Data Visualization
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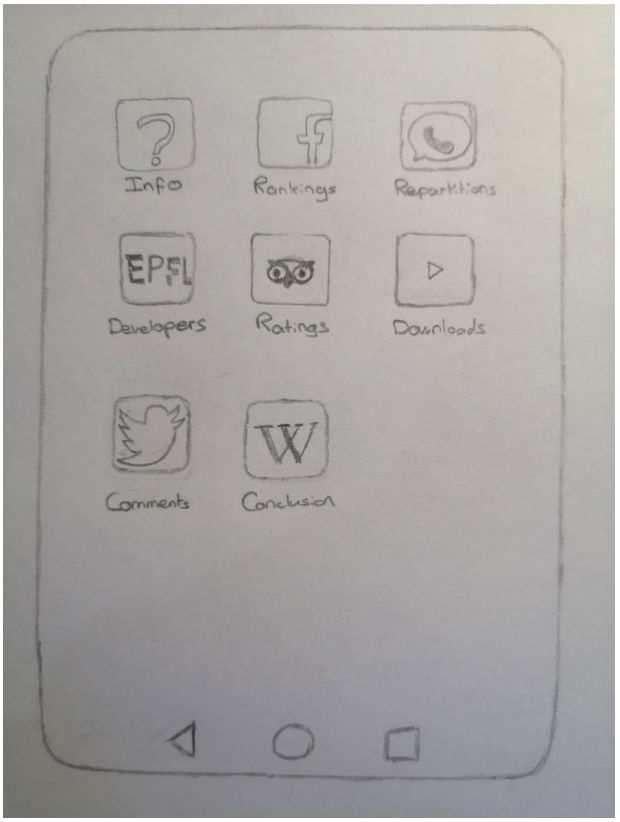
Milestone 2

1. Overview

Sometimes when a website contains a lot of information, the user will find some difficulties to access all the results. This is the reason why we wanted our final project to have a very clear display, with everything being easily accessible without the users having to look too much before finding what they needed. Moreover, we wanted the visualization to be related to the main topic, which is “what makes an Android app successful”. Thus, we chose to design the final website as a simple mobile phone that contains all our results. More precisely, it will be a smartphone with apps displayed on it like a real Android smartphone.

