WinterWolf

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Documentation

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In this section I will outline the structure of each class in my application.

1. Main
2. BrowserWindow
3. Controller
4. Tab
5. BookmarksFrame
6. OptionsFrame
7. AboutFrame
8. StatusBar
9. CustomTabbedPaneUI

Each class is written in a separate file and has comments throughout the code to explain the steps being taken.

1. Main

The main class acts as the Model. It creates instances of each frame and controls such methods as openTab(), closeTab(), changePage(), etc.

It also controls operations such as cut, copy and paste, clearing the history, setting status messages and error messages and setting the application icon.

2. BrowserWindow

The BrowserWindow is the View. It controls all changes to the user interface.

The main components within this class are:

- Menu bar
    - Menus
        - Menu items
- Tool bar
    - Address bar
    - Back button
    - Forwards button
    - Refresh button
    - Home button
    - New Tab button
    - Go button
    - Bookmarks button
    - Stop button

- Display Pane
    - Scroll Pane
        - Editor Pane
- Status Bar
- Context menu
    - Menu items

3. Controller

The controller handles all the events generated by the components in the various windows.

It extends or implements the following classes:

- MouseAdapter
- ActionListener
- HyperlinkListener
- ComponentListener

The **ActionListener** is used to detect events sent from buttons or text fields. It sorts through the events using the associated ActionCommand and decides which methods to call.

The **HyperlinkListener** detects hyperlink clicks from the editor pane and deals with them as they arise.

The **ComponentListener** does two jobs. The first is to listen for when the main window is resized so that it can move the background image to the correct position. The second is to update the bookmarks window whenever it is shown with the current URL and title of the selected tab.

The **MouseAdapter** is used to detect when the context menu should be shown and also when the bookmarks table is clicked.

4. Tab

The tab class contains the JEditorPane for each tab which is packaged up in a JScrollPane and placed in the JTabbedPane on the main form. It also handles the history of each tab, the loading of pages, and the history navigation (forwards and back).

5. BookmarksFrame

The BookmarksFrame creates a new window which handles the creation and retrieval of bookmarks. It contains a table which has two columns. The first column specifies the title of the given bookmark, and the second specifies the URL.

This class also provides components for adding new bookmarks.

6. OptionsFrame

The OptionsFrame creates a new window which contains two options – one to modify the homepage, and the other to clear the browsing history.

7. AboutFrame

The AboutFrame creates a new window which simply contains an image describing the program and specifying the copyright information.

8. StatusBar

The StatusBar extends JLabel and is a very simple class. The constructor calls the parent constructor, and the only other method is setMessage(String message) which displays the given message in the label.

9. CustomTabbedPaneUI

This class extends the MetalTabbedPaneUI with the sole intention of preventing it from painting its border. I decided that a borderless TabbedPane would increase the aesthetics of the user interface by creating a cleaner, less cluttered look.