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FRONT-END ELECTIVE EXAM
Process documentation

Github link : https://github.com/charlenemarteyn/dashboard.git

Website link : http://charlene-marteyn.dk/thirdsemester/frontend/dashboard/index.html

Youtube link : https://youtu.be/uJPHhjz7OwA

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Process documentation of my solution

For this exam project, I have decided to focus on usability and data visualisation. My goal is to make my solution quick and easy to understand with relevant content to support the workflow of FooBar as well as answering FooBar's need.

PHASE 1 : BRAINSTORMING

In order to visualise what I was working with, what was Foobar's need was and what was my ideas for it, I created a mind map showing which information can be fetched, what I want to display in each sections and what I need to focus on based on what Foobar wants.

I also searched some inspiration on the design of my dashboard, from what I found, dashboards had graphs displayed almost all the time and the colors where quite bright, and it is from those examples that I started sketching.

PHASE 2 : SKETCHING

To get an overview of what I wanted to accomplish, I started this project by making sketches of how I was seeing my solution be, with the given data. I pictured a website in four pages :

- **Main page** : Most relevant informations should be displayed on it as it is the first page the bar owners will see when they log in on the account.
- **Product page (changed to "beer type")** : If the owners of the bar are not beer experts, it can be hard to remember everything by heart, therefore I thought it was important to add a section where the owners could get more information. It is also help to have an overview of the products the bar sells.
- **Client page (changed to "order page")** :   This section would be all about FooBarClients, what they order, who they are and so on as it is important for a company to know its clients.
- **Employee page** : The employee section is made to know more about FooBar's employees.

1) The structure

The solution sketched is composed of 4 sections, a dashboard that would be the front-page of the bar account, a product section to display beer information, a client section to get an overview of who the customers are and what they are ordering, and finally an employee section that would be about the bar's employees. Due to a lack of inspiration at that time, the overall structure's sketch has not been finished, but each section has been individually sketched. Later during the stretching process, an 5th item has been added to the navigation : a "parameters" section, where the bar owners would be able to customise what they find relevant to be displayed on the front page. Although, that section has not been added to the final solution.
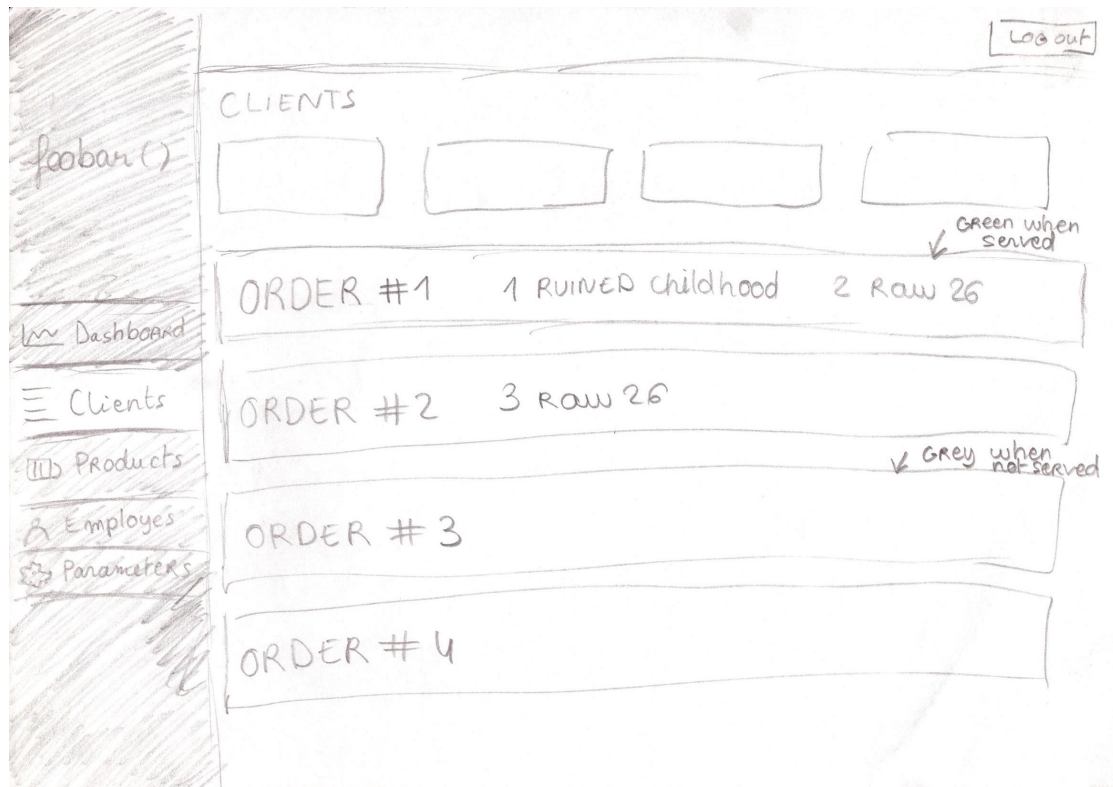
2) The dashboard

