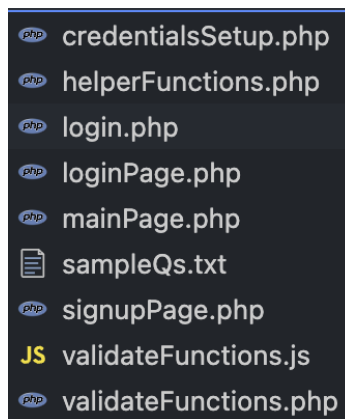For the final project, I really wanted to implement the "Decryptoid" project as a solo. I spent the entire week working on this project; however, after spending a few long hours trying to figure out decryption via transposition, I honestly just couldn't figure it out. I decided I'd rather not submit an unfinished project, so as a result, I ended up doing final project 1 (easy level). I decided to submit both of my final folders anyway, in case maybe I can get extra points for trying the harder difficulty project, hence why there's another folder inside of the project folder called "decryptoidUnfinished".

In this document I'll have two sections; the first section will explain the first project (Easy difficulty), and the next section will explain the unfinished project in case you're willing to consider it.

Easy Difficulty Project → Questionaire

For this project, the directory is as follows:

```
php  credentialsSetup.php
php  helperFunctions.php
php  login.php
php  loginPage.php
php  mainPage.php
     sampleQs.txt
php  signupPage.php
JS   validateFunctions.js
php  validateFunctions.php
```

1. credentialsSetup.php
   - This file contains the lines of code that check for whether or not the "credentialsTable" is set up correctly. If not, the table will be created.
   - I made this a separate file because I used it in both loginPage.php and signupPage.php, so I wanted to be able to reference it on both pages without having repetitive code.
2. helperFunctions.php
   - This file contains functions for sanitizing superglobal variables and a generic dieMessage()
3. login.php
   - This is like our other assignments; it's user database information
4. loginPage.php
   - This file contains the login page; users can log into their account here, or click a text to be redirected to the signup page. If a login is successful, users are redirected to the main page with a session set.
5. mainPage.php
   - This file is the main page of our application. If a user isn't logged in (sessions), then they're prompted to moved to the login page.

- There's a little bit of styling but I put it in a style tag rather than a separate CSS file to make things a little cleaner (I didn't want an entire file for one bit of CSS).
6. sampleQs.txt
    - This file is just a text file containing some example sample questions that I used for testing; it's not really necessarily part of the project.
7. signupPage.php
    - This file contains the signup page; users can create an account here, or click a text to be redirected to the login page if necessary. Upon signup, the user is redirected to the login page.
8. validateFunctions.js
    - This file contains functions for client-side form validation
9. validateFunctions.php
    - This file contains functions for server-side form validation

<mark>SCREENSHOTS FOR PROJECT 1 ARE BELOW THIS LINE</mark>

1. mainPage.php before a log in

You are not logged in.
Please <u>click here</u> to log in, or register for an account <u>here</u>.

2. signupPage.php → Registration with an empty form

Sign Up

Name:

E-mail:

Password:

REGISTER

localhost says

No name entered.
No email was entered.
No password entered.

OK

Click **HERE** to navigate to the login page.

3. signupPage.php → Registration with an empty form (with no Javascript)

Sign Up

Name:

E-mail:

Password:

REGISTER

Click [HERE](#) to navigate to the login page.

No name was entered.
No email was entered.
No password was entered.

4. signupPage.php → invalid password requirements

Sign Up

Name:

Steven

E-mail:

anemail@gmail.com

Password:

••••

REGISTER

Click [HERE](#) to navigate to the login page.

localhost says

Password must be at least 6 characters.

OK

5. signupPage.php → invalid password requirements (No javascript)

Sign Up

Name:

E-mail:

Password:

REGISTER

Click [HERE](#) to navigate to the login page.

Password must be at least 6 characters.

6. loginPage.php (user is automatically redirected upon registration)

Login

Email:

Password:

LOGIN

Click HERE to navigate to the sign up page.

7. loginPage.php → empty form submission

Login

Email:

Password:

LOGIN

localhost says

No email was entered.
No password was entered.

OK

Click HERE to navigate to the sign up page.

8. loginPage.php → empty form submission WITHOUT JAVASCRIPT

Login

Email:

Password:

LOGIN

Click HERE to navigate to the sign up page.

