Configuration Manual

MSc Internship
MSc in Cybersecurity

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MSc Project Submission Sheet

School of Computing

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Programme: …… MSc in CyberSecurity …… **Year:** …2021……..

Module: …… Academic Internship ……..……

Lecturer: …… Mr. Niall Heffernan ……..……

Submission Due Date: ……16th August, 2021……..……

Project Title: …Improving the privacy of Facebook users through browser plugin

Word Count: ……795…… **Page Count:** ……6……..…….……

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Configuration Manual

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1 Overview

The developed plugin “Facebook Privacy Tool” is a Firefox browser plugin that is used to improve the privacy of Facebook users. It is developed by Atom text editor, which consists of HTML, CSS, and JavaScript. The plugin can attract the users’ attention and encrypt the private message to prevent data disclosure to Facebook, its third-party companies and anyone who does not expect can read it.

The development of the plugin was referring to the tutorial of the Mozilla Firefox website, such as the red border [1] and the sidebar [2]. And the encryption/ decryption functions were referring to the example from Mr. Brady Joslin’s in GitHub [3]. The functions of the plugin were developed by combining the codes from the above source with some adjustments to fit the need.

2 Software and hardware requirement

Only the latest Mozilla Firefox browser is required to execute the plugin, following are the minimum requirement for different operating systems as provided by Mozilla Firefox [4]. The latest version of the Mozilla Firefox browser is 91.0 up to now.

2.1 Microsoft Windows

2.1.1 Operating systems (x32 and x64)

- Windows 7
- Windows 8
- Windows 10

2.1.2 Hardware

- CPU: Pentium 4 or newer CPU that supports SSE2
- RAM: 512MB RAM for x32 version Windows and 2GB RAM for x64 version Windows
- Hard disk: 200MB

2.2 Mac

2.2.1 Operating systems

- macOS 10.12
- macOS 10.13
- macOS 10.14
- macOS 10.15
- macOS 11

2.2.2 Hardware

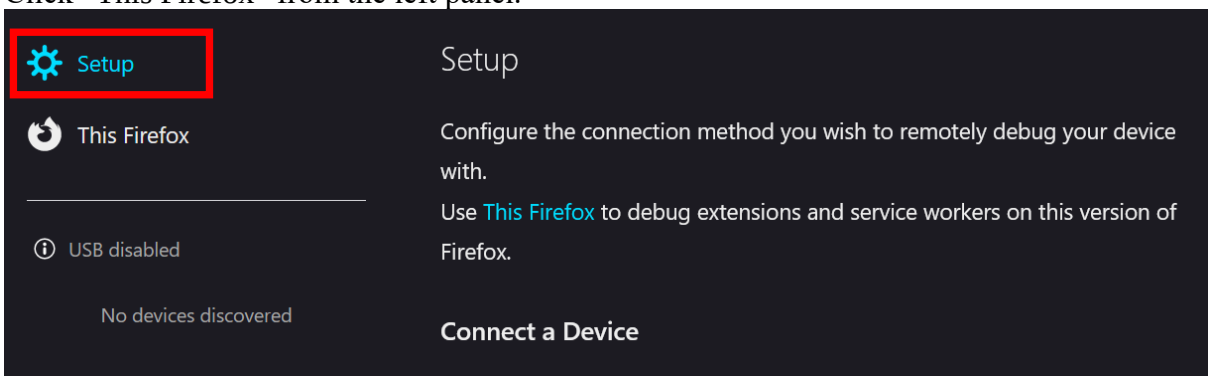
- CPU: Intel x86 CPU or Apple silicon processor
- RAM: 512MB RAM
- Hard disk: 200MB

3 Installation

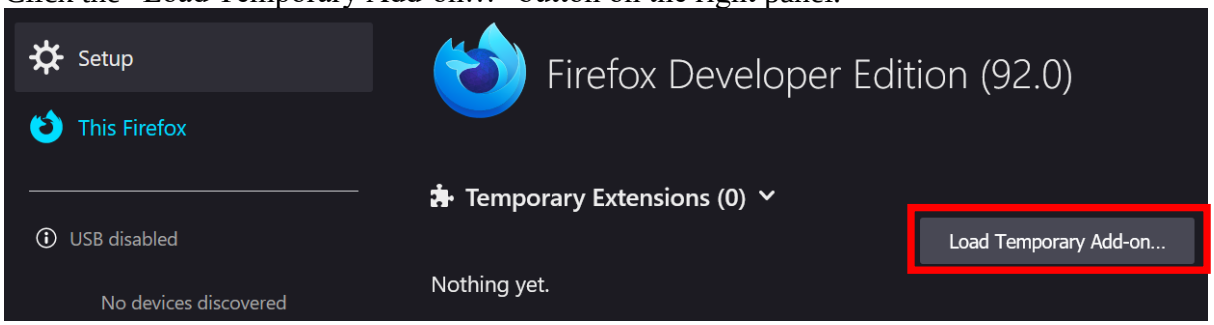
The following steps are showing how to add the plugin to the Firefox browser temporarily. As the permanent plugin on the Firefox browser need to be reviewed by Firefox, so the plugin can add to the browser temporarily.

