Team 25: BJDJ

Deliverable #4
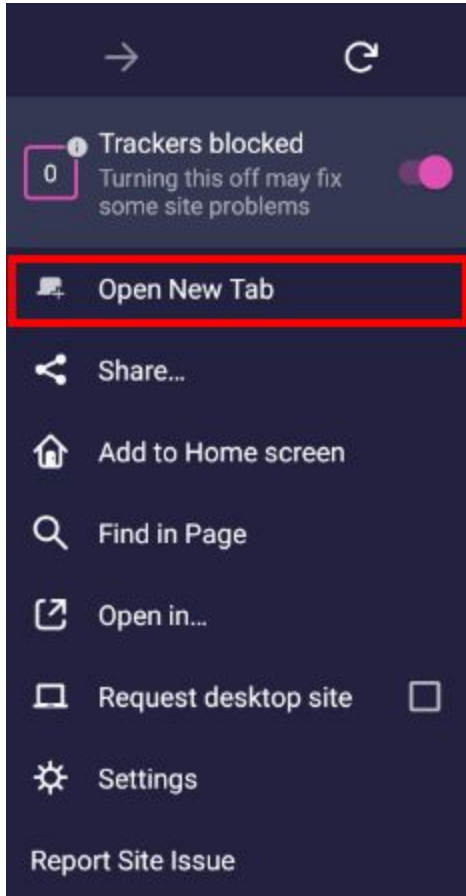
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Feature Documentation

If you would like to browse a new web page without closing your current web page, use the "New Tab" feature to open a new tab for browsing.

1. Tap the menu button next to the address bar in the upper right corner of the browser:

2. Tap "Open New Tab" in the menu that opens:

3. The new tab will open to the default search engine webpage. Use this new tab to navigate to the new web page you want to browse
4. If you would like to return to your other tabs, tap the circle in the bottom right corner of the browser:
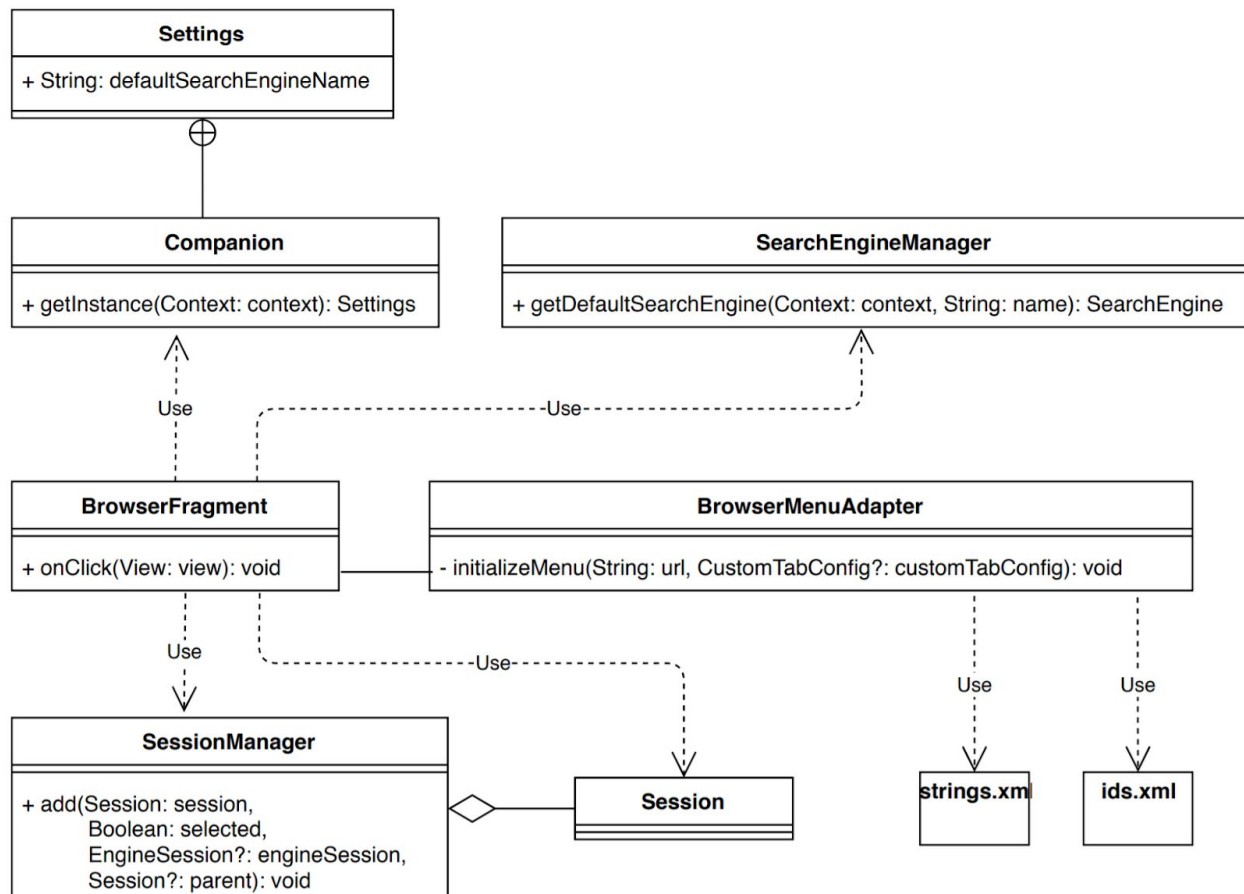

