



Jalen Smith, Aaron Chang, Clayton Lewis, Justin Blessing, Pretoria Chang

Problem Statement

Too often, people find their browsing sessions cluttered and unorganized. Students in particular will have many tabs open while doing work for a class, keep them open to come back to later, and then continue to open more tabs while working for a different subject. Our Chrome extension will simplify the browsing experience by allowing the user options to organize their tabs, give warnings if tabs have been unused for a long time, information such as chrome CPU usage if desired, and the option to save 'preset' groups of tabs to open several at a time when working for a specific subject.

Background Information

Problem, Domain, and Targeted Users

As students ourselves, we often experience difficulties with organizing our browsing experiences. Thus, the targeted users will be the group of casual internet users who often open multiple tabs at once. Using our solution will allow for the organization so lacking in the modern mundane routine.

Other Existing Solutions & Limitations

Currently, other Chrome extensions exist with similar functionality, such as organizing tabs or creating preset groups of tabs. However, there are none that include all the functionality we have described, and especially none that have a mascot like Crappy Clippy. As such, we believe our solution to be superior to the existing products, as it will be the superset of functionalities and is customized to our liking.

Environment

We will be using HTML, CSS and JavaScript for our Chrome extension. We will also be using some of the Chrome libraries for extensions. We will be storing all of our user's information locally so there will be no need for a database.

Functional Requirements

Backlog ID	Functional Requirements	Hours	Status	Person
1	As a user, I would like to save all currently open tabs in a set	6	Completed in Sprint 1	Jalen
2	As a user, I would like to select some of the currently open tabs to save in a set	3	Completed in Sprint 1	Jalen
3	As a user, I would like to open a saved set of tabs in the current window	4	Completed in Sprint 1	Justin
4	As a user, I would like to open a saved set of tabs in a new window	4	Completed in Sprint 1	Justin
5	As a user, I would like to edit the name of a set of tabs	2	Completed in Sprint 1	Aaron
6	As a user, I would like to edit the websites that are included in a set of tabs	4	Completed in Sprint 1	Aaron
7	As a user, I would like to remove a set of tabs I no longer need	3	Completed in Sprint 1	Aaron
8	As a user, I would like to be alerted if a tab has been open for too long	4	Planned for Sprint 2	Jalen
9	As a user, I would like to view how my browsing impacts CPU performance (Need to be on Chrome development channel/Chromium/Chromebook)	4	Planned for Sprint 2	Ria

10	As a user, I would like to schedule a set of tabs to open at a given time	4	Planned for Sprint 2	Justin
11	As a user, I would like to sort currently open tabs by domain	3	Planned for Sprint 2	Aaron
12	As a user, I would like to sort currently open tabs by name	3	Planned for Sprint 2	Aaron
13	As a user, I would like to sort currently open tabs by date and time opened	2	Planned for Sprint 2	Clayton
14	As a user, I would like to separate my currently open tabs into windows organized by domain	4	Planned for Sprint 2	Justin
15	As a user, I would like to order my sets of tabs by importance	3	Planned for Sprint 2	Clayton
16	As a user, I would like to customize my buddy mascot guy	3	Planned for Sprint 2	Ria
17	As a user, I would like to have an icon in the toolbar to access presets	2	Completed in Sprint 1	Ria
18	As a user, I would like to have an icon in the toolbar to create presets	2	Completed in Sprint 1	Ria
19	As a user, I would like to have an icon in the toolbar to modify presets	2	Completed in Sprint 1	Ria
20	As a user, I would like to an aesthetically pleasing schema for the extension	4	In-Progress: Moved to Sprint 2	Ria
21	As a user, I would like to install the extension in Chrome	4	Completed in Sprint 1	Clayton
22	As a user, I would like to drag and drop to reorder sets or tabs within a set	4	Planned for Sprint 2	Clayton

23	As a user, I would like to be able to quickly access some of my sets on the new tab page	3	Planned for Sprint 2	Ria
24	As a user, I would like to be able interact with the mascot by clicking on it on the main page, for the purpose of adding character (flavor text)	2	Planned for Sprint 2	Ria
25	As a user, I would like to access my tab sets from Chrome on any computer (Need to publish to web store in order to sync data between browsers)	2	Planned for Sprint 2	Aaron
26	As a developer, I would like to inspect my code, unit inspect my code, and inspect the design of my code	100	Planned for Sprint 1 & 2	All, 6ever

Non-Functional Requirements

Backlog ID	Non-Functional Requirements	Hours	Status
26	As a developer, I would like to learn how to develop a Chrome extension and work with the Chrome API.	5	Completed in Sprint 1
27	As a user, I would like personal information to remain secure and private.	2	Completed in Sprint 1
28	As a developer, I would like to have clear documentation of work done throughout the project.	10	In progress: Moved to Sprint 2
29	As a developer, I would like this project to be easy to test.	20	In progress: Moved to Sprint 2
30	As a developer, I would like to minimize crashes caused by the extension	10	In progress: Moved to Sprint 2

31	As a user, I would like to understand how to use the extension within a few minutes	3	Completed in Sprint 1
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Use Cases

Case: Save all currently open tabs to a group

Action	System Response
1. Click toolbar icon or mascot in new tab	2. Dropdown menu appears
3. Select 'save all open tabs'	4. Dialog box appears to allow user to name group
5. Enter name click save	6. Name and group shows automatically

