

Blu Release Summary

Team members

| Name | GitHub Username | Total User Story Story Points | Total Documentation Story Points |
|----------------------|-----------------|-------------------------------|----------------------------------|
| Jean-Philippe Durand | Aeroponz | 112 hours (11 story points*) | 17 hours (7 story point)* |
| Pierre-Alexis Barras | Pyxsys | 159 hours (12 story points*) | — |
| Nathan Ziri | NathanZiri | 119 hours (11 story points*) | 1 hour (1 story point)* |
| Jasen Ratnam | JasenRatnam | 209 hours (12 story points*) | 1 hour (1 story point)* |
| Alya Naseer | AlyaNaseer | 151 hours (12 story points*) | 1 hour (1 story point)* |

*To calculate the number of story points, we used the Fibonacci sequence as it provides a decent method to estimate the amount of work required to complete singular tasks. Due to the odd idea of task requiring zero-time, we used a modified Fibonacci scale that is shifted by one as follows: Fib(0) = 1, Fib(1) = 1, Fib(2) = 2, Fib(3) = 3, Fib(4) = 5, Fib(5) = 8... As such, sometimes the total number of hours actually worked does not correspond to the number of story points. In the case that the total is between two fibonacci numbers, we take the higher number. For example, in the table above, for 159 hours worked, 12 story points are assigned, even though this corresponds to a value of 233 hours, since 11 story points represents 144 hours. Story points only include user story points, no documentation.

Project summary

Blu is a social networking service that allows users to share pictures and text posts. Similar to other social networking services, Blu will support following other users and comments on posts. However, Blu will surpass its competition with the introduction of user ratings and posting cooldown based on the rating system. These features will reduce the inevitable spam, troll and bots not by restricting user permissions but by promoting the content users want to see. Not to mention, Blu values privacy, that's why we won't ask for any personal information. Users can provide their email address voluntarily; their email will only be used for account recovery. As for posts, users can choose to make them visible to the public by adding hashtags to their post, otherwise, the post remains private to the user's followers.

Velocity and a list of user stories

Total: 35 stories, 200 points* over 12 weeks

*The number of points were added, therefore, not representative of the total hours worked. Instead, see table above.

NOTE: the hours listed below are based on the user story points awarded to each user story, so some of these hours are higher than the actual number of hours worked.

Iteration 1 (4 stories, 19 points)

| US Number | US Name | US Points | Hours | Status |
|-----------|---------------------------------------|-----------|-------|--------|
| 3 | Homepage Base Format | 1 | 1 | Done |
| 19 | Database Setup - Account Info Storage | 4 | 5 | Done |
| 78 | SignUp and LogIn Pages | 5 | 8 | Pushed |
| 170 | Web Design | 9 | 55 | Done |

Iteration 2 (6 stories, 37 points)

| US Number | US Name | US Points | Hours | Status |
|-----------|---------------------------------------|-----------|-------|--------|
| 17 | Back-End - Post Creation Page | 9 | 55 | Pushed |
| 20 | Database Setup - Picture/Text Storage | 4 | 5 | Done |
| 70 | Follow Account | 5 | 8 | Done |
| 71 | Fetch an Account Followers | 4 | 5 | Done |
| 78 | SignUp and LogIn Pages | 6 | 13 | Done |
| 92 | Individual Pages Unit Tests | 9 | 55 | Done |

