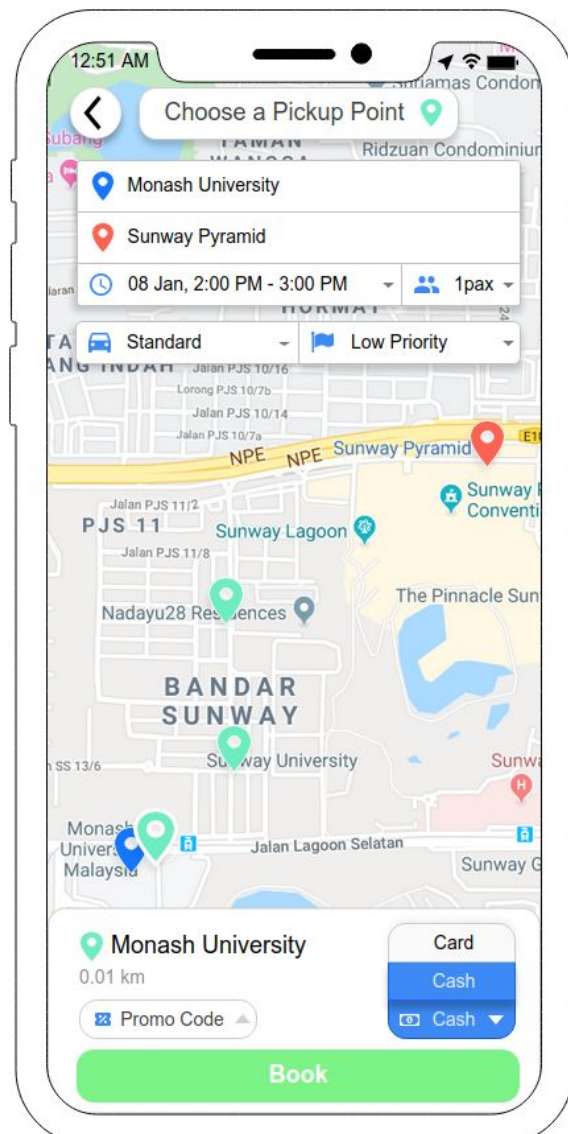


Figure 2.2.9: Dropdown Box to Select Payment Mode

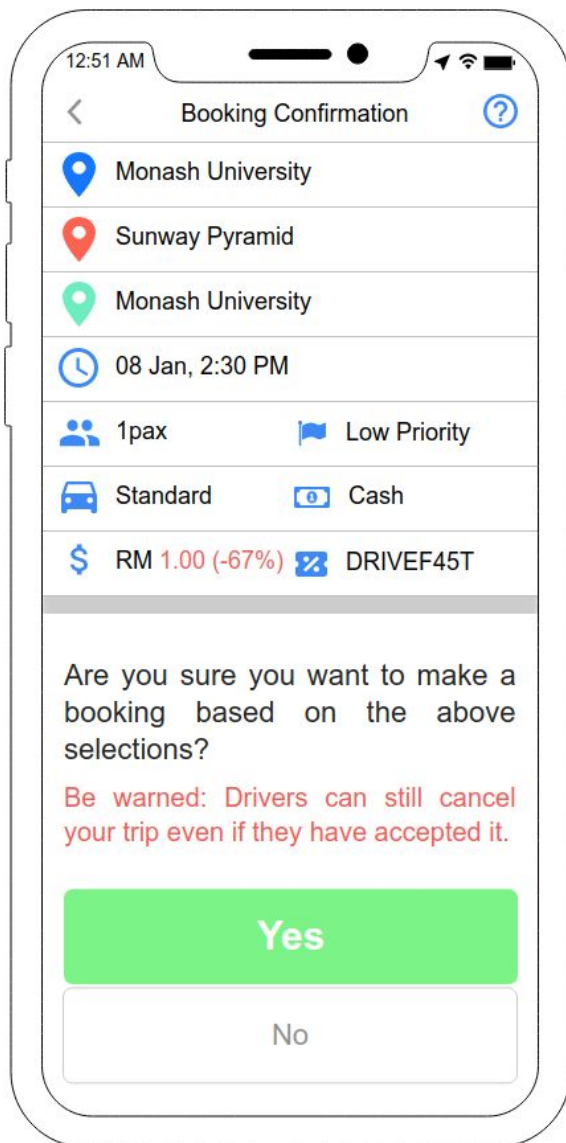


Figure 2.2.12: Page for Confirming Ride Options and Booking Details

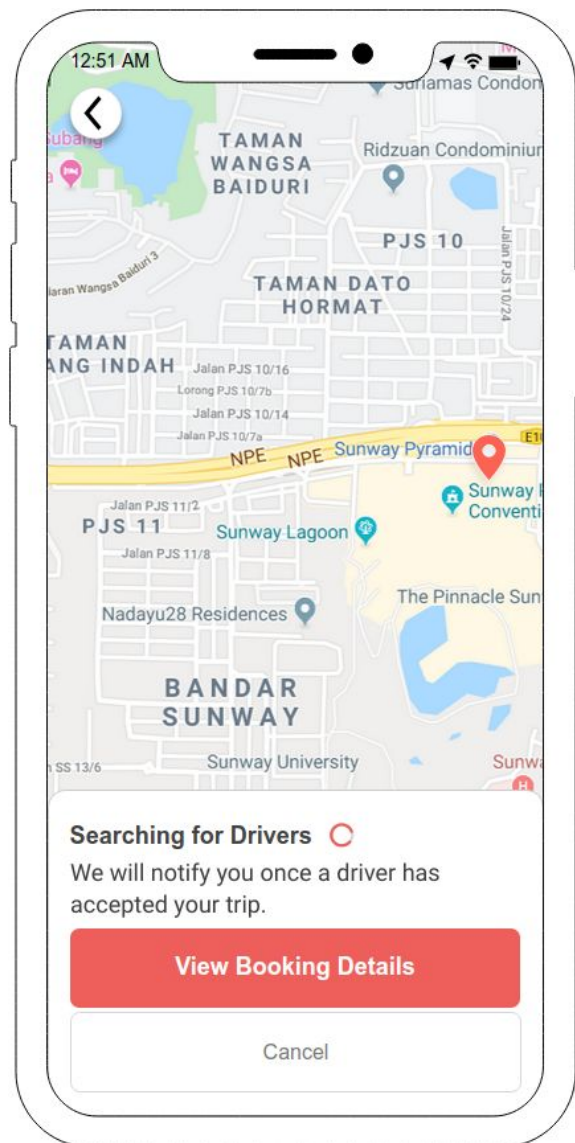


Figure 2.2.13: Page to Notify that the System is Searching for a Potential Driver

