Heuristics evaluation

Evaluation of Interactive Systems

Del Prato Matteo

1 Website name and description

Ryanair's website aims to provide a user-friendly platform for customers to search, book, and manage their flights efficiently. Key functionalities include:

1. Flight Search: Users can easily search for flights by specifying their departure city, destination, travel dates, and number of passengers.
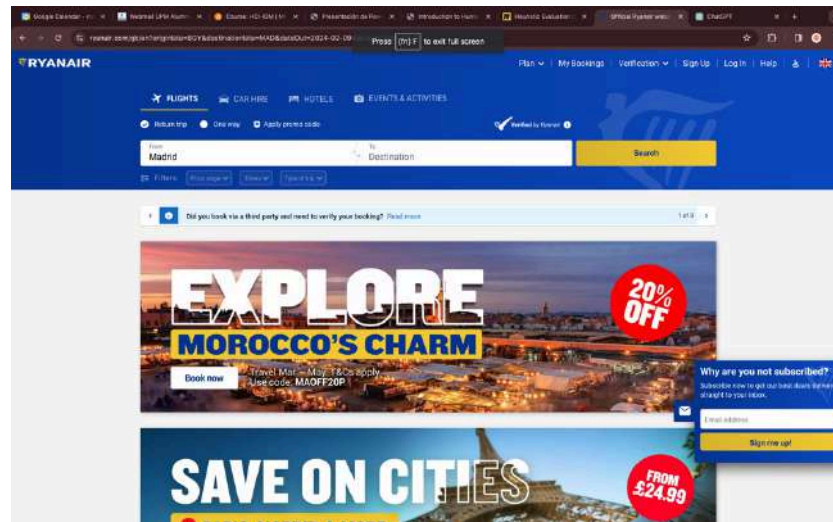

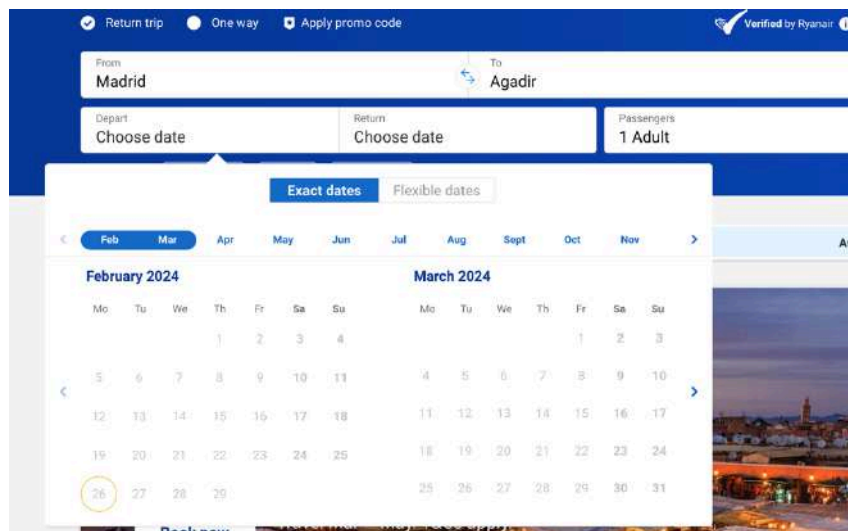**Figure 1:** Ryanair's homepage screen

Figure 2: Ryanair's homepage screen/date selection

2. Booking: Once users find a suitable flight, they can proceed to book tickets directly on the website. The booking process typically involves selecting flight options, choosing additional services (such as baggage allowance or seat selection), and completing the payment.
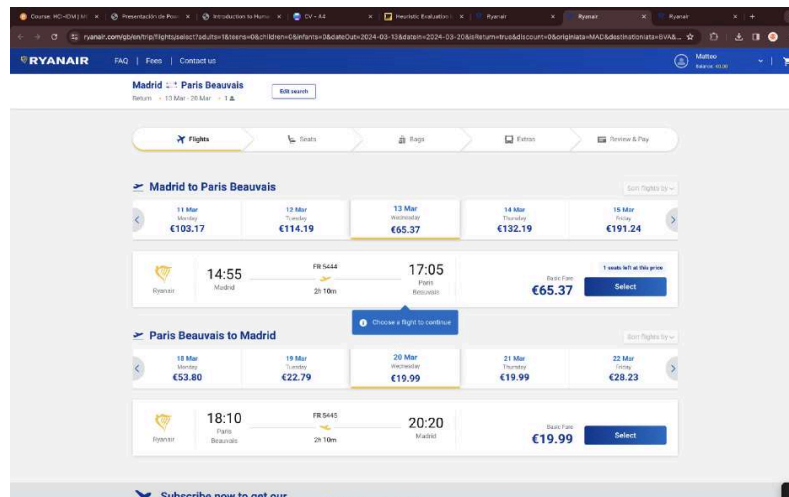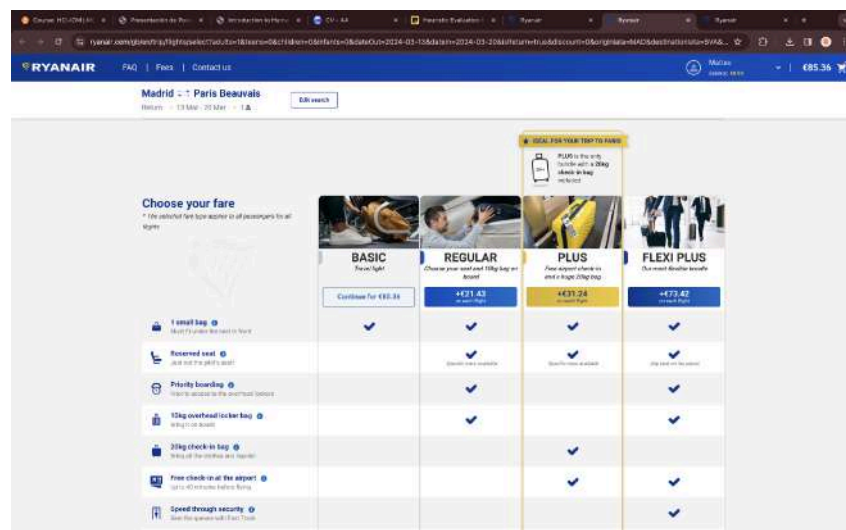
Figure 3: Flights choice screen

Figure 4: Fare choice screen

3. Manage Booking: Customers can access their booking details, make changes to their reservation (if permitted), add extras, and check-in online.
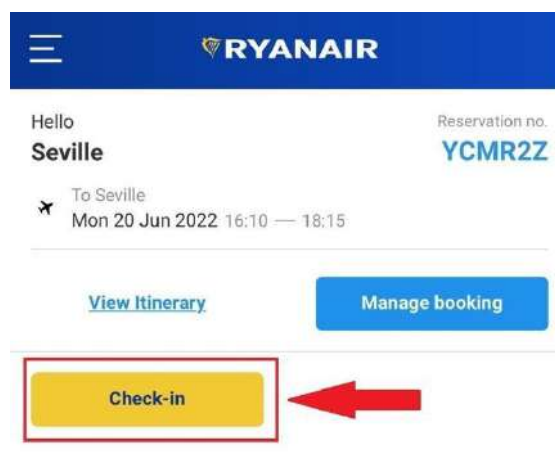

