**Milestone 4**

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Final Project I – Legacy to Mobile

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1. **Executive Summary**

This document demonstrates the basic layout of all the pages for the web site. The pages’ detail is limited to the position of each element and the basic format of that element. It does not include colors or images and there is no real functionality (the forms do not actually work). Balsamiq was used to generate these wireframes and this software is used to give clients a general idea of what the site will look like. The layout for all three report types has also been created. This document also shows which pages and forms are involved in each process, such as registering for an account, as well as which database table is required to complete the process.

The following information will be the last step before beginning implementation. It gives both the client and the developers a clear idea of what to do and how to do it. The layouts have been approved by the client and the database has been created and populated with dummy data to ensure integrity. With the client’s final approval of all features, implementation can begin and the web site can start to form.

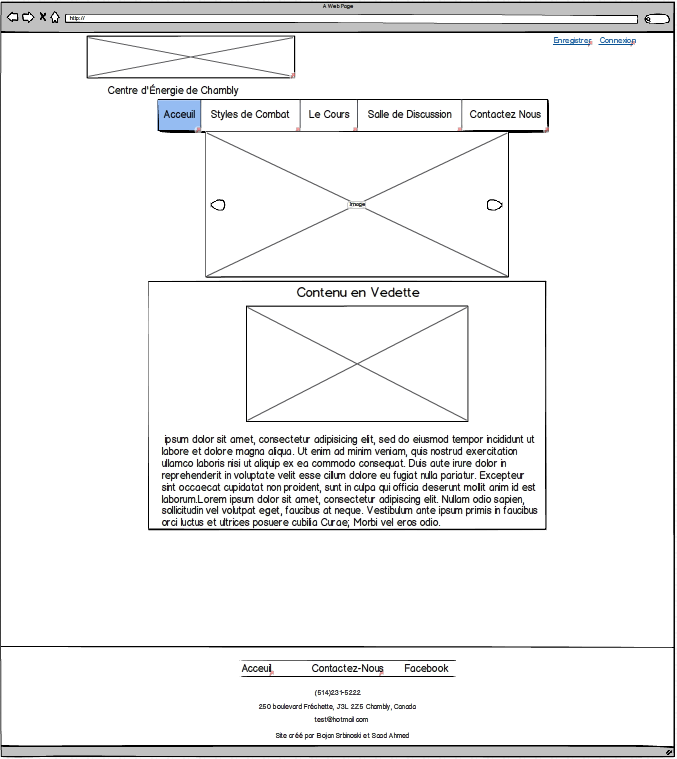
In conclusion, this will be the final documentation regarding design. The system and web site design has been approved by the client and implementation can begin shortly. By following the approved contents of this document and the previous ones, we can ensure that our customer will be satisfied with the proposed system and that the new system will function properly for all users.

1. **Page Layouts**

This part of the document will demonstrate the basic look of all pages and reports on the site. The layouts were created with Balsamiq so the level of detail is not meant to be high.

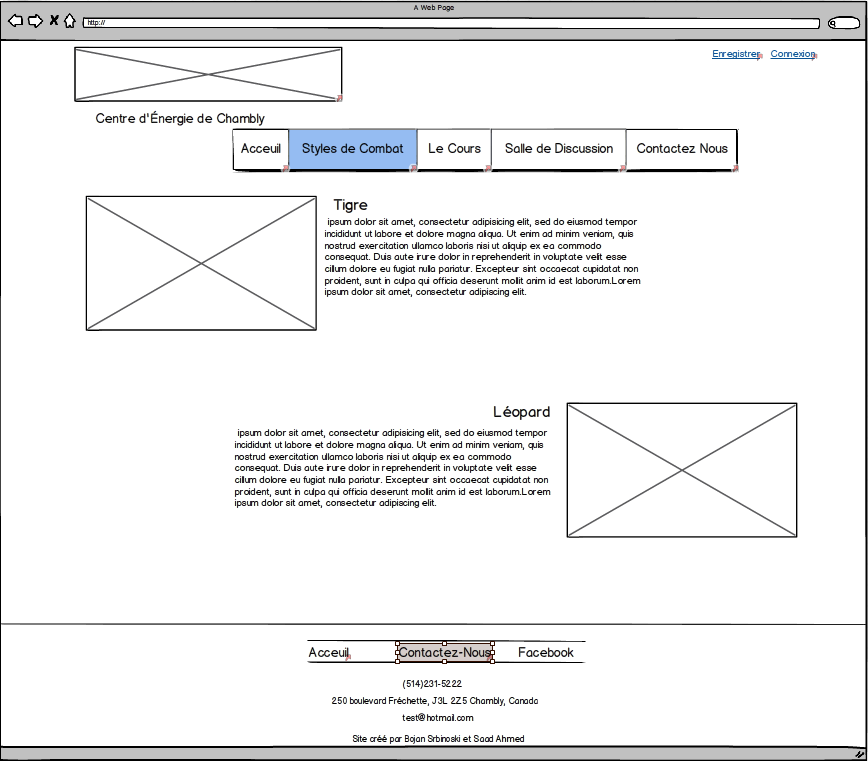
**2.1 Index Page Layout**

This is the first page users will see when they open the site. It contains the posts that the teacher can submit as well as a slideshow with pictures related to the course. It contains some content that is located on all pages such as the navigation bar, the links on the top right corner and the footer.



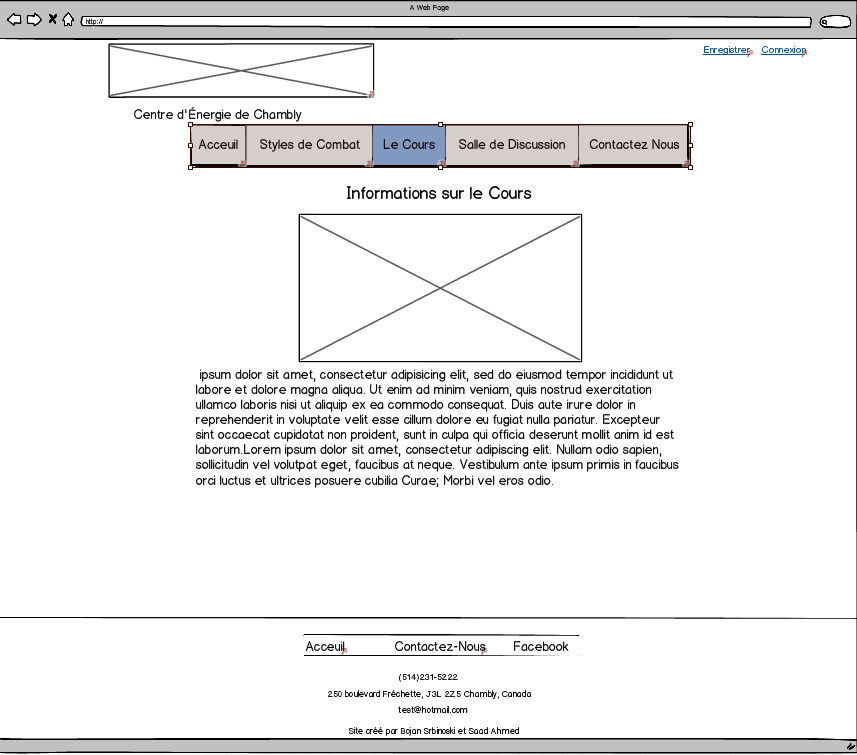
**2.2 Styles Page Layout**

This page shows the various fighting styles and is used to attract new customers as well as help students study for their next exam. NOTE: Only two fighting styles have been demonstrated.