Iteration 3(20 stories, 90 points)

| US Number | US Name | US Points | Hours | Status |
|-----------|--------------------------------|-----------|-------|----------|
| 10 | Core User Functionality | - | - | Removed* |
| 16 | Front-End - Post Creation Page | 5 | 8 | Done |
| 17 | Back-End - Post Creation Page | 8 | 34 | Done |
| 36 | Feature - Post Comments | 5 | 8 | Done |
| 47 | Front-End - View Post Page | 8 | 34 | Done |
| 48 | Back-End - View Post Page | 9 | 55 | Done |
| 49 | Front End - User Profile Page | 6 | 13 | Done |
| 50 | Back End - User Profile Page | 10 | 89 | Done |
| 51 | Front End - Popular Feed Page | 1 | 1 | Done |
| 52 | Back End - Popular Feed Page | 1 | 1 | Done |

| | | | | |
|-----|-------------------------------------------------------------|---|----|------|
| 53 | Front End - Follower Feed Page | 1 | 1 | Done |
| 54 | Back End - Follower Feed Page | 1 | 1 | Done |
| 57 | Front-End - Reset Password Page | 1 | 1 | Done |
| 58 | Back-End - Reset Password Page | 8 | 34 | Done |
| 59 | Front-End - New Password Page | 1 | 1 | Done |
| 60 | Back-End - New Password Page | 4 | 5 | Done |
| 62 | Sending Email to User (Verification Process) | 6 | 13 | Done |
| 88 | Create Pop-Up for new users prompting to add recovery email | 7 | 21 | Done |
| 103 | Post Creation Page Wireframe | 5 | 8 | Done |
| 105 | Post Creation Page Linked to DB and other pages | 3 | 3 | Done |

*This user story was removed because it was found to be a duplicate of other user stories.

[Iteration 4, Release\(9 stories, 54 points\)](#)

| US Number | US Name | US Points | Hours | Status |
|-----------|-------------------------------------------------|-----------|-------|--------|
| 55 | Front-End - User Settings | 4 | 5 | Done |
| 56 | Back-End - User Settings | 8 | 34 | Done |
| 91 | DB Unit Tests | 7 | 21 | Done |
| 136 | Post Delay | 8 | 34 | Done |
| 140 | User Pictures | 5 | 8 | Done |
| 143 | Add 'likes' table to DB | 2 | 2 | Done |
| 154 | Update & Refactor code to meet coding standards | 4 | 5 | Done |
| 156 | Upvote/Downvote Backend | 8 | 34 | Done |
| 169 | Notifications | 8 | 34 | Done |

Overall Architecture and Design

The [software architecture](#) of our project is available in the wiki of our Github repository.

The [UML class diagram](#) of our project is available in the wiki of our Github repository.

Infrastructure

While creating Blu we decided not to use any frameworks and as a result built the site from the ground up. We found that we didn't need any frameworks in order to make the site and all the functions we needed could be made by us. This allowed us to have absolute control when programming and allowed us to challenge ourselves with this project.

An alternative could have been for us to use a php framework like Laravel. Laravel is a framework that uses the MVC architectural model and is very powerful in its own right. However, the more we worked on our project the more it seemed that implementing at that point in development would only result in more problems for us having to adjust everything to suit Laravel.

For running and testing our mailing feature we used both PHPMailer and MailTrap respectively. The reason we used PHPMailer is because it is one of the oldest and most well known mailing libraries meaning it was very robust and would have the most information about it available. We decided to use MailTrap because it can be well integrated with PHPMailer.

With regards to alternatives for PHPMailer we could have used NodeMailer which is an extension to Node.js. However, installing an entire runtime environment just to be able to use one aspect of Node.js seemed excessive and unnecessary. MailHog is a tool used to test sending emails via web applications and could have been used in place of MailTrap. However the ability to debug emails in MailTrap was a significant point in its favour,

Name Conventions

Variable Naming Convention: CamelCase: First letter is lowercase, every subsequent word has the first letter capitalized.

e.g. xVariableName

The variable name is composed of two parts. The 'x' is a lowercase letter that will indicate the context in which the variable is used.

Letters:

- m - Class Member Variables
- c - Constants
- w - Work variables, used for data manipulation inside a function
- i - Input variable/parameter e.g. ThisIsAFunction(string iInputText)
- o - Output variable

Function Naming Convention: PascalCase: First letter of every word is capitalized.