Figure 5: Manage booking window / Check-in call to action

4. Information and Support: The website provides information on flight schedules, airport details, travel policies, and frequently asked questions. Users can also find customer support contacts for assistance with any queries or issues.
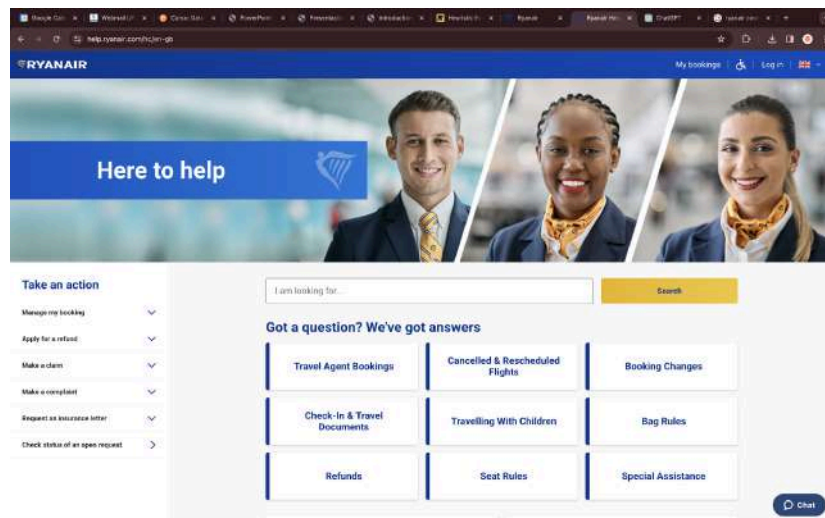

Figure 6: Ryanair Help Centre

5. Promotions and Offers: Ryanair often displays promotions, discounts, and special offers prominently on its website, allowing customers to find deals and save on their travel expenses.
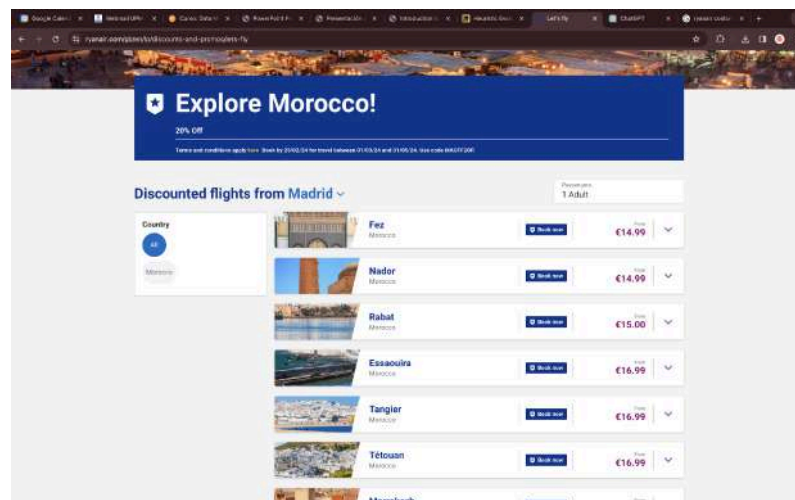

Figure 7: Ongoing promotions for flights to Morocco

2   Scenario

You want to book a vacation to Paris for your mom according to the following requirements:

- Find the cheapest dates to go to Paris from Madrid in March 2024
- Book a one-week stay (7 days including travel dates)
- She will be traveling with a carry-on for clothes
- Make sure you provide her with a selected seat
- To make her life easier, arrange the transfer from the airport to the city center (round trip)

- As soon as the plane lands, she needs to get out as fast as possible so that she can make it to the transfer and check in on time
- It´s better to get a ticket with a refundable option so that you can change the dates if necessary
- Use a laptop and use Ryanair's website throughout the whole task

3   Heuristics analysis

The Heuristic analysis has been conducting on Ryanair's website using a laptop and following the scenario described in Chapter 2.0.

3.1   Visibility of system status

The first heuristic requirement is well respected throughout the whole process.

3.1.1   Successful examples

Once the user has chosen a destination and selected the dates, a long process that goes from picking the flights to review and pay begins. A progress indicator on the header of the page successfully provides information on which stage the user is currently at, stages completed and how many are missing to finally book the tickets.
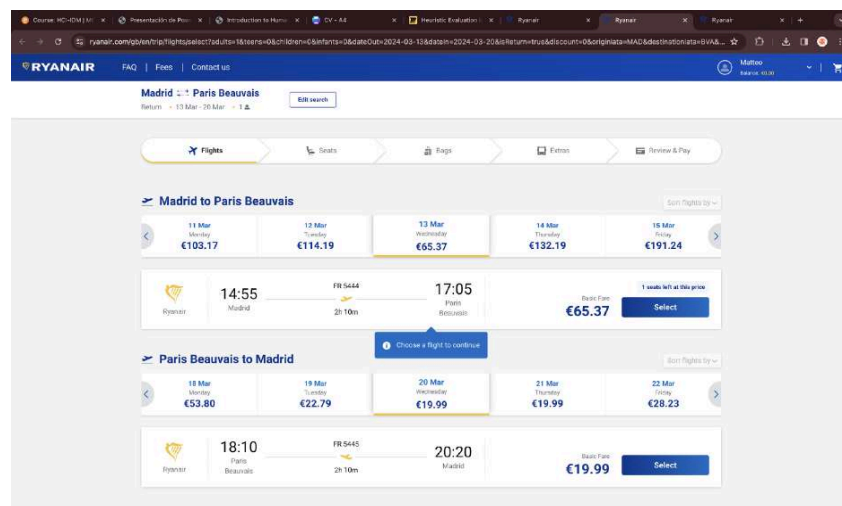

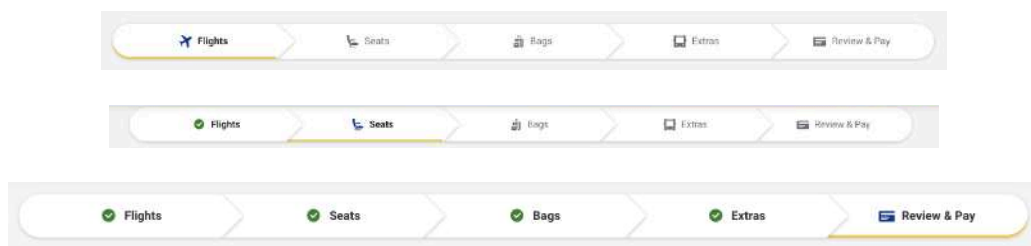**Figure 8:** Choose flight window

Figure 9: Status bar showing progress among flights/seats / bags/extras and review & pay

