

User Interfaces **Computer Science** **Engineering**

Case Study



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1.- INTRODUCTION

This project consists on a web page that will be similar to those search websites like kayak or booking, however in our web we only work with hotels and travel experiences.

The main objective of our project is the design of a web where people can search for hotels and travel experiences, they can see all the information of the results obtained when searching for those things.

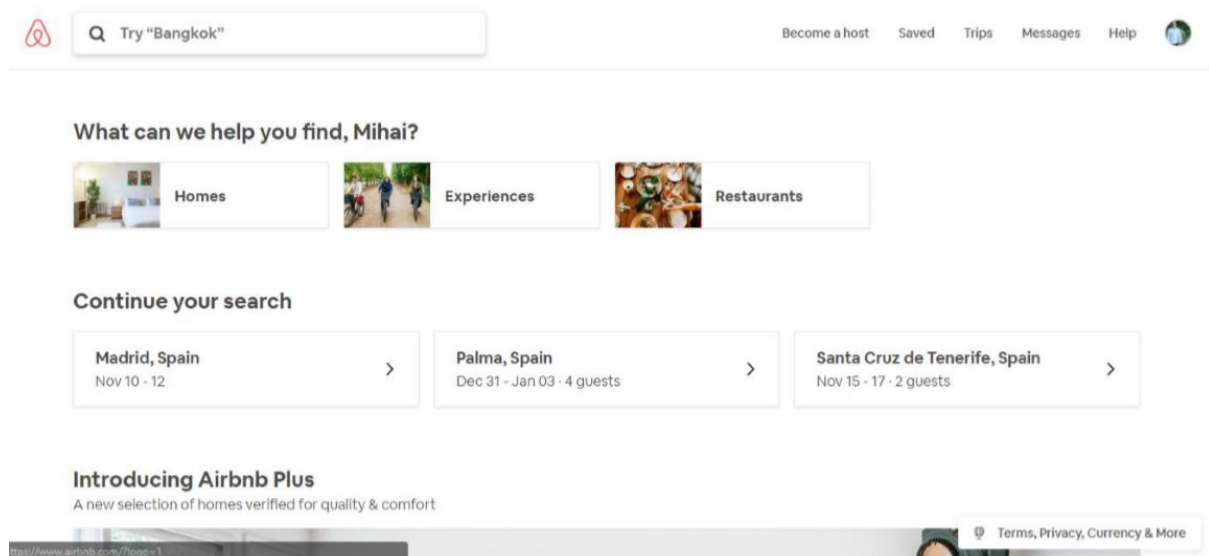
Also it is possible to comment or rate a hotel, this is only available for registered users, while not registered users can only see them. Another goal we implemented is that registered users are able to add a hotel or travel experiences to a favourite list, each user has its own.

Users are also able to have collaborative lists with other users, here they can share travel experiences or hotels with those users.

