Design Defect Log

Product: Chat Resource / Database Manager
Date: 9/22/2016
Author: Noah, Garrett
Moderator: Garrett
Inspectors: Nate, Riley
Recorder: Nate, Riley

Defect #	Description	Severity	How Corrected
1	For storing messages, the size of database entry may not be big enough to handle the messages number of chars.	2	Make sure we have the database entry be able to handle more than 500 chars.
2	For sending messages neither the chat resource nor the database manager authorized the tokens passed.	1	Authorize each message request within the chat resource before sending it off to the database manager.
3	Storing pictures or audio directly within the database, causing speed drawbacks.	2	Storing the pictures or audio in a separate directory and putting the path within the database.

Product: User Resource / Database Manager
Date: 9/22/2016
Author: Riley, Nate
Moderator: Garrett
Inspectors: Noah, Garrett
Recorder: Noah, Garrett

Defect #	Description	Severity	How Corrected
1	When creating or updating a user, neither the user resource nor the database manager checks whether or not a requested username already exists.	1	The database checks when adding or updating a user whether or not the username already exists within the database.

Product: Auth Resource / Database Manager
Date: 9/22/2016
Author: Riley, Nate
Moderator: Garrett
Inspectors: Noah, Garrett
Recorder: Noah, Garrett

Defect #	Description	Severity	How Corrected
1	When given an auth token from Facebook or Google, it is not saved, and thus is requested every time there is another action.	2	Have the database save the auth token given by Facebook or Google until the user logs out.

Inspection Defect Log

Product: Authorization
Date: 9/22/2016
Author: Riley, Nate
Moderator: Garrett
Inspectors: Noah, Garrett
Recorder: Noah, Garrett

Defect #	Description	Severity	How Corrected
1	We should check if the body of the post request is empty before dereferencing it.	2	Check for empty body.
2	When removing the “/” prefix from a URL path, we should check to make sure that the string actually begins with “/”.	3	Check for “/” prefix before removing.
3	There are certain code paths where we can call the response’s completion handler more than once.	3	Remove the extra completion handler calls for these paths.
4	There is no check for whether the recipient user exists when sending a message.	2	Add a check to make sure the user exists.

Product: User
Date: 9/22/2016
Author: Riley, Nate
Moderator: Garrett
Inspectors: Noah, Garrett
Recorder: Noah, Garrett

Defect #	Description	Severity	How Corrected
1	There are certain code paths where we can call the response's completion handler more than once.	3	Remove the extra completion handler calls for these paths.
2	We should check if the body of the post request is empty before dereferencing it.	2	Check for empty body.
3	When removing the "/" prefix from a URL path, we should check to make sure that the string actually begins with "/".	3	Check for "/" prefix before removing.
4	Setting a new user id fails silently if the user id was already set.	2	Display an error when setting the user id if the user id was already set.

Product: Database
Date: 9/22/2016
Author: Riley, Nate, Noah
Moderator: Garrett
Inspectors: Garrett
Recorder: Garrett

Defect #	Description	Severity	How Corrected
1	The connection to the MySql database is not being closed when the server exits.	2	Trap the interrupt signal and close the database connection before exiting.
2	Messages are not sanitized before being inserted into the database. This leaves the server vulnerable to SQL injections.	1	Base64 encode messages before inserting them into the database.

3	Users’ names, display names, and bios are not sanitized.	1	Base64 encode these fields before inserting them into the database.

Product: Chat
Date: 9/22/2016
Author: Noah
Moderator: Garrett
Inspectors: Garrett
Recorder: Garrett

Defect #	Description	Severity	How Corrected
1	If the server was unable to save the an uploaded image for some reason, it is not notifying the user.	3	Notify the user if the image saving fails.
2	If the server was unable to save the an uploaded audio message, it is not notifying the user.	3	Notify the user if the audio saving fails.

Testing Defect Log

Product: Chat
Date: 9/23/2016
Author: Noah
Moderator: Garrett
Inspectors: Garrett, Noah
Recorder: Garrett, Noah

Defect #	Description	Severity	How Corrected
1	Server allows sending empty messages.	3	Check that the length of a message is greater than 0 before sending.
2	When saving images on the server that have name collisions, the saving is failing.	2	Rename images with naming collisions.

Product: Authorization
Date: 9/23/2016
Author: Riley
Moderator: Nate
Inspectors: Nate
Recorder: Nate

1	Empty requests to the auth endpoint responded with a status code of 200 (ok). It should have responded with 400 (bad request).	1	Fixed the special case detection for when url doesn't exist in the request.
2	When there is no auth authority in the request hitting the auth endpoint the server was responding with an error code of 401 (unauthorized) when it should have been responding 400 (bad request).	2	Changed the error response code for when the server detects null values in auth authority check.
3	Authorization endpoint was looking in the header for parameters in the initial auth endpoint rather than within the logout endpoint where the header information is needed.	2	Moved the header parameter check to occur in the logout function rather than in the initial auth function.

4	Server was responding with bad request when it should have been responding with unauthorized.	1	We augmented the verify token function to discern between bad requests and unauthorized requests.
5	When a user sends in a request with no authority account id the server responds with unauthorized when it should have been responding with bad request.	2	We check at the beginning of the login function for missing parameters. If some are missing respond with the bad request.
6	When a user send a request with a non-alphanumeric string there was no check to see if it was valid.	1	We added a check at the beginning of the authorize function to see if all parameters are alphanumeric strings