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Getting Started with Mozilla Webextensions

During 2015 Firefox team has made an exciting very big announcement to Firefox add-ons, they have brought a new extension API's called WebExtension [1]. This update has lot of exciting announcements for developers.

1. Review process will become faster
2. Development is easier, and the Addons will be compatible with Chrome and Opera.

You can find the whole information regarding this update in Add-ons Blog [2]

The next step is to download the Firefox Browser and install them. You can either go for developer Edition [3] or Nightly [4]

So as of now Firefox Will allow only the add-ons which are signed when you start the browser. So for development purpose we have to change the settings.

1. Open the browser
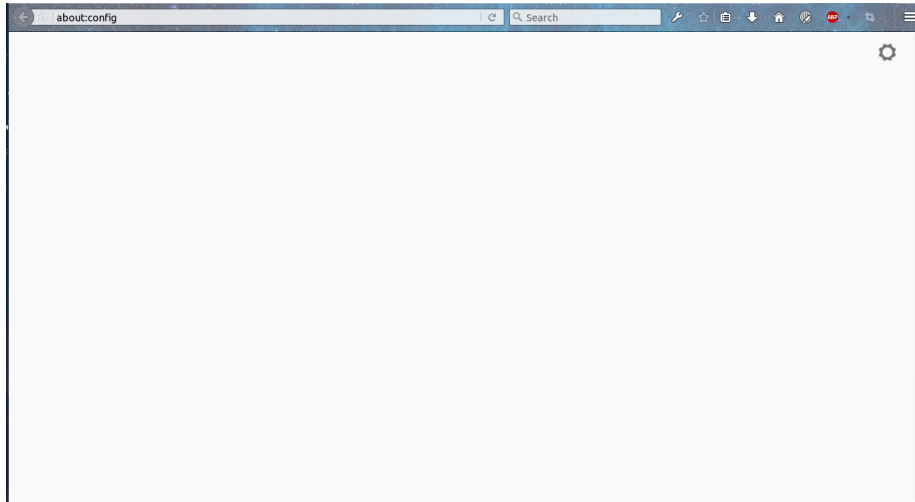2. in the URL bar type about:config
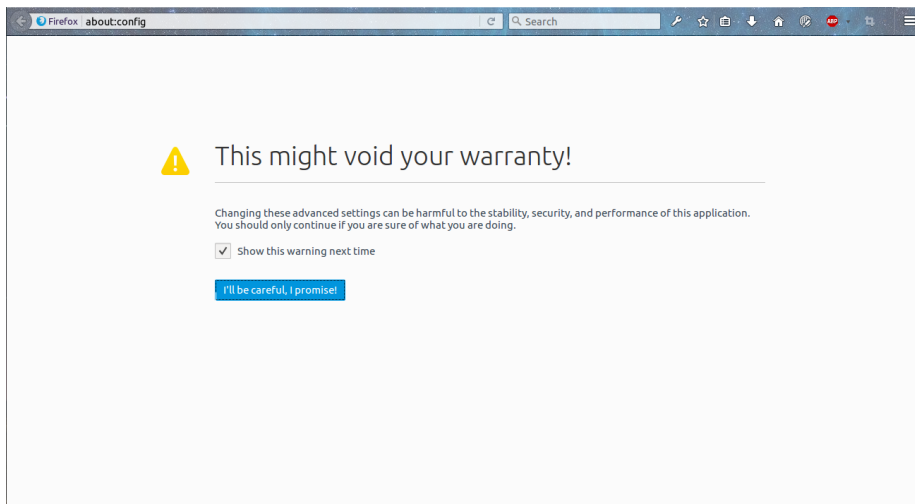
Figure 1: config in URL bar

This might void your warranty!

Changing these advanced settings can be harmful to the stability, security, and performance of this application. You should only continue if you are sure of what you are doing.