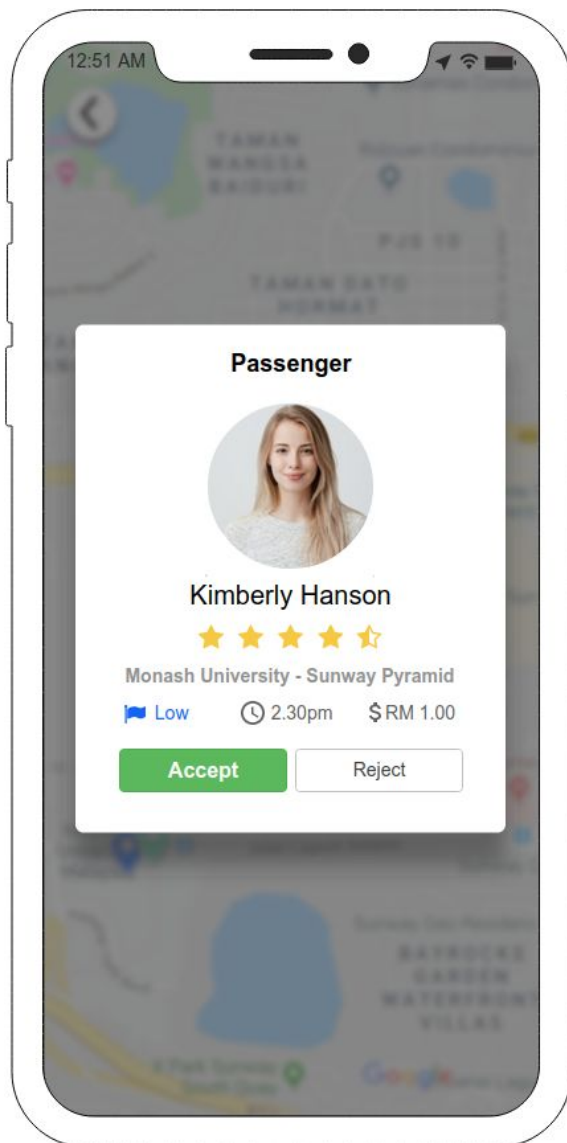


Figure 2.2.14: Page to Notify Driver of Passenger Booking and to Allow a Driver to Accept/Reject the Booking