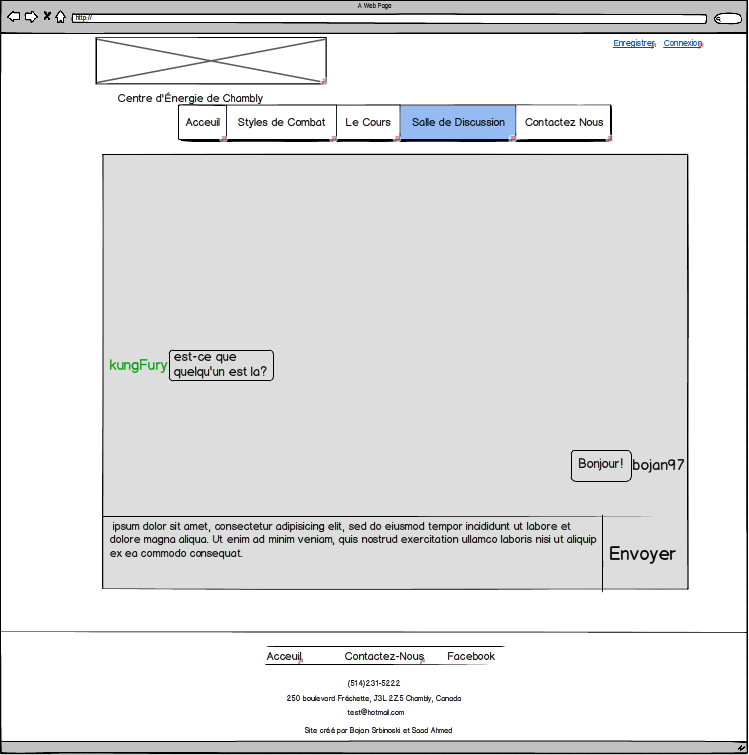
**2.3 Class Page Layout**

This page gives information about the course such as objectives, values, restrictions, costs, schedule, etc. It is meant for interested customers that would like to sign up.



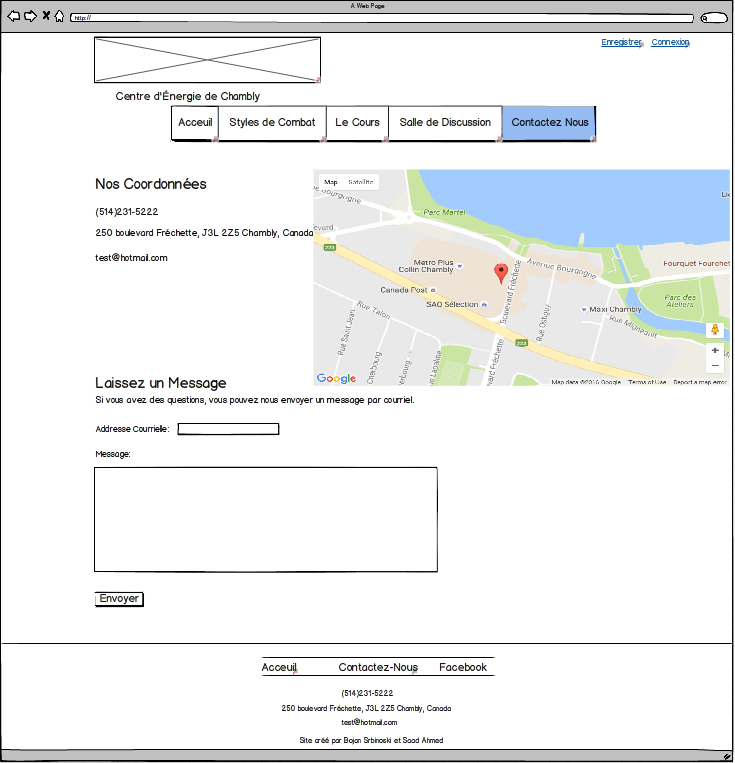
**2.4 Chat Room Page Layout**

This is the layout for the chat room page. It should be noted that if the user is not signed in, they will not be able to view the chat room. Instead, they will see a message asking them to sign in or register.



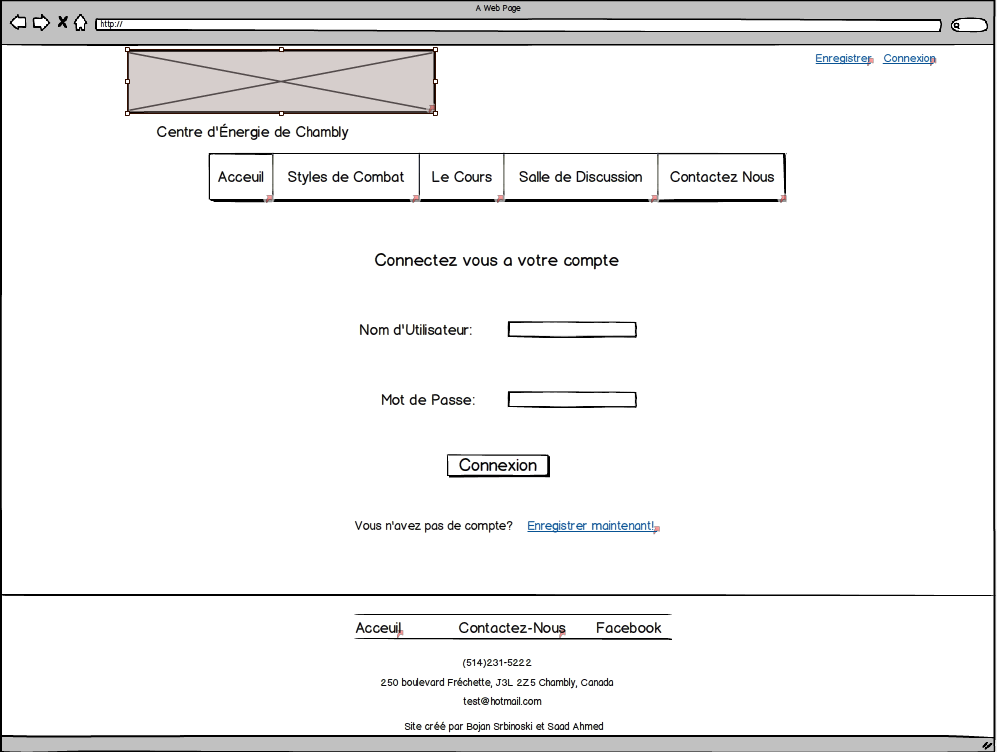
**2.5 Contact Page Layout**

This is the layout for the contact page. This page contains contact information such as telephone number, address and email address. It also allows users to send an email directly to the teacher if they have any additional questions. An account is not required for this action. NOTE: The “Contactez-Nous” link in the footer redirects to this page.



