Missing Code /Implementation

* Banking Interface- This will required creating and paying to maintain an account with an online payment services provider (PSP). This PSP is supposed to handle all the balance transactions between the users and the application, the provider will also transfer all the user’s deductions to the company/developers account as profit. Due to the amount of time/money and the current scope of this project this will not be incorporated as part of the current implementation. In a real world system this will have being one of the first thing to establish as part of the system banking platform requirements. As part of the market research we found there’s a lot of PSP available such as: Google wallet, Paypal, Amazon Payments, Dwolla, Authorize.Net, etc.



Figure - Payment Service Providers

* Google Play Store Publishing (Android Download/Install interface) – In order to get the application available to the public, we will need to establish a Google Play publisher account, set up a Google Wallet Merchant Account, and learn how to use the Google Play Developer Console to use the publishing tools. Registering an account with Google Play publisher account cost around $25 and the balance in our company is currently a few cents. The Google Wallet Merchants account will be the next logical step, because it will allow us to charge a minimum amount of money (around $1) to anyone that wishes to download the app for the Google Play store. Access to the Google Play Developer Console will be granted as part of the initial $25 registration fee, but it will take us time to learn how to upload the software and how the publishing tools functionality works. In a summary, given the current “group/company” balance and the time available for implementation, this part of the software release will not be implemented.



Figure -Google Play Logo

Code Metrics

* Software Design Metrics
  + Cyclomatic Complexity – This metric was computed counting the number of decisions statements in each one of the modules and adding one to the result. Base on the book sources research [McCabe], a good software design must have modules with a complexity lower than 10.

*Note: This Cyclomatic complexity is treating any requests of the modules to connect or disconnect from the database as a decision statement (adding +1 for every DB query).*

|  |  |  |  |
| --- | --- | --- | --- |
| *Module Name* | *Module Description* | *Cyclomatic Complexity* | *Is < 10 ?* |
| Redirect.php | Loads client/server session basic info | *7* | *PASS* |
| Config.php | Connect the client with the server | *3* | *PASS* |
| Adduser.php | Register users to the system | *6* | *PASS* |
| writeWorkout.php | Write workouts in the database | *In process* | *PASS* |
| TrainerData.php | Loads trainer info to the app | *5* | *PASS* |
| Activities.php | Load activity info to the app | *2* | *PASS* |
| workoutData.php | Loads workout data to the client app | *7* | *PASS* |
| Loglogin.php | Log user accessing the system. | *2* | *PASS* |

Table -Server Code Cyclomatic Complexity

* Development Process/Coding Metrics
  + Lines of Code (LOC) – Basic lines of codes without comments and non-black lines only.

|  |  |
| --- | --- |
| ***System Element*** | ***LOC*** |
| Server Code | 165 |
| Client Code | ? |
| Data Base | 85 |
| Total LOC |  |

Table - Lines of code (LOC)

* + Halstead complexity – For the Halstead metrics we apply the same unique operators (N1) logic to a client/server paradigm counting as a unique operator the databases queries and server session calls. Given that most available examples are in C/C++ and in modular programming scheme, our metric try to estimate the operator/operands metric taking in consideration the additional level of interaction between the server and the database.

|  |  |  |  |
| --- | --- | --- | --- |
| *Module Name* | *Operators*  *(N1)* | *Operands*  *(N2)* | *Estimate Length*  *N1 \* log2 N1 + N2 \* log2 N2* |
| Redirect.php | 17 | *32* | *229.48* |
| Config.php | 10 | *17* | *102.70* |
| Adduser.php | 16 | *22* | *162.10* |
| writeWorkout.php | 6 | *13* | *63.61* |
| TrainerData.php | 11 | *8* | *62* |
| Activities.php | 11 | *13* | *86.15* |
| workoutData.php | 10 | *12* | *76.23* |
| Loglogin.php | 14 | *13* | *101.40* |
| Total Length: |  |  | *883.67* |

Table --Halstead Complexity Estimated Lenght