Booklet of User Stories and Function Points

Elena Bianchini 1796906 - Andrea De Murtas 1883216 - Tiziano Finizzi 1915610

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1 User Stories

In what follows, it's possible to find all the User Stories from which we started for realizing our application, and the relative mockups.

For the homepage, we have started from the following User Stories:

(1) As a website visitor, I want to be able to get information about the main stocks in each sectors, so that I can have an overview of the market's state

(2) As a website visitor, I want to be able to display a sliding view of the main tickers and their gains/losses, so that I can have an overview of the market's state

(3) As a website visitor, I want to be able to view which is the hottest sector in the market, so that I can have a better understanding of the trends

(4) As a website visitor, I want to be able to know the biggest gainer and the biggest loser in a compact view, so that I can have an overview of the market's state

(5) As a website visitor, I want to be able view a sorted list of the biggest gainers and the biggest losers, so that I can have an overview of the market's state

(6) As a website visitor I want to see the page loading, so that I can understand that my request is working

(7) As a webiste visitor, I want to be able to get informations about the main index, so that I can have an overview of the market's state

(8) As a webiste visitor, I want to be able to get an overview of the latests market news, so that I can be informed of meaningful events

(9) As a website visitor, I want to be able to navigate to the website the news are from, so that I can get read the whole article

(10) As a webiste visitor, I want to be able to search for a specific stock, so that I can get the specific information I seek

All these User Stories are represented in the mockup of the homepage, as we can observe in the following figure.

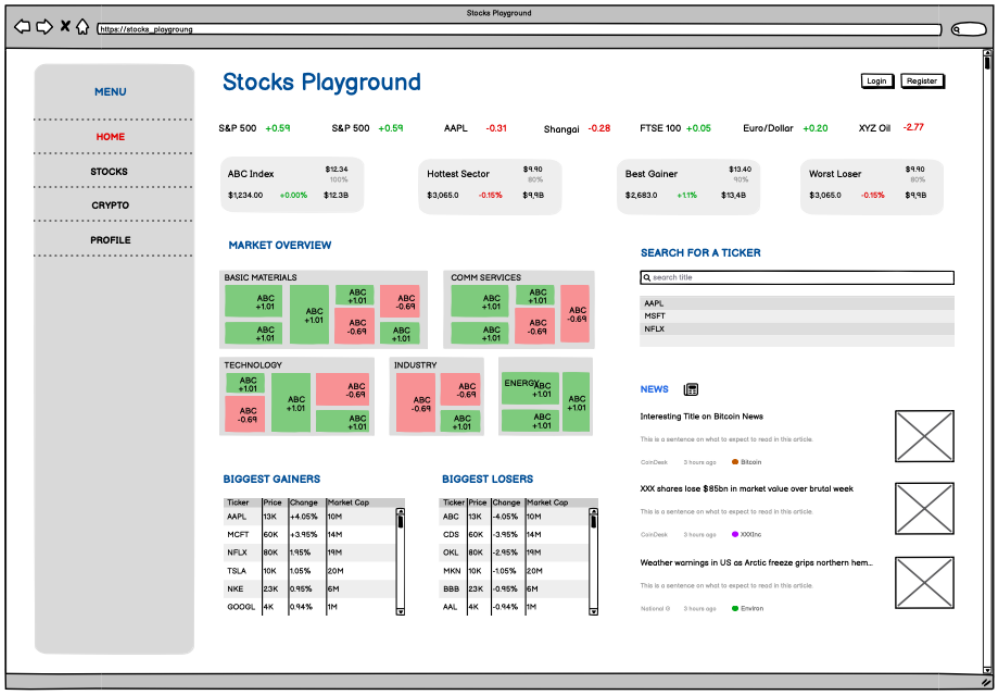

Figure 1: Homepage

Then, we have focused on the information about a specific stock, indeed we have formalized the following User Story, and we have realized the relative mockup.