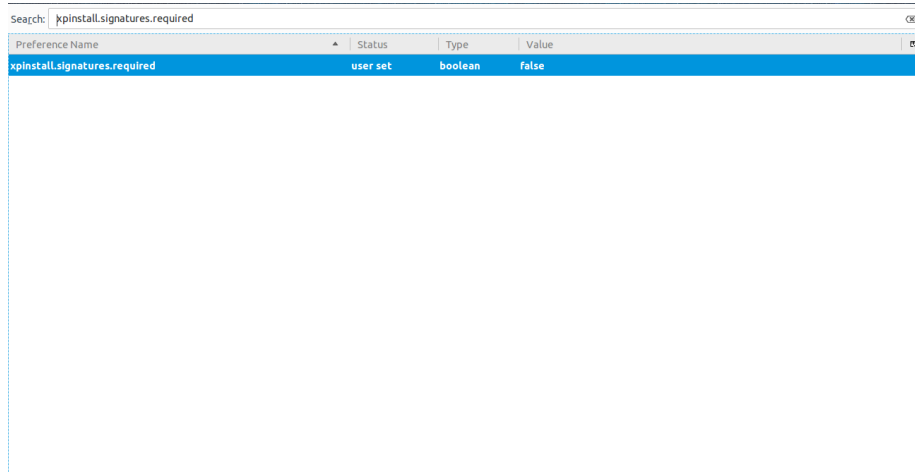☑ Show this warning next time

I'll be careful, I promise!

Figure 2: Warning

3. In the search bar of that page type xpinstall.signatures.required , you will see the image as like below. By default it will be true

Search:	xpinstall.signatures.required				⊗
Preference Name	▲	Status	Type	Value	⇄
xpinstall.signatures.required		**user set**	**boolean**	**false**	

Figure 3: Signature

4. You can double click on it or else right click and select toggle. So it will be set to false

Why Web Extensions

One of the Main reason, to get started with Web Extensions is easier to develop. Previously I have tried developing some Chrome Extensions during my free time, so since the same thing is used here, it will be very easier for me to get started and develop well. So I write once for Firefox Addons and it will support multiple platforms.

Very excited for this new journey of learning.

References

- [1] https://wiki.mozilla.org/WebExtensions
- [2] https://blog.mozilla.org/addons/2015/08/21/the-future-of-developing-firefox-add-ons/
- [3] https://www.mozilla.org/en-US/firefox/developer/
- [4] https://nightly.mozilla.org/

END OF PANDOC CHAPTER

Running WebExtension in Firefox

In this section we will be exploring more how to run an Firefox WebExtensions.

I will be showing this demo with the help of the small extension I have written before, feel free to download it from github [1], you can clone whole repo [2]. I personally use web-ext [3] tool for packing my extension, but for basic learning it is not mandatory.

Step by Step procedure for running WebExtension

Step1: Go to the directory which has contents of Extension

In my case it will look like the below. The content showed below is the contents of Extension, which the link is shared above.
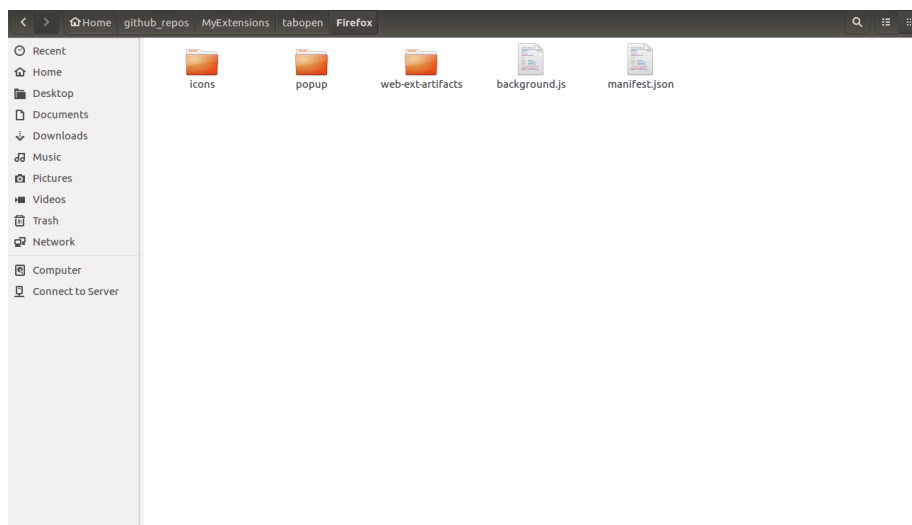