2.- Analysis

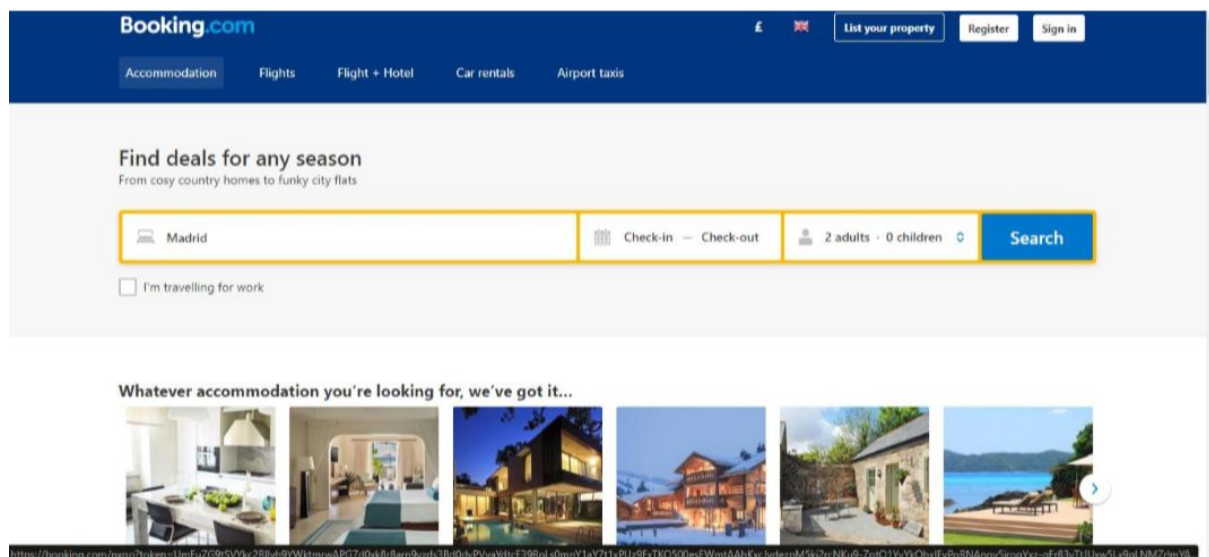
2.a Analysis of similar web pages

1. Airbnb



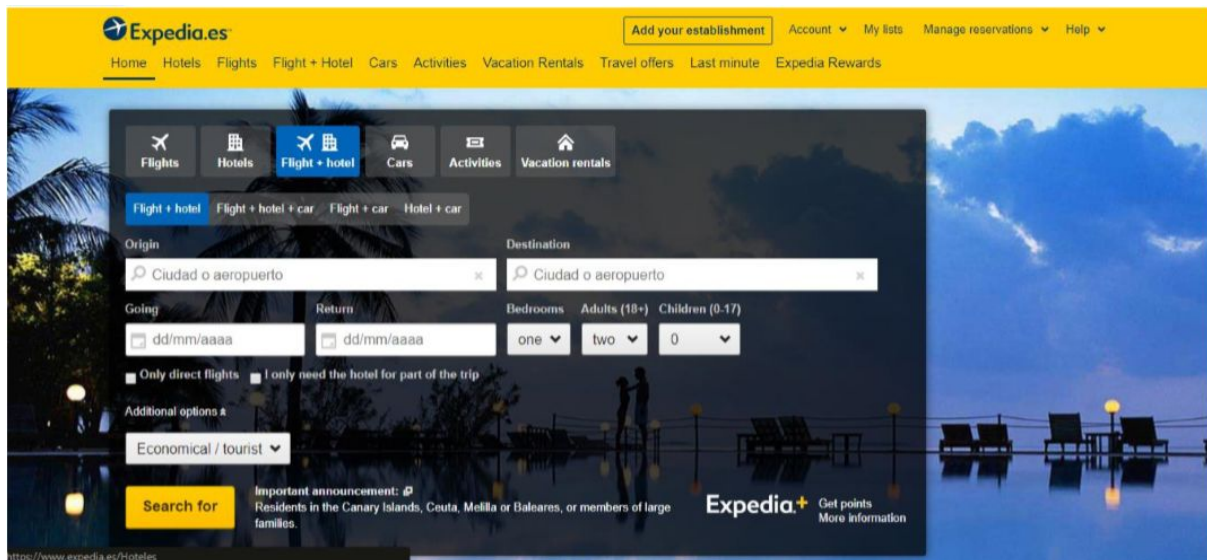
- Well designed home-page, rich with features
- Structured navigation
- Well-structured and high-quality content
- Usable framework for payment

2. Booking



- functionality out of the box, with the ability to book a room without being logged in
- straight-forward processes for booking rooms, easy to understand, with good error detection and prevention
- simple yet elegant page layout