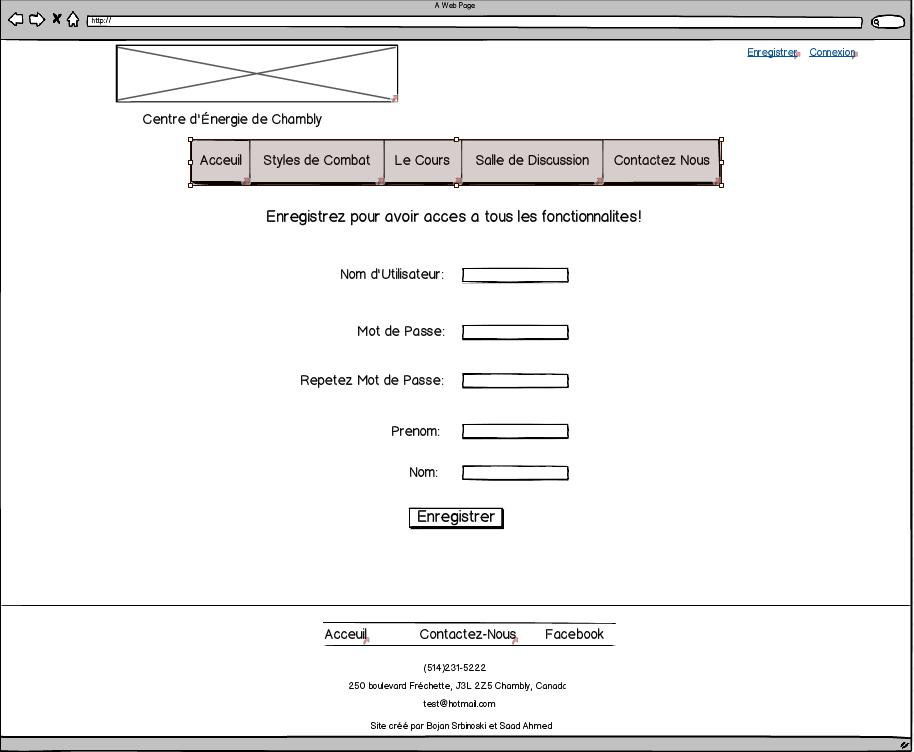
**2.6 Login Page Layout**

This is the page that allows users to log into their accounts. Users use their username and password to log in. A link has been added that redirects users with no accounts to the registration page. NOTE: The “Connexion” link on the top right corner redirects here.



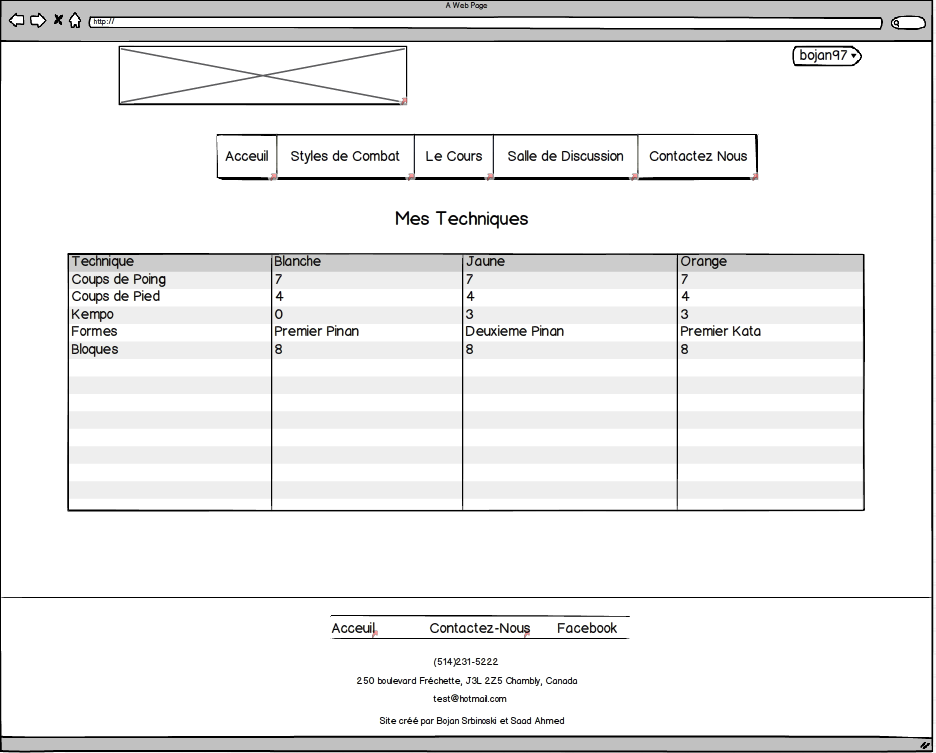
**2.7 Register Page Layout**

This is the layout for the registration page. This form allows new users to sign up for an account. All fields are required to sign up. Once registration is complete the users is sent to the Techniques page. NOTE: The “Enregistrer” link on the top right corner redirects here.



