Code Inspection - Background.js

Product	Remove unnecessary code
Date	9/20/18
Author	Ramsey Ali

#	Description	Severity	How Corrected
1	Unnecessary conditionals that provide no functional purpose. (General)	3	Remove any checks that contain no code upon entering the conditional block.
2	Site-specific tracking such as Netflix, Reddit, and Youtube, all rely on the URL containing a '.com' in the URL	2	Remove the need for domain check when checking a URL if it's related to Reddit, Netflix, or Youtube.
3	There are unused global variables. (General)	3	Verify the use of each global variable and remove any that are unused.
4	No checks on SessionsArray to check if empty(Background.js)	2	Add checks to gracefully handle possible error

Product	Options
Date	9/20/18
Author	Killian Le Clainche

#	Description	Severity	How Corrected
1	When scrolling, navbar overlays contents of displayed page (All Panels)	2	Change z-index for navbar to be above any content inside the panel
2	When scrolling, you cannot click on the navbar (All Panels)	2	Change z-index for navbar to be above any content inside the panel

#	Description	Severity	How Corrected
3	Website creates too many sockets when someone repeatedly logs on/off	2	Fix websocket management by killing user sessions actively
4	Data panels would show incorrect templated data before firebase successfully loaded	3	Emptied the state values and set up some default looks to look decent while in loading.
5	Retrieving websites (retrieveFirebaseWebsitesData) data would error out as dataTypes[type] was an incorrect form for accessing the json data inside	2	Swap dataTypes[type] to type[0] and type[1]
6	All data panels fail on mounting from lack of user (componentWillMount)	1	Surround user code with auth.onAuthStateChange so that user can change after it's properly loaded

Product	YouTube and Filtering
Date	9/20/18
Author	Jordan Buckmaster

#	Description	Severity	How Corrected
1	YouTube video monitoring not working on homepages with auto play	3	Changed logic to detect url for channel homepage
2	YouTube videos do not hold sessions	3	Change logic to recognize when the same tab is being accessed
3	When updating filter, user input is not saved (FilterPanel)	3	Fixed incorrect sending of data to Firebase backend
4	Filter settings for websites can't be edited because data object in database does not exist	1	Initialize data with empty object
5	JSX code repeated many times unnecessarily	2	Broke it away into a reusable DataNav component

Product	Firebase
Date	9/20/18
Author	Shawn Montgomery

#	Description	Severity	How Corrected
1	When signing in through popup, user isn't created	1	Sent user ID to back end correctly
2	Firebase throws error when database key has special characters	1	Use regex to filter characters
3	Time watched can overflow because firebase stores ints of milliseconds	2	Change firebase to store longs
4	Data is inserted into database under user "undefined" when no user is signed	2	Check authentication state before logging data

Design Inspection - Plugin UI

Product	Firebase syncing among popup, options, and background
Date	9/20/18
Author	Killian Le Clainche

Defect #	Description	Severity	How Corrected
1	When installing extension, receives error that firebase is not production code	3	Make firebase use the production release code rather than development
2	When signing in via popup, authentication is not given to some components	1	Share same firebase javascript file across multiple instances
3	Netflix/Youtube pages should update live but do not	3	Interval update to firebase while having tab active

Product	Firebase with options
Date	9/20/18
Author	Shawn Montgomery

Defect #	Description	Severity	How Corrected
1	When "blacklisting" website on FilterPanel, if URL contains special characters Logger crashes	1	Implement regex to filter allowed characters and check page is not special such as "localhost" or "about"
2	User can navigate to data pages without being signed in	1	Redirect to login if the user is not authenticated and an attempt is made to navigate
3	Editing website category does not update Firebase	2	Use streamlined Firebase object instead of newly initialized one
4	If no data is available for a category (eg. Netflix) Logger crashes	1	Check if no data exists first and if so creates blank struct
5	Opening Netflix does not update database	2	Utilize Chrome's tab event functions to streamline this operation
6	When alternating between tabs while at least one is displaying a video, counter is incorrectly incremented	2	Check to make sure tab has been already been visited before without closing

Product	Options page
Date	9/20/18
Author	Jordan Buckmaster

#	Description	Severity	How Corrected

1	Tables are showing on Reddit, Youtube, Netflix tabs when there is no data yet logged for these sites.	3	Hide tables when no data is found.
2	The font is mismatched throughout the UI.	3	Standardize font and font size throughout the plugin's UI.
3	The side menu within the plugin's UI is unaligned.	3	Align the side menu within the plugin's UI to the left edge of chrome.
4	When logging in to Logger, data usage graph disappears (DataPanel)	2	Add check to account for when no data exists
5	Title did not exist on graphs	2	Add separate element above graphs with the title
6	User can write anything into filter to filter by keyword	2	Limit filter input to just url formats

Unit Testing

Product	Options React Module Unit Test
Date	9/20/18
Author	Killian Le Clainche

Defect #	Description	Severity	How Corrected
1	Youtube table total time watched does not return a string but a number of milliseconds (retrieveFirebaseYoutubeVideoData)	3	Add msToString function call to the youtube time so that it parses correctly
2	Retrieve website data function calls did not access firebase on the proper location (retrieveFirebaseWebsites)	1	Change website to websites for url
3	When graphs required more colors than the array had, would crash (retrieveFirebaseWebsitesData)	1	Add sufficient color array that is dynamic

4	When time is retrieved in and is less than 1000, empty string is returned after parsing (msToString)	3	Fixed parsing function that could not handle times less than a second (1000 milliseconds)
5	msToString would display double versions of seconds, minutes, and hours when it was expected to have hard integer math	3	Math.floor around any multiplication and division resolved the expected output

Product	Background Script Unit Test
Date	9/20/18
Author	Shawn Montgomery

#	Description	Severity	How Corrected
1	Background.js does not create a empty data object with websites	1	Intertwine background.js with popup.js and rebase.js to share information and functions by exporting and importing
2	Firebase ignores all values in updates array if any value is null	1	Check if data.type is null and continue if true instead of pushing to updates array
3	Firebase ignores values in updates array if timerinterval() is called again before finishing	1	Increase interval
4	Firebase website visit counter never increments	1	Ensure new value of visit counter is inserted before continuing as Firebase would read it as 0 before the write was performed
5	Chrome onTabUpdate sessions would update too quickly before Firebase could insert values	1	Create sessions array to queue data needed to be written

6	Script skipped updates if any Firebase update failed	1	Created catch function for Firebase update call

Product	Options
Date	9/20/18
Author	Jordan Buckmaster

#	Description	Severity	How Corrected
1	Website list does not load (WebsitePanel) when it should have	1	Initialize filter data to an empty object in Firebase so it does not always return null