

Defect Log

Product: SpotiBot

Inspectors: Jimmy Carlson, Janka Gal, Puja Mittal, Jason Shipp, David Worley

Design Inspection

- Issue 1:
 - Token Auth is not persisted to users in a deterministic way, and has no means for being tied back into the user permanently.
 - Severity: 1
 - Solution: Use sockets with jwt-token authentication in order to perform the O-Auth handshake in one function instead of relying on post backs.
 - Author: Jason Shipp
 - Recorder: David Worley
- Issue 2:
 - Finding a user's top Genre is more difficult than anticipated, because single songs don't have a Genre attribute associated with their Song Object. Only Full Album Objects and Artist Objects have Genre attributes.
 - Severity: 2
 - Solution: Pull all top songs that a user listens to and use the Artists object associated with each song to get a histogram of genres, since each Artist Object has a list of genres associated with them.
 - Author: David Worley
 - Recorder: James Carlson
- Issue 3:
 - There is difficulty locating the bot in the facebook bot "marketplace" to start the first message
 - Severity: 3

- The bot is associated to its own facebook page so the user can find it as a user to message as you would for any other facebook message.
- Author: Jason Shipp

Code Inspection

- Issue 1
 - When creating any document for the database, there is no check to see if the input data is valid.
 - Severity: 1
 - Author: James Carlson
 - Recorder: David Worley
 - Solution: Verify that input data is valid before insertion into the database.
- Issue 2
 - When generating a playlist with SpotiBot in Messenger, when the user is prompted with “Do you want to include any of your own playlists?”, the format that SpotiBot expects the user’s input to be is not the same format that our documentation and SpotiBot error commands specify.
 - Severity: 1
 - Author: David Worley
 - Recorder: James Carlson
 - Solution: Reprogram the error message that SpotiBot gives when the user’s format is incorrect so the user knows how to give the arguments, and update our documentation tutorial.
- Issue 3
 - When a user enters the number of months for the top playlist, we specified the range to be 1 to 6 months but this causes the bot to return an empty playlist.
 - Severity: 2
 - Author: David Worley

- Recorder: James Carlson
- Solution: Spotify's API only supports 3 inputs for getting user top songs: several years, approximately 6 months, and approximately 4 weeks. Update the bot's formatting instructions and project documentation to correctly prompt the user for one of these 3 time ranges instead of specifying a number of months.
- Issue 4
 - When a user is updated in the database, a duplicate is always created causing issues with fetching user stats.
 - Severity: 1
 - Author: James Carlson
 - Recorder: Puja Mittal
 - Solution: Change the logic to prevent creating a new document in the database when a user already exists.
- Issue 5
 - When stepping through the list of a user's top songs and sorting them into a histogram to determine that user's top "moods," the end result was incorrect and did not properly count the amount of different moods.
 - Severity: 2
 - Author: David Worley
 - Recorder: Janka Gal
 - Solution: Completely redesign the sorting algorithm and ensure that the proper attribute (Mood) is pulled from each song attribute and used for the histogram.
- Issue 6
 - When giving SpotiBot commands in Messenger to generate a playlist based on specified artists, when the SpotiBot asks "Please provide artist(s) you would like to have it based upon," the information is not parsed correctly, and it only includes the first and last inputs.

- Severity: 2
- Solution: Re-evaluate the format of the JSON object returned by Spotify API request and fix the code that splits these arguments into a list to pull from.
- Author: David Worley
- Recorder: James Carlson
- Issue 7
 - When the user inputs the number of songs they want in the range 1-50 and the number is not in that range, the code does not prompt the user for a new valid input like it should but goes on to the next question.
 - Severity: 2
 - Solution: Fix the logic error and rewrite the code to display the error message and take in new input until the user enters valid input.
 - Author: Janka Gal
 - Recorder: David Worley

Unit Testing

- **Getting Statistics (1)**
 - Input: User wants to see their listening statistics and types “stats”
 - Expected Output: SpotiBot replies with “Here are your listening stats!” along with another message that contains the actual statistics based on their listening history.
 - Test Output: The initial message “Here are your statistics!” correctly appears, but the bot does not send the second message containing the actual statistical data for the user.
 - Severity: 1
 - Correction: Rewrite the code to prevent the connection from being closed after the first response so the second response does not fail.

- **Creating Playlist**

- Input: User types “playlist”, and follows the steps to create any playlist.
- Expected Output: The bot responds with a link to the successfully created playlist.
- Test Output: The bot responds with a garbage link, yet successfully creates the playlist.
- Severity: 2
- Correction: Rewrite the code for generating a link to the successfully created playlist.

- **All Input**

- Input: User types “playlist,” “top,” or “stats” and successfully provides all arguments to generate a playlist link or a statistics message, and types “yes” after SpotiBot prompts the user “Would you like SpotiBot to make something else for you?”
- Expected Output: After successful completion of any task, SpotiBot follows up all final prompts with “Would you like SpotiBot to make something else for you?” and allows the user to continue making new requests by re-prompting the user with the initial starting message when the user types “yes.”
- Test Output: SpotiBot does not wait for a user to input “yes” or “no” and immediately proceeds to expecting inputs “playlist,” “top,” or “stats.” This returns an error when the user types “yes,” because SpotiBot thinks the user is giving input for the next prompt “Type “playlist” to create a new playlist, “top” to get your top songs, or “stats” to get your listening history statistics.”
- Solution: Add a missing conditional statement in the code that waits for the user to input “yes” or “no” before proceeding with either restarting the process or ending the conversation.