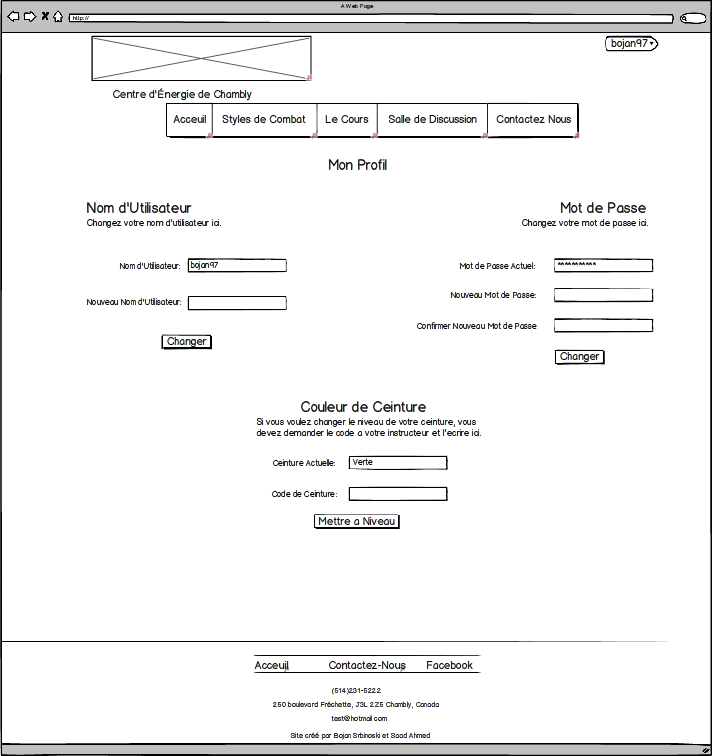
**2.8 Techniques Page Layout**

This is the layout for the techniques page. It shows all the techniques the user needs to know for their next exam. NOTE: Only a few techniques have been displayed for this demonstration and the empty cells are only there to demonstrate what a bigger table would look like.



**2.9 Profile Page Layout**

This is the layout for the profile page. This page allows users to modify their usernames and passwords as well as upgrade to the next belt level.



Special note on the pages: The links on the top right corner which allow users to register or log in disappear if the user is logged in. They are replaced with the user’s username. When the user hovers over their username, three links appear in the form of a small dropdown list, one to access their techniques, one to access their profile, and one to log out.

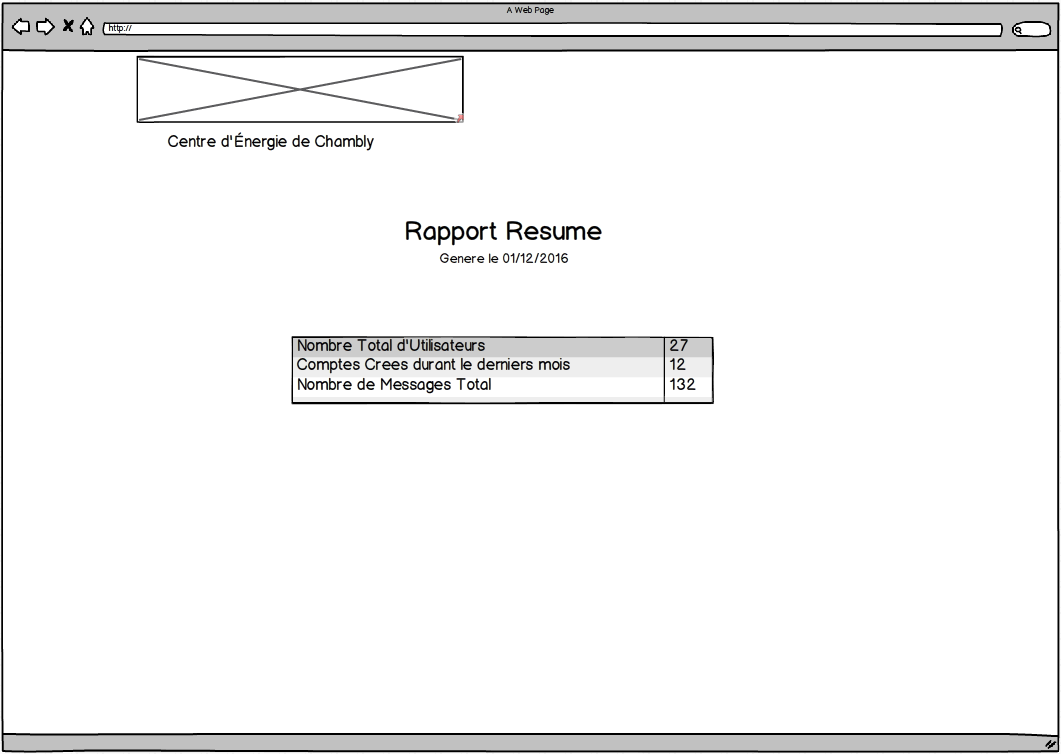
Also, when an administrator logs in, he will see links near the top right corner that will bring him to the reports.

1. **Report Layout**

The following part of the report will show the layout of each report that the administrators can generate, meaning the summary report, exception report and detail report.

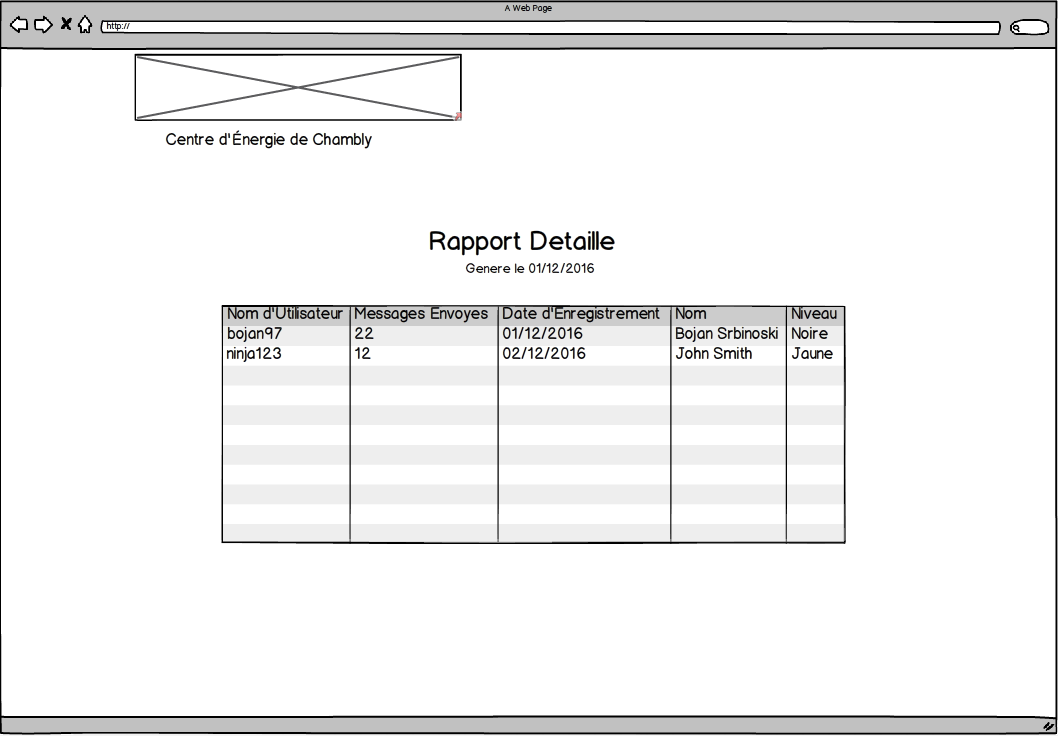
**3.1 Summary Report**

The summary report is a very small report meant only to show totals. In this case, the total number of users, total number of new accounts registered in the past month and total number of messages in the chat room are displayed. It is meant to give a general idea of what the traffic looks like on the site.