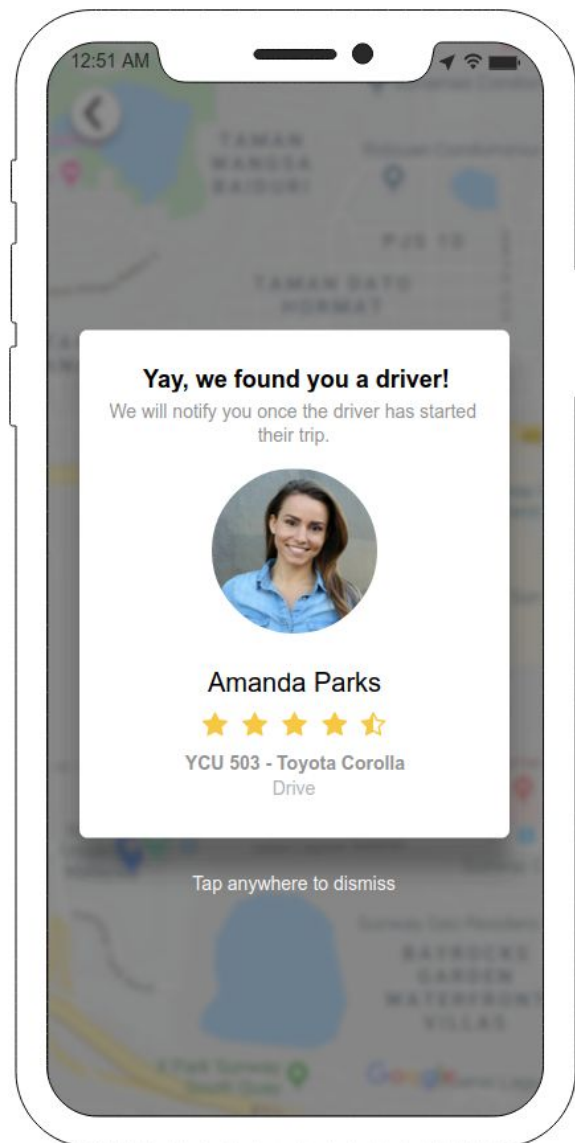


Figure 2.2.15: Page to Notify Passenger That an Available Driver is Found

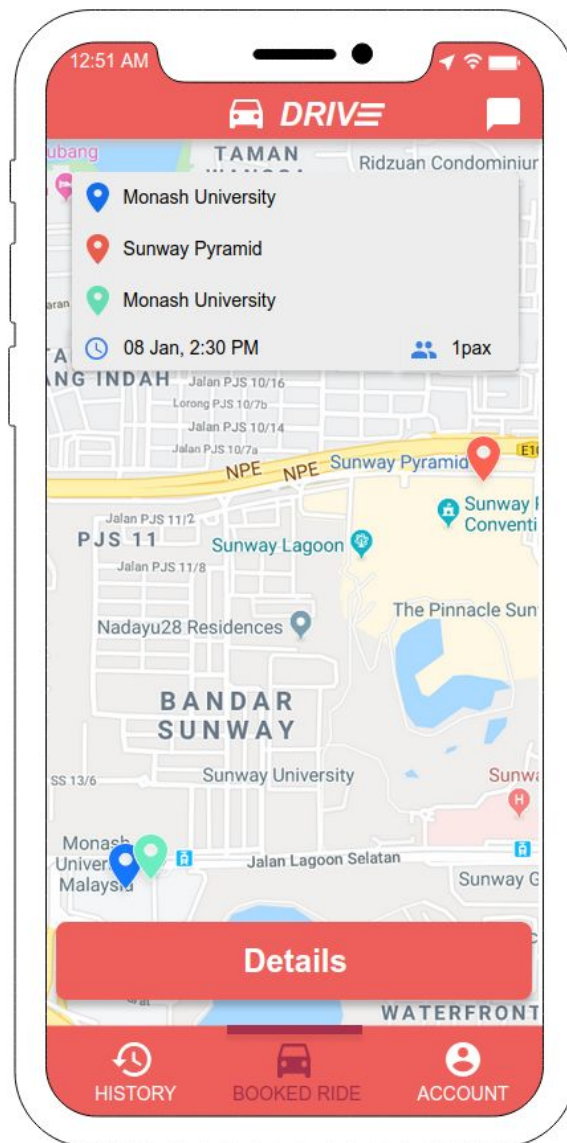


Figure 2.2.16: Main Page as seen by **Drive** Passengers after a Booking is Completed

3.0 UCD Process

The user journey maps are created from the user personas based on the biography, goals and frustrations. This is because user persona gives an idea of the scenario where a user is using **Drive** to solve the problem. From this, we managed to understand the user's perspective and expectations of the app to solve the problem in the scenario. It also helps us, as designers, to relate to users using the app in order to design a highly usable app.

There are 2 user journey maps, 1 for driver and 1 for passenger. These user journey maps describe the scenario and expectations of the app from user persona's perspective, journey phases, and actions, mindsets and emotions while going through the journey phases. This allows us to understand drivers' and passengers' emotions and perspective better. From this, we also managed to look for opportunities and insights of good designs to be implemented in the app.

The user journey map for a driver is about a driver planning an in-advance drive. This scenario corresponds to an innovation we had for **Drive** and also a problem our driver user persona, Johannus Rietveld, would want to solve. We designed the journey phases based on the innovations and user stories we devised for the app such as choosing pickup points along route and error prevention through confirmation request. We stood from Johannus' perspective while going through the journey phases and found opportunities to make our app to be more user-friendly such as providing map with heatmap to view popular areas.

The user journey map for a passenger is about a user making an in-advance booking. This scenario is also an innovation of **Drive** and also a problem faced by our passenger user persona, Kimberly Hanson. The journey phases of in-advance booking incorporates some of the innovations and user stories for **Drive**. For example, stating ride priority to passenger and confirming booking details prior to booking. From the journey phases, we found out that we can improve the app by using well-distinguished colour choice and providing details only at places where necessary to prevent huge information load.