3. Expedia

The image shows the Expedia.es homepage. At the top is a yellow navigation bar with the Expedia.es logo, a link to 'Add your establishment', and links for 'Account', 'My lists', 'Manage reservations', and 'Help'. Below this is a secondary navigation bar with links for 'Home', 'Hotels', 'Flights', 'Flight + Hotel', 'Cars', 'Activities', 'Vacation Rentals', 'Travel offers', 'Last minute', and 'Expedia Rewards'. The main content area features a large search form with a background image of a tropical beach at sunset. The search form includes tabs for 'Flights', 'Hotels', 'Flight + hotel' (selected), 'Cars', 'Activities', and 'Vacation rentals'. Below the tabs are sub-tabs for 'Flight + hotel', 'Flight + hotel + car', 'Flight + car', and 'Hotel + car'. The form has fields for 'Origin' and 'Destination' (both with placeholder text 'Ciudad o aeropuerto'), 'Going' and 'Return' dates (with placeholder 'dd/mm/aaaa'), 'Bedrooms' (dropdown 'one'), 'Adults (18+)' (dropdown 'two'), and 'Children (0-17)' (dropdown '0'). There are checkboxes for 'Only direct flights' and 'I only need the hotel for part of the trip'. An 'Additional options' dropdown is set to 'Economical / tourist'. A yellow 'Search for' button is at the bottom left of the form. To the right of the button is an 'Important announcement' about residents in the Canary Islands, Ceuta, Melilla, or Balearics. The Expedia+ logo and a link to 'Get points More information' are at the bottom right of the form.

- Powerful homepage, which describes what the site wants to achieve, with functionality out of the box
- Rich search engine, with multiple criteria and filters
- Multiple products offered (flights,Hotels,Cars,etc.)

2.b Analysis of market(personas that would use the site)

A. Users

Persona 1:

Name: Juan Vierno



Photo:

- . personality – calculated, honest, direct, tough, straight-forward;
- c. technological experience / skills – has a high understanding of technology, since he works with it every day;
- d. platforms – tablet, laptop;
- e. goals / motivations – Juan is an executive at a big finance company, and he has to travel a lot. He doesn't like to waste time, and is searching for a system that will give him the best hotel experience in the shortest time possible. Money is not an issue, so he is not expecting the website to give him the cheapest solutions, but rather the best ones;

f. personal quotes / slogans – Let your actions speak for you;

Persona 2:

a. Name: Sofia Nirinova



Photo:

b. Personality – friendly, childish, resourceful, smart;

c. technological experience / skills – has a high understanding of technology, since she is following a BSc in computer science;

d. platforms – phone, laptop;

e. goals / motivations – Sofia is a young lady from the eastern Europe. She just started her bachelors in computer science, and she likes to travel a lot. Being only at the beginning of her path in life, and since she is coming from a modest family, Sofia is always looking for the most convenient accommodation, wherever she is going. She always keeps an eye on the deals and bargains, and is 'properly studying the market' before going somewhere;

f. personal quotes / slogans – go with the flow;

Persona 3:

Name: Maria Broone



Photo:

b. Personality – helpful, loving, a bit shallow;

c. technological experience / skills – has a hard time understanding technology, tries to keep it simple;

d. platforms – tablet, laptop;

e. goals / motivations – Maria is a stay-at-home mother of 2, in her mid-30's. She loves his children and her husband, and likes going in vacations with her family. Since her husbands work takes a lot of time, she is trying to do all the other stuff to make him proud and happy, including planning vacations. She knows that technology is not one of her pros, so she would like a very easy to use platform for planning a vacation(she would like to have everything done in as few clicks as possible);

f. personal quotes / slogans – Find the beauty in everything.

3.- Prototypes description

Before doing the case study, we created two prototypes for the third assignment, one corresponding to David and Daniel, and the other one corresponding to Mihai.

3.1 David and Daniel's prototype

The first one was simple but in a visual term as it doesn't have a footer and was in black and white, except for few functionalities. When you enter the page you find the hotel search tab in which you can search for hotels introducing values in the fields and the clicking in the search icon. For the travels search, is the same but you have to access to it by clicking in the travel experiences tab.

To login or register we click in one of the two buttons at the top, if you click in login it will appear a box with two fields, you may enter your e-mail and password to enter with your account. For registering, we click on register, a box with several fields will appear, to register we must fill all for them except for the image that is optional.

For the pages of information about the hotels and travel experiences we have a design in which firstly, we have some photos, where you can pass from one photo to another as they all are not visible. Then we have all the information and at the end we have a box where we can see the comments and the ratings.

