# "Bonjour"
# **Defect Logs**

**Last Revised:** February 7, 2014

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# Overview

## Purpose

- This document is to record all the defects found during inspections.
- In the log, the "product" always refers to the Bonjour application.

# Design Inspection Defects

## Inspection d1

### Summary

- Product: Bonjour / Product Backlog
- Date: Feb 03, 2014
- Author: Bonjour Team
- Moderator: Yudong Yang
- Inspector: Xiangyu Bu, Yik Fei Wong, Rishabh Mittal
- Recorder: Yudong Yang

### Defects

| # | Severity | Description | Solution |
|---|----------|-------------|----------|
| 1 | 2 | "My Profile" should not display daily matches. The daily matches should be displayed in the homepage already. | Daily Matches have been removed and only required information will be shown. |
| 2 | 3 | The token to identify a user is not clear. The algorithm is not well defined. | Will address the issue in the server code inspection. |
| 3 | 2 | After some experiment, we found it is easier for PHP to process POST requests directly than to process JSON formatted data. | We changed the spec to: Client send POST data to server (the query is small amount of data), and server send JSON data to client (the response can be huge amount of data). |
| 4 | 1 | The matching algorithm is not clearly defined. | The matching should be based on user's interests. It will show the best 3 matches within a certain distance (i.e. 500m) to the users. |

### Notes

## Inspection d2

### Summary

- Product: Bonjour / UserIdentity Module
- Date: Feb 04, 2014
- Author: Bonjour Team
- Moderator: Yik Fei Wong
- Inspector: Xiangyu Bu, Yudong Yang, Rishabh Mittal
- Recorder: Yudong Yang

### Defects

| # | Severity | Description | Solution |
|---|----------|-------------|----------|
| 1 | 1 | The brute-force lock function was missing in the functional requirement. When the guest tried to log in with wrong password for five times, the account should be locked and the user be notified. | Added to functional requirement. |
| 2 | 1 | The server does not support sendmail (forbidden by policy). | Considered to buy a new server. |
| 3 | 1 | It is not explicitly forbidden that only guests (un-loggedin users) can register. | Only guests can log in or register. |

### Notes

## Inspection d3

### Summary

- Product: Bonjour / Testing Environment, others
- Date: Feb 06, 2014
- Author: Bonjour Team
- Moderator: Xiangyu Bu
- Inspector: Xiangyu Bu, Yudong Yang, Yik Fei Wong
- Recorder: Yudong Yang

### Defects

| # | Severity | Description | Solution |
|---|----------|-------------|----------|
| 1 | 1 | The local test environment is | Considered to buy a new server. |

| | | more advanced than the server available. This causes some incompatibility and overheads to change code to adapt to both. | |
|---|---|---|---|
| 2 | 1 | It seems not necessary to separate Login class and Register class. | Will try to combine them and see how things work. (Update: re-addressed in c2/#6) |

**Notes**

# Code Inspection Defects

## Inspection c1

### Summary

- Product: Bonjour / Server Side
- Date: Feb 06, 2014
- Author: Bonjour Team
- Moderator: Xiangyu Bu
- Inspector: Yudong Yang, Yik Fei Wong,
- Recorder: Xiangyu Bu

### Defects

| # | Severity | Description | Solution |
|---|---|---|---|
| 1 | 3 | Server cannot correctly parse the `POST` request sent by the Android client. | PHP does not, by default, parse `POST` strings when the doctype is `application/x-www-form-urlencoded`. Manually fixed. |
| 2 | 2 | The server side token generation algorithm is not designed yet. | We decided to use the built-in functions `password_hash` and `password_verify` to process token hashing. Implemented. |
| 3 | 3 | Error handling mechanism on server is not well defined. This will hurt testing in the future. | Added debug mode for the major classes implemented. Defined error code for client to parse server error code. Error code is used when debug mode is off. |
| 4 | 1 | There is no algorithm for handling user logout operation | Added. |

| | | | |
|---|---|---|---|
| | | yet. | |
| 5 | 1 | The server code was not well documented. | Added more comments in the code. |

**Notes**

# Inspection c2

## Summary

- Product: Bonjour / Server Side
- Date: Feb 07, 2014
- Author: Bonjour Team
- Moderator: Xiangyu Bu
- Inspector: Yudong Yang, Yik Fei Wong
- Recorder: Xiangyu Bu
- Note: Inspection c2 was in parallel with ut2.

## Defects

| # | Severity | Description | Solution |
|---|---|---|---|
| 1 | 3 | Server cannot correctly parse the `POST` request sent by the Android client. | PHP does not, by default, parse POST strings when the doctype is `application/x-www-form-urlencoded`. Fixed by adding a function `Core::getPOST`. |
| 2 | 2 | The server side token generation algorithm is still a stub yet. | We decided to use the built-in functions `password_hash` and `password_verify` to process token hashing. Implemented. |
| 3 | 3 | Error handling mechanism on server is not well defined. This will hurt testing in the future. | Added debug mode for the major classes implemented. Defined error code for client to parse server error code. Error code is used when debug mode is off. |
| 4 | 1 | There is no algorithm for handling user logout operation yet. | Added. |
| 5 | 2 | In `Login::verifyToken`, the member `$user_profile` was not updated correctly. | Fixed. |

| # | Severity | Description | Solution |
|---|---|---|---|
| 6 | 1 | The code was not well-organized to fit each functional group. The functions in Login and Register classes overlap. | Will reorganize the classes in the next few days. (Update: fixed.) |
| 7 | 1 | The verification patterns should be moved to Core class. | Will address in the next push. |
| 8 | 2 | The error handling, which reads variables from a class object to report the error message when the operation returns false, is not satisfactory. | Will implement with PHP's Exception mechanism in the next release. |

## Notes

# Inspection c3

## Summary

- Product: Bonjour / Client Side
- Date: Feb 07, 2014
- Author: Bonjour Team
- Moderator: Xiangyu Bu
- Inspector: Yudong Yang, Yik Fei Wong
- Recorder: Yik Fei Wong
- Note: Inspection c3 followed c2.