5. Then, select the tab you would like to view

Design Documentation

The core functionality of the "Open New Tab" feature is implemented in BrowserFragment by extending the onClick() method.

The first stage of this code is creating a new session that will be used by the newly created tab. This requires providing a URL for the new tab to open in. By design choice, new tabs will open with the currently selected search engine home page. This URL is built by finding the name of the currently selected search engine using the Settings class and its companion object, then using the SearchEngineManager class to build the appropriate search URL. Once the URL is built, a new Session object is created. The next stage is to simply add the new Session object to the SessionManager and set the new Session object to selected, which will automatically bring the user to the new tab.

The BrowserMenuAdapter is also extended to include the UI to access this feature. An item is added to the initializeMenu method so that it displays the Open New Tab feature as an option.

Acceptance Tests

User opens new tab and user is directed to it:
1. Open Firefox Focus
2. Type "beatles" in the URL bar and press enter
3. Open the browser's overflow menu
4. Press the "Open New Tab" menu Item

Expected Behaviour: A new tab is opened and the user is directed to it.

User opens new tab then returns to original tab:
1. Open Firefox Focus
2. Type "beatles" in the URL bar and press enter
3. Open the browser's overflow menu
4. Press the "Open New Tab" menu Item
5. Access list of all existing tabs by pressing the "Tab Manager" icon at the bottom right of the screen
6. Press the first item in the list

Expected Behaviour: The user is directed to the original tab from which the new tab was opened.

User opens new tab then deletes all browsing history:
1. Open Firefox Focus
2. Type "beatles" in the URL bar and press enter
3. Open the browser's overflow menu
4. Press the "Open New Tab" menu Item
5. Access list of all existing tabs by pressing the "Tab Manager" icon at the bottom right of the screen
6. Press the "Erase browsing history" item

Expected Behaviour: The user deletes all browsing history including the original tab and the new tab, and is directed to the focus home screen.