The favourite list is a simple list with all the hotels or travel experiences you want but listed, you can delete it as we see the button for that, but we can't access the information of each hotel or travel experience through this page.

In the collaborative lists, we created like a chat in which users can write and send texts to other, also there's the possibility of choosing one of your lists in which you are included or even search for a new list in the webpage.

3.2 Mihai's prototype

On the other hand, the Mihai's prototype is more visual as every part of it, the header, the body and the footer are a combination of the black and blue colors, however is not so good on functionalities as the favorite list and the collaborative lists are not implemented.

In the footer, that appears in all pages, are included the support and contact us option, which is an important character that most pages have actually.

In the homepage, instead of creating a box and add tabs on top of it in order to have the info inside we have the buttons for each functionality at the top, just beneath the login/register buttons. Here we also have fields for the data of hotels and travels search and a search button.

When clicking in login or register two boxes will appear, the left box corresponds to the login box where the user must introduce its email or username and another field for the password. The right box is for registering, here we must introduce only the username, the email and the password to create an account.

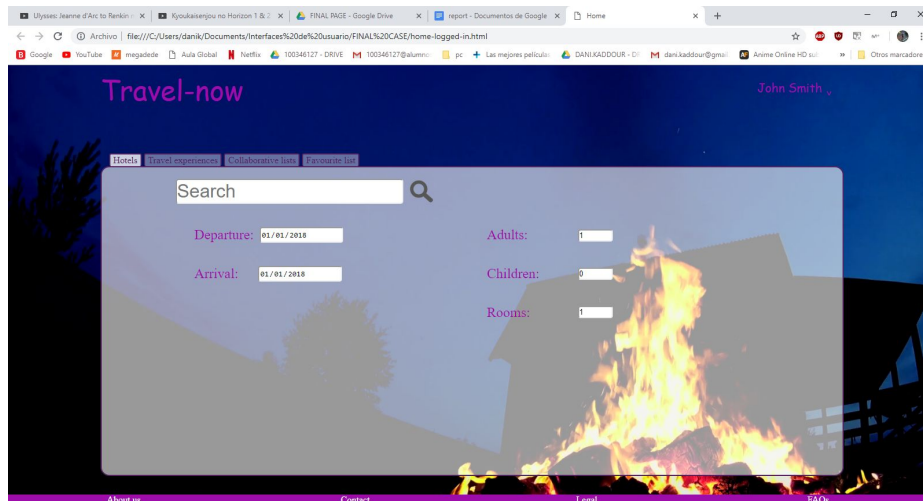
When doing a search, the search result page is shown, where we see the searches at the right and a map with all the searches marked so you can see at what exactly place is a hotel or travel.

In the information page of a hotel or travel, we see that the photos are at the left and all the information at the right with the price per night and a button to see when it is available.

4.- Justification of new prototype

What we did for creating the final prototype is to combine both projects, we maintain the implementation from david and daniel's prototype but we decided to do it more visual as mihai's one.