The dashboard is the first section the bar owners will see when they log in on the FooBar account, therefore it is the main part of the solution. The purpose of this page is for the owners to have an overview of the situation, even if they are pressured by time during rush hours. The information should be **quick** and **easy to read**.
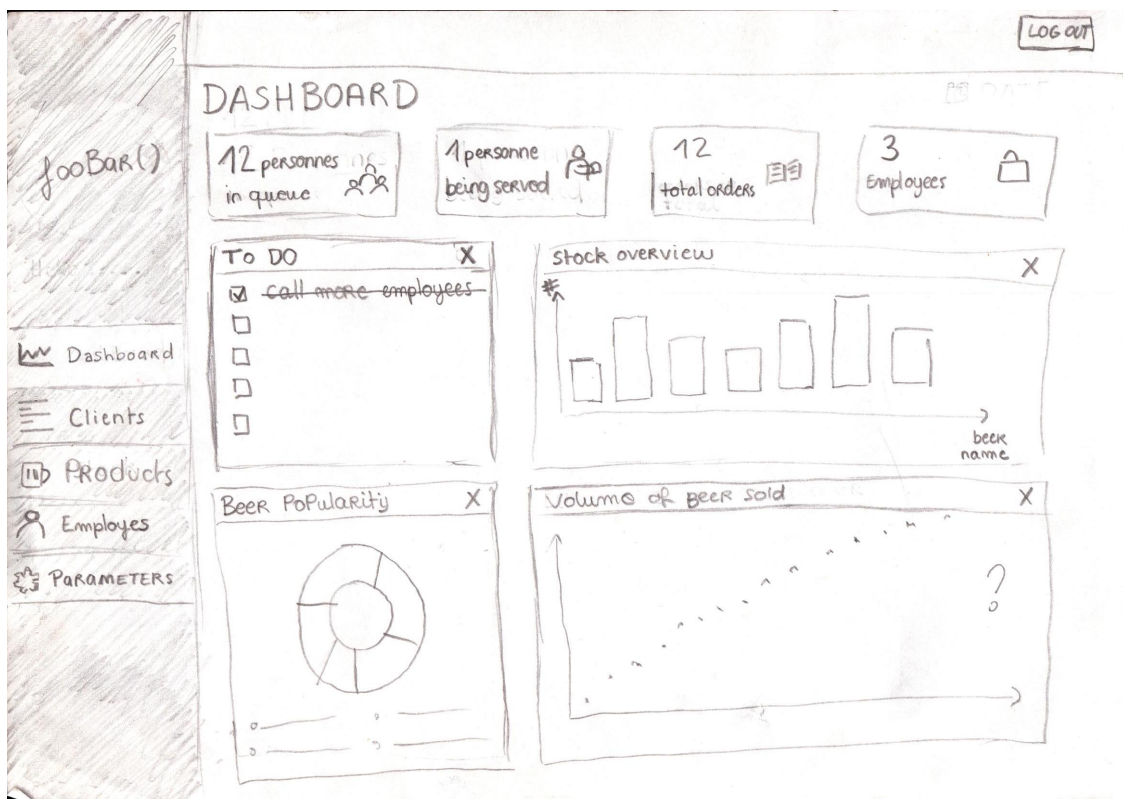
The initial idea of the dashboard's structure was to have 4 boxes on top to display the number of customers in queue, the number of people being served, the total of orders and the number of employees. The 4 boxes would help the bar owners to get a quick and fast overview of the bar's situation. Added to that, a to do list section to show what needs to be done and 3 graphs to facilitate the visualisation of data.

3) The client section

As customers play a crucial role for a business, the client section has been sketched to be the second item of the navigation bar. As the dashboard, that section is also composed of the 4 boxes in the top to get quick information about FooBar's customers. During the sketching process, not all of the information to be displayed were selected, therefore they have not been added to the sketch. The general idea is to keep the same structure than the dashboard and add a list of orders with a number and the order detail. The border of each order's container would change accordingly to the state of the order : green border when served to validate that the order is payed and over, and grey when the order is in process.