When it comes to seat selection, Ryanair's website manages well to distinct the ones available from the ones that are already taken. The grey area where the users cannot click indicate places that have been already taken, while all the other are highlighted in different colors. Colors follow a hierarchy which is explained in a legend on the left of the page to help users make informed decisions; once a place gets selected, the system successfully highlights it
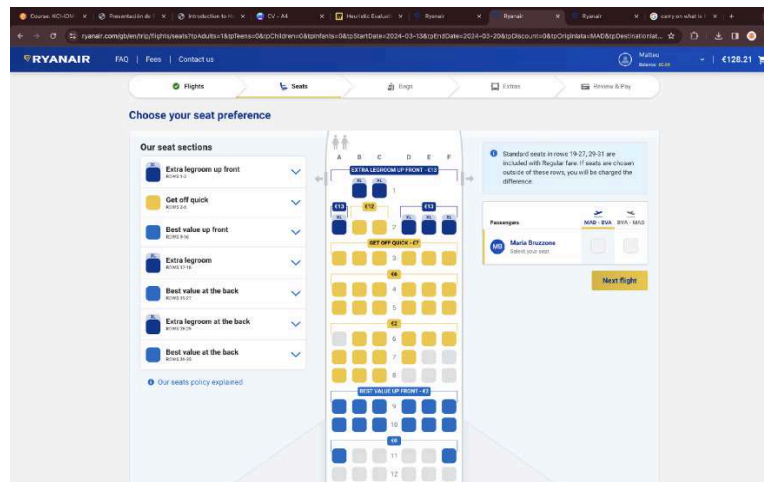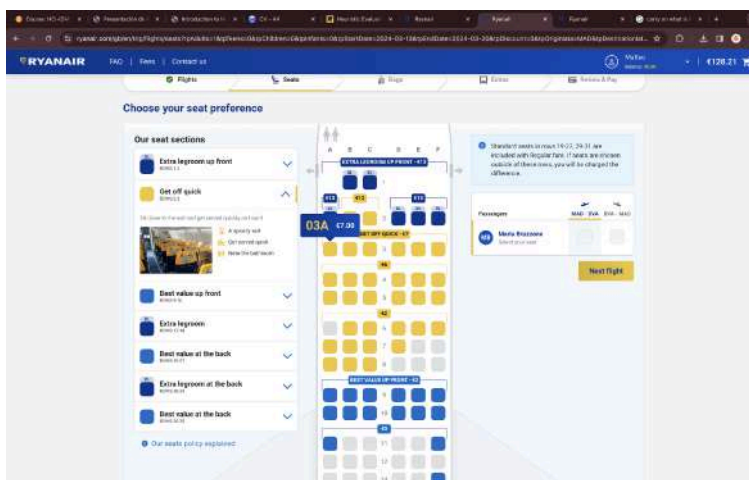
4

Figure 10: Choose seat screen

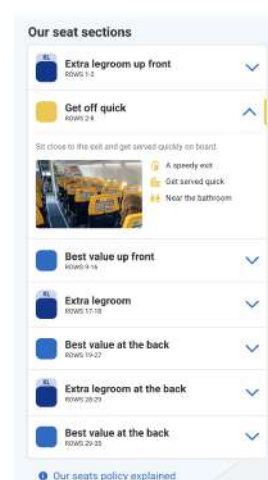**Figure 11:** Seat 03A is selected for the outward flight   **Figure 12:** Seat legend

Another successful example of how the heuristic 1 principle is put into action can be recognized in the dropdown windows for picking a destination when beginning the search. Ryanair does not fly from Madrid Barajas to every country in Europe: therefore the ones that cannot be picked as travel destinations are marked in grey with a lower opacity than the ones users can choose to travel to.
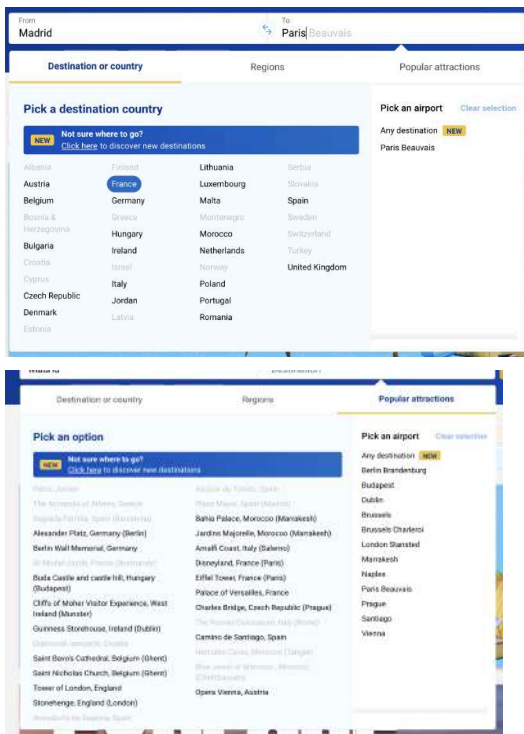
Figure 13: Pick a destination country dropdown window   **Figure 14:** Popular attractions window

3.1.2   Failure examples

The website sets a time limit for users to successfully complete the booking process; when the limit is approaching, a banner pops up informing users how much time they have left to proceed to checkout. Users have no control whatsoever over the time limit from the beginning: a suitable solution would be to add a countdown indicator as soon as users land in the flight selection window.
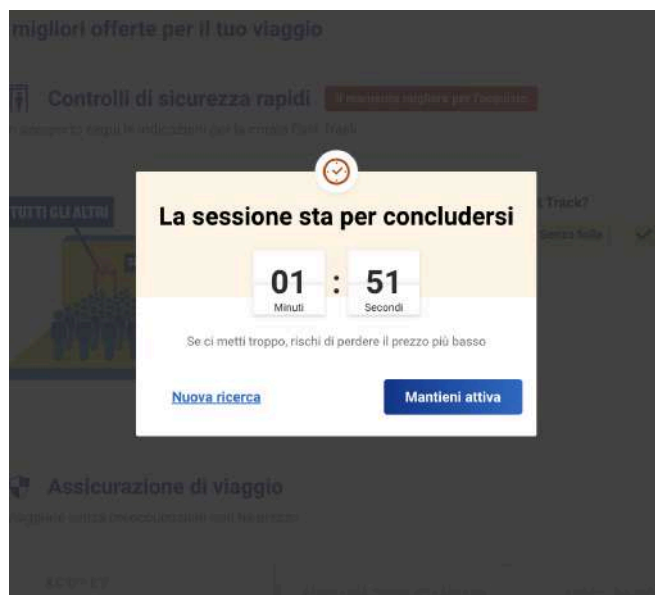

Figure 15: "Session is about to expire" banner

3.2 Match between system and real-world

The second heuristic requirement is well respected throughout the whole process, although a few features lack to successfully fulfill it.