Figure 4: Directory Image

Step 2: We have to compress all the contents into Zip

- Select all the folders and files
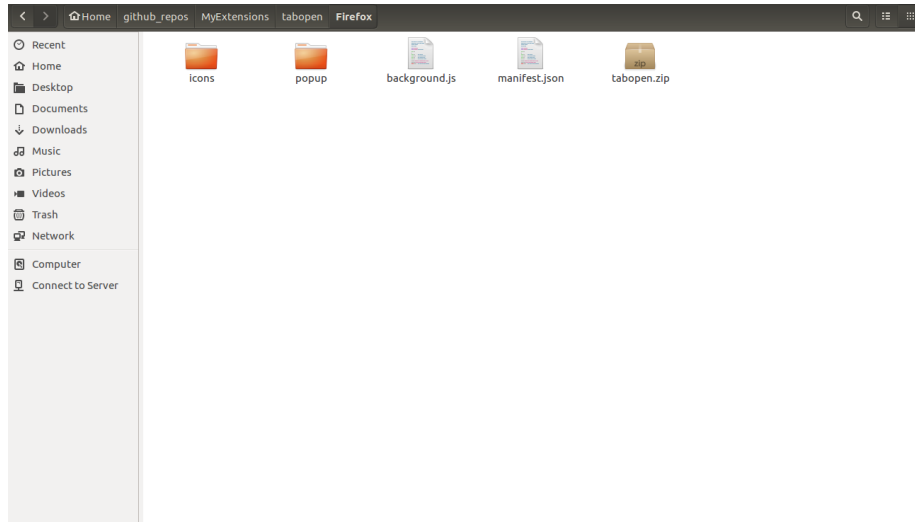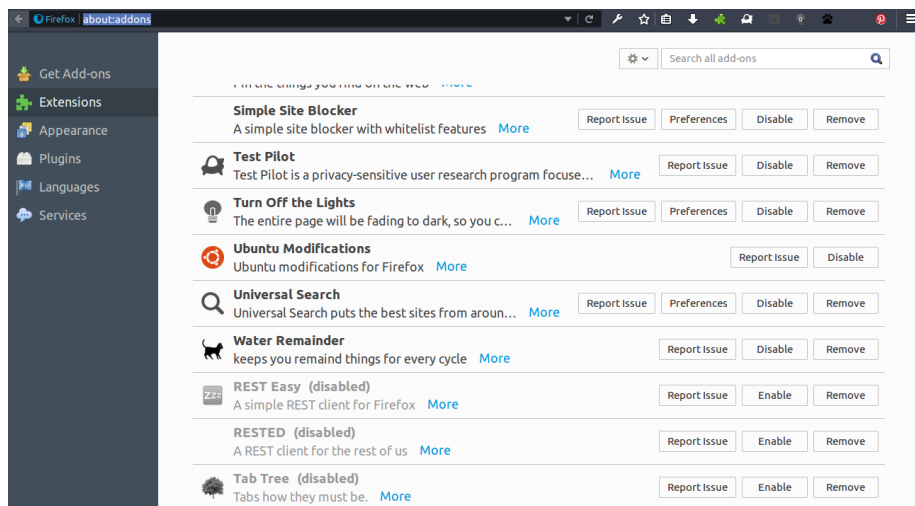- Make it to a zip, anyname.zip

Figure 5: Directory Image

Figure 6: Directory Image

Step 3: Open about:addons

Step 4: Install Addons

- Click on Tools for all add-ons (the icon - which is like Setting icon)
- Select Install Add-on From File ..
- Make sure you have set the file type to all files
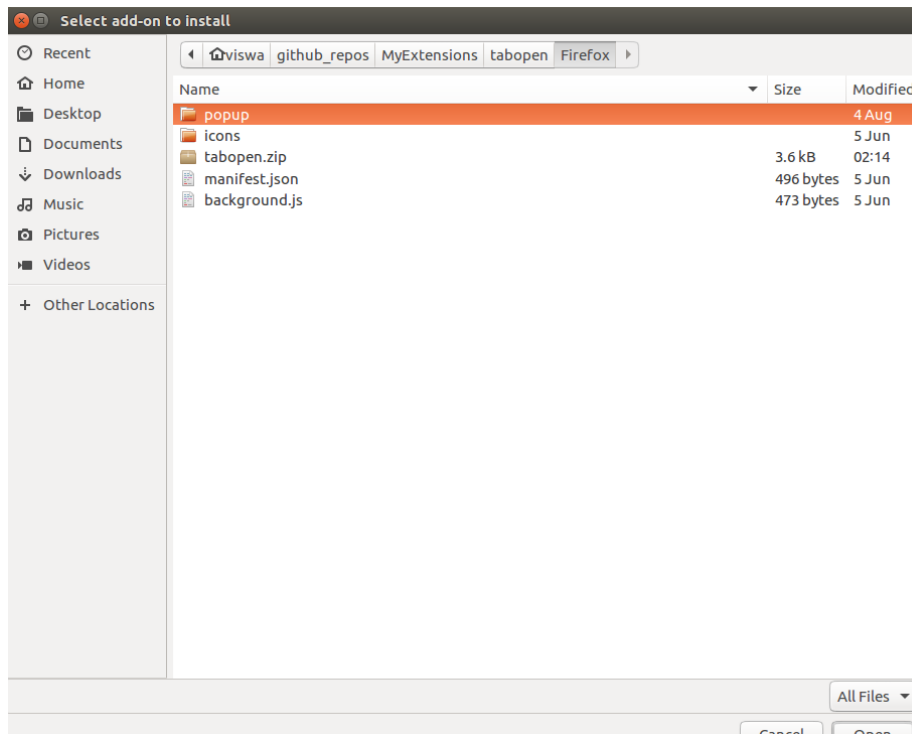- Choose the Zip which you created in step 2