User opens new tab then displaying currently selected search engine:
1. Open Firefox Focus
2. Navigate to "Home Menu"->"Settings"->"Search"->"Search Engine"
3. Press DuckDuckGo to set it as the selected engine
4. Navigate back to the home screen
5. Type "beatles" in the URL bar and press enter
6. Open the browser's overflow menu
7. Press the "Open New Tab" menu Item
8. Ensure the new tab displays the DuckDuckGo home page
9. Navigate to "Overflow Menu"->"Settings"->"Search"->"Search Engine"
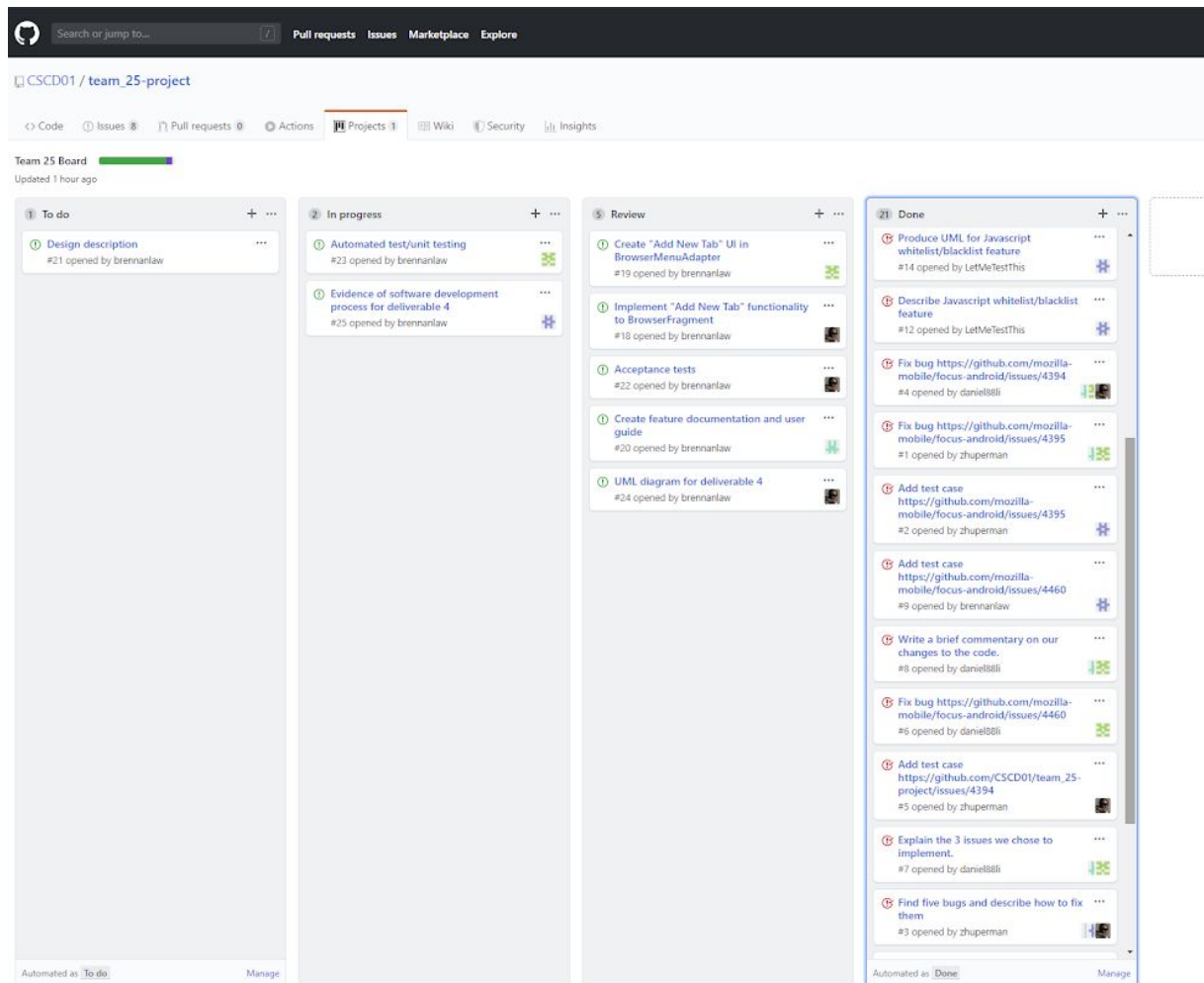10. Press Amazon to set it as the selected engine

11. Navigate back to the webpage
12. Open the browser's overflow menu
13. Press the "Open New Tab" menu Item

Expected Behaviour: A new tab is opened and the user is directed to it, displaying the Amazon home page

In addition to these tests, we've followed existing guidelines and made an automated testing for our new feature. This is testing the UI of the application and uses a mix of Expresso as well as UI Automator, which already exists as helpers under the androidTest subfolder. Our test class is called OpenNewTabTest located in app/src/androidTest/java/org/mozilla/focus/activity and can be run by itself through right clicking the class in Android Studio and selecting 'Run OpenNewTabTest'.

Software Development Process

During this project we followed the Kanban software development process. We used github projects for our Kanban board where issues were created for the tasks required during each deliverable. For example every bullet point in the deliverable handouts would be made into an issue and put into the To Do column. This helps us organize what needs to be done for this deliverable and allows us to be more efficient as any outstanding tasks can be easily seen. We would self assign ourselves to tasks after dragging it to the in progress column if the number of issues in the In progress column was below our specified work in progress cap. Once we felt that we had completed the issue, we would then drag it to the Review column, where it remains until all the group members gathered for an online meeting on discord to discuss the task. Once everyone agrees that the task has been completed successfully then the relevant issue would be closed and github automation would automatically move the task to the Done column.

Other than meeting on discord to review tasks, we also used discord to hold our meetings every other day to keep each other informed on our progress on our given tasks. We also made sure to keep each other informed about how our modification functioned, answering any questions other members may have about our task. As we explained our modifications we would also receive suggestions on ways we could improve or solve issues we encountered, this helped ensure that tasks did not become bottlenecked for long and ensure a steady stream of work.