Code

Key Files in Blu

| | |
|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| /Soen341/ src/db/DBConfig.php | Unifies database functions into simple methods under a single Database PHP class. |
| /Soen341/ src/db/UploadClass.php | Handles all file/text validation as well as any upload and upload-related features. |
| /Soen341/ src/pages/SignUpPage/SignUp.php | Allows users to physically register to the site and does user setup. |
| /Soen341/ src/pages/HomePage/HomepageBase.php | Provides the user-specific feed of posts, filtered by the accounts the user follows. |
| /Soen341/ src/pages/SettingsPage/SettingsPage.php | Centralizes and controls many user-centric features: Light/Dark mode, Account Deletion, User Profile Pictures, and password resetting. |

- /Soen341/[src/db/dbPHPexample.php](#) is a stub and does not contribute to the product. It acted as a testing/reference file for “uploading”, “displaying posts”, and “following” features in the early stages of development.

Testing and Continuous Integration

Key Unit Test in Blu

| | |
|-----------------------------------------------------|--------------------------------------------------------------------------------|
| Test File path with clickable GitHub link | What is it testing |
| /SOEN341/ src/tests/SignUpTest.php | The tests contained in this file test the creation of a new account. |
| /SOEN341/ src/tests/LoginTest.php | This tests the login feature using the account created in the SignUpTest file. |
| /SOEN341/ src/tests/UploadTest.php | This tests the many functions used in the upload of a post. |
| /SOEN341/ src/tests/CommentTest.php | This tests the many functions used for the commenting feature. |
| /SOEN341/ src/tests/FollowTest.php | This tests the following feature. |

Key Acceptance Tests in Blu

| | |
|------------------------------------------|-------------------------------------------|
| Github issues with clickable GitHub link | Which user story is it testing |
| Notification | This tests the notification core feature |
| Posting | This tests the posting core feature |
| Following/Follower | This tests the follower core feature |
| Comments | This tests the commenting core feature |
| Sign Up and Login | This tests the account creation and login |

For the continuous integration setup of our project we used TravisCI. The script used by TravisCI can be found [here](#). The script starts a MySQL database (service that is pre-installed in TravisCI and then iterates through the unit test files. The order in which the unit test files are runned is similar to the flow expected from a user. The results of the build can be found on the [TravisCI Blu Dashboard](#).

Static Code Analysis

We decided to use the [PHPMD](#) static analysis tool, and ran it through the git bash command line. We used the analysis tool to verify the [Clean Code Rules](#), [Code Size Rules](#), [Design Rules](#), [Naming Rules](#) and [Unused Code](#) Rules of our PHP language source codes.

The full static analysis report can be found in the Appendix.

Problem #6:

The method AddPostToDB() has a Cyclomatic Complexity of 15. The configured cyclomatic complexity threshold is 10. The cyclomatic complexity is the number of decision points in a method such as if, while, for and case labels. A complexity of 11+ is considered as being very high and should be avoided. We should remove the number of if statements in our method.

Problem #7:

The method AddPostToDB() has an NPath complexity of 5632. The configured NPath complexity threshold is 200. This method has 5632 different possible numbers of acyclic execution paths. A threshold of 200 is considered the point where measures should be taken to reduce complexity of the method, hence we should reduce the complexity since it is currently more than 20 times higher.

Problem #15:

Avoid using static access to class 'Website\Upload' in method 'AddPostToDB'. Static access to classes causes dependencies to other classes and makes the code hard to test. To fix this, we should inject dependencies through the constructor.

Problem #18:

The method FetchPId uses an else expression. Else clauses are basically not necessary and you can simplify the code by not using them. We can fix our code to be simpler to read by rewriting the if conditions in a way that the else clause is not necessary

Problem #72:

Avoid unused local variables such as '\$wDbQuery'. We should remove variables that are not used and any dead code.

Problem #91:

The class SignUpTest has 14 public methods. Consider refactoring SignUpTest to keep the number of public methods under 10. Having too many public methods can increase the complexity of a class, hence we should have a minimum of public methods

All other problems of our program detected by PHPMD are the same as the one stated above for different methods, classes, and variables. Therefore, we have 6 problems that are repeated multiple times in our program at different classes, methods and variables.