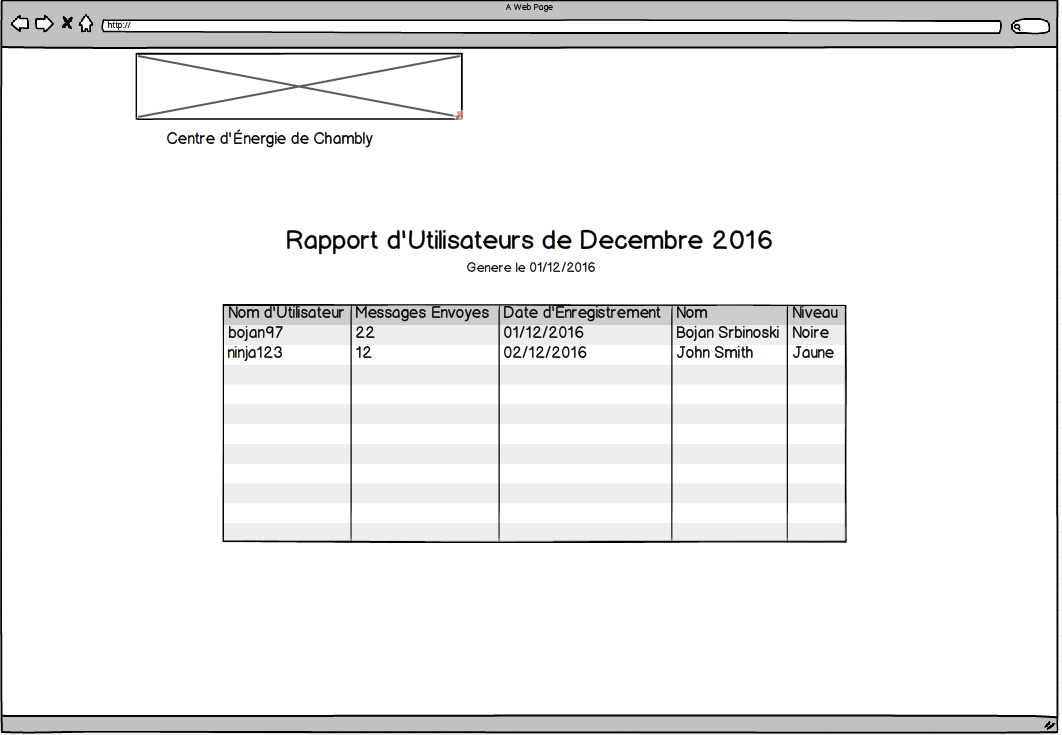
**3.2 Detail Report**

The detail report is the most detailed report out of the three. It shows as much information as possible and is meant for administrators that want to know the specifics of their user base. In this case, detailed information is displayed about every user.



**3.3 Exception Report**

The exception report is like the detail report but all records must fall within certain criteria specified by the user. In this case, the report only shows data on users that created their accounts in December 2016.



1. **Scenarios**

The following part of this report will document the various scenarios that can occur on the web site as well as the pages that will be involved in each scenario.

**4.1 Send Email to Teacher**

In order to send an email to the teacher, the user must go to the “Contactez-Nous” page. From there, they must enter their email address and the message that they wish to send. Once they click the button, the message will automatically be sent, there is no need to go an external email service.

**4.2 Create Account**

To create an account, users must go to the registration page which is accessed by clicking the “Enregistrer” link on the top right corner. From there, they enter a username, password, confirm password, first name and last name. If the username is already used by someone else, it will not create the account and show an error message. Once the account is successfully created, the user is redirected to the techniques page.

**4.3 Manage Account**

To manage their accounts, users must first be signed in. Then, they navigate to the profile page by hovering over their username in the top right corner and clicking on the profile link. From the profile page, users can change their username and password. Also, they can upgrade their account to the next belt level by entering the belt code.

**4.4 Post Chat Message**

To use the chat room, users must be logged in. If they are not logged in, they will not be able to see the chat room and will instead see a message asking them to log in or register. Once they are logged in, they simply need to access the chat room page, enter their message in the input field and submit it. Their username will appear along with their message. The username will have the same color as the user’s belt level.

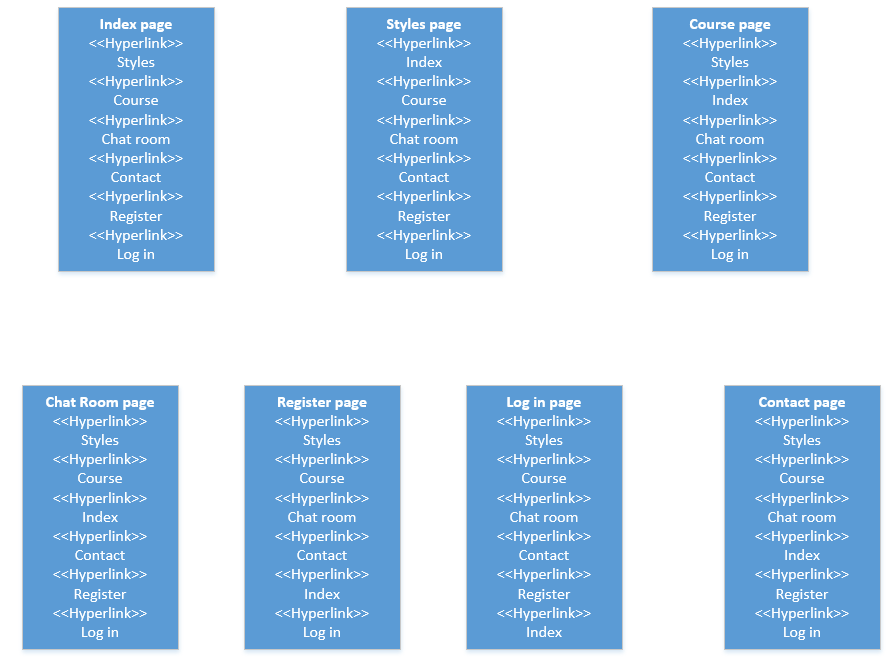
1. **Windows Navigation Diagram**

The following diagram represents every page and every link on the page. The link does not have to be a regular hyperlink, it could be a button on a form that sends the user elsewhere when clicked. The diagram also shows where each link will redirect the user to.