1. Open the Mozilla Firefox browser.
2. Input "about:debugging" into the URL bar and press the "Enter" button on the keyboard.

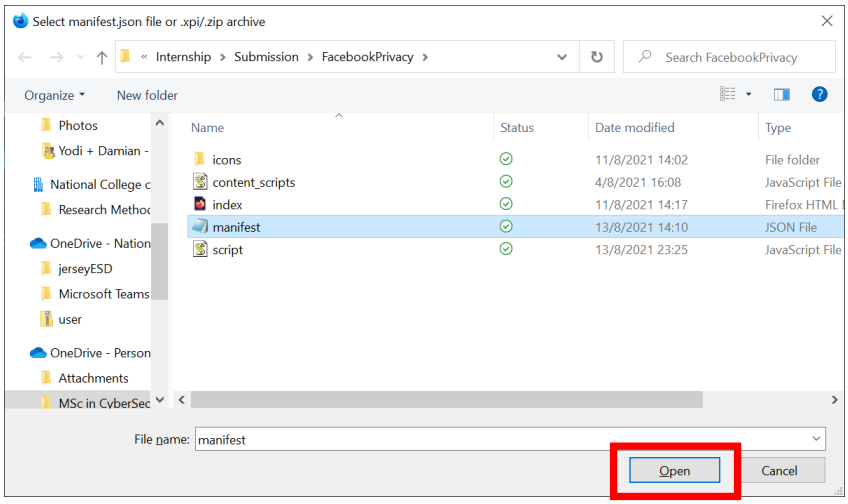
3. Click "This Firefox" from the left panel.



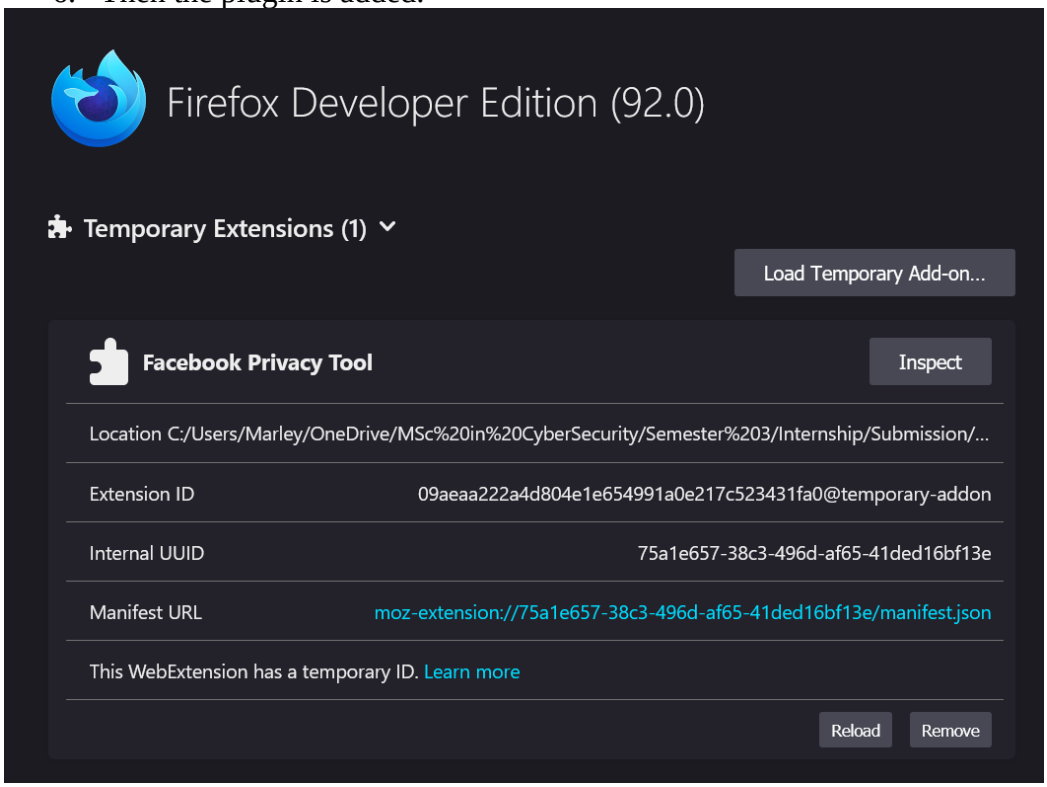
4. Click the "Load Temporary Add-on…" button on the right panel.