APPENDIX:

PHPMD report

Problems found

| # | File | Line | Problem |
|---|------------------------------------------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | C:\xampp\htdocs\SOEN341\src\db\DBConfig.php | 26 | The method __construct() contains an exit expression. |
| 2 | C:\xampp\htdocs\SOEN341\src\db\DBConfig.php | 48 | Avoid using static access to class 'SqlDb\Database' in method 'safeQuery'. |
| 3 | C:\xampp\htdocs\SOEN341\src\db\UploadClass.php | 19 | The method ValidFile uses an else expression. Else clauses are basically not necessary and you can simplify the code by not using them. |
| 4 | C:\xampp\htdocs\SOEN341\src\db\UploadClass.php | 30 | The method ValidText uses an else expression. Else clauses are basically not necessary and you can simplify the code by not using them. |
| 5 | C:\xampp\htdocs\SOEN341\src\db\UploadClass.php | 41 | The method FetchUser uses an else expression. Else clauses are basically not necessary and you can simplify the code by not using them. |
| 6 | C:\xampp\htdocs\SOEN341\src\db\UploadClass.php | 111 | The method AddPostToDB() has a Cyclomatic Complexity of 15. The configured cyclomatic complexity threshold is 10. |
| 7 | C:\xampp\htdocs\SOEN341\src\db\UploadClass.php | 111 | The method AddPostToDB() has an NPath complexity of 5632. The configured NPath complexity threshold is 200. |

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|----|------------------------------------------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8 | C:\xampp\htdocs\SOEN341\src\db\UploadClass.php | 120 | Avoid using static access to class 'Website\Upload' in method 'AddPostToDB'. |
| 9 | C:\xampp\htdocs\SOEN341\src\db\UploadClass.php | 121 | Avoid using static access to class 'Website\Upload' in method 'AddPostToDB'. |
| 10 | C:\xampp\htdocs\SOEN341\src\db\UploadClass.php | 144 | Avoid using static access to class '\SqlDb\Database' in method 'AddPostToDB'. |
| 11 | C:\xampp\htdocs\SOEN341\src\db\UploadClass.php | 149 | Avoid using static access to class 'Website\Upload' in method 'AddPostToDB'. |
| 12 | C:\xampp\htdocs\SOEN341\src\db\UploadClass.php | 150 | Avoid using static access to class '\SqlDb\Database' in method 'AddPostToDB'. |
| 13 | C:\xampp\htdocs\SOEN341\src\db\UploadClass.php | 159 | Avoid using static access to class 'Website\Upload' in method 'AddPostToDB'. |
| 14 | C:\xampp\htdocs\SOEN341\src\db\UploadClass.php | 163 | The method AddPostToDB uses an else expression. Else clauses are basically not necessary and you can simplify the code by not using them. |
| 15 | C:\xampp\htdocs\SOEN341\src\db\UploadClass.php | 171 | Avoid using static access to class 'Website\Upload' in method 'AddPostToDB'. |
| 16 | C:\xampp\htdocs\SOEN341\src\db\UploadClass.php | 177 | Avoid using static access to class '\SqlDb\Database' in method 'AddPostToDB'. |
| 17 | C:\xampp\htdocs\SOEN341\src\db\commentToDB.php | 24 | The method FetchUser uses an else expression. Else clauses are basically not necessary and you can simplify the code by not using them. |