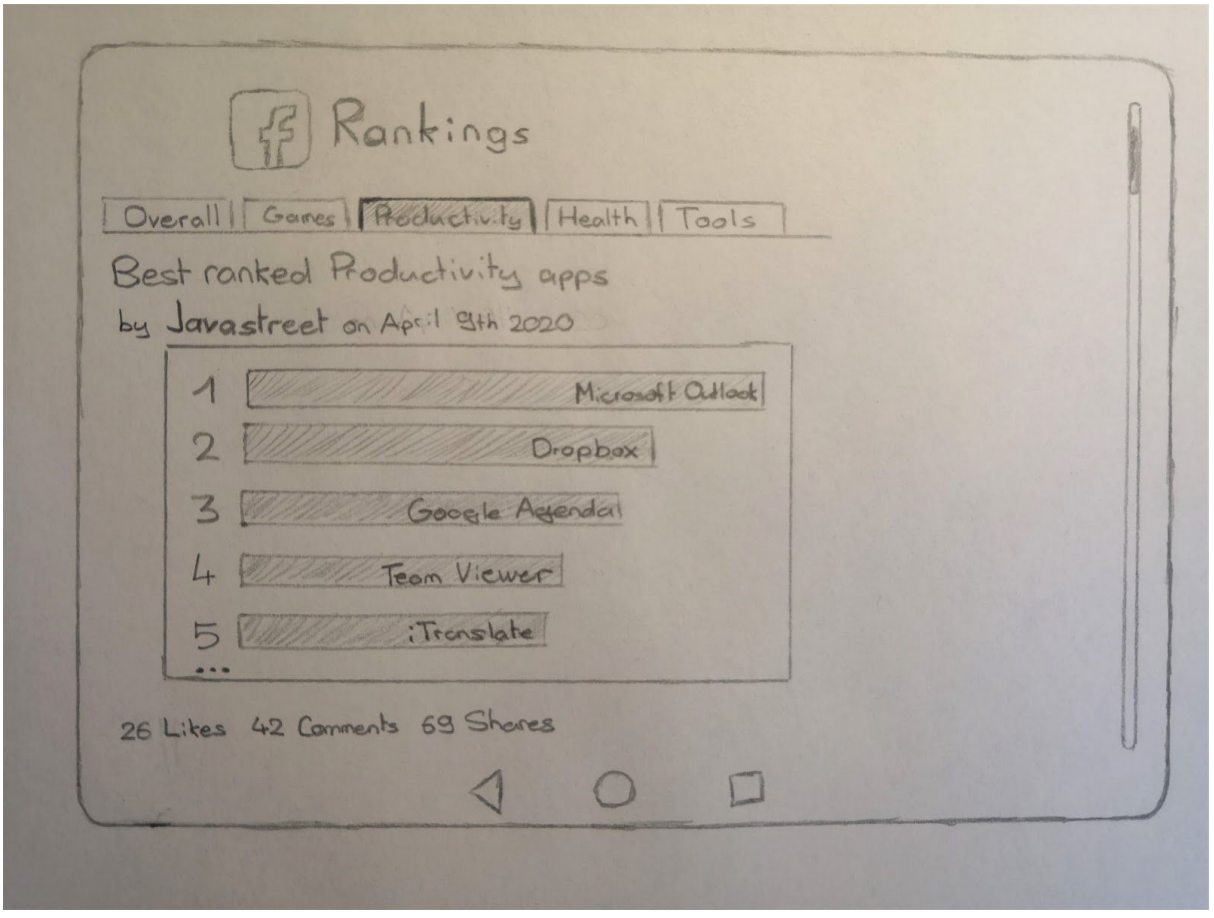


Sketch of our desired homepage

This will make the final product very user-friendly since the users that are interested in this topic are most likely smartphone users as well. The mobile phone will be clickable and you can interact with it either with the buttons or with the apps. We can see on the sketch above that it contains three buttons. Their functions are not

completely defined yet, but some of the possible usages are: returning to the home screen, returning to the previous screen, changing the orientation, etc.
Let's now talk about the apps. As previously said, the user can also interact with them with a click, which will open the app exactly as on a real smartphone. Each of these apps corresponds to one of the different categories of results obtained (i.e. rankings, reviews, etc.). As all of them will have their own design, this will make the visualization much more diverse.

It can also make the user want to discover all the different app designs that could be found, and thus not miss any of the results we obtained. Besides, the app by itself will represent the second layer of depth, containing sub-categories of results. So the users will also be able to navigate inside the app through tabs.



Sketch of the app presenting the Rankings results. Its design has been made to look like Facebook and the tabs helps the user change the ranking they're interested in.

The used elements from the course will mainly be all those about graph plotting in d3.js. We will probably make use of interactive graphs in order to change between the different categories of apps. We may also require the usage of basic JavaScript to animate some parts of the mobile phone.

2. Core visualization

As of now, we thought of a welcoming text like a dialog in Android to explain the project to the visitors, how the website works and how we found these results. Then the user will see 7 apps that will be organized as follows (the app name following the title of each part corresponds to the design idea we are thinking of):

1) RANKING (Facebook): In this part the user will explore which apps are the more successful in a global ranking and in each Android app categories. We will also detail how we derived this ranking, meaning what score we used to classify the apps. This will give a first idea about what app categories seem to be the most popular.
2) REPARTITION (Whatsapp): Here we will visualize the distributions of the paid/free apps and the apps containing ads or not among the Google Play Store. These distributions will also be available for each category of app and for the global ranking which will show the user whether these criterions are a key to success. (In this part, depending on the results we will have, we might also show information about the importance of the app size in its success)
3) DEVELOPERS (EPFL Campus) : It is also important to see who developed these apps. To see who the best developers are, we will rely on the number of apps they developed, how much they reply to user comments in the Google Play Store and how many times their apps were downloaded on average.
4) REVIEWS (Trip Advisor): We will also show how the number of reviews changes over the last month. Then, for each app, we will plot how many stars (out of 5 in total) they have.
5) DOWNLOADS (Youtube): We will plot the number of downloads in an evolutive graph like the one of the Youtube channel Data is beautiful.
6) COMMENTS (Twitter): We will highlight the most used words in the comments of the top apps and perhaps also per category if the results are relevant.
7) CONCLUSION (Wikipedia): Conclusion about the main results and findings.

3. Extra bonus

We also thought of some bonus elements that could improve the visualization but dropping them would not endanger the meaning of the project:

- *Interactive Whatsapp*: we could make the Whatsapp app interactive by asking a question to the visitor regarding what they would expect the result to be. The visitor would then be able to answer as if it were the real Whatsapp app.
- *Mini game*: another thing we thought of is making a kind of mini-game since gaming represents one of the most popular app categories.

4. Functional prototype

You can find our initial website on : http://appoffame.github.io/
The link to the repository containing the files is:
https://github.com/AppOfFame/AppOfFame.github.io