CSC 6110 : Software Engineering
Assignment 1
Fall 2023
Student name: Kanchan Chopde

Based on concept location

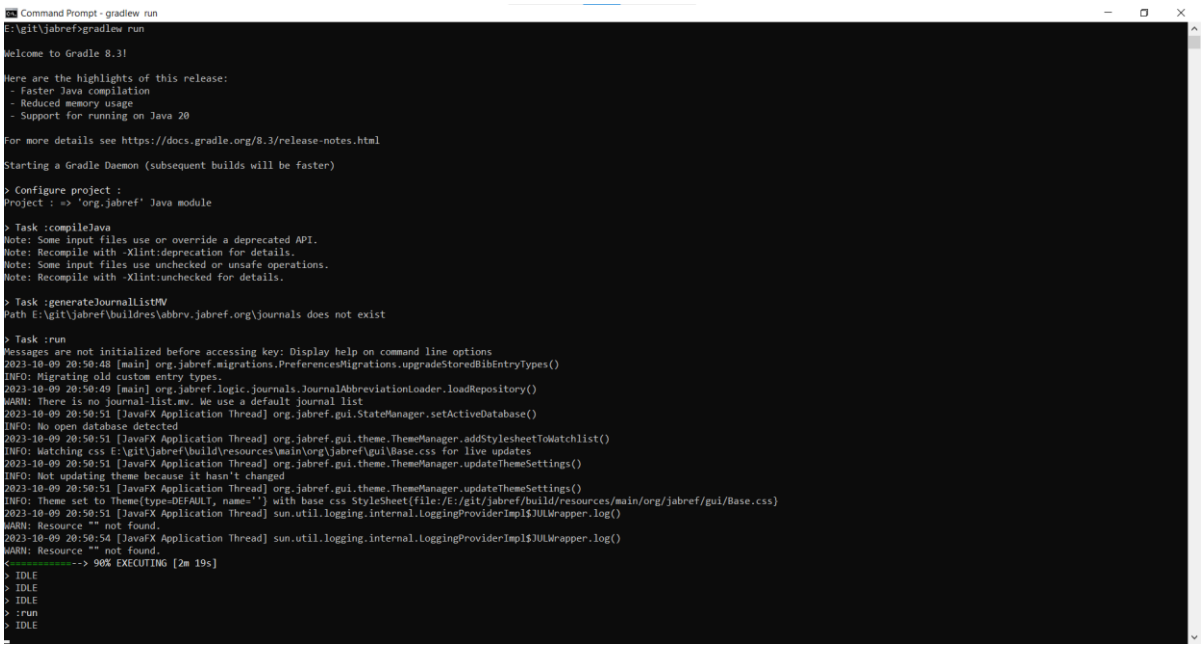
Project Location: https://github.com/JabRef/jabref/

Bug location : https://github.com/JabRef/jabref/issues/10121

Issue Details: Suppose that you attach a file to an entry. Then, using a cleanup you want to move that file to the General File Directory of the library. If the attached file is open, the file is not moved but no warning message is shown. It would be nice to have such a message to let the user know what just happened.

Installed Eclipse and extracted project from git repository using import functionality.
Project Pre-requisite:

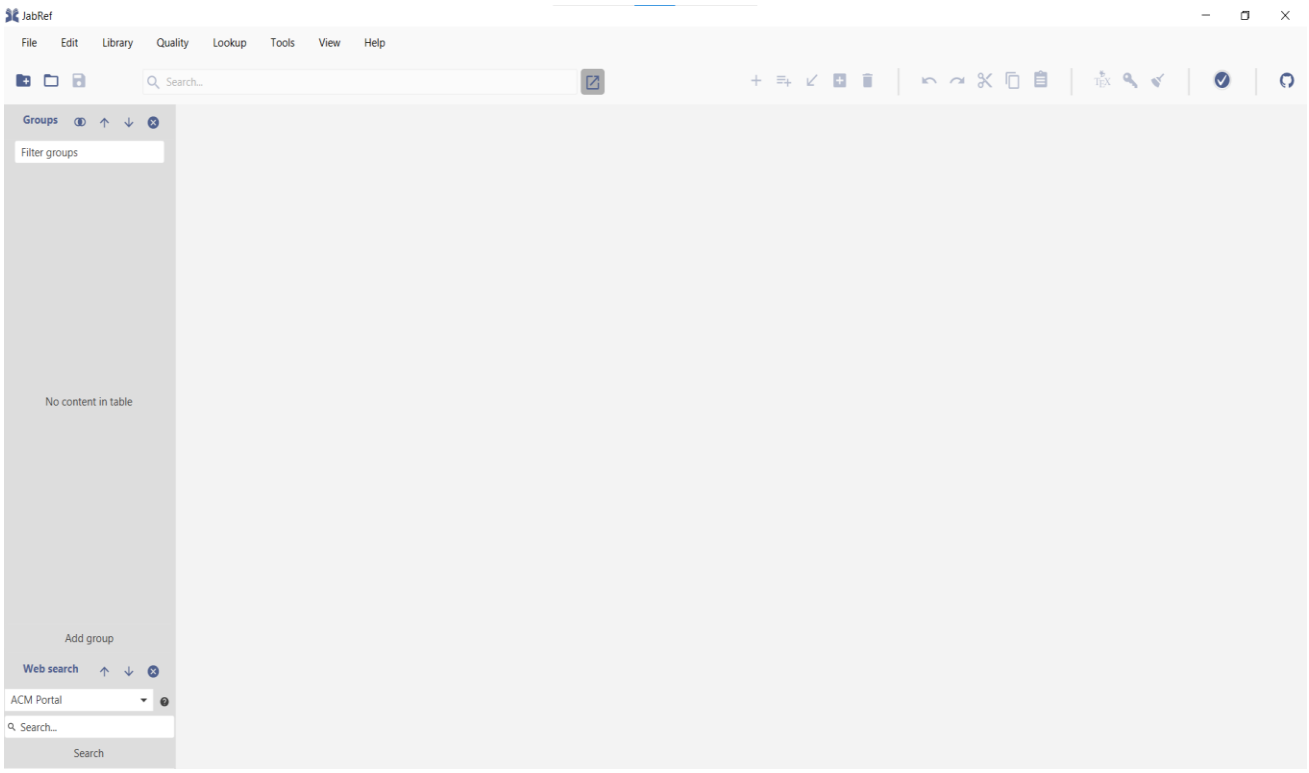
1) Command : Gradlew run



2) Command : Gradlew Eclipse

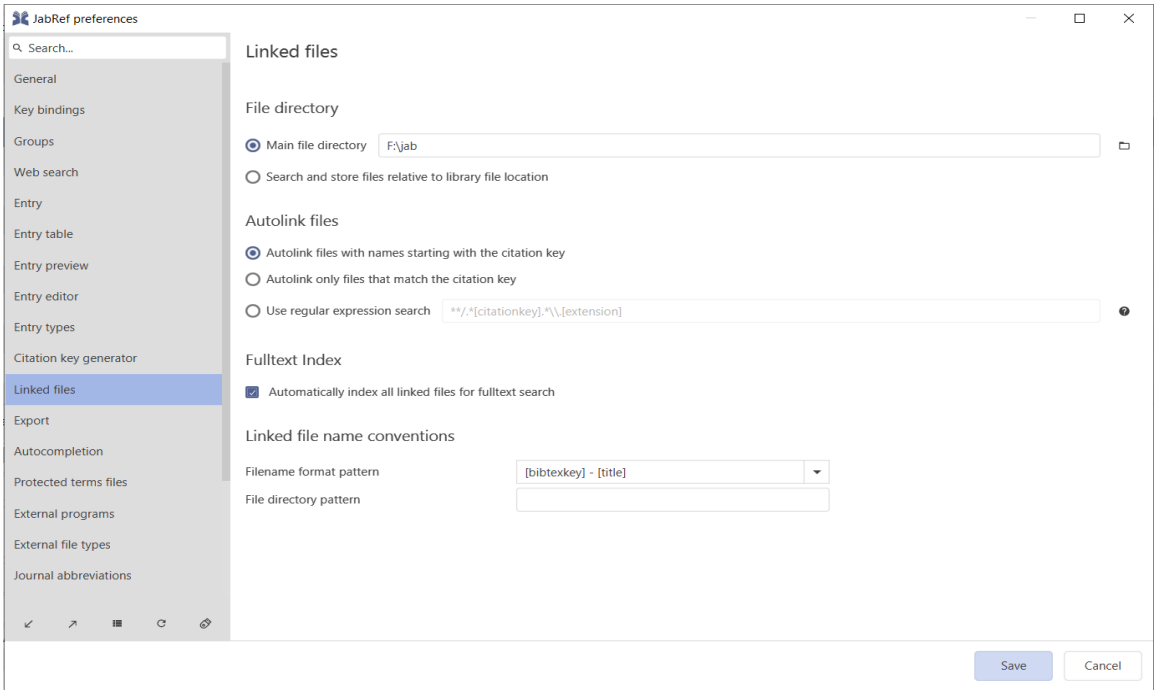
```
Select Command Prompt

> Task :run
Messages are not initialized before accessing key: Display help on command line options
2023-10-09 20:50:48 [main] org.jabref.migrations.PreferencesMigrations.upgradeStoredBibEntryTypes()
INFO: Migrating old custom entry types.
2023-10-09 20:50:49 [main] org.jabref.logic.journals.JournalAbbreviationLoader.loadRepository()
WARN: There is no journal-list.mv. We use a default journal list
2023-10-09 20:50:51 [JavaFX Application Thread] org.jabref.gui.StateManager.setActiveDatabase()
INFO: No open database detected
2023-10-09 20:50:51 [JavaFX Application Thread] org.jabref.gui.theme.ThemeManager.addStylesheetToWatchlist()
INFO: Watching css E:\git\jabref\build\resources\main\org\jabref\gui\Base.css for live updates
2023-10-09 20:50:51 [JavaFX Application Thread] org.jabref.gui.theme.ThemeManager.updateThemeSettings()
INFO: Not updating theme because it hasn't changed
2023-10-09 20:50:51 [JavaFX Application Thread] org.jabref.gui.theme.ThemeManager.updateThemeSettings()
INFO: Theme set to Theme{type=DEFAULT, name=''} with base css StyleSheet{file:/E:/git/jabref/build/resources/main/org/jabref/gui/Base.css}