5. Go to the plugin file location, select the JSON file “manifest” and click the “Open” button.

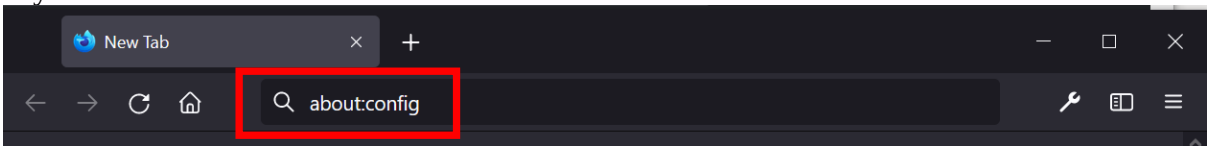


6. Then the plugin is added.

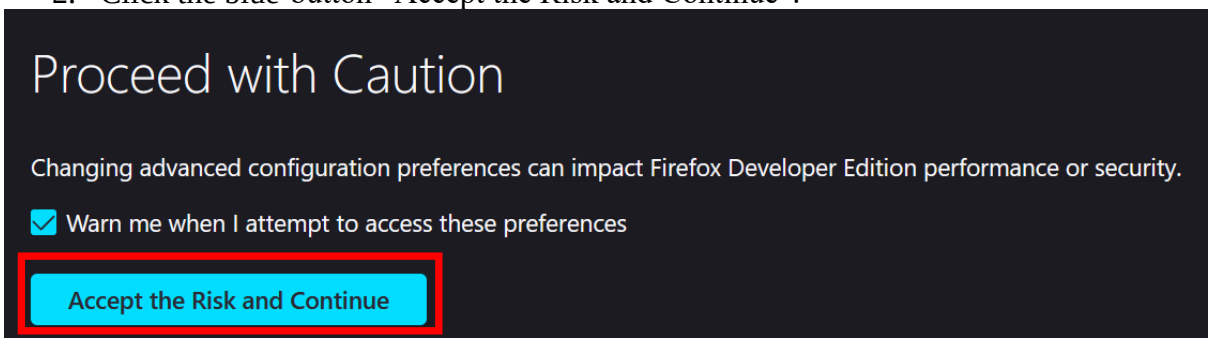


If the encryption/ decryption functions of the plugin do not work properly, please perform the following steps:

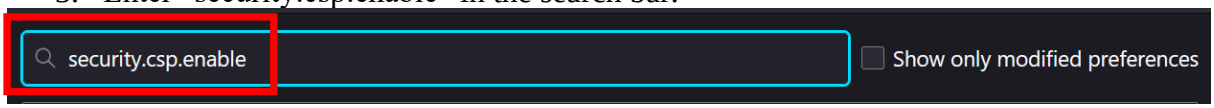
1. Input “about:debugging” into the URL bar and press the “Enter” button on the keyboard.



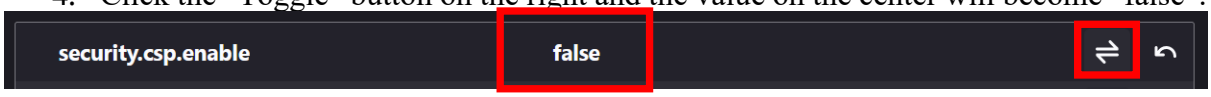
2. Click the blue-button “Accept the Risk and Continue”.



3. Enter “security.csp.enable” in the search bar.



4. Click the “Toggle” button on the right and the value on the center will become “false”.



5. Try to use the plugin again.

References

[1] “Your first extension,” Mozilla Corporation, [Online]. Available: https://developer.mozilla.org/en-US/docs/Mozilla/Add-ons/WebExtensions/Your_first_WebExtension. [Accessed 2021 August 1].

[2] “sidebarAction,” Mozilla Corporation, [Online]. Available: https://developer.mozilla.org/en-US/docs/Mozilla/Add-ons/WebExtensions/API/sidebarAction. [Accessed 4 August 2021].

[3] B. Joslin, “Web Crypto Encryption and Decryption Example,” [Online]. Available: https://github.com/bradyjoslin/webcrypto-example. [Accessed 8 August 2021].

[4] “Firefox System Requirements,” Mozilla Corporation, [Online]. Available: https://www.mozilla.org/en-US/firefox/91.0/system-requirements/. [Accessed 15 August 2021].