3.2.1 Successful examples

1. On the homepage, different services that Ryanair offers are well highlighted using icons that recall real world elements

Figure 16: Icons to indicate flight selection, car hire, hotel booking, and events and activities planning

2. When users get to pick the dates, onward and return flights are easily recognizable thanks to the icons used
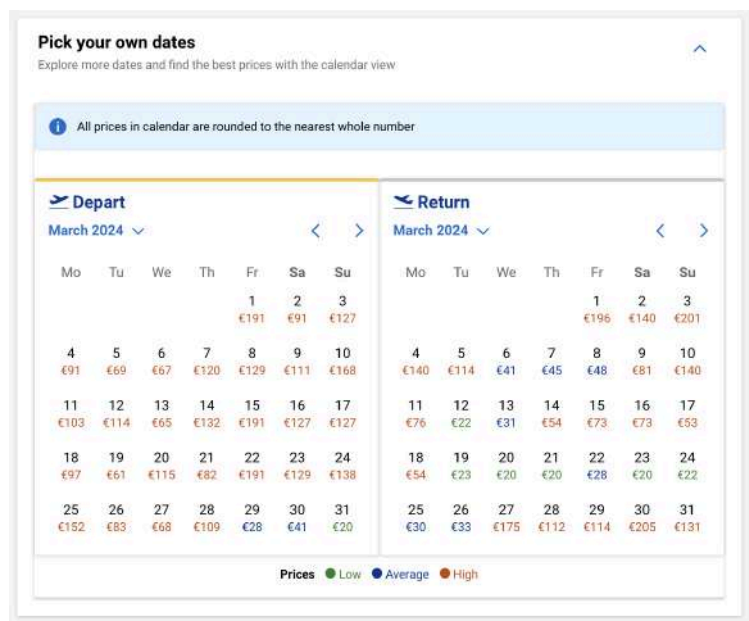

Figure 17: Icons to onward and return flights

3. The stages users have to undergo from flight selection to final payments are easily recognizable and their meaning is successfully conveyed thanks to real-life icons.

Figure 18: Icons used for flights/seats / bags and extras selection, along with review and payment section

3.2.2 Failure examples

1. The system fails to correctly distinguish from onward and return flights. The icon used is the same, although the ones shown in Figure 16 would fit better. A solution would be to use the same icons from Figure 16 to distinguish better between onward and return flights.
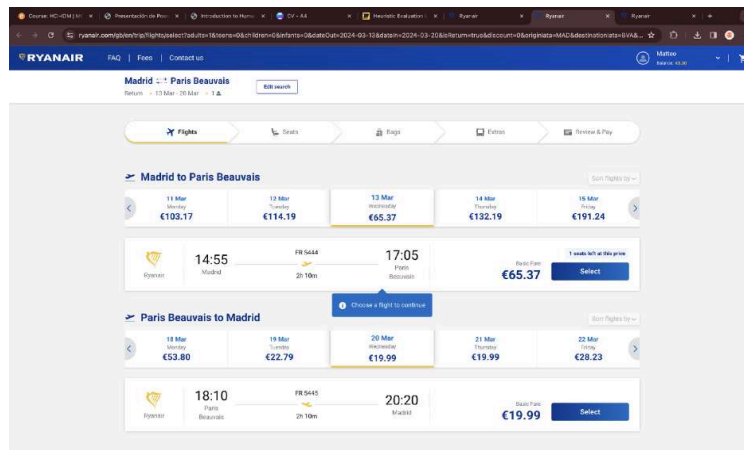
7

Figure 19: Icons referred to onward (Madrid to Paris Beauvais) flight and return flight (Paris Beauvais to Madrid) are the same

3.3 User control and freedom

User has overall control and freedom throughout the whole process, although a few features could be implemented.
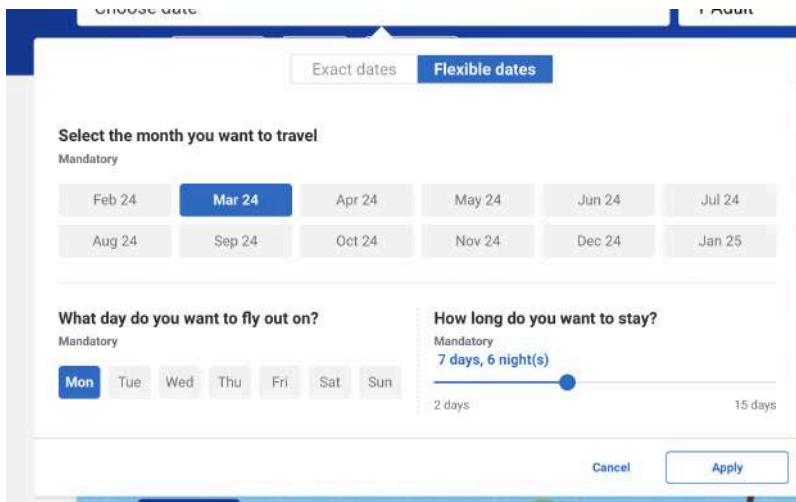
3.3.1 Successful examples

1. Once users have chosen an airport to fly from, the destination, type of ticket, dates, and passengers, they can still edit their search through the following steps.

Figure 20: Close-up of data box describing user research in the choose flights window

2. When setting the options for research, cancel or clear buttons give users control over the research.
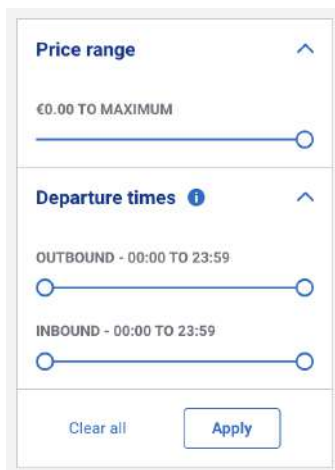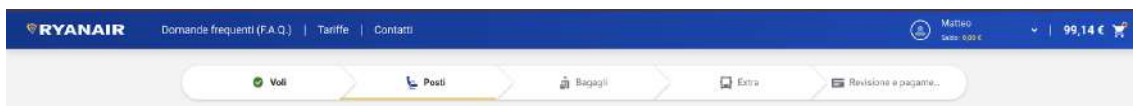
Figure 21: Flexible dates research dropdown window   **Figure 22:** Price range dropdown window

3.3.2   Failure examples

1. The edit search option disappears as soon as the user selects flights and proceeds to pick the seats, taking control away from users. A suitable solution would be to keep the feature visible and accessible throughout the whole process, until payment confirmation.