2023-10-09 20:50:51 [JavaFX Application Thread] sun.util.logging.internal.LoggingProviderImpl$JULWrapper.log()
WARN: Resource "" not found.
2023-10-09 20:50:54 [JavaFX Application Thread] sun.util.logging.internal.LoggingProviderImpl$JULWrapper.log()
WARN: Resource "" not found.

Deprecated Gradle features were used in this build, making it incompatible with Gradle 9.0.

You can use '--warning-mode all' to show the individual deprecation warnings and determine if they come from your own scripts or plugins.

For more on this, please refer to https://docs.gradle.org/8.3/userguide/command_line_interface.html#sec:command_line_warnings in the Gradle documentation.

BUILD SUCCESSFUL in 4m 16s
10 actionable tasks: 10 executed
E:\git\jabref>gradlew eclipse

> Configure project :
Project : => 'org.jabref' Java module

Deprecated Gradle features were used in this build, making it incompatible with Gradle 9.0.

You can use '--warning-mode all' to show the individual deprecation warnings and determine if they come from your own scripts or plugins.

For more on this, please refer to https://docs.gradle.org/8.3/userguide/command_line_interface.html#sec:command_line_warnings in the Gradle documentation.

BUILD SUCCESSFUL in 4s
13 actionable tasks: 8 executed, 5 up-to-date
E:\git\jabref>
```