Case: Save a selection of currently open tabs to a group

Action	System Response
1. Click toolbar icon or mascot in new tab	2. Dropdown menu appears
3. Select 'Select tabs to Save'	4. Dropdown menu appears with currently open tabs
5. Select the tabs to save	6. Dialogue box appears to allow user to name group
7. Enter name click save	8. Name and group shows automatically

Case: Open saved set of tabs in current window

Action	System Response
1. Click toolbar icon or mascot in new tab	2. Dropdown menu appears
3. Select 'open tab set'	4. Dropdown menu appears with list of tab sets
5. Select tab set to open	6. Set of tabs open in current window

Case: Open saved set of tabs in new window

Action	System Response
1. Click toolbar icon or mascot in new tab	2. Dropdown menu appears
3. Select 'open tab set in new window'	4. Dropdown menu appears with list of tab sets
5. Select tab set to open	6. Set of tabs open in new window

Case: Edit sites included in set of tabs

Action	System Response
1. Click toolbar icon or mascot in new tab	2. Dropdown menu appears
3. Select 'Edit tab set'	4. Dropdown menu appears with list of tab sets
5. Select tab set to edit	6. Popup window appears to allow for edits

Case: Remove a set of tabs

Action	System Response
1. Click toolbar icon or mascot in new tab	2. Dropdown menu appears
3. Select 'Remove tab set'	4. Dropdown menu appears with list of tab sets
5. Select tab set to remove	6. Tab set is removed from storage.

Case: Receive alert if tabs have been open for too long

Action	System Response
1. User keeps tabs open for a long time	2. Alert user, saying which tab has been open and how long it has been open. Give user option to close tab or ignore
3. User chooses "close tab" or "ignore"	4. If user chose "close tab", close the tab. Alert goes away.

Case: View how browsing impacts CPU performance

Action	System Response
1. Click toolbar icon or mascot in new tab	2. Provide drop down menu of options

3. Select 'view current CPU usage'	4. Provide dialogue of breakdown of approximate CPU usage
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Case: Schedule set of tabs to open at a given time

Action	System Response
1. Click toolbar icon or mascot in new tab	2. Provide drop down menu of options
3. Select 'schedule preset'	4. Box appears to input time to open a set group of tabs

Case: Sort currently open tabs by domain

Action	System Response
1. Click toolbar icon or mascot in new tab	2. Provide drop down menu of option
3. Select 'sort tabs'	4. Show options to sort by
5. Select 'sort by domain'	6. Sorts tabs by domain

Case: Sort currently open tabs by name

Action	System Response
1. Click toolbar icon or mascot in new tab	2. Provide drop down menu of option
3. Select 'sort tabs'	4. Show options to sort by
5. Select 'sort by name'	6. Sorts tabs by name

Case: Sort currently open tabs by date/time opened

Action	System Response
1. Click toolbar icon or mascot in new tab	2. Provide drop down menu of option
3. Select 'sort tabs'	4. Show options to sort by
5. Select 'sort by date/time opened'	6. Sorts tabs by date/time opened

Case: Separate currently open tabs into windows organized by domain

Action	System Response
1. Click toolbar icon or mascot in new tab	2. Provide drop down menu of option
3. Select 'separate tabs'	4. Show options to sort by
5. Select 'sort by domain'	6. Show options to separate by
7. Select 'sort into new windows'	8. Separate tabs into new windows by domain

Case: Separate currently open tabs into windows organized by date/time opened

Action	System Response
1. Click toolbar icon or mascot in new tab	2. Provide drop down menu of option
3. Select 'separate tabs'	4. Show options to sort by
5. Select 'sort by date/time opened'	6. Show options to separate by
7. Select 'sort into new windows'	8. Separate tabs into new windows by date/time opened

Case: Order sets of tabs by importance

Action	System Response
1. Click toolbar icon or mascot in new tab	2. Provide drop down menu of option
3. Select 'order sets'	4. Show list of current presets
5. Enter in order of importance	6. Save order of importance

Case: Customize buddy mascot guy

Action	System Response
1. Click toolbar icon or mascot in new tab	2. Provide drop down menu of option
3. Select 'customize me!'	4. Show mascot options
5. Select mascot of choice	6. Save mascot of choice

Case: Use toolbar icon to access presets

Action	System Response
1. Click toolbar icon	2. Provide drop down menu of option
3. Select 'open set'	4. Show list of current presets
5. Select preset	6. Open group of tabs

Case: Use toolbar icon to create presets

Action	System Response
1. Click toolbar icon	2. Provide drop down menu of option
3. Select 'create preset'	4. Save currently open tabs to preset
5. Enter in name of preset	6. Save preset group

Case: Use toolbar icon to modify presets

Action	System Response
1. Click toolbar icon	2. Provide drop down menu of option
3. Select 'modify presets'	4. Show editable list of urls in a preset
5. Edit group, click save	6. Save preset group

Case: View extension as aesthetically pleasing

Action	System Response
1. Utilize extension	2. Is pretty

Case: Install extension in Chrome

Action	System Response
1. User downloads extension from Chrome extension store, git repository, etc	2. Allows for seamless installation after proper permissions

Case: Test easily

Action	System Response
1. Developer attempts to test the extension	2. Code is properly commented and documented

Case: Minimizing crashes (example)

Action	System Response
1. User attempts to save empty session	2. System returns error and does not crash