Figure 23: No option to edit the search is visible at stage 2 (seat selection)

2. No cancel or clear all options is available during checkout, letting students Users should be entitled to abandon booking tickets operation even at the last stage of checkout.
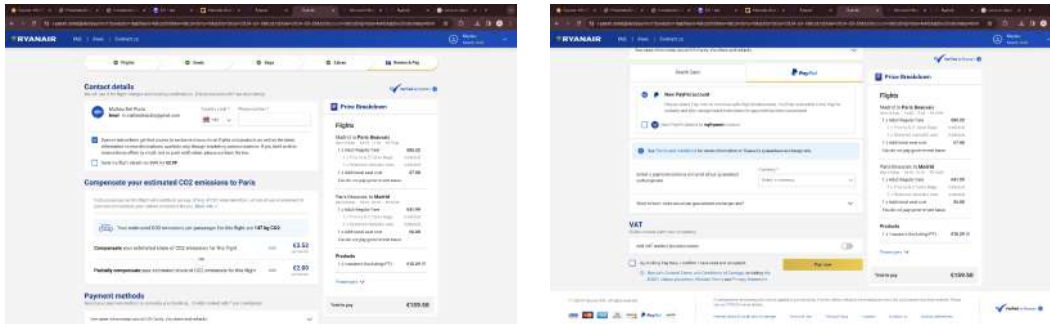
Figure 24,25: The checkout page is missing an option to abandon the booking operation

3.4   Consistency and standards

Ryanair's website satisfies heuristic number four in most of cases.

3.4.1   Successful examples

1. The same elements are used for different options, for instance selecting both luggage options and travel insurance involves the same template
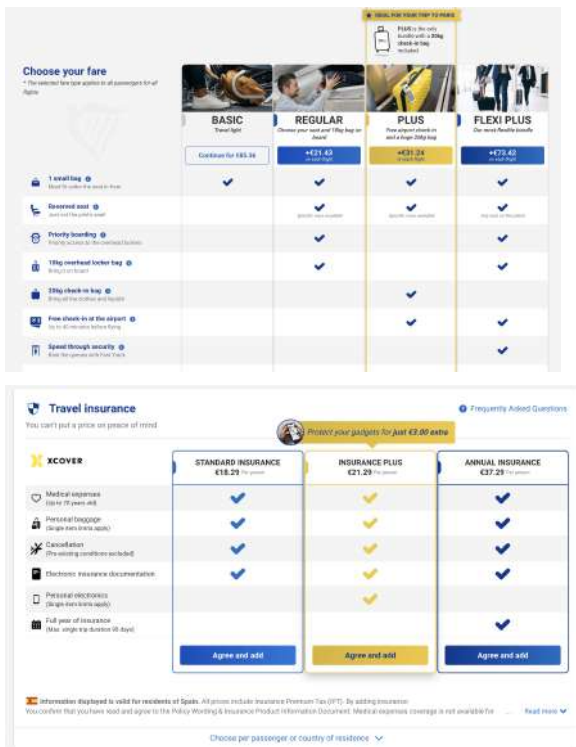

Figure 26,27: Template used for choosing bag fares (left) and template used for choosing among travel insurance options (right)

3.4.2   Failure examples

1. Users are asked to select which luggage fare they want soon after picking the flights. Once they get past seat selection though they land at the bag stage: here, they are asked to review a choice which has been already made, causing confusion on the meaning of such action. A suitable solution would be to be able to skip this stage or review it only if users are willing to add additional bags to their trip (and explicitly ask the system to do so).
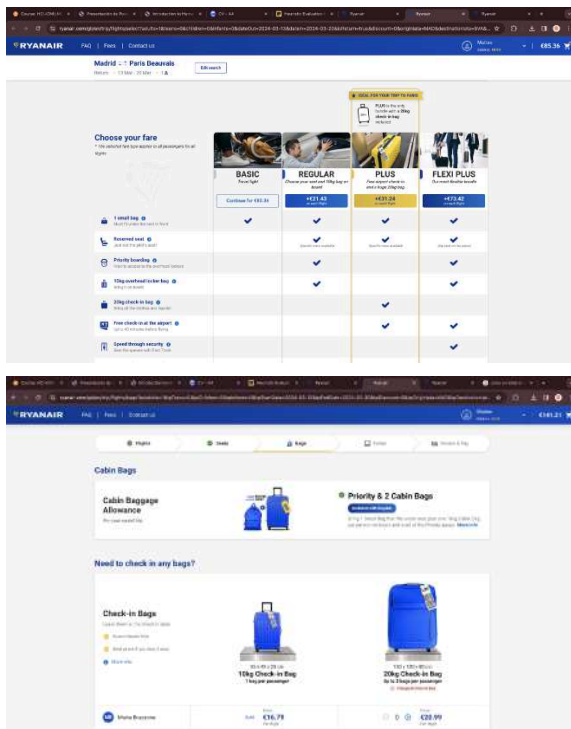
Figure 28,29: Choosing among luggage fares (left) vs reviewing the choice at the bag stage (right)

3.5   Error prevention

Error prevention features work very well and meet heuristic requirements throughout the whole experience.

3.5.1   Successful examples

1. If users choose to pick travel insurance, the system successfully highlights which choice has been made, preventing users from accidentally choosing the wrong one
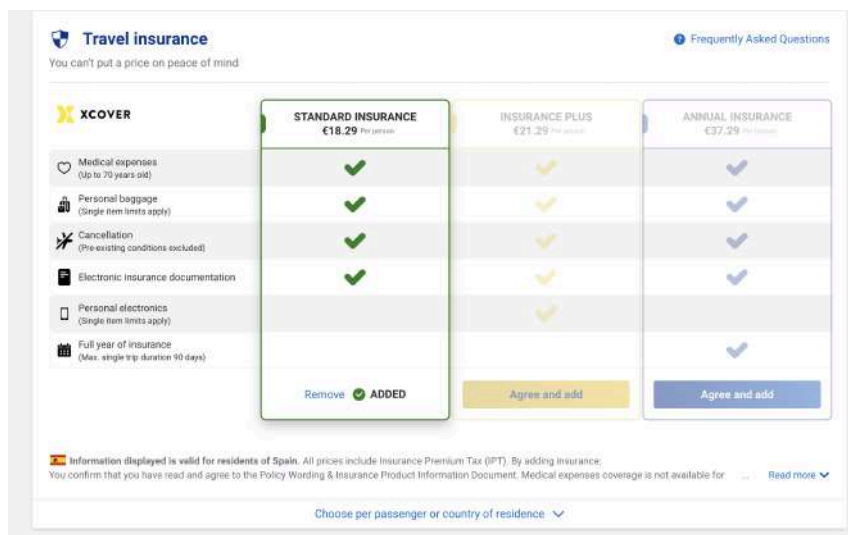

Figure 30: The highlights the standard insurance option and states it has been added to the purchase

2. The system prevents users from committing errors during key actions, for instance when selecting the dates for traveling

Figure 31,32: Options to select from when planning with flexible dates (left) and dropdown window to pick days from (right)

3.5.2 Failure examples

1. Although it is impossible for the system to detect whether users have misspelled the passenger's name and surname, a confirmation message is missing after filling out the fields. Previous misspelling errors can be easily overlooked during check-in procedures, risking passengers to miss their flight.