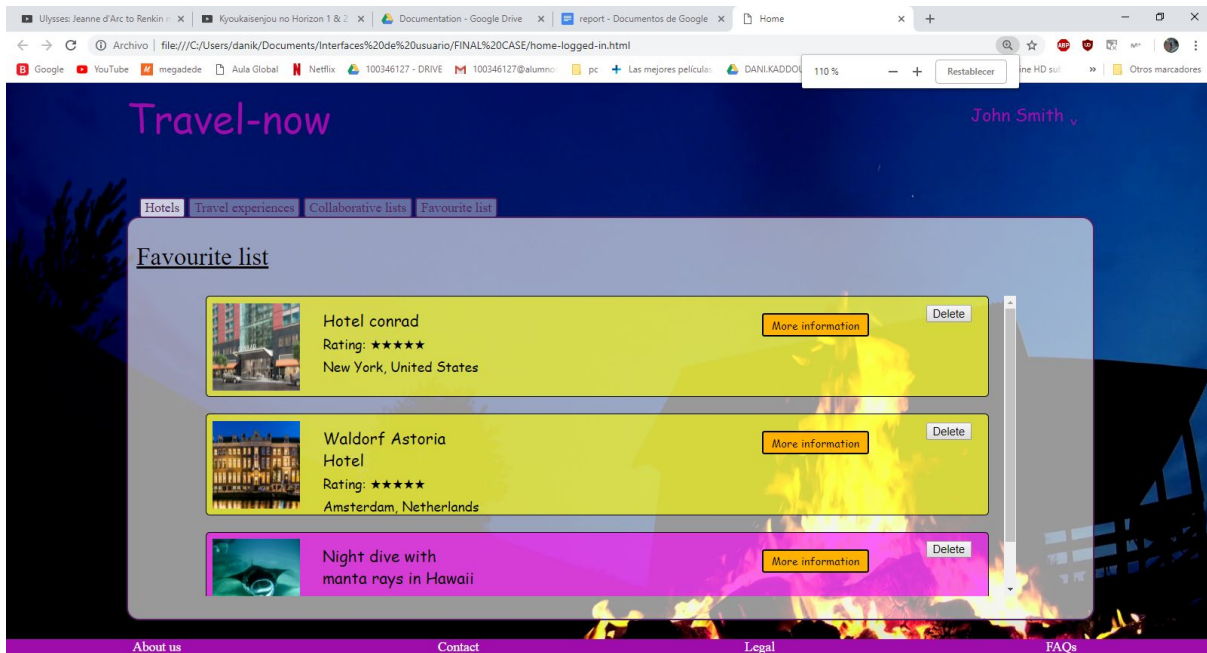
In the homepage, we have the design of david and daniel but we take the idea of an image from mihai's one to set that picture of a campfire. As we see we have several tabs up the box and all the information will display inside that box. When you enter, as in both prototypes you will find the hotel search fields and bar.



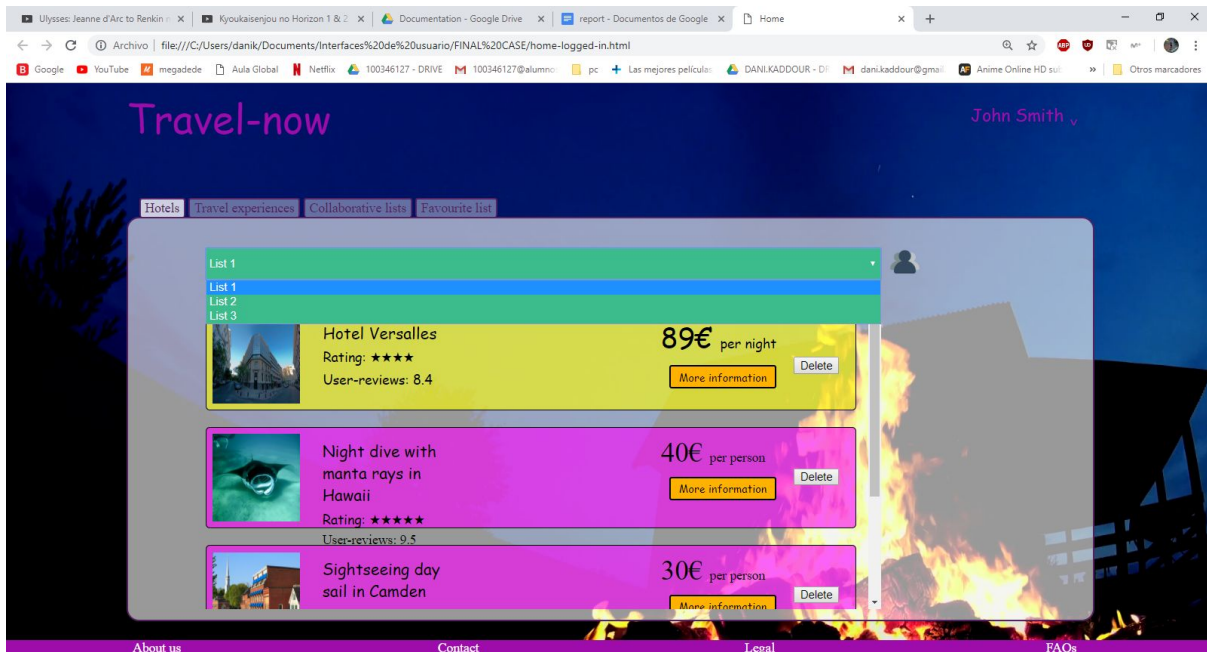
In the hotel or travel results, we have it as in david and daniel's design but only as the hotel search design, even though the mihai's was similar and that's why we decided to do it like this, in this case the each row represent a hotel or travel depending on the search (hotels represented in yellow and travel experiences in violet) and they will have a more information button to see all the information of an activity.