(11) As a webiste visitor, I want to be able to view the information of a specific stock such as the candle stick graph, so that I can get the specific information I seek

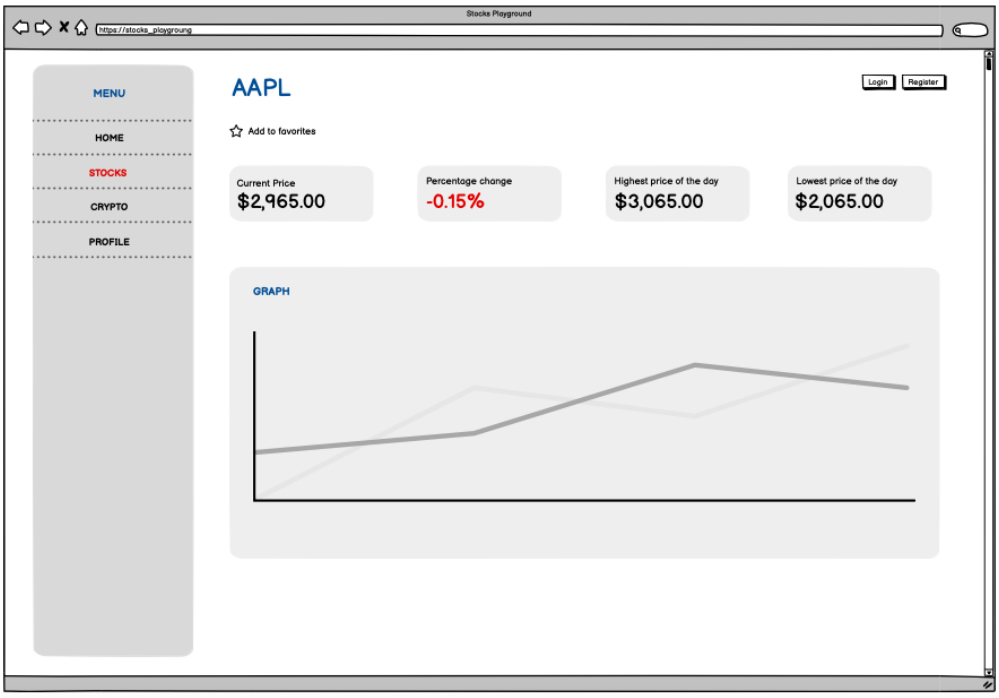

Figure 2: Stock page

Since we wanted our application to allow users to create an account, we defined the following User Stories:

> (12) As a website visitor, I want to be able to register an account, so that I can have a more personalized experience