Figure 33: Window showing passenger information filed

2. If a novel user clicks on the destination and types "Paris" without selecting the airport from the suggestions in the menu and simply clicks out the field no destination gets selected and no alert message is shown. The user will realize it after some time, ending up retaking a step in the process.
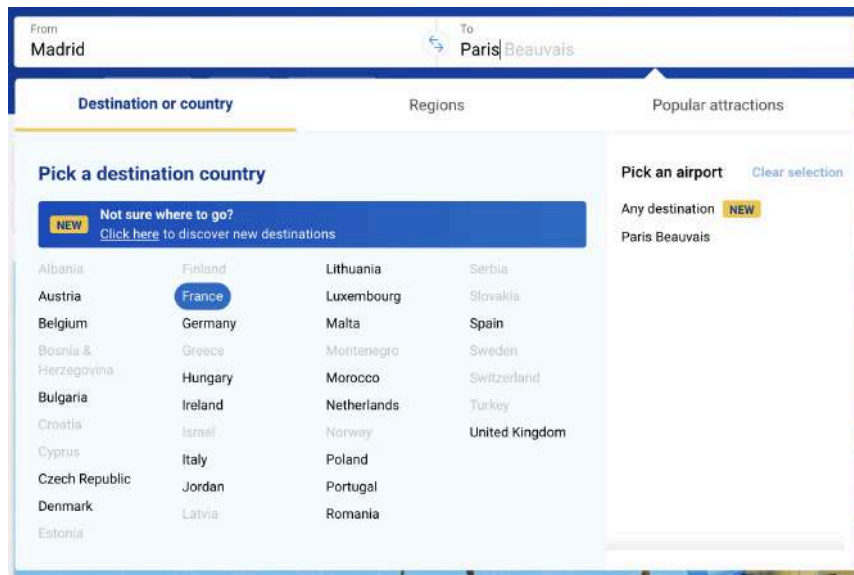
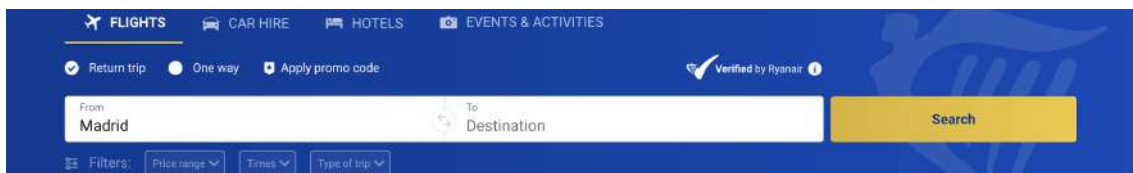**Figure 34:** Window showing options to choose from for destination

Figure 35: Window showing destination has not been chosen

3.6 Recognition rather than recall

The sixth heuristic requirement is well respected throughout the whole process.

3.6.1 Successful examples

1. Since any city may have multiple airports that the user does not recall, the system provides suggestions as soon as it detects a keyword in the research tab.
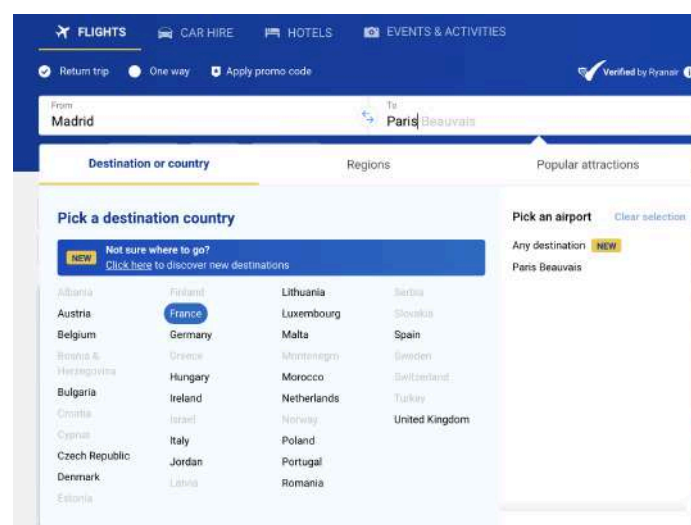

Figure 36: The system automatically hints at Paris Beauvais airport when entering a destination in the research tab

2. Users' choice of airport to fly from, destination, type of ticket, dates and passengers are always visible and can be easily recalled during flights and luggage selections.

Figure 37: Close-up of data box describing user research in the choose flights window

3.6.2 Failure examples

1. When it comes to select dates and destinations, options for one-way flights as well as back-and-forth ones are not easily recognizable. Instead of using empty bullets to select from, a suitable solution would be to use real-life icons to help users notice such an option and remind them to change it If needed (back and forth is the default one).
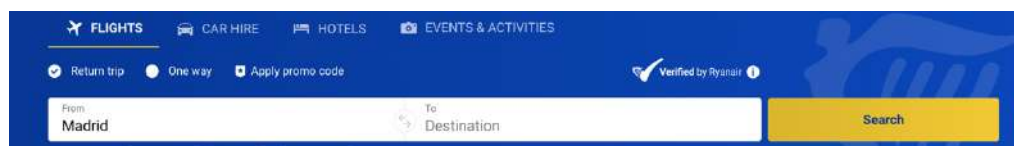

Figure 38: Empty bullets to choose from are used for selecting between return trips and one-way tickets. The default option for a return flight is selected
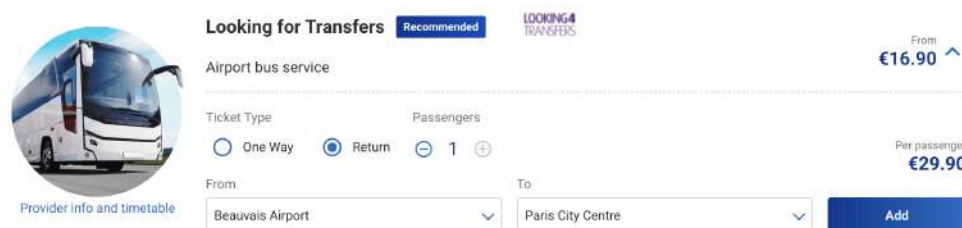

Figure 39: Empty bullets to choose from are used for selecting between return trips and one-way tickets even for transfer routes. The default option for a return flight is selected

3.7 Flexibility and efficiency of use

The seventh heuristic requirement is well respected throughout the whole process.