To make the diagram simpler to look at, the diagram has been split up due to the large number of links on the site.

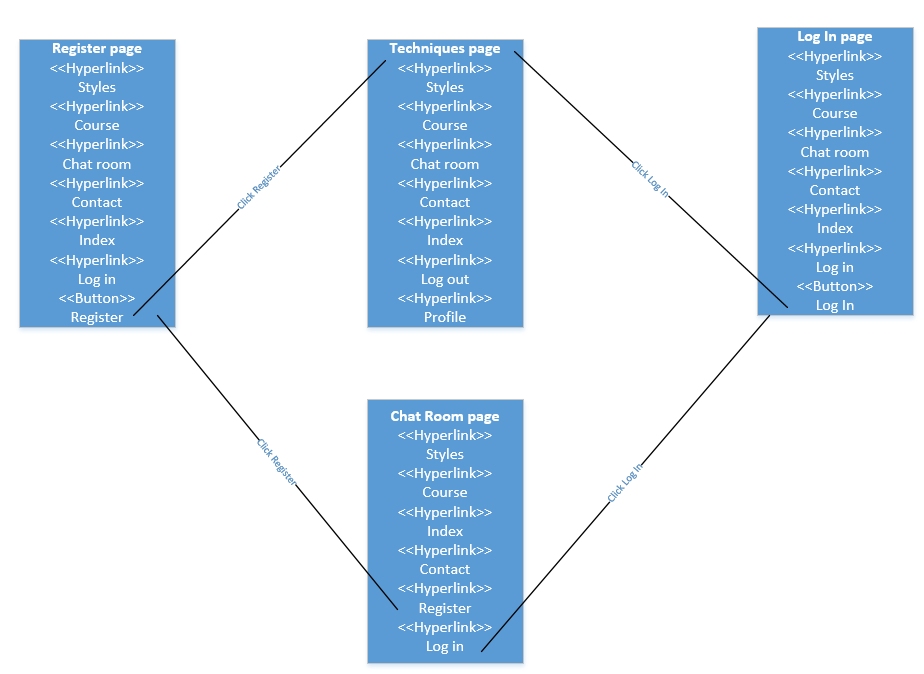
**5.1 Basic WND**

The following WND contains only the links that are available on every page. Also, this diagram assumes the user is not logged in. Because there is a very high number of links in this group, the connections have not been demonstrated as that would result in a very messy diagram. When any of these links are clicked, the user is brought to the page connected to the hyperlink.



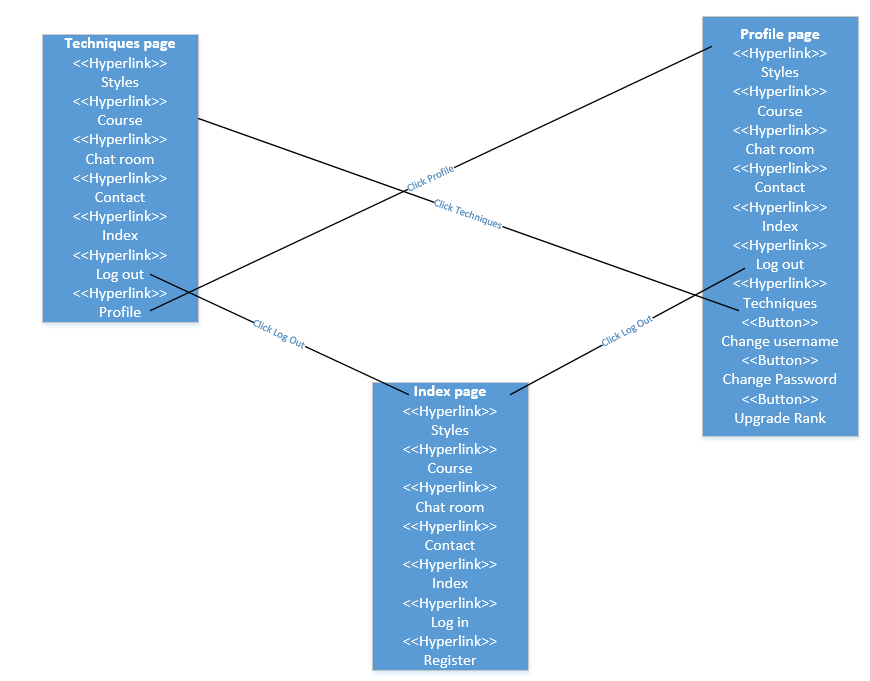
**5.2 Register/Log in Pages**

Since the links to the other pages have already been shown, this diagram will only show what happens when the user clicks the button at the bottom of the form. If the chat room is accessed by a user that is not logged in, they will need to register or log in to view it.



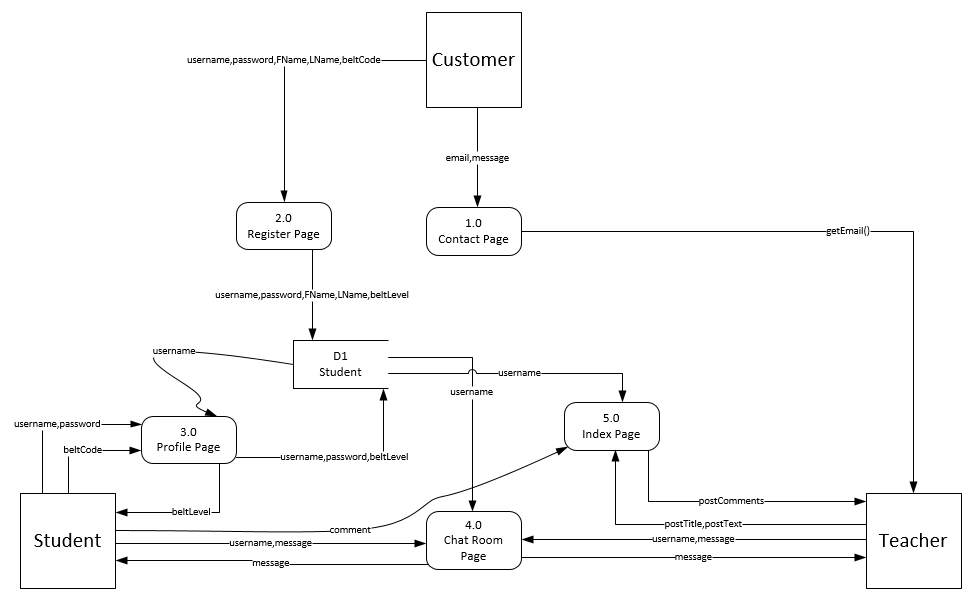
**5.3 User Logged In**

This diagram shows the new links available to user that are logged in. When they log out, they are redirected to the index page. Also, the register and log in links have been removed. Finally, if the user upgrades his belt rank, he will be redirected to the techniques page to look at his updated information.