4) The product section
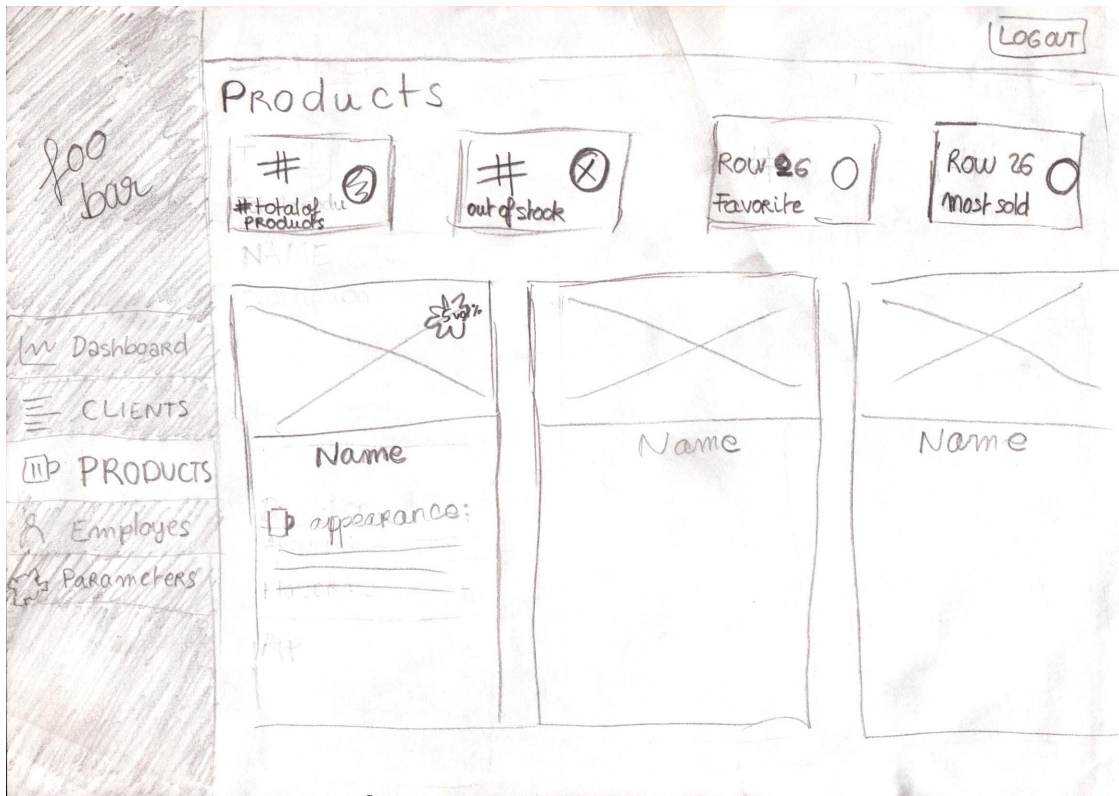
The product section is the 3rd item of the navigation. It has the same structure than the dashboard and the client section, meaning the navigation on the left, the log out area and the 4 boxes for a quick view of the state. Each product is displayed horizontally in a container, the container is composed of a picture of the beer type and under it, the name and its full description. The percentage of alcohol is displayed on the picture to bring attention.

5) The employee section

The employee section has not been easy to design, as there was not a lot of data regarding the employees to play with, which explains the lack of inspiration during the sketching process, however, how the container was looking was quite clear. The employee section has a container per employee, and each employee would have a picture or an icon to represent them as a profile. It keeps the same structure than the other section meaning it also has the 5 top boxes.

PHASE 3 : DESIGN :

1) Colors

From the research I have made, I noticed that the colours picked for typical dashboards were quite colourful and bright, it would always be a general colour palette (with blue, red, green, yellow) or it would mostly be blue tones. I wanted to have a bright colour palette in order to make it attractive to the user.

I first picked this colour palette, as I found the colours very colourful and refreshing.

However, I have decided to change the colour palette to something that did not contain colours too close to red and green in order to prevent the viewers from associating red to "bad" and green to "good" and here is the now color palette I picked which also looked colourful and I believe, would attract the view's attention.

However, a weakness point regarding the current colours picked for the charts is that the colours are not assigned to only one beer type which can appear confusing to the user. As the beer type orders are changing each time we update the page, it makes it difficult to be consistent.

