

Code Smells For SimpleNotePad:

1. Line #27-37: **Bad Naming.** The names should be representative of each variables function. The name "nf" for a new file JMenuItem makes sense there in terms of not having to write out the whole name, so in terms of efficiency it is okay. But when you have to go back and do more things with the code later on or add new functionality to the menu item you will have to go and look where in the code you made a comment about what it actually is. Instead I changed nf to a better name such as "newFile", so then wherever i implement that variable i will know what name to use.
2. Line #138 - 139, 35, 60: **Dead Code.** The code for the undo button hasn't been implemented at all and doesn't provide any functionality to the GUI. Therefore I just deleted all the lines that include the undo button. I could comment it out but the code looks cleaner with it deleted.
3. Line # 89 - 139: **Bloaters.** The code here can be put into methods in a separate class so the main gui file looks a lot cleaner.
4. Line # 110 - 113: **Dead Code?** The code here doesn't provide any additional or useful functionality to the actual GUI and seems to just be used for the programmer for testing purposes. Would just comment out but better to delete it entirely.
5. Line#40-62: **Redundancy:** To much repeated code here that can be better put into a method and passed in parameters to create each JMenuItem, or the use of a for loop.

Additional Things: took away separators. Although it adds to the aesthetic of the overall GUI it doesn't provide functionality and in the example given doesn't show the separators.

Changed the overall structure of the program but everything still runs the same.

Moved longer methods into classes to make the GUI code cleaner.

Made it so that there is more room for scalability.