1. **Data Flow Diagram**

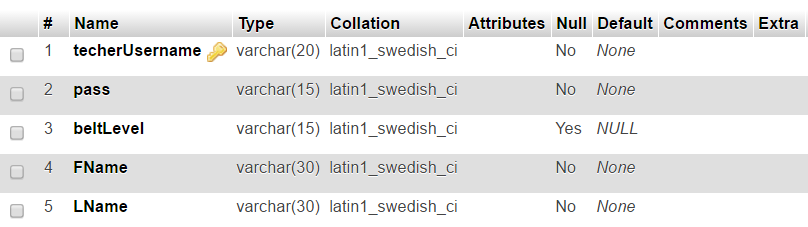
The Level 0 diagram from before has been updated to include the pages and input fields that will be found on the site. The only real difference is the name of the processes and data flows.



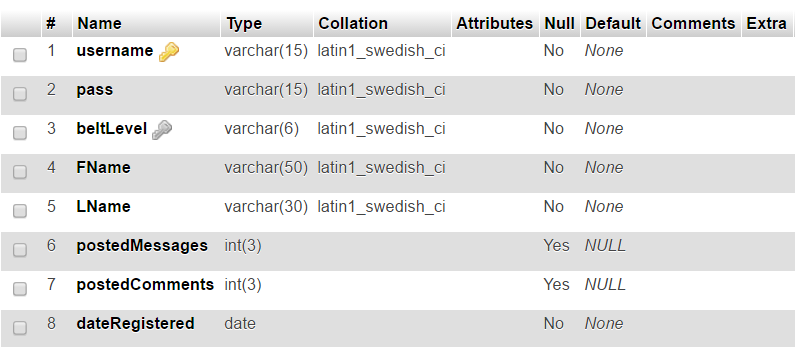
1. **The Database**

This is the real database that will be used for the system. Although it is still subject to change, those changes should only be minor ones because this database should already be formatted correctly to be able to begin implementation. The structure for each table is shown below. Ten records have been inserted into each table to ensure data and referential integrity.

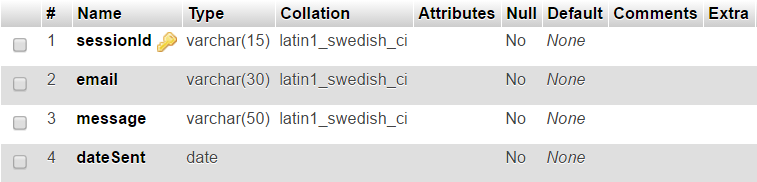
**7.1 Teacher Table Structure**



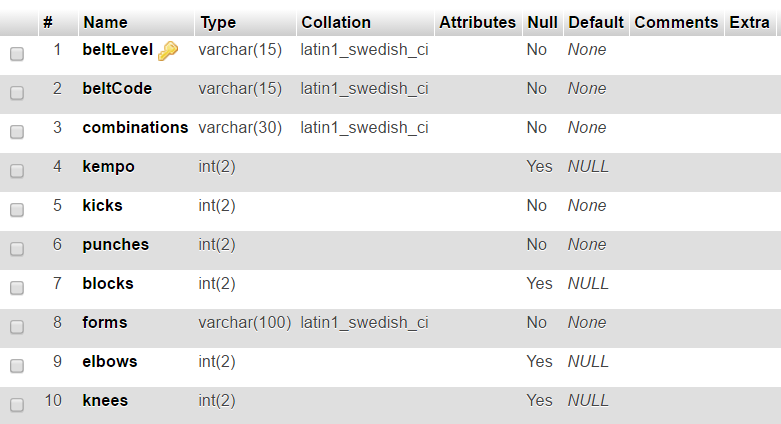
**7.2 Student Table Structure**



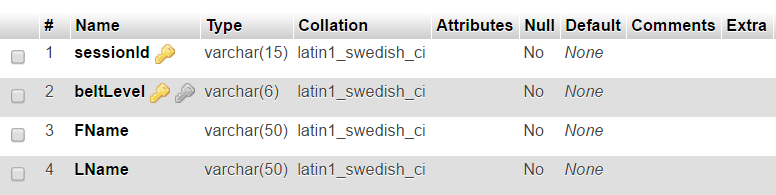
**7.3 Customer Table Structure**



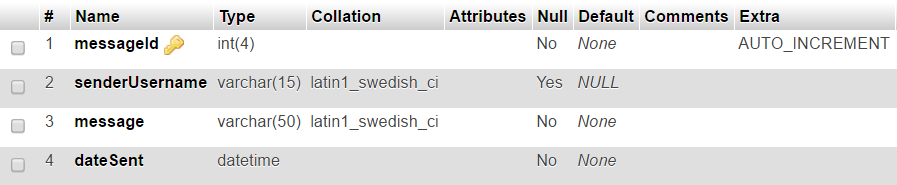
**7.4 Rank Table Structure**



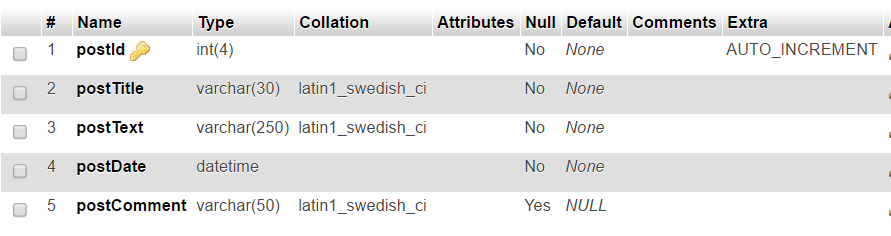
**7.5 Registration Table Structure**



**7.6 Chat Table Structure**



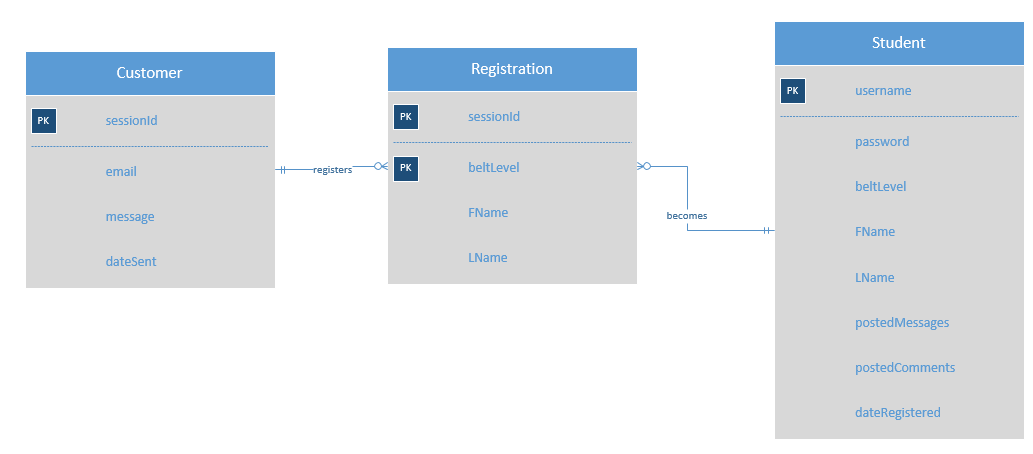
**7.7 Posts Table Structure**



1. **Mini Schemas**

The following will show which database tables are required for each form on the web site. This is essentially a small ERD for each form on the page. Also included are the SQL commands needed to insert the data in the database and the program specification.