3.7.1 Successful examples

1. Novel users when having to choose the seats, may lose some time figuring out which seats are free and which do cost. They fail to remember that - in most cases - free seats can only be randomly assigned during check-in, and that they can skip seat selection if planning on not to add more expenses on top of the total checkout amount. Due to the crowded interface, they miss out on switching to option 2 "select seats later", a faster and more well-known expert user way to get to the next stage.
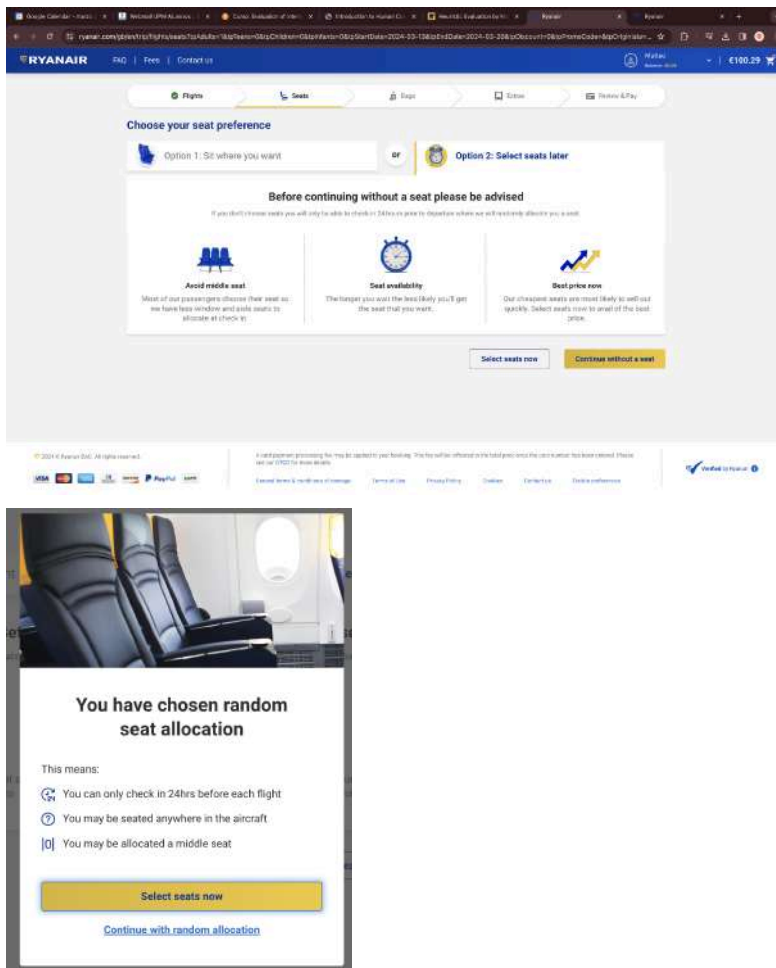
Figure 40,41: Select seats later option (left) along with confirmation message (right)

2. Experience users - who already purchased via the Ryanair website – have access to shortcuts that novel users miss. The account owner's detail can be stored in the system to be automatically inserted whenever needed along with digital payment method (PayPal) details to make checkout easier and smoother. Passenger information can be stored as well.

Figure 42,43: MyRyanair section with personal information (left) and the option to save PayPal details to myRyanair account (right)

3.7.2   Failure examples

When selecting travel dates with flexible options, users are asked to choose on which day of the week they want to leave. This kind of request does not match with the flexible type of research this feature allows to do, and therefore should be omitted.

Figure 44: Flexible dates research drop-down window, asking for the specific day to fly out on

3.8   Aesthetics and minimalist design

Ryanair's website sometimes lacks minimalist design but manages to achieve it when it comes to crucial choices for its users

3.8.1 Successful examples

1. Dates and flight selections only present the exact information users need, hiding all irrelevant one
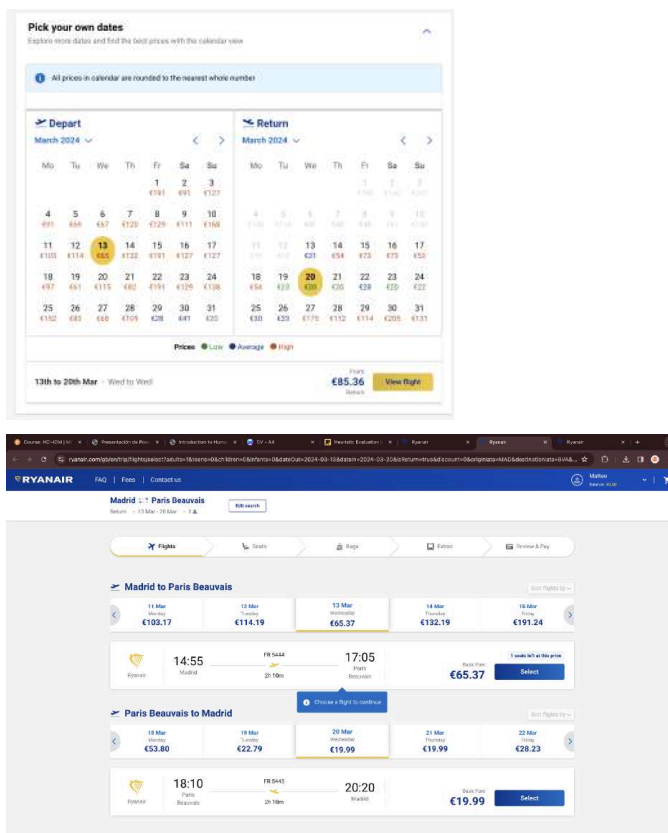

Figure 45,46: Pick your own dates pop-up window (left) choose flight screen (right)

3.8.2 Failure examples

1. The homepage is crowded with information. A good solution would be to present the homepage with just the search bar currently located in the header and a blank background (something very similar to Google's search homepage).
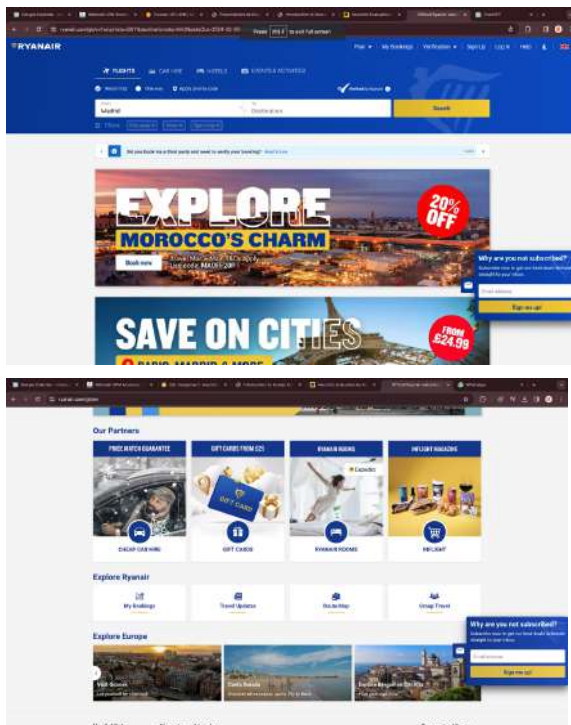
Figure 47,48: Ryanair's homepage screen