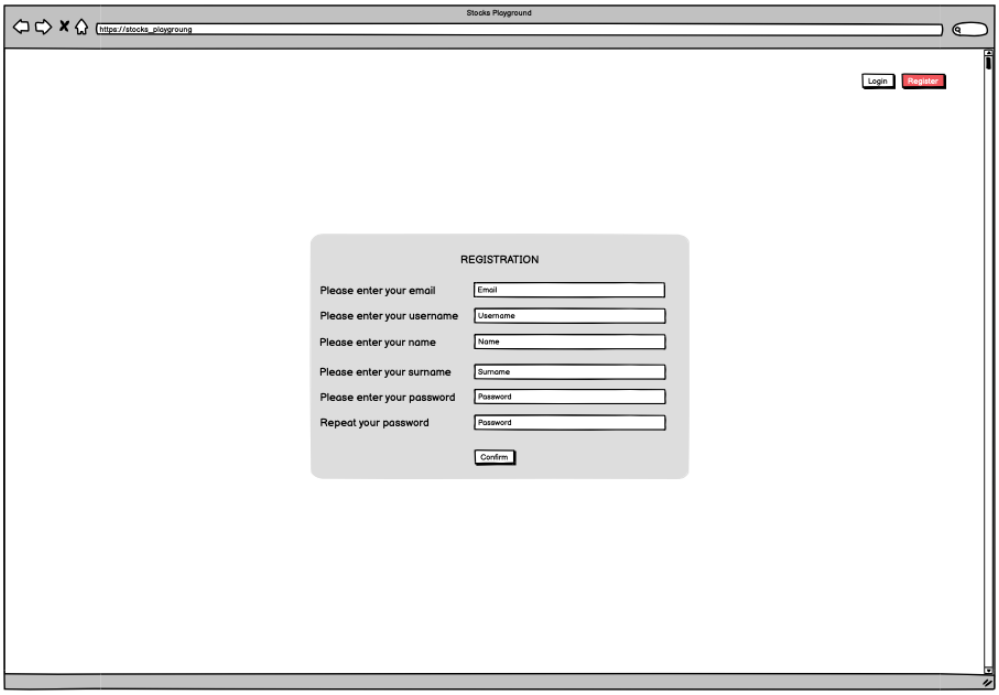

Figure 3: Register page

(13) As a webiste visitor, I want to be able to login to my account, so that I can have a more personalized experience

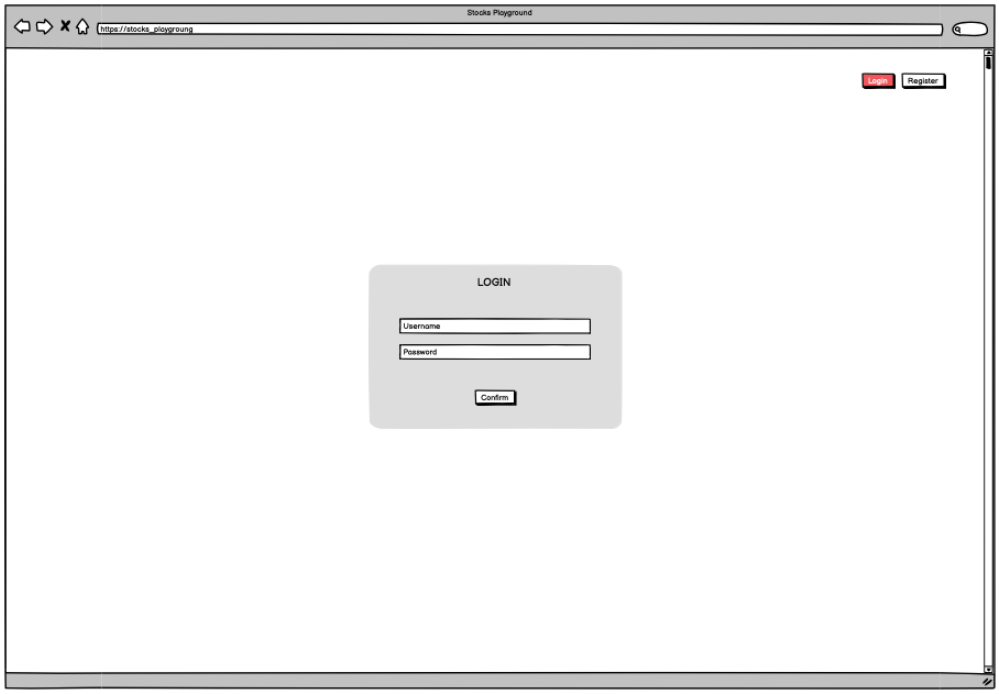

Figure 4: Login page

(14) As a logged user, I want to be able to logout, so that I can terminate my session when I'm done using the website

(15) As a logged user, I want to be able to delete my account, so that I can remove my account from the application

(16) As a logged user, I want to customize my profile's information, so that I can customize my experience

(17) As a logged user, I want to be able to save my favorite stocks to keep track of my own interests

(18) As a logged user, I want to be able to show my favorite stocks to keep track of my own interests

(19) As a logged user, I want to be able to delete my favorite stocks to keep track of my own interests