3) JabRef Project UI

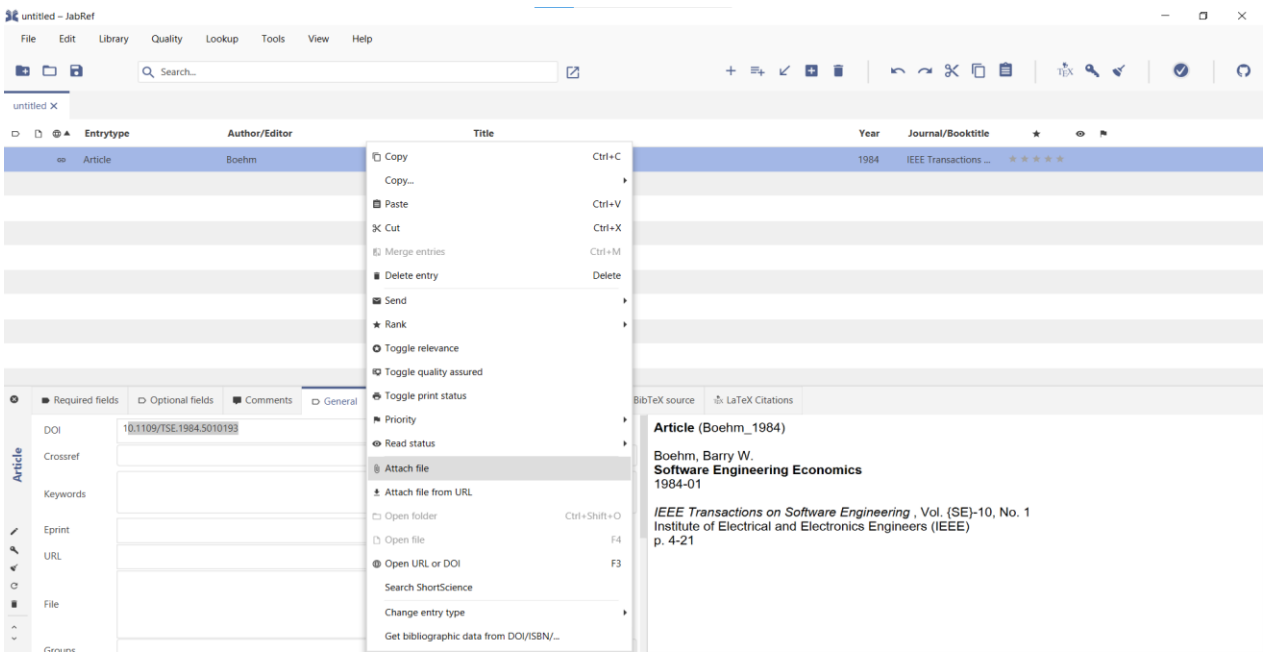


BUG REPRODUCING STEPS

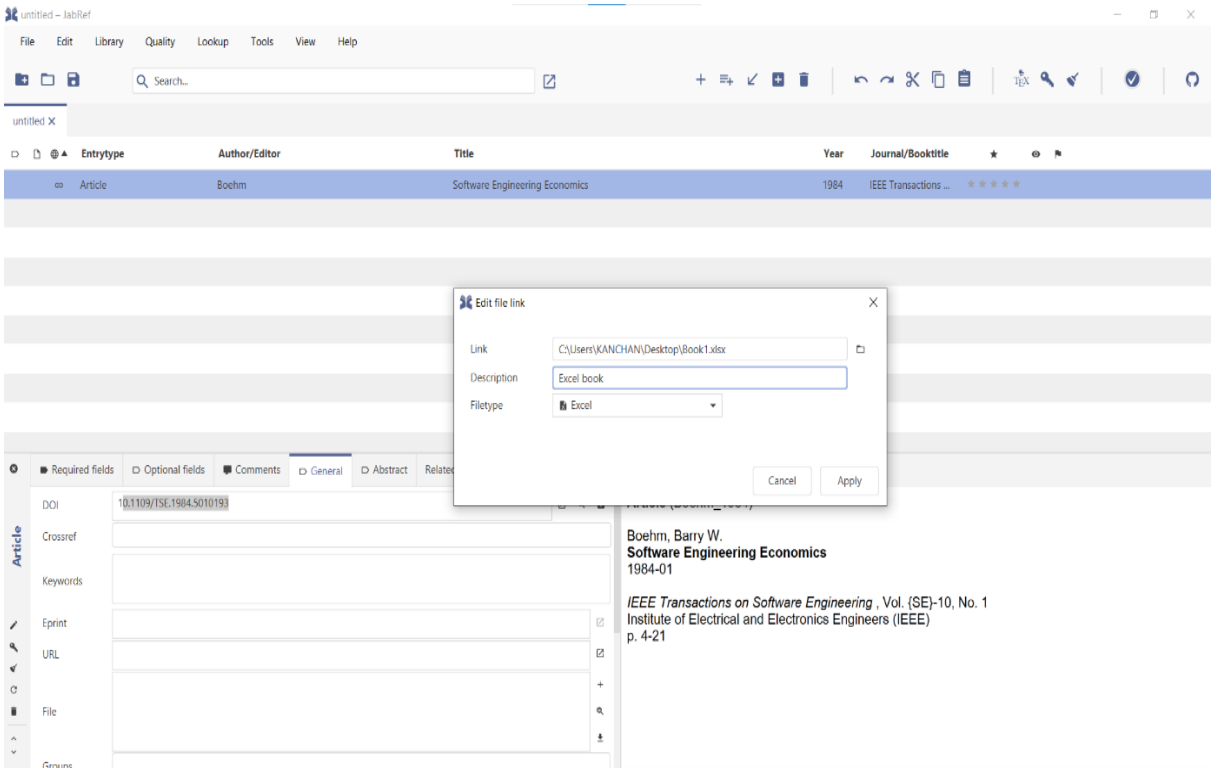
3) Files> Preferences > Linked Files .
   Here we can see Main file directory path which can be set .
   F:\jab