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|----|------------------------------------------------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 18 | C:\xampp\htdocs\SOEN341\src\db\commentToDB.php | 34 | The method FetchPId uses an else expression. Else clauses are basically not necessary and you can simplify the code by not using them. |
| 19 | C:\xampp\htdocs\SOEN341\src\db\commentToDB.php | 50 | Avoid using undefined variables such as '\$p_id' which will lead to PHP notices. |
| 20 | C:\xampp\htdocs\SOEN341\src\db\commentToDB.php | 50 | Avoid unused local variables such as '\$p_id'. |
| 21 | C:\xampp\htdocs\SOEN341\src\db\commentToDB.php | 56 | Avoid using static access to class '\SqlDb\Database' in method 'AddCommentToDb'. |
| 22 | C:\xampp\htdocs\SOEN341\src\db\followToDB.php | 20 | Avoid using static access to class '\SqlDb\Database' in method 'Follows'. |
| 23 | C:\xampp\htdocs\SOEN341\src\db\followToDB.php | 22 | Avoid using static access to class '\SqlDb\Database' in method 'Follows'. |
| 24 | C:\xampp\htdocs\SOEN341\src\db\followToDB.php | 35 | The method Follows uses an else expression. Else clauses are basically not necessary and you can simplify the code by not using them. |
| 25 | C:\xampp\htdocs\SOEN341\src\db\followToDB.php | 47 | The method FetchUser uses an else expression. Else clauses are basically not necessary and you can simplify the code by not using them. |
| 26 | C:\xampp\htdocs\SOEN341\src\db\followToDB.php | 59 | The method FetchFollowUser uses an else expression. Else clauses are basically not necessary and you can simplify the code by not using them. |

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|----|--------------------------------------------------------|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 27 | C:\xampp\htdocs\SOEN341\src\db\followToDB.php | 81 | Avoid using static access to class '\SqlDb\Database' in method 'AddFollowToDb'. |
| 28 | C:\xampp\htdocs\SOEN341\src\db\followToDB.php | 83 | The method AddFollowToDb uses an else expression. Else clauses are basically not necessary and you can simplify the code by not using them. |
| 29 | C:\xampp\htdocs\SOEN341\src\db\followToDB.php | 87 | Avoid using static access to class '\SqlDb\Database' in method 'AddFollowToDb'. |
| 30 | C:\xampp\htdocs\SOEN341\src\db\notificationsFromDB.php | 22 | The method GetFlag uses an else expression. Else clauses are basically not necessary and you can simplify the code by not using them. |
| 31 | C:\xampp\htdocs\SOEN341\src\db\notificationsFromDB.php | 32 | The method GetTime uses an else expression. Else clauses are basically not necessary and you can simplify the code by not using them. |
| 32 | C:\xampp\htdocs\SOEN341\src\db\notificationsFromDB.php | 49 | Avoid using static access to class 'Website\Upload' in method 'NewPosts'. |
| 33 | C:\xampp\htdocs\SOEN341\src\db\notificationsFromDB.php | 55 | Avoid using static access to class '\SqlDb\Database' in method 'NewPosts'. |
| 34 | C:\xampp\htdocs\SOEN341\src\db\notificationsFromDB.php | 58 | Avoid using static access to class '\SqlDb\Database' in method 'NewPosts'. |
| 35 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 23 | The method FetchUser uses an else expression. Else clauses are basically not necessary and you can simplify the code by not using them. |

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|----|-----------------------------------------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 36 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 34 | The method FetchPoster uses an else expression. Else clauses are basically not necessary and you can simplify the code by not using them. |
| 37 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 44 | The method FetchPId uses an else expression. Else clauses are basically not necessary and you can simplify the code by not using them. |
| 38 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 53 | Avoid using static access to class '\SqlDb\Database' in method 'Liked'. |
| 39 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 55 | Avoid using static access to class '\SqlDb\Database' in method 'Liked'. |
| 40 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 100 | Avoid using static access to class '\SqlDb\Database' in method 'AddLikeToDb'. |
| 41 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 104 | Avoid using static access to class '\SqlDb\Database' in method 'AddLikeToDb'. |
| 42 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 108 | Avoid using static access to class '\SqlDb\Database' in method 'AddLikeToDb'. |
| 43 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 117 | Avoid using static access to class '\SqlDb\Database' in method 'AddLikeToDb'. |
| 44 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 121 | Avoid using static access to class '\SqlDb\Database' in method 'AddLikeToDb'. |
| 45 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 123 | Avoid using static access to class '\SqlDb\Database' in method 'AddLikeToDb'. |

