Bordeaux INP AQUITAINE

Programmation Web
⌘ HEISENBERG

1. Project context

State the problem to be solved and its context;

The problem	Debt management in groups of people.
affects	Groups of people travelling together or living together.
the impact of which is	The stakeholders might be losing time trying to manage their money on their own, they may also make mistakes in the calculation.
a successful solution would be	Create a debt management web-app between friends and groups which automatically calculates how much people owe to each other.

2. Target user profiles

This application can be used by many different profiles: students, parents, teenager.It is also useful for many reasons: roommates, couples, friends on vacation. Two examples are given.

Persona profile.

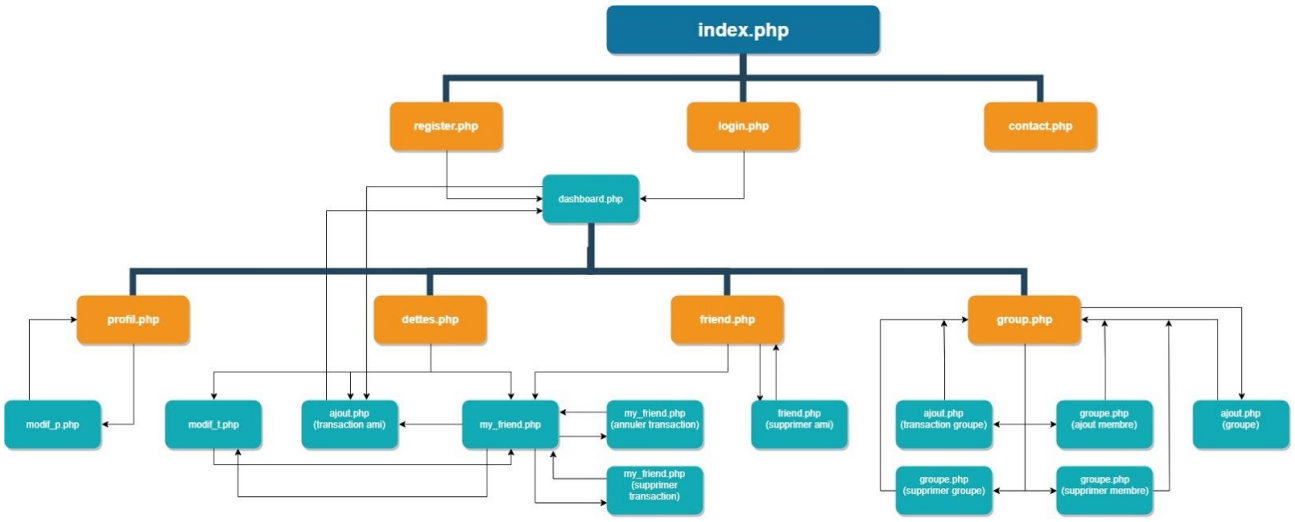
- Name: Walt Walter
- Age: 22
- Commonly used applications: Facebook, Instagram, Overleaf.
- Back story: a happy man who loves go out with all his friends,
- Overview:
  - loves cinema and music,
  - appreciates easy solutions,
  - is looking for an app that will help him keep track of expenses shared with other people.

Group profile.

- Name: Cooloc'
- Members : Marie, Jean, Paul and Léa.
- Commonly used applications: Netflix, Deezer, MyTF1.
- Back story: A group of four students who share a large apartment to reduce rent expenses. They share the races and the loads every month.
- Overview:
  - love cooking,
  - appreciates shared solutions,
  - is looking for an app that will help to count every transaction of the flatsharing.