2) Icons

Quite a lot of icons are displayed on the solution's interface, they have been used to help the view to understand and interpret information. However, icons need to be used with caution as each person has its own interpretation of what an icon mean, it could be clear for some but confusing for others. The icons have been carefully selected but there is always a risk not to be efficiently used. Despite that, icons have been added to draw attention on specific content as well as making the website look more attractive

3) Design challenges

The main challenge I have had was to design the beer info container, so the part where the beer types are presented. The information to display was quite long and tried to find different solution to fix my problems

My original idea was to display 3 container next to each other but when the "read more" button was clicked, the content was very long and painful to read, I therefore tried to find different solutions
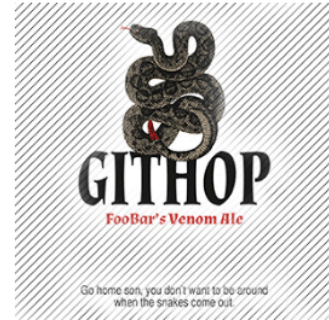
- Option 1 : Get a modal to display all the info on the screen, it would therefore be nicer to read.

- Option 2 : Not have three container in one row but two, which would add more space, but the issue would be that when "read more" is clicked, the container get bigger on the two sides but only one side showing the content as the other container's button has not been clicked, which is a bit confusing and adds a lot of white space.

- Option 3 : Have a container vertically with a part that will scroll to display the whole details of the product.

- Option 4 : Have a container vertically that when the button is clicked adds content

Solution : I finally decided to take option 4 as it was the one that was giving the most benefits for the user experience. The modal would have been a good idea but a bartender would never be able to compare all the beer types at the same time if needed. The option 2 was not practical and did not have beneficial effects on the user experience. And Finally the option 3 could have been interesting but it would not have been so practical for the user.

Another challenge i had was in the employee section, the menu bar has an automatic height and the content was not long enough to cover the full height of the left side when the navigation is, therefore I increased the size of the container of the employee section,

but I had to deal with quite a lot of empty and useless white space, I therefore decided to play with it and add a putting to click to add more employees profile to occupy the space. The button leads to a modal with a form inside.

4) Changes

I have decided to change the name of the menu items in the process of coding the website, as "product" and "client" did not seem specific enough regarding the content that was displayed in those sections. Therefore the product section is now called "beer types" as it presents each of the beer types the bar has. And the client section now called "order" as it was more presenting the orders than the clients themselves.

PHASE 4 : SELECTION OF CONTENT :

1) Dashboard

As mentioned earlier, everything that is displayed on the dashboard has been selected to be the most relevant information.

- **Number of customers in the queue** : This information is relevant to know how busy the bar is and to eventually know if more employees should be contacted to work.
- **Number of customers being served** : It is important for the bar owner to see if all employees are serving customers when needed and get an overview of the working flow.
- **Total orders** : The total orders is displayed to get an overview of how many customers have been served during the working hours.
- **Total employees** : This information is important for the owner to know how many bartenders are working at the bar during that time.
- **Closing time** : It might not seem relevant but it would be, in case the bar has different closing times during week days and week ends. It is also a good remember.

- **To do list** : A to do list has been added to the dashboard to enable the bar owner to organise and remember tasks they need to do. It is a good idea to keep all information together to manage a business, therefore FooBar won't need to use external

application, post-it or papers to manage their tasks to accomplish in the futur. It is also a good reminder as they will see it every time they log in on the bar account. (However, a database needs to be added to the solution in order to store the added tasks).

- **Volume of tap beer** : This graph is important to be able to notice when a tap is almost out of beer and therefore get prepared to change the keg.
- **Stock overview** : The stock overview is the most important information, as a business selling product depends on its stock. It is important to keep track of how many keg of each beer type the bar has, otherwise some beer types might get out of stock, and the bar lose customers.
- **Beer popularity** : The beer popularity is a good tool to have in order to anticipate the demand of customers and manage the beer orders. The more the beer is popular, the more it is important to have a good amount of it in stock, and in the contrary, the least popular it is, the least Foobar should order it.

2) Beer type section

The beer type section is the ideal place for the bartenders or the owner to get more information about the products they are serving, it can be challenging to remember every details of each beer the company has, therefore this section is used as a reminder. It is always useful to have a place where the bartender can look for information in case of a customer is asking specific questions, it will help the bartender and increase the customer experience by having an answer to its question.