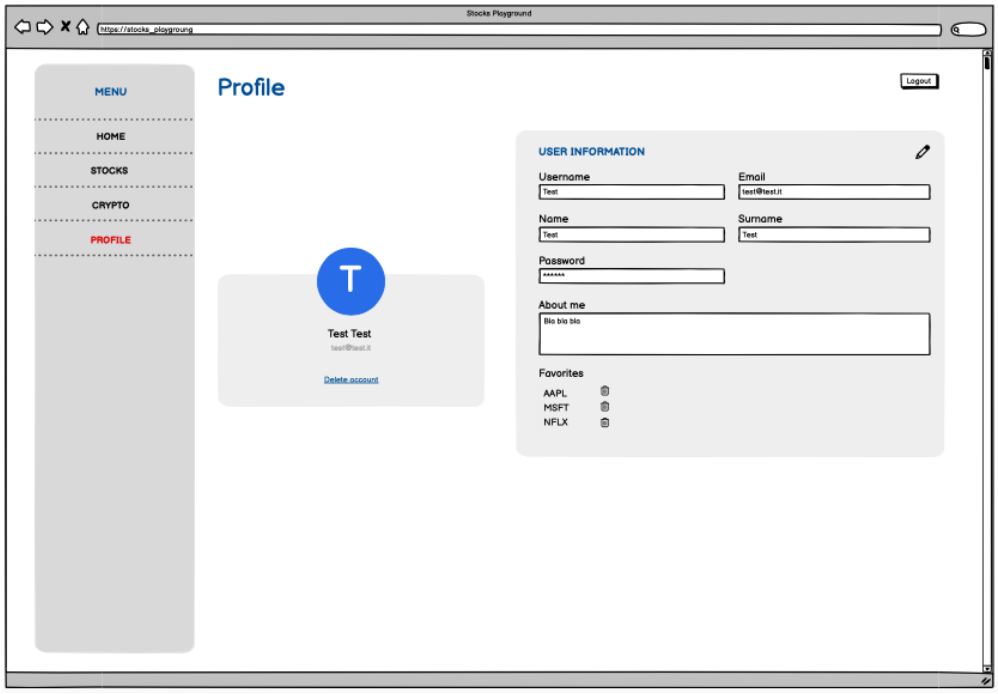

Figure 5: Profile page

User Stories 17, 18, 19 are also represented in the mockup shown at *Figure 2*.

Finally, we also wanted to create a page about the cryptocurrencies market, hence we defined the following User Stories:

(20) As a webiste visitor, I want to be able to get informations about the main cryptoccurencies into a treemap, so that I can have an overview of the crypto market's state

(21) As a webiste visitor, I want to be able to get informations about the most trending cryptoccurencies, so that I can have an overview of the crypto market's state

(22) As a webiste visitor, I want to be able to get informations about the most famous cryptoccurencies, so that I can have an overview of the crypto market's state

We displayed these pieces of information as they appear in this mockup.