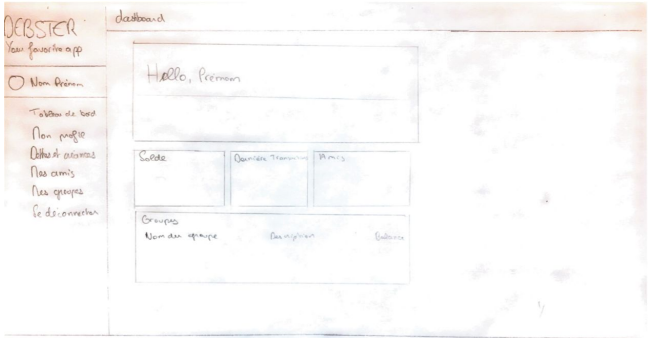
3. Sitemap

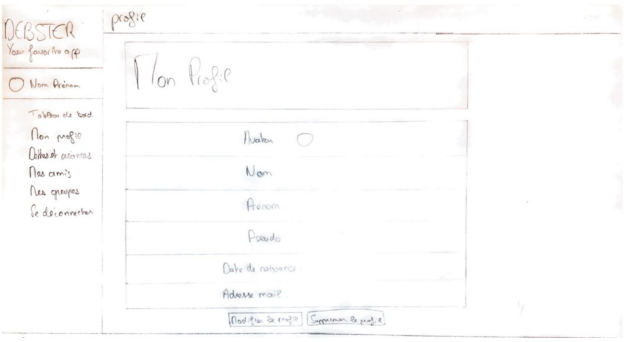
The web application is composed of 8 main pages. Part accessible only if the user is logged in. The navigation on the site throughout the experience is shown schematically by the graph below.



4. Wireframes

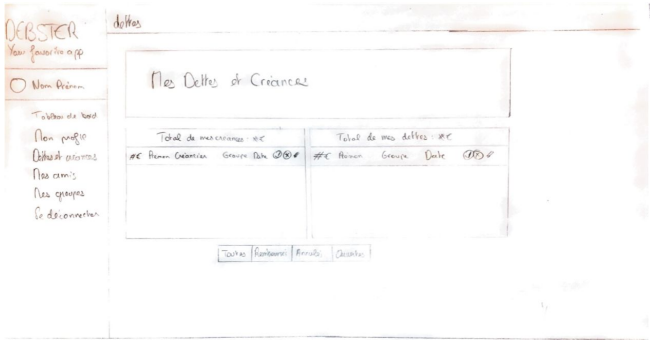
Before starting the development of the website, a group reflection session helped to put ideas in place. During this meeting, the architecture of the database was decided and wireframes were drawn, they are presented below.

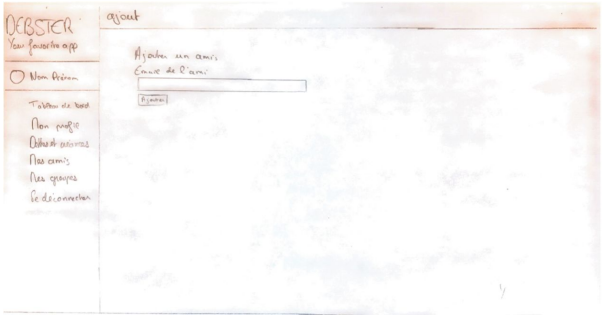




The dashboard the home page when the user is connected, it gives all the main information about him: his outstandings, his groups, his friends and the last transactions he has made.

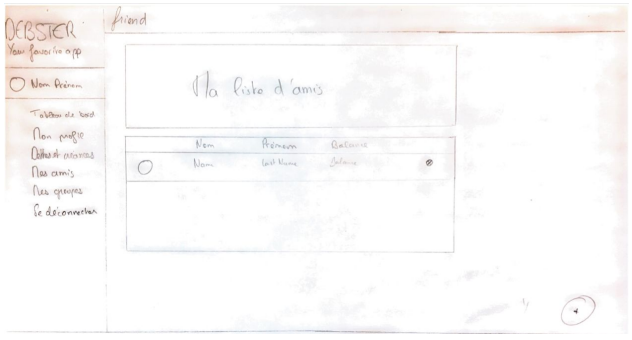
The profile page is the page dedicated to the user, it displays all the personal information of the user: his name, his first name, his date of birth, his profile picture, his email address and his nickname. A button at the bottom of the page allows you to modify this information.

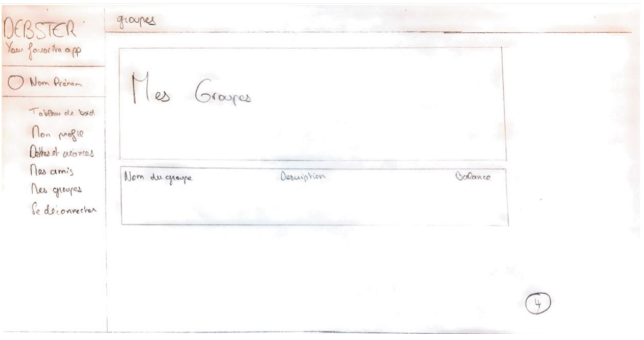




The debt page is the page showing all the transactions of the user, with all his friends and all the groups he is part of. It is possible to modify, delete or cancel a transaction with buttons. These transactions can be displayed by category: open, all, canceled and refunded.