- **Beer type** : It is always more practical to directly know how many type of beers a bar has, than having to count each of them, it also give a stock overview.
- **Out of stock** : When a beer type would reach 0 in stock, then it would be displayed in the beer section and be used as a reminder.
- **Keg to change** : This info is similar to the out of stock, except that here it is to know when a keg is empty and therefore know that there is a keg to change.
- **Least popular** : The least popular box has the same use as the beer popularity pie chart in the dashboard. It is

- **Beer container** : The beer container is compose of a picture, the name of the beer, the percent of alcohol, the overall impression and a "read more" button. It is the most

relevant information someone would need to know about a beer. Displaying the full version of the description would be a waste of time and space as it is not something someone would read on a daily basis.

- **Full beer container** : The full beer container is the full description of the beer type, It is everything someone would need to know about the beer, it is only displayed when the "read more" button is clicked.

3) Order section

- **Total orders** : This information here is repeated, as it is also present on the dashboard, but it is just more practical to also display it when you have a long list of orders that keep adding elements, it is a good overview of how long the order list is.
- **Total beer sold** : The total beer sold is a good indicator to look at for the stock, it is also an overview of what the bar is selling.
- **Waiting time** : The waiting time is not currently active on the website, but it would be a good indicator to know how fast the customers are served in order to improve the working flow of the bar. If the waiting time is 10 minutes, the manager needs to do something like book more employees next time, train and motivate its bartenders to be more efficient or invest in more things to help the employees.
- **Minimum order** : The minimum order is not the most relevant information, but it gives a quick overview of the orders. This information could be used to improve Foobar sales, and use more communication/marketing to convince the customers to buy more.
- **Maximum order** : As the minimum order, it is also not a relevant information, but it also give a good overview of the orders and if Foobar makes statistics of its work, it could be used as a goal to hit and therefore sale more.

- **Order number** : An ID is unique, therefore it makes it very practical to add the order id on each order, as it is easier to find the order in case of a problem. It also give an indication of the total number of orders.
- **Number of drinks ordered** : The number of drinks is the sum of the order detail items, it gives a good overview of the order, especially when the order is very long. The bartender knows that he has to prepare a certain number of drinks and can make sure

that he is giving the right amount without waiting time counting the items and potentially make a mistake.

- **Order detail** : The order detail is a good overview of what is usually ordered, and it can also be used in case of an issue with a customer, as an example if they have been given the wrong beer types.

4) Employee section

- **Number of employees** : The total number of employees is not that relevant in the case of FooBar right now that has 3 employees but it would be if Foobar's staff increases a lot in the futur. once again, it is more practical to have the actual number than counting the employees and risking to make a mistake.

- **Number of employees working** : The number of employees working is also a repetition here, as it is present on the dashboard section but it is also important to be displayed in this section as it makes it easier to get an overview of the number of employees, the number of people working and the number of people on a day off, FooBar would be able to see if they have more employees available if the bar is very busy.

- **Number of employees on day off** : The number of employees on day off is the number of employees FooBar can't use on a busy day at the bar.

- **The employee who served the most beer** : It can be an interesting selling tool to look at, a bar owner wants its employees to sell products, therefore it could help understanding what that employee is doing better than the others, which communication does he uses.

- **The employee who served the most order** : It helps to keep track of who is the most efficient serving orders.

- **Employee name** : For obvious reasons, it is very piratical to have the name of the employees displayed on their profil, as it helps the bar owner to know who is doing what and it also help in case of new employees are hired, to remember their name or if the bar has a large number of employees.

- **Working status** : It enables the owner to quickly know who is actually working during that day and who is not.

- **Order being served** : It is very practical to keep track of who is serving each orders, especially in case of issue with the customer but also to see the overview of the

workflow, the bar owner can just go to the order section and see the order that employee is working on.

- **Employee's task** : It is a good information to keep track of the workflow of the employees, and the status of the orders.

PHASE 5 : WHAT COULD BE IMPROVED IN THE FUTURE

The solution given is a working solution, however, some improvement could still be made in the futur in order to increase the Foobar team's experience.

First, better icons could be created to be more relevant to the information they are supporting, but again, icons can be tricky as we don't always have the same interpretations of what it is.

Second, the full beer container could still be implemented as it currently have quite a lot of white space on the left side.

Then, the "out of stick", "keg to change" in the beer type bar as well as the "waiting time" in orders and "day off" boxes should be implemented as they are currently not working.

And then, it could be beneficial to add a database to the solution in order to store the added elements.

Finally, a parameter section would be added to enable FooBar to actually customise what is the most relevant for them and give them the opportunity to change parameters such as the colors displayed and the font.

This solution is now ready to be tested !

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