Coursework 2 Report.

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Introduction

For this coursework, the previous coursework is getting turned into a web messaging application. The website "Cyphermania" is going to go from just encrypting input, to storing it and sending it from user to user. The information page from the CW1 is adapted and will be linked to in the footer so the average user can make educated choice of encryption.

Software Design

Cyphermania is changing quite a bit, almost all the html from before will be useless. It will be 7 html pages, index, signup, signin, main, new message, view message and information. In the index, the user will choose to either sign in or sign up, which will both have links to eachother in case user already has a forgotten account. When user has signed up, the page redirects to the sign in page. Sign in redirects to main, where a list of messages can be found. Main will have a button for new message, and the possibility to press a message to display it on a new page. Display message will have the new message code added on underneath so the user can reply. On all pages it will be possible to press "sign out", or "sign in" depending if user is signed in or not. Main, NewMessage and ViewMessage will not be available until user is logged in. There will be one script for everything, where there's different functions that will be called.

Implemention

The plan changed quite quickly once I got working. There is 3 html pages. Index, main and cipherinfo. The last one is there just for fun.

Log in:

The form takes username and password, searches for password where username is username, then compares password in database with password typed in.

Sign up: Inserts data into the user table, asks you to log in.

Sign out: This feature is cancelled.

Send message: encrypts message, inserts data into table.

View messages, selects all data from rows where reciever is user, decrypts encrypted message and displays them.

Critical Evaluation of Implemention

Cyphermania is one of the least secure websites you will ever see.

Personal Fyaluation

I've learned a lot from doing this coursework, both about the different languages and about my own patience. I've also learned about how complete set restrictions can make it hard to find resources to learn from. While implementing this, there was some issues figuring out how to use node. When this was solved, the realisation that my plans were too complex settled in and I decided to go for the bare minimum. My website has no security. Then I had quite a few days trying to figure out connectivity issues with a premade database. I had to call in reinforcements to figure that one out. I still need to work on time management, a lot. I need to always be prepared to fall ill and not get behind schedule.

I had no time to finish completely, but I did what I had time for.

References

Lecture material

https://stackoverflow.com/questions/35605226/how-to-send-message-through-html-form-using-javascript

http://www.sqlitetutorial.net/sqlite-nodejs/

https://www.w3schools.com/js/js validation.asp

http://www.sqlitetutorial.net/sqlite-nodejs/insert/

https://www.mikedane.com/web-development/javascript/building-a-password-checker/

https://developer.mozilla.org/en-US/docs/Learn/Server-side/Express Nodejs/forms/Update Book form

https://webchat.freenode.net/ (Received assistance in undestanding my mistake with database)

https://www.youtube.com/playlist?list=PLzV58Zm8FuBIWu1zvGRUfn0Xh6HXRg9cG

https://developer.mozilla.org/en-US/docs/Learn/Server-side/Express Nodejs/forms/Update Book form