No email was entered.
No password was entered.

9. mainPage.php (this time, we have a user that is logged in)

Welcome back steven.

Log Out

Upload your questions: Choose File No file chosen

UPLOAD

Random Question Generator

10. mainPage.php → Uploading an invalid file

Welcome back steven.

Log Out

Upload your questions: Choose File mainPage.php

UPLOAD

localhost says

C:\fakepath\mainPage.php is not an accepted input.
Please upload a text file.

OK

Random Question Generator

11. mainPage.php → Uploading an invalid file (without Javascript)

Welcome back steven.   Log Out

Upload your questions: Choose File | No file chosen

UPLOAD

Random Question Generator

"/applications/xampp/xampppfiles/temp/phphyh9dn" text/php is not an accepted input. Please upload a text file.

12. mainPage.php → Uploading a valid text file with questions

Welcome back steven.   Log Out

Upload your questions: Choose File | No file chosen

UPLOAD

Random Question Generator

Question: What is your name? --> This question was added.
Question: Who are you? --> This question was added.
Question: What are you doing today? --> This question was added.
Question: Any plans? --> This question was added.
Question: What??? --> This question was added.

13. mainPage.php → Uploading a valid text file with duplicate questions

Welcome back steven.   Log Out

Upload your questions: Choose File | No file chosen

UPLOAD

Random Question Generator

Duplicate question found: What is your name? --> This will not be added again.
Duplicate question found: Who are you? --> This will not be added again.
Duplicate question found: What are you doing today? --> This will not be added again.
Duplicate question found: Any plans? --> This will not be added again.
Duplicate question found: What??? --> This will not be added again.

14. mainPage.php → Clicking the random question generator with no questions uploaded

Welcome back steven.   Log Out

Upload your questions: Choose File | No file chosen

UPLOAD

Random Question Generator

You have not uploaded any questions. Please upload a file containing questions and try again.

15. mainPage.php → Clicking the random question generator with questions in the database (note: questions are tied to users…)

Welcome back steven.   Log Out

Upload your questions: Choose File | No file chosen

UPLOAD

Random Question Generator

Random Question: Who are you?

Welcome back steven.   Log Out

Upload your questions: Choose File | No file chosen

UPLOAD

Random Question Generator

Random Question: Any plans?

Hard Difficulty Project (Unfinished) → Decryptoid

Again, this project is unfinished; however, I was able to get simple substitution (encryption and decryption) and encryption for double transposition. I verified my encryption for double transposition using this website, but after spending hours trying to understand decryption, I couldn't figure it out. I don't understand how we're supposed to repopulate the columns in the order they were in PRIOR to encryption, because I don't have any filler letters when the user puts in their own words.

For this project, the directory is as follows:
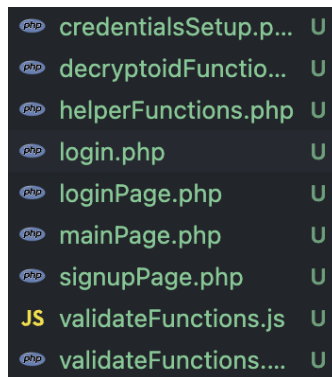
1. credentialsSetup.php
   - This file contains the lines of code that check for whether or not the "credentialsTable" is set up correctly. If not, the table will be created.
   - I made this a separate file because I used it in both loginPage.php and signupPage.php, so I wanted to be able to reference it on both pages without having repetitive code.
2. decryptoidFunctions.php
   - These contain the logic for encryption and decryption
3. helperFunctions.php
   - This file contains functions for sanitizing superglobal variables and a generic dieMessage()
4. login.php
   - This is like our other assignments; it's user database information
5. loginPage.php
   - This file contains the login page; users can log into their account here, or click a text to be redirected to the signup page. If a login is successful, users are redirected to the main page with a session set.
6. mainPage.php
   - This file is the main page of our application. If a user isn't logged in (sessions), then they're prompted to moved to the login page.
   - There's a little bit of styling but I put it in a style tag rather than a separate CSS file to make things a little cleaner (I didn't want an entire file for one bit of CSS).
7. sampleQs.txt