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|----|-----------------------------------------------|-----|--------------------------------------------------------------------------------------------------|
| 46 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 127 | Avoid using static access to class '\SqlDb\Database' in method 'AddLikeToDb'. |
| 47 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 133 | Avoid using static access to class '\SqlDb\Database' in method 'AddLikeToDb'. |
| 48 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 137 | Avoid using static access to class '\SqlDb\Database' in method 'AddLikeToDb'. |
| 49 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 141 | Avoid using static access to class '\SqlDb\Database' in method 'AddLikeToDb'. |
| 50 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 159 | Avoid unused local variables such as '\$value'. |
| 51 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 166 | Avoid using static access to class '\SqlDb\Database' in method 'AddDislikeToDb'. |
| 52 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 170 | Avoid using static access to class '\SqlDb\Database' in method 'AddDislikeToDb'. |
| 53 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 174 | Avoid using static access to class '\SqlDb\Database' in method 'AddDislikeToDb'. |
| 54 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 180 | Avoid using static access to class '\SqlDb\Database' in method 'AddDislikeToDb'. |
| 55 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 184 | Avoid using static access to class '\SqlDb\Database' in method 'AddDislikeToDb'. |
| 56 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 186 | Avoid using static access to class '\SqlDb\Database' in method 'AddDislikeToDb'. |

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|----|-------------------------------------------------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 57 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 190 | Avoid using static access to class '\SqlDb\Database' in method 'AddDislikeToDb'. |
| 58 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 196 | Avoid using static access to class '\SqlDb\Database' in method 'AddDislikeToDb'. |
| 59 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 200 | Avoid using static access to class '\SqlDb\Database' in method 'AddDislikeToDb'. |
| 60 | C:\xampp\htdocs\SOEN341\src\db\ratingToDB.php | 204 | Avoid using static access to class '\SqlDb\Database' in method 'AddDislikeToDb'. |
| 61 | C:\xampp\htdocs\SOEN341\src\pages\FunctionBlocks\AddEmailToDB.php | 10 | Avoid using static access to class '\SqlDb\Database' in method 'AddEmailToDB'. |
| 62 | C:\xampp\htdocs\SOEN341\src\pages\FunctionBlocks\ProfileClass.php | 21 | The method DisplayUserPFP uses an else expression. Else clauses are basically not necessary and you can simplify the code by not using them. |
| 63 | C:\xampp\htdocs\SOEN341\src\pages\FunctionBlocks\ProfileClass.php | 35 | Avoid using static access to class '\SqlDb\Database' in method 'uploadPFP'. |
| 64 | C:\xampp\htdocs\SOEN341\src\pages\LoginPage\LogIn.php | 36 | Avoid using static access to class 'Website\functions\CheckFormat' in method 'LogIn'. |
| 65 | C:\xampp\htdocs\SOEN341\src\pages\LoginPage\LogIn.php | 36 | Avoid using static access to class 'Website\functions\CheckFormat' in method 'LogIn'. |
| 66 | C:\xampp\htdocs\SOEN341\src\pages\LoginPage\LogIn.php | 43 | Avoid using static access to class '\SqlDb\Database' in method 'LogIn'. |

