Unzip the HW4.zip, enter chrome://extensions/ to load unpacked folder hw4

A black background with white text

Description automatically generated

When we load a new tab, it will take a screenshot and compare with the one in storage with same tabId, If there is an exist one, it will start comparing with resemble, otherwise, it add into the storage. When clicking the icon, it will display the screenshot of current tab and all the tab in storage with its tabId.

10 second after🡪

A screenshot of a computer

Description automatically generatedA screenshot of a computer

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If the user stay at the same tab without switching to another, ,it will take screenshot every 10 seconds and update the newest to the local storage then display it when clicking the icon. (Only store the newest screenshot to this tab)

For comparing the screenshot, I use resemble.js. When switching to a new tab, if there is screenshot with same tabId in storage, the comparing function will execute. If the difference is not 0 which means there have change between old and new screenshot, the alert will raised.

There will have a badge text when tabnapping is detected, which means the screenshot of current tab is different with the one in local storage.

 This is the normal icon when no tapnapping detected.

 This is the icon when tapnapping detected.

The badge will disappear next time when clicking the icon.

There will also have the percentage of difference if tabnapping is detected when clicking the icon. Therefore, there will have percentage difference, current tab and all tabs screenshot for popup.html, the user can check the tabId and compare to see how different is the current one with the storage screenshot. Below is the full popup.html when clicking icon.

A screenshot of a phone

Description automatically generated