In the favourite list, the design is as in david and daniel's one as mihai's was not implemented, however we choose it as it was simple and almost the same as in hotel/travel results with the activities in each row inside the box and with a delete button in case we want to delete them from the favourite list.



for the collaborative lists, we didn't do it as in our prototypes as it doesn't really adjust to what we want, that's why we change it. The list is as in favourites with the activities as rows but with the price. We set a select to choose the list, in this case it is shown in green.



4.1.-Pattern by Van Duyne

B2: Browsable content – the search filters are well organized in categories

C1: Home page portal: Every part of the site is accessible from here

C2: Up-front value proposition: the image suggests that the proposed properties found are nice.

E1: Strong Branding: The logo of the website is present on every page

E4 - Privacy Policy; the legal aspects are available at the footer

E5 - About us: the information about the website or the authors are available at the footer

H2 - Sign-in/New Account: there is the possibility of login or creating a new account

H3 - Guest Account: the user can search and see activities information without having an account

H7 - Frequently Asked Questions: at the footer it is available the FAQs option

H10 – Clear forms: when login or registering the form is easy to fill up

K2 - Navigation Bar: you can access the hotels, travels and lists in only one click.

K3 - Tab Rows: those categories are divided in tabs.

4.2- Nielsen's heuristics

Match between system and the real world: the results have photos of the hotel/travel in the real world and may use language that the user is used to.

Consistency and standards: The page uses standards for this type of platforms. For example, like most of the pages for travelling, the home page is ready for start searching.

Error prevention: you can delete easily a hotel or travel experience from a collaborative or favourite list in case you make a mistake.

Recognition rather than recall: the options, actions are very visible so the user know at any moment where to click to do something.

Aesthetic and minimalist design: The page presents first the most important element and then the least important. In the home page first is the searchbar and then the other tasks.

Help and documentation: You can easily access to a help page.

5.- Description of technology used in implementation

The technology used to implement the system was HTML, CSS3, Javascript using the jQuery library. You use HTML to create the actual content of the page, HTML is the basic structure and the contents of a website. CSS is responsible for the design of the webpage – how everything looks, for example, colours and where elements are on the page. JavaScript is responsible for interactivity on a webpage which helps engage a user.

6.- Implementation of the system

In order to implement the system, we used several functions for each activity. Everything is done in the html page of logged users as they can do more tasks than the not registered one. Then in order to not show everything at the beginning we display in none (in the styles css document) most html part except for the hotels search. Every part has a different id so they are easily differenced.

We firstly created the information for the hotels and travel experiences that will be shown when clicking on more information button, when clicking we turn what is in the screen (favourite lists, collaborative lists or hotel/travel search) into none display and we display the information of the hotel or travel experiences we want. Inside, we must implement a form to see the comments or ratings, we just display the comments at first, and to see the ratings, the user must click in the ratings tab.

For the favourite list, we created all the hotels and travels in html but no display them so they don't appear until they are added, even though in this case we leave some on the list, as are our favourites. To add a hotel or travel we click the button call "add to favourites" in hotel or travel experience information, and to delete from the list we have a delete button in each task of the favourite list, so the user can delete and add easily, this is implemented with the use of some functions in the script file.

For the results, we implement a simple search bar in which when searching introducing several values, it shows us all hotels or travel experiences, both activities have to be search separately as they have different search bars.

For the collaborative lists, we implemented three different lists, that each one can be accessed. We have implemented the selection of a list with a select operator so when clicking on the list name or number it shows all the lists we have, and with the use of functions when selecting the list we want ,it appears all the activities of that list and the users on it.