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| 67 | C:\xampp\htdocs\SOEN341\src\pages\ResetPasswordPage\GetEmail.php | 32 | Avoid using static access to class '\SqlDb\Database' in method 'GetEmail'. |
| 68 | C:\xampp\htdocs\SOEN341\src\pages\ResetPasswordPage\GetEmail.php | 50 | Avoid using static access to class '\SqlDb\Database' in method 'GetUserId'. |
| 69 | C:\xampp\htdocs\SOEN341\src\pages\ResetPasswordPage\ResettingPassword.php | 34 | Avoid using static access to class 'Website\functions\CheckFormat' in method 'CheckingPasswordValidity'. |
| 70 | C:\xampp\htdocs\SOEN341\src\pages\ResetPasswordPage\ResettingPassword.php | 48 | The method CheckingPasswordValidity uses an else expression. Else clauses are basically not necessary and you can simplify the code by not using them. |
| 71 | C:\xampp\htdocs\SOEN341\src\pages\ResetPasswordPage\ResettingPassword.php | 57 | Avoid using static access to class '\SqlDb\Database' in method 'ChangingPassword'. |
| 72 | C:\xampp\htdocs\SOEN341\src\pages\ResetPasswordPage\ResettingPassword.php | 57 | Avoid unused local variables such as '\$wDbQuery'. |
| 73 | C:\xampp\htdocs\SOEN341\src\pages\SettingsPage\DeleteAccount.php | 13 | Avoid using static access to class '\SqlDb\Database' in method 'DeleteAccount'. |
| 74 | C:\xampp\htdocs\SOEN341\src\pages\SettingsPage\DeleteAccount.php | 13 | Avoid unused local variables such as '\$wDbQuery'. |
| 75 | C:\xampp\htdocs\SOEN341\src\pages\SettingsPage\Settings.php | 13 | Avoid using static access to class '\SqlDb\Database' in method 'ChangeToLight'. |
| 76 | C:\xampp\htdocs\SOEN341\src\pages\SettingsPage\Settings.php | 13 | Avoid unused local variables such as '\$wDbQuery'. |

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|----|-------------------------------------------------------------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 77 | C:\xampp\htdocs\SOEN341\src\pages\SettingsPage\Settings.php | 21 | Avoid using static access to class '\SqlDb\Database' in method 'ChangeToDark'. |
| 78 | C:\xampp\htdocs\SOEN341\src\pages\SettingsPage\Settings.php | 21 | Avoid unused local variables such as '\$wDbQuery'. |
| 79 | C:\xampp\htdocs\SOEN341\src\pages\SettingsPage\Settings.php | 28 | Avoid using static access to class '\SqlDb\Database' in method 'GetMode'. |
| 80 | C:\xampp\htdocs\SOEN341\src\pages\SettingsPage\Settings.php | 33 | The method GetMode uses an else expression. Else clauses are basically not necessary and you can simplify the code by not using them. |
| 81 | C:\xampp\htdocs\SOEN341\src\pages\SignUpPage\SignUp.php | 31 | Avoid using static access to class 'Website\functions\CheckFormat' in method 'SignUpUser'. |
| 82 | C:\xampp\htdocs\SOEN341\src\pages\SignUpPage\SignUp.php | 31 | Avoid using static access to class 'Website\functions\CheckFormat' in method 'SignUpUser'. |
| 83 | C:\xampp\htdocs\SOEN341\src\pages\SignUpPage\SignUp.php | 33 | The method SignUpUser uses an else expression. Else clauses are basically not necessary and you can simplify the code by not using them. |
| 84 | C:\xampp\htdocs\SOEN341\src\pages\SignUpPage\SignUp.php | 59 | Avoid using static access to class '\SqlDb\Database' in method 'NewUserToDb'. |
| 85 | C:\xampp\htdocs\SOEN341\src\pages\SignUpPage\SignUp.php | 63 | Avoid using static access to class '\SqlDb\Database' in method 'NewUserToDb'. |
| 86 | C:\xampp\htdocs\SOEN341\src\pages\SignUpPage\SignUp.php | 64 | Avoid using static access to class '\SqlDb\Database' in method 'NewUserToDb'. |

