8. Use text file I/O to code an application that counts the number of lines of source code in an application file. The program will use JFileChooser to prompt the user to select a source code file. After reading in the code and counting the number of lines containing source code (note: blank lines containing only whitespace are not counted), the input file will be saved in a file with the extension “txt” in the current directory. Run, test, and save all files. Use file I/O in coding an application to calculate the number of classes contained in a Java program. Use JFileChooser to prompt the user in selecting a file for analysis. Use showMessageDialog() in JOptionPane to display the result. Assume proper Java naming conventions are used in the source code files. Run, test, and save all files.

9. Use file I/O to code an application that can search for a user-specified keyword in a Java source code file. The program will display a GUI window a prompt the user to enter a keyword as a search “key.” Searching will begin after the OK button is pressed in the prompt window. The search result will be displayed in another GUI window, showing the keyword, the number of occurrences in the source code, and the line numbers containing the keyword. The program will continue to search for additional keywords until the Exit button is pressed. Run, test, and save all files.