The add page is the page that allows you to add a transaction between friends or group. The user chooses the reason, the amount and the friend or group concerned. The latter is added to the list of transactions thanks to the add button.





The friend page is the page that displays a list of all the user's friends. The balance with this friend is also displayed and the friend can be deleted if the balance between the two users is zero.

The group page is the page that displays the list of groups to which the user belongs. When you click on one of them, all the information about it is displayed: the name of the group, the description, the members and the transactions of this group. A user can be added to the group even if he does not have an account thanks to a + button. A transaction may also be added specifically choosing debtors and creditors.

The transaction modification page allows to modify a transaction, the fields are pre-filled with the current characteristics of the transaction. They can all be changed after clicking the button.

The profile modification page is the page that allows to modify the profiles, the fields are pre-filled with the personal information of the user. They can be modified after clicking on the button.

5. System structure - scripts overview

<u>The dashboard:</u>

The php script name is dashboard.php and its functionality is presented in the part four. The HTTP methods call is /dashboard.php and only takes into account the id of the connected user. This page only reads information from the database and does not modify the database.
This page needs navbar.php, like all the others, which displays the menu. There is also footer.php which displays a + green button to add a transaction. Finally, group.php to be able to display the information of a group after a click.

<u>The profil page:</u>

The php script name is profil.php and its functionality is presented in the part four. The HTTP methods call is /profil.php and only takes into account the id of the connected user. This page only reads information from the database and does not modify the database.
This page needs navbar.php, like all the others, which displays the menu. There is also footer.php which displays a + green button to add a transaction. Finally, modif_p.php to be able to modify our information.

The debt page:

The php script name is dettes.php and its functionality is presented in the part four. The HTTP methods call is /dettes.php and takes into account the id of the connected user but also other parameters. Indeed, the id of a transaction and an action value that depends on what you want to do on the transaction. Action = 0 if we want to note a transaction as refunded, Action = 7 if we want to cancel it. In these cases INSERT are performed on the database. This page needs navbar.php, like all the others, which displays the menu. There is also footer.php which displays a + green button to add a transaction. Finally, modif_t.php to be able to modify our information.

The add page:

The php script name is ajout.php and its functionality is presented in the part four. The HTTP methods call is /ajout.php?action=dettes or /ajout.php?action=groupe&id_g=1. It takes into account the id of the connected user but also a parameter action who designate different cases : group transaction (here the id of the group is also needed) or friend transaction. This page only add information into the database. This page needs navbar.php, like all the others, which displays the menu.

The friend page:

The php script name is friend.php and its functionality is presented in the part four. The HTTP methods call is /friend.php and only takes into account the id of the connected user. This page reads information from the database to show a friend list but can also modify the database by delete a friend. In this case, the methods call is /friend.php?id_ami=1&action=5. This page needs navbar.php, like all the others, which displays the menu. There is also footer.php which displays a + green button to add a transaction.

The group page:

The php script name is group.php and its functionality is presented in the part four. The HTTP methods call is /group.php and only takes into account the id of the connected user who allows to show the group list by reading the databse. Other methods call is /groupes.php?id_g=1 allows to show the information about a choosen group by reading the database too. A participant can be added thanks to the commande /groupes.php?id_g=1&action=ajouter_participant . This page needs navbar.php, like all the others, which displays the menu. There is also footer.php which displays a + green button to add a group transaction. This page need also to opti.php who optimize the transaction between all the users of the group.

The transaction modification page :

The php script name is modif_t.php and its functionality is presented in the part four. The HTTP methods call is /modif_t.php?id_t=3 and takes into account the id of the connected user but also the id of the transaction that we want modify. This page reads information from the database and modify some of them by insert request.
This page needs navbar.php, like all the others, which displays the menu. There is also footer.php which displays a + green button to add a transaction.

The profile modification page :

The php script name is modif_p.php and its functionality is presented in the part four. The HTTP methods call is /modif_p.php and only takes into account the id of the connected user. This page reads information from the database and modify some of them by insert request. This page needs navbar.php, like all the others, which displays the menu. There is also footer.php which displays a + green button to add a transaction.