Hence, based on user journey maps, we were able to design our prototype better and the prototype would have a user-centered design.

The workflow that we designed for the app is based on the opportunities and journey phases defined in our journey maps for the passengers and drivers. In addition to the principles from Norman's 7 Principles and the rules from Shneiderman's 8 Golden Rules mentioned in Part A, we used a few more principles in making our prototype in order to make the overall user experience even better.

To ensure that casual users can use the app easily, we made sure that the amount of text displayed is as minimal as possible. We further ensured that the information is clear, concise and well presented. We also provide a general guide on what to do on each page. This follows the "**Use Knowledge in the Real World and in the Head**" principle from Norman's 7 Principles.

Similar ride-hailing services in the market have already created a standardised solution for most situations, so we used those systems as a reference when we designed our

high-fidelity prototype, taking the good & leaving the bad. This means new users do not have to learn the layout from scratch and can quickly familiarise themselves with the **Drive** user interface. This follows the “**When All Else Fails, Standardize**” principle from Norman’s 7 Principles.

For accessibility purposes, we made sure that all of our location icons have contrasting values in their colour. This ensures that users with colour-blindness, including those who only see in monochrome (black, white and shades of gray) can still use our app without too much trouble. In addition to this, a user can specify their particular colour-blindness in the accessibility options in the settings page to ensure even better results.

There are a few changes we have made, compared to the design we had chosen in Part A. We combined the “date”, “start time”, and “end time” elements and put them in one page to make the user interface less cluttered for them.

To further reduce user interface cluttering for passengers, we moved the car type and priority options to the pickup points selection page, as those options are not key to the initial options a passenger would want to view when they begin the booking process.