**8.1 Register Form**



The registration table is required because a many-to-many relationship exists between the customer and student table. Once a customer completes the registration form, they become a student and a student record is created and saved in the database.

SQL Command: insert into Registration values(‘h12i3uhwf89’,blanche,’John’,’Smith’);

insert into Student values(‘newStudent’,’password’,blanche,’John’,’Smith’,2,3,’2016-11-11’);

Program Specification:

Module: Create Account

Purpose: Allow users to create an account to access all the features.

Programmer: Bojan Srbinoski

Language: PHP

Events: User enters registration data, the data is validated, once it is deemed valid, it is saved in the database as a new student record and the user is redirected to the techniques page.

|  |  |  |
| --- | --- | --- |
| **Input Name** | **Input Type** | **Used By** |
| username | Text | Customer |
| password | Password |
| confirmPassword | Password |
| fName | Text |
| lName | text |

Pseudocode:

If (username is not null and username length is <15 and password is not null and confirmPassword is not null and confirmPassword = password and fname is not null and lname is not null)

Create record

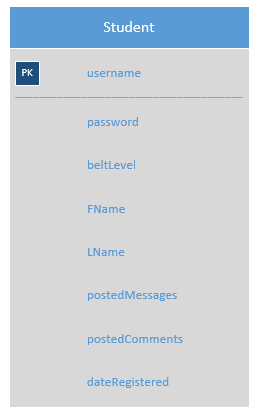
Insert record in database

Redirect to techniques page

Else

Display error message

**8.2 Login Form**



The student table is the only one needed to log in to the site because it is the table that contains all the username and password combinations. Therefore, when someone wants to log in, the system will check this table to make sure that the credentials are correct.

SQL command: select username, password from Student where username=’bojan97’and password=’pass1234’;

Program Specification:

Module: Log in

Purpose: Allow users to log in to their accounts.

Programmer: Bojan Srbinoski and Saad Ahmed

Language: PHP

Events: User enters a username and password. The system checks if that combination exists and if it does, it logs them in their account.

|  |  |  |
| --- | --- | --- |
| **Input Name** | **Input Type** | **Used By** |
| username | Text | Student |
| password | Password |
| confirmPassword | Password |

Pseudocode:

If (username is not null password is not null)

Check existence of username/password combination

If record is found

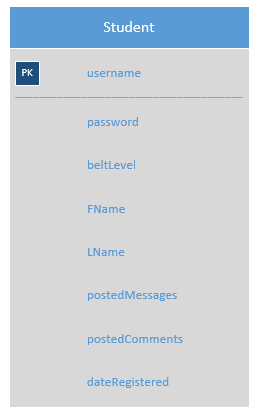
Log in the user

Else

Display error message

**8.3 Update password/username**

Although these are two different forms, they both use the Student table and are used in very similar ways. That is why they have been grouped together in this report.



Again, the student table is the only one required to update a student’s information.

SQL Command: UPDATE student   
SET username=’newUsername’, password=’newPassword’  
WHERE username=’oldUsername’

 Program Specification:

Module: Update Credentials

Purpose: Allow users to change their username or password

Programmer: Saad Ahmed

Language: PHP

Events: User enters their new desired username or password and the system updates it.

|  |  |  |
| --- | --- | --- |
| **Input Name** | **Input Type** | **Used By** |
| username | Text | Student |
| password | Password |
| confirmPassword | Password |

Pseudocode:

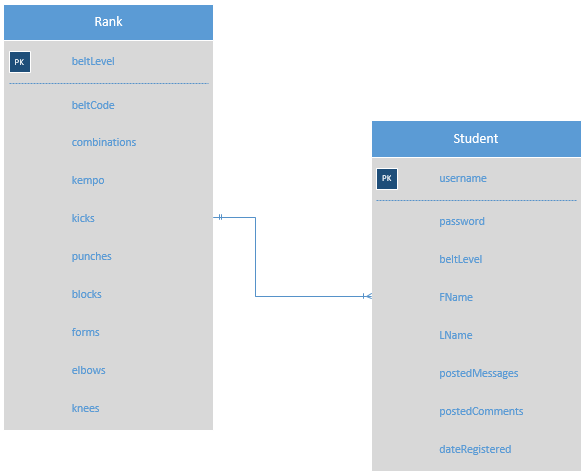
If (username is not null password is not null and password = confirmPassword)

Update record in the database

Else

Display error message

**8.3 Upgrade Account**



The only tables required here are the student and rank tables. When a student request an account upgrade, the rank table is checked to ensure the code is correct and to supply the appropriate techniques.

SQL Command: UPDATE student   
SET beltLevel=’verte’  
WHERE username=’username’

 Program Specification:

Module: Upgrade rank

Purpose: Allow users to change their belt ranks.

Programmer: Bojan Srbinoski

Language: PHP

Events: User enters the belt code which they acquired from their instructor. If the code matches one of the codes on the database, it will upgrade the account to that rank.

|  |  |  |
| --- | --- | --- |
| **Input Name** | **Input Type** | **Used By** |
| code | Text | Student |

Pseudocode:

If (rank is not null)

If rank is found in rank table

Upgrade account

Else

Display error message

Else

Display error message

1. **Conclusion**

The layouts shown above are not final models, but they should give a good idea of what the site will look like. The client has approved these layouts and everything is set to begin implementation. The database has also been created so it is ready to be implemented into the site.

Some extra information has also been detailed on various functions of the site. The way the forms will work has been described in more detail by showing which database tables will be involved with each form and the SQL command that will be used to interact with the table. In addition, the full commands have been written in pseudocode to give developers a better idea of how it will work. A diagram has also been created to visualize what navigation to and from each page will look like.

To conclude, the system has reached the end of its design phase and is ready to be implemented. With all the information collected so far from all the reports, both the client and the developers should have a clear idea of how to implement it and what is required. No issues should be encountered during implementation with regards to the design of the web site and how the overall system will function.