- This file is just a text file containing some example sample questions that I used for testing; it's not really necessarily part of the project.
8. signupPage.php
   - This file contains the signup page; users can create an account here, or click a text to be redirected to the login page if necessary. Upon signup, the user is redirected to the login page.
9. validateFunctions.js
   - This file contains functions for client-side form validation
10. validateFunctions.php
    - This file contains functions for server-side form validation

SCREENSHOTS FOR PROJECT 2 ARE BELOW THIS LINE
- The login + signup pages are the same as Project 1
1. mainPage.php → clicking the ENCRYPT/DECRYPT button without any inputs

Welcome back steven.   Log Out

Select File: [Choose File] No file chosen

localhost says

No file was uploaded. Please upload a text file.
A key is missing. Please enter an alphanumeric string.
No method was selected. Please select a method (button).

○ Encrypt via Substitution
○ Encrypt via Transposition
○ Decrypt via Substitution
○ Decrypt via Transposition

OK

Key: [   ]   Second Key: [   ]
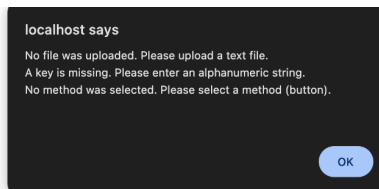
[ENCRYPT/DECRYPT]

2. mainPage.php → clicking the button without any inputs (no Javascript)

Welcome back steven.   Log Out

Select File: [Choose File] No file chosen

○ Encrypt via Substitution
○ Encrypt via Transposition
○ Decrypt via Substitution
○ Decrypt via Transposition

Key: [   ]   Second Key: [   ]

[ENCRYPT/DECRYPT]

No file was uploaded. Please upload a text file.
A key is missing. Please enter an alphanumeric string.
No method was selected. Please select a method (button).

3. mainPage.php → invalid file input

Welcome back steven.   Log Out

Select File: [Choose File] credentialsSetup.php

localhost says

C:\fakepath\credentialsSetup.php is not an accepted input.
Please upload a text file.
A key is missing. Please enter an alphanumeric string.
No method was selected. Please select a method (button).

○ Encrypt via Substitution
○ Encrypt via Transposition
○ Decrypt via Substitution
○ Decrypt via Transposition

OK

Key: [   ]   Second Key: [   ]
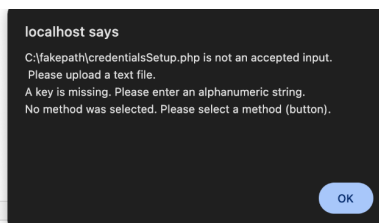
[ENCRYPT/DECRYPT]

4. mainPage.php → invalid file input (no Javascript)

Welcome back steven.

Select File: [Choose File] No file chosen

○ Encrypt via Substitution
○ Encrypt via Transposition
○ Decrypt via Substitution
○ Decrypt via Transposition

Key: [＿＿＿＿＿] Second Key: [＿＿＿＿＿]

[ENCRYPT/DECRYPT]

"/applications/xampp/xamppfiles/temp/phpvxfvg7" text/php is not an accepted input. Please upload a text file.

5. mainPage.php → encryption via substitution

Welcome back steven.

Select File: [Choose File] No file chosen

○ Encrypt via Substitution
○ Encrypt via Transposition
○ Decrypt via Substitution
○ Decrypt via Transposition

Key: [＿＿＿＿＿] Second Key: [＿＿＿＿＿]

[ENCRYPT/DECRYPT]

Original Text	**Encrypted/Decrypted Text**
abcdee1	fghijj6

6. mainPage.php → decryption via substitution

Welcome back steven.

Select File: [Choose File] No file chosen

○ Encrypt via Substitution
○ Encrypt via Transposition
○ Decrypt via Substitution
○ Decrypt via Transposition

Key: [＿＿＿＿＿] Second Key: [＿＿＿＿＿]

[ENCRYPT/DECRYPT]

Original Text	**Encrypted/Decrypted Text**
fghijj6	abcdee1

7. mainPage.php → encryption via double transposition

Welcome back steven.

Select File: [Choose File] No file chosen

○ Encrypt via Substitution
○ Encrypt via Transposition
○ Decrypt via Substitution
○ Decrypt via Transposition

Key: [＿＿＿＿＿] Second Key: [＿＿＿＿＿]

[ENCRYPT/DECRYPT]

Original Text	**Encrypted/Decrypted Text**
abcdee1	decaeb1