

## SecondGlance use cases

### Filter Web Page

Use case name	Filter Web Page
Related Requirements	[0] Artificial text detection, [1] Advertisement detection, [2] AI feature detection, [3] Text highlighting, [4] Advertisement removal, [5] AI feature removal, [7] Speed, [10] AI feature toggling, [11] Privacy
Goal in Context	To remove or highlight content the user has deemed unwanted.
Preconditions	Settings file exists. Browser extension has necessary permissions
Successful End Condition	All/most unwanted content filtered/highlighted; Browser performance not impeded.
Failed End Condition	Large number of unwanted elements present in displayed web page; Web page took too long to load.
Primary Actors	Browser extension user
Secondary Actors	Settings object; Browser; Web Page.
Trigger	Web page loading
Main Flow	1: Browser attempts to load web page. 2: Instantiate module objects using settings objects (see class diagram) 3: Delete any collected browsing or user data 4: Load modified page.
Extensions	1.1: Read Settings 2.1: Remove Advertisements 2.2: Remove AI Features 2.3: Highlight AI Text

### Highlight AI Text

Use case name	Highlight AI Text
Related Requirements	[0] Artificial text detection, <ul style="list-style-type: none"> <li>· Detection must happen for highlighting to occur</li> </ul> [6] Settings Menu. <ul style="list-style-type: none"> <li>· User may configure whether highlighting is on or off</li> </ul> [7] Speed, <ul style="list-style-type: none"> <li>· Highlighting process must be fast enough to not slow down page</li> </ul> [9] Usability, <ul style="list-style-type: none"> <li>· Highlighting must be simple to use and understand</li> </ul> [11] Privacy <ul style="list-style-type: none"> <li>· Highlighting must not collect or share user data without consent</li> </ul>
Goal in Context	To help users identify and understand which sections of a webpage are likely to be AI generated, increasing transparency and trust in online content.
Preconditions	<ul style="list-style-type: none"> <li>• The browser extension is installed and active</li> <li>• The user has loaded a webpage containing visible textual content</li> </ul>
Successful End Condition	The web page displays with any text within it flagged as AI generated highlighted.
Failed End Condition	No text is analyzed.
Primary Actors	Web user
Secondary Actors	Web Browser; Web page; Text detection model;
Trigger	Extension of “Filter Web Page” use case.

Main Flow	<ol style="list-style-type: none"> <li>1. The user navigates to a web page</li> <li>2. The system searches through web page elements for scannable text</li> <li>3. Text is fed through the detection model to determine if it is generated (phrase by phrase, using a specified delimiter)</li> <li>4. If any text is determined to be AI generated with a certain threshold of certainty, it is enclosed in a highlighting element.</li> </ol>
Extensions	None

## Remove Advertisements

Use Case Name	Remove Advertisements
Related Requirements	[1] Advertisement Detection, [4] Advertisement Removal, [6] Settings Menu, [7] Speed
Goal in Context	To remove the display of advertisements upon opening a web page
Preconditions	<ul style="list-style-type: none"> <li>• Settings object exists</li> <li>• Browser extension has necessary permissions.</li> </ul>
Successful End Condition	All advertisements are removed in accordance with the current settings configuration.
Failed End Condition	Unwanted Advertisements persist through the removal process.
Primary Actors	Browser User
Secondary Actors	Settings File, Browser, and Web page
Trigger	Extension of “Filter Web Page” use case.
Main Flow	<ol style="list-style-type: none"> <li>1: Select an HTML element with an href defined.</li> <li>2: Check the href URL against a database of URLs known to serve advertisements (If it’s not in the database, skip to step 5).</li> <li>3: Check the settings file for module configuration.</li> <li>4: Remove the element.</li> <li>5: Repeat steps 1-5 for each element in the page.</li> </ol>
<b>Extensions</b>	None

## Remove AI Features

Use case name	Remove AI Features
Related Requirements	[2] AI feature detection [5] AI feature removal [10] Toggle AI features
Goal in Context	To remove those elements determined by the system to be AI features, in accordance with selected settings.
Preconditions	Settings file exists; Browser extension has the necessary permissions.
Successful End Condition	AI features are removed or left untouched in accordance with selected settings.
Failed End Condition	Many AI features are allowed to load into the page; The wrong action is chosen for the selected settings.
Primary Actors	Browser user
Secondary Actors	Settings file; User file system; Browser; Web Page
Trigger	Extension of Filter Web Page
Main Flow	<ol style="list-style-type: none"> <li>1: Select an HTML element with an href defined.</li> <li>2: Check the href URL against a database of URLs known to serve AI features (If it’s not in the database, skip to step 5).</li> <li>3: Check the settings file for module configuration.</li> <li>4: Remove the element.</li> <li>5: Repeat steps 1-5 for each element in the page.</li> </ol>

Extensions	3.1: The setting is set to replace AI features with placeholder elements. 3.2: Replace AI Feature
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## Modify settings

Use case name	Modify Settings
Related Requirements	[6] Settings menu [9] Usability [11] Privacy
Goal in Context	To modify the settings file to save user settings locally.
Preconditions	<ul style="list-style-type: none"> <li>Settings file exists</li> <li>Extension has necessary permissions.</li> </ul>
Successful End Condition	Settings object is successfully modified.
Failed End Condition	Object modification fails.
Primary Actors	Browser user
Secondary Actors	Settings object; User file system; Browser
Trigger	User clicks on the icon for the extension in the browser toolbar.
Main Flow	<ol style="list-style-type: none"> <li>User clicks toolbar icon.</li> <li>Settings menu is displayed.</li> <li>The user interacts with the radio buttons and switches in the menu to modify settings.</li> <li>The user clicks the save button.</li> <li>The selected settings are written to the settings file.</li> <li>If a page is loaded, reload it.</li> </ol>
Extensions	None

## Read Settings

Use case name	Read Settings
Related Requirements	[6] Settings menu [9] Usability [11] Privacy [13] Read Settings
Goal in Context	To read out the settings stored in the settings file into in-memory data structures (see class diagram) for controlling the modules.
Preconditions	<ul style="list-style-type: none"> <li>Settings object exists</li> <li>Extension has necessary permissions.</li> </ul>
Successful End Condition	Settings are successfully stored in the data structures.
Failed End Condition	Browser storage fails to open, data is formatted incorrectly, data is read incorrectly
Primary Actors	Browser user
Secondary Actors	Settings file; User file system; Browser
Trigger	Extension of Modify Settings and Filter Web Page
Main Flow	<ol style="list-style-type: none"> <li>Create settings objects</li> <li>Open settings file</li> <li>Change the settings objects' attributes in accordance with data stored in settings file</li> </ol>
Extensions	None