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|----|------------------------------------------------------------------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| 87 | C:\xampp\htdocs\SOEN341\src\pages\SignUpPage\SignUp.php | 71 | Avoid using static access to class '\SqlDb\Database' in method 'GetUsernameAvailability'. |
| 88 | C:\xampp\htdocs\SOEN341\src\pages\ViewPostPage\viewPostClass.php | 21 | The method FetchUser uses an else expression. Else clauses are basically not necessary and you can simplify the code by not using them. |
| 89 | C:\xampp\htdocs\SOEN341\src\pages\ViewPostPage\viewPostClass.php | 32 | The method FetchPid uses an else expression. Else clauses are basically not necessary and you can simplify the code by not using them. |
| 90 | C:\xampp\htdocs\SOEN341\src\tests\CommentToDbTest.php | 20 | Avoid using static access to class '\Website\Upload' in method 'testGenerateStringIsRandom'. |
| 91 | C:\xampp\htdocs\SOEN341\src\tests\SignUpTest.php | 19 | The class SignUpTest has 14 public methods. Consider refactoring SignUpTest to keep number of public methods under 10. |
| 92 | C:\xampp\htdocs\SOEN341\src\tests\SignUpTest.php | 28 | Avoid using static access to class '\Website\functions\CheckFormat' in method 'testCheckUsernameRequirementsValid'. |
| 93 | C:\xampp\htdocs\SOEN341\src\tests\SignUpTest.php | 36 | Avoid using static access to class '\Website\functions\CheckFormat' in method 'testCheckUsernameRequirementsInvalid'. |
| 94 | C:\xampp\htdocs\SOEN341\src\tests\SignUpTest.php | 44 | Avoid using static access to class '\Website\functions\CheckFormat' in method 'testCheckPasswordRequirementsValid'. |

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| 95 | C:\xampp\htdocs\SOEN341\src\tests\SignUpTest.php | 51 | Avoid using static access to class '\Website\functions\CheckFormat' in method 'testCheckPasswordRequirementsSpecialChar'. |
| 96 | C:\xampp\htdocs\SOEN341\src\tests\SignUpTest.php | 57 | Avoid using static access to class '\Website\functions\CheckFormat' in method 'testCheckPasswordRequirementsUpperCase'. |
| 97 | C:\xampp\htdocs\SOEN341\src\tests\SignUpTest.php | 63 | Avoid using static access to class '\Website\functions\CheckFormat' in method 'testCheckPasswordRequirementsLowerCase'. |
| 98 | C:\xampp\htdocs\SOEN341\src\tests\SignUpTest.php | 69 | Avoid using static access to class '\Website\functions\CheckFormat' in method 'testCheckPasswordRequirementsNumber'. |
| 99 | C:\xampp\htdocs\SOEN341\src\tests\SignUpTest.php | 75 | Avoid using static access to class '\Website\functions\CheckFormat' in method 'testCheckPasswordRequirementsLength'. |
| 100 | C:\xampp\htdocs\SOEN341\src\tests\SignUpTest.php | 116 | Avoid using static access to class '\Website\functions\UserEmail' in method 'testSignUpEmail'. |
| 101 | C:\xampp\htdocs\SOEN341\src\tests\UploadPostToDbTest.php | 20 | Avoid using static access to class '\Website\Upload' in method 'testGenerateStringIsRandom'. |
| 102 | C:\xampp\htdocs\SOEN341\src\tests\UploadPostToDbTest.php | 26 | Avoid using static access to class '\Website\Upload' in method 'testGenerateStringDefault'. |

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| 103 | C:\xampp\htdocs\SOEN341\src\tests\UploadPostToDbTest.php | 32 | Avoid using static access to class '\Website\Upload' in method 'testGenerateStringCustom'. |
| 104 | C:\xampp\htdocs\SOEN341\src\tests\UploadPostToDbTest.php | 37 | Avoid using static access to class '\Website\Upload' in method 'testCheckForHashtagsTrue'. |
| 105 | C:\xampp\htdocs\SOEN341\src\tests\UploadPostToDbTest.php | 42 | Avoid using static access to class '\Website\Upload' in method 'testCheckForHashtagsFalse'. |