Figure 7: Choose the Zip file

- You will get a pop-up notification after selecting at left croner

- In that pop-up click Install button
- Now your Extension is installed.

Step 5: Run the Extension

For most of Extensions you will get the icon in the tool bar itself. So for this a
page like icon will be coming at toolbar, if every code is run properly. Click on
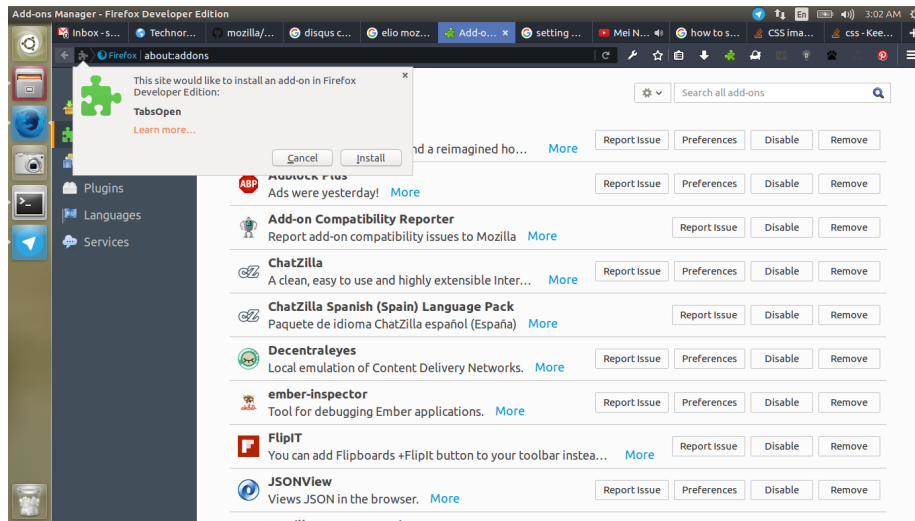
Figure 8: Choose the Zip file

that icon.

So on Selecting any one of the three websites, it will open a new tab and open the site. As of now it is in static mode.

In future, based on user usage we can show top 3 websites there.

Follow for amazing journey of Building WebExtensions.