2. The user gets to choose whether to select the fast track add after selecting seats, but then the same feature is proposed among the extras before checkout. A good solution would be to make the users choose only once before checkout, instead of showcasing irrelevant information (since a choice has been already made).
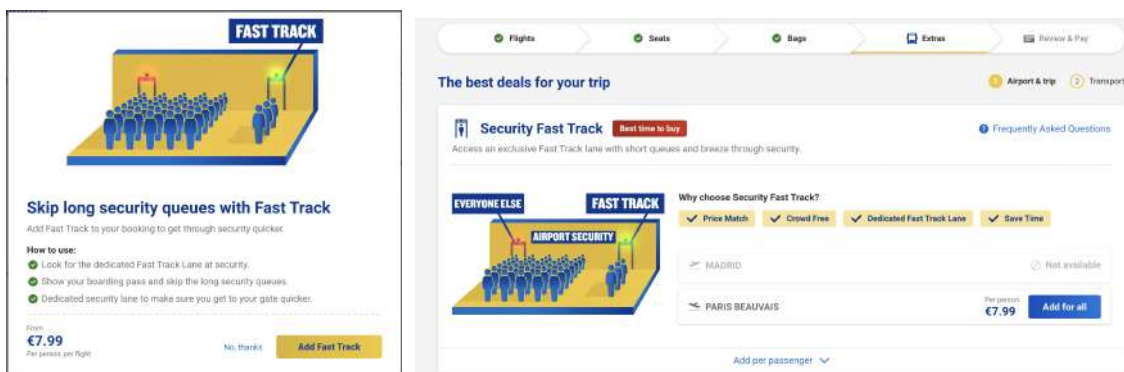
Figure 49,50: Fast Track add after selecting seats (left) vs fast track add in the extra section (right)

3.9 Help users recognise, diagnose, and recover from errors
No error messages have been detected throughout the process

3.10 Help and documentation
The tenth heuristic requirement is well respected throughout the whole process.

3.10.1 Successful examples
When booking the transfer, the system guides users highlighting which field should be filled with the origin location and which one with the destination

Figure 51: Transfer selection window with origin and destination

When booking the flight, missing fields provide easy–to–find help solutions for destination, departure, and return dates along with the number and type of passengers

Figure 52: Close-up of departure and destination locations

Figure 53: Close-up of departure, return dates, and passenger information

3.10.2 Failure examples

When adding a transfer option to the ticket, users may want to gain more information about the time of departure, location of the bus, length of the ride, stops the bus makes… All this information is accessible through a link that leads to a PDF, written both in French and English. The documentation provided is inaccessible, difficult to read, and not schematic. Users do not have a clear understanding of the key information they're looking for and need to commit extra effort to reading and going through the whole PDF. A suitable solution would be to present such information in a more suitable way (for example a dropdown window), highlighting everything that is important to travelers on the main page.
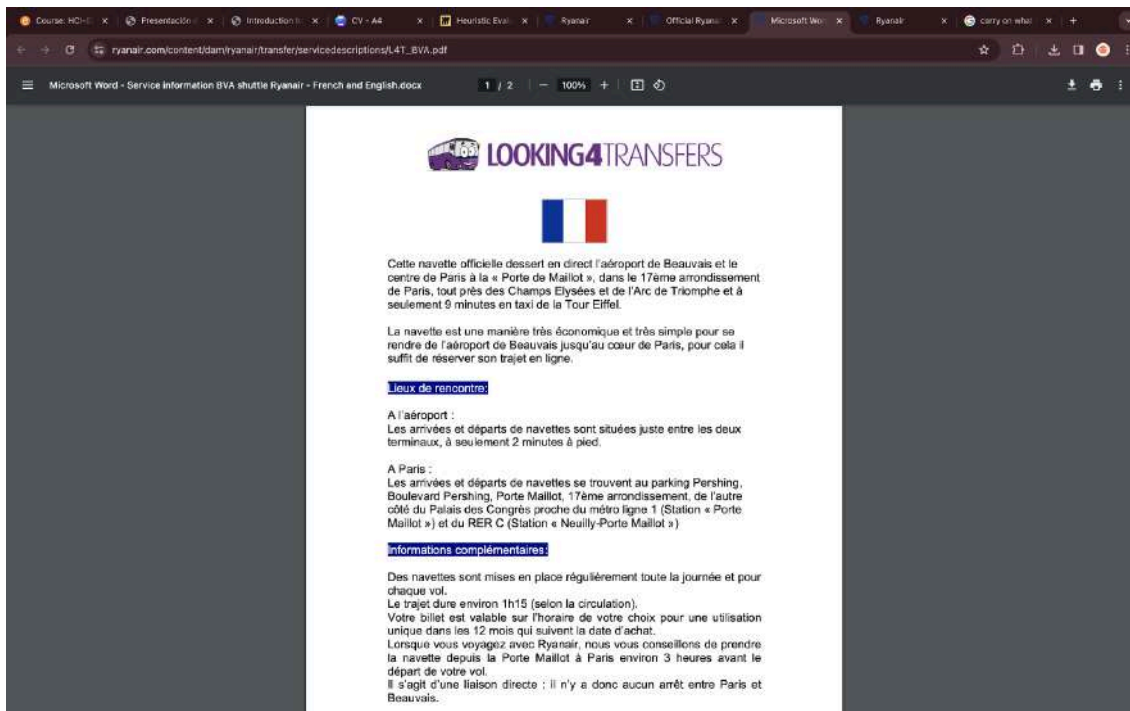
Figure 54: Transfer details page

4 Prioritise the problems

High-severity problems include the absence of a countdown timer during the booking process and the inconsistency in icons for onward and return flights. These issues can significantly disrupt the user experience by creating confusion and unnecessary stress. Additionally, the disappearing edit search option during the booking process restricts user control and flexibility, which is crucial for a smooth and user-friendly experience. These problems demand immediate attention to ensure that users can navigate the website effectively and complete their bookings without unnecessary hurdles.

Medium-severity issues, while not as critical, still pose significant challenges to the user experience. The redundant luggage selection stage, for instance, can cause confusion and frustration, as users are forced to review a choice they have already made. Similarly, the lack of error prevention for passenger name input and missing destination alerts can lead to potential booking errors and delays, impacting overall user satisfaction. The crowded homepage design also detracts from the user experience by overwhelming users with too much information at once. Addressing these issues will streamline the booking process and reduce potential errors, enhancing the overall efficiency and user-friendliness of the website.

Low-severity problems, though less impactful, should not be overlooked. The presentation of the fast track option twice, for example, is an unnecessary repetition that can be streamlined to improve the user interface. The inflexible flexible dates selection, which contradicts the feature's intended purpose, also requires refinement to better meet user needs. Additionally, the poorly accessible transfer information, currently provided in a cumbersome PDF format, should be made more user-friendly to ensure that users can easily find the details they need. While these issues may not be as urgent as the high- and medium-severity problems, addressing them will contribute to a more polished and professional website experience.