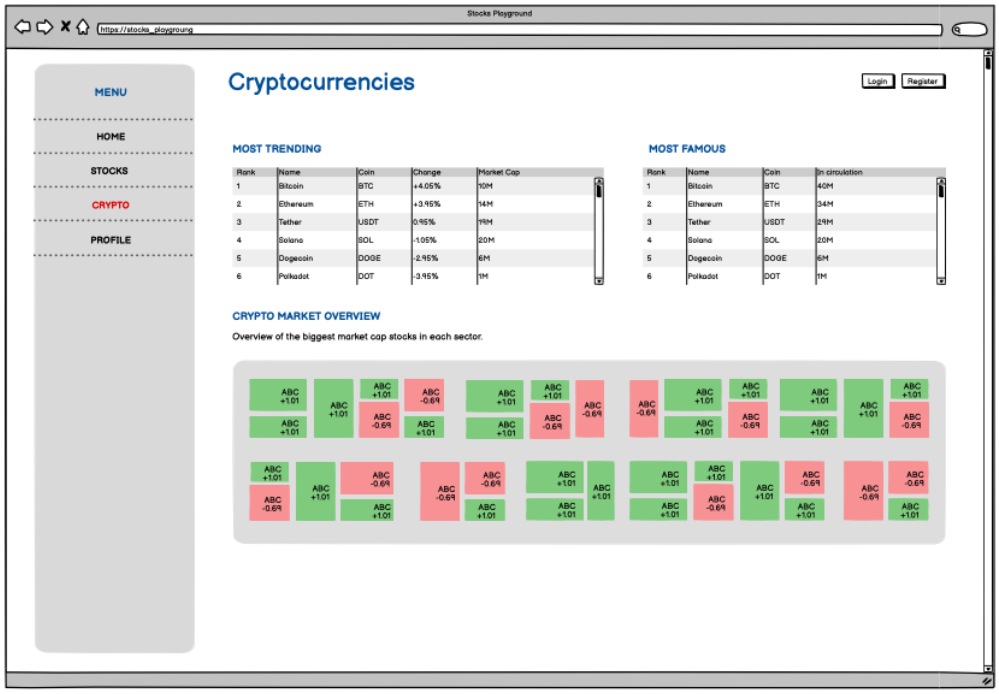

Figure 6: Cryptoccurencies page

2 Function Points

For evaluating the Function Points, we have started from the fact that we surely needed to store users' information into the database. Then, we also needed to make API calls to external applications for getting markets information, and we understood that those data should be stored into the database for a small period of time. For this reason, we have considered:

- An ILF for the users, with 1 RET and 7 DET (id, username, first name, last name, email, the favorites list, personal information). $\Rightarrow$ 7FP
- An ILF for the cached data, with 3 RET (one for the main data in the homepage, one for the cryptocurrencies data and one for the news), and approximatelly 50 DET $\Rightarrow$ 10FP
- An EIF for the general stock market information, with 2 RET (one for the main data in the homepage and one for the news) and approximatelly 30 DET $\Rightarrow$ 7FP
- An EIF for the general crypto market information, with 1 RET and approximatelly 15 DET $\Rightarrow$ 5FP
- An EIF for a particular stock information with the relative graph data, with 1 RET and approximatelly 15 DET $\Rightarrow$ 5FP

Now, since the application should support clients signing up to the application, updating their info and their favorite lists, and eventually deleting their accounts, we also considered:

- An EI for the insertion of a new user, with 1 FTR and 7 DET $\Rightarrow$ 3FP
- An EI for the update of the user's information, with 1 FTR and 1 DET $\Rightarrow$ 3FP
- An EI for the deletion of an user's account, with 1 FTR and 7 DET $\Rightarrow$ 3FP
- An EI for the adding of a stock into the favorite list of an user, with 1 FTR and 1 DET $\Rightarrow$ 3FP
- An EI for the removal of a stock from the favorite list of an user, with 1 FTR and 1 DET $\Rightarrow$ 3FP

Also, the system must automatically manage cached data, hence we have considered the following:

- An EI for the insertion of a document with the information of the stock market into the database, actually with 1 FTR and approximatelly 30 DET $\Rightarrow$ 4FP
- An EI for the deletion of a document with the information of the stock market, with 1 FTR and approximatelly 30 DET $\Rightarrow$ 4FP
- An EI for the insertion of a document with the information of the crypto market into the database, actually with 1 FTR and approximatelly 15 DET $\Rightarrow$ 3FP

- An EI for the deletion of a document with the information of the crypto market, with 1 FTR and approximatelly 15 DET $\Rightarrow$ 3FP

At the end, we focused on the views of the application, and we have considered:

- An EO for viewing the homepage, that could update data into the document ”Cached data”, with 1 FTR and approximatelly 30 DET $\Rightarrow$ 5FP
- An EO for viewing the page about the crypto market, that could update data into the document ”Cached data”, with 1 FTR and approximatelly 15 DET $\Rightarrow$ 4FP
- An EQ for viewing the profile page, with 1 FTR and 7 DET $\Rightarrow$ 3FP
- An EQ for viewing the page about a certain stock, with its graph and its information, with 1 FTR and approximatelly 15 DET $\Rightarrow$ 3FP
- An EQ for viewing the results of a certain searching, with 1 FTR and 10 DET $\Rightarrow$ 3FP

By summing over all those values, we obtain 81FP, and using the *COCOMO II* tool we obtain a total of 4293 SLOC.