References

- [1] https://github.com/iamVP7/MyExtensions/tree/master/tabopen/Firefox
- [2] https://github.com/iamVP7/MyExtensions/
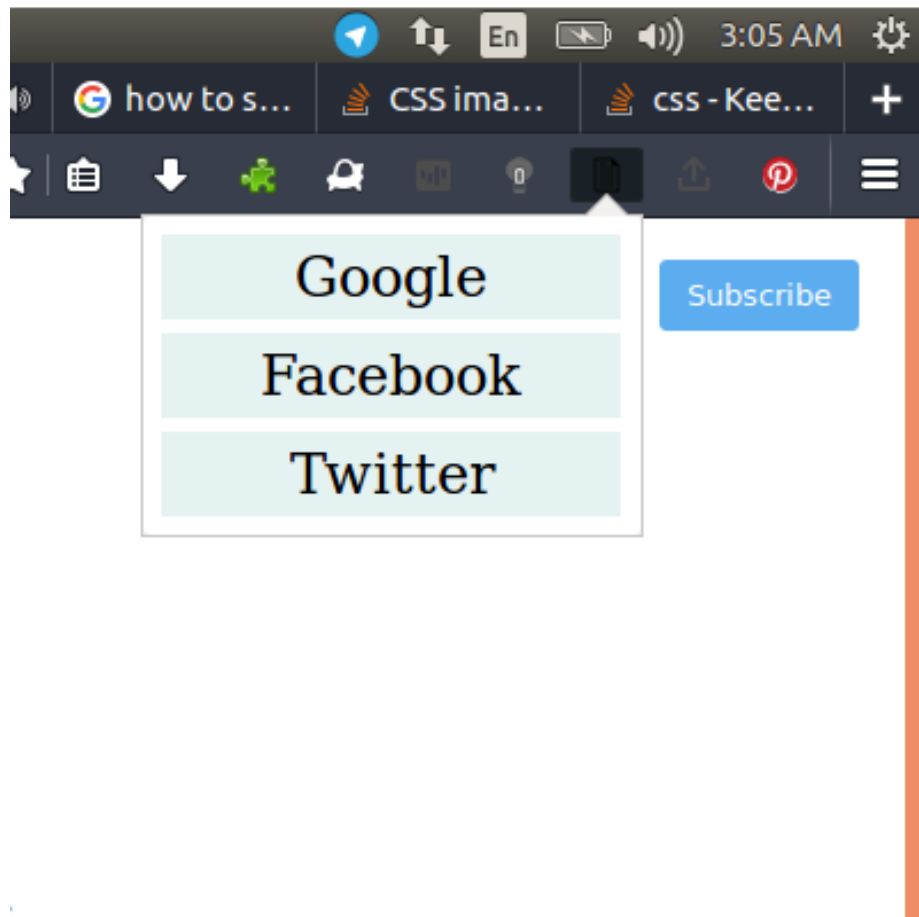- [3] https://github.com/mozilla/web-ext END OF PANDOC CHAPTER

Figure 9: Choose the Zip file

Building our Motivational Tab

Problem statement and Solution

Problem Statement

We have to open different web pages each and every day. Sometime we will be bored to do them. At that time, we may feel to get a cup of coffee. For sure its not possible to count the number of copies we had. Having too much of coffee or other caffeine products is injurious to health.

Solution

So the very first solution is to make sure we are not bored, and we are motivated when we open a new tab. We can be motivated by seeing strong quotes by our favorite personality or a our family pictures whenever we open a new tab.

What is relationship with WebExtension???

Whenever you are opening a new tab, it means we are calling some internal API to open the tab. Each and every action we do is an API, some of them are exposed via WebExtension API. So by default if you check in your browser you will understand you have options to change what should be shown when a new tab is opened. A screenshot from Firefox is shown below, check under the heading *New Windows and Tabs*
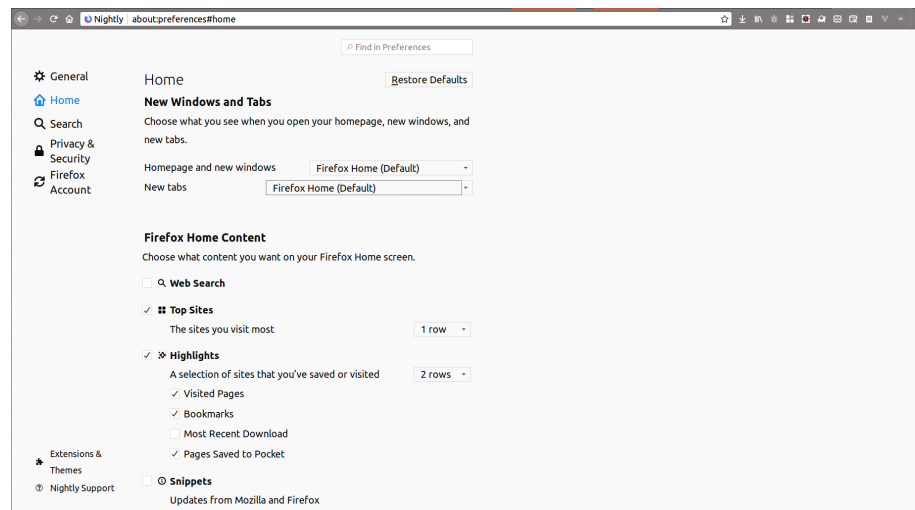

Figure 10: New tab Configuration

How we can capture this

We need not worry much. It is easy to capture when a new tab is opened. And also it is easy to open our preferred page whenever new tab or window is opened.

In this section we will be seeing how to open our own page with some random pre defined quotes using *chrome_url_overrides* WebExtension API. END OF PANDOC CHAPTER