## Defects

| # | Severity | Description | Solution |
|---|---|---|---|
| 1 | 1 | The app client does not have a permission to connect to the network when the network is available on the phone | Add the uses-permissions of networking (INTERNET, ACCESS_NETWORK_STATE) into AndroidManifest.xml |
| 2 | 2 | The signup page does not have the code to handle the orientation of the phone correctly | Save the Signup Fragment variable and restore it when the orientation is changed |
| 3 | 2 | The app client does not have the code to check the network availability before connecting | Add the isNetworkAvaliable function to check the network before connecting to the server |

## Notes

# Unit Testing Defects

## Inspection ut1

## Summary

- Product: Bonjour / Server Side
- Date: Feb 05, 2014
- Author: Bonjour Team
- Moderator: Xiangyu Bu
- Inspector: Xiangyu Bu, Yudong Yang
- Recorder: Xiangyu Bu

## Defects

| # | Severity | Description | Solution |
|---|---|---|---|
| 1 | 3 | Password verification behaves differently on various servers. (The code does not work on remote server whose PHP is 5.3.) | The function used to verify passwords with the hash, `password_verify()`, is introduced in relatively new PHP 5.5. Included a compability library `srv/include/lib.password.php` to ensure compatibility. |
| 2 | 3 | Unit test the `Core::getAccessToken` function and it always returned a `null` value regardless of the user profile. | The predefined salt algorithm `Core::getSalt()` does not fit the requirement. Use PHP default generator instead. Fixed. |
| 3 | 2 | Unit test `Database::updateQuery()` and `Database::deleteQuery()`, both failed, regardless of the input. | The two tested functions are just wrappers of the buggy function `insertQuery()`. |
| 4 | 3 | Unit test `Database::insertQuery()` and it failed. | The object was freed prematurely. Fixed the bug and so fixed #2. |
| 5 | 1 | When unit testing the Database controller class, no queries show error even when there was supposed to be errors. | The server hides all errors for security reason. Enabled error reporting to fix this. |
| 6 | 3 | Unit test the user registration | There was a typo in the SQL |

| | | function `Register::registerNewUser()`, the tester gets successful return but the data was not stored to database. | string. Fixed. |

## Notes

- Don't forget to disable all error reporting mechanisms.
- (Feb 07, 2014) The Register class and Login classes have been combined.

# Inspection ut2

## Summary

- Product: Bonjour / Server Side
- Date: Feb 07, 2014
- Author: Bonjour Team
- Moderator: Xiangyu Bu
- Inspector: Yudong Yang
- Recorder: Yik Fei Wong

## Defects

| # | Severity | Description | Solution |
|---|----------|-------------|----------|
| 1 | 2 | When unit testing the `Core` class, the getAccessToken function failed when `username` is an empty string. | Added extra salt so the username to hash will never be empty inside the function. Fixed. |
| 2 | 3 | Unit test the function `Core::getPOST($str)`, and found that it returns error when $str is not set in $_POST. | Added a checking condition. If $str is not an element in $_POST, return null. |
| 3 | 3 | Unit test the function `Login::logOut()` and found that the database was not correctly updated when the request was valid. | Fixed the SQL query. |
| 4 | 1 | Unit test the function `Login::logOut()` using faker and the function returned nothing for a guest. | Added a json response regardless of the user state. However, only when the user is logged in he / she can really perform logout operation. |
| 5 | 1 | Unit test the function | PHP session expired. |

| | | | |
|---|---|---|---|
| | | `Login::logOut()` using faker and found that after long time inactivity triggering this function will cause database query error. | Changed the mechanism to run-time checking and performing. |

## Notes

- Don't forget to disable all error reporting mechanisms.

# Inspection ut3

## Summary

- Product: Bonjour / Client Side
- Date: Feb 07, 2014
- Author: Bonjour Team
- Moderator: Yik Fei Wong
- Inspector: Yudong Yang
- Recorder: Yudong Yang

## Defects

| # | Severity | Description | Solution |
|---|---|---|---|
| 1 | 1 | Unit Test the Function: `APIHandler.login()` function encodes whole post request string, but it only needs to encode parameters | Change the function to only encode parameters of login and add them to the request String |
| 2 | 2 | Unit Test Sign Up Detail Fragment, invalid email address like "_@." cannot be detected | Add an additional function to check the format of email addresses rather than just check the At sign |
| 3 | 2 | Unit Test Sign Up Upload Fragment, when no image on the phone, the app does not have error message shows up | Add a checking function to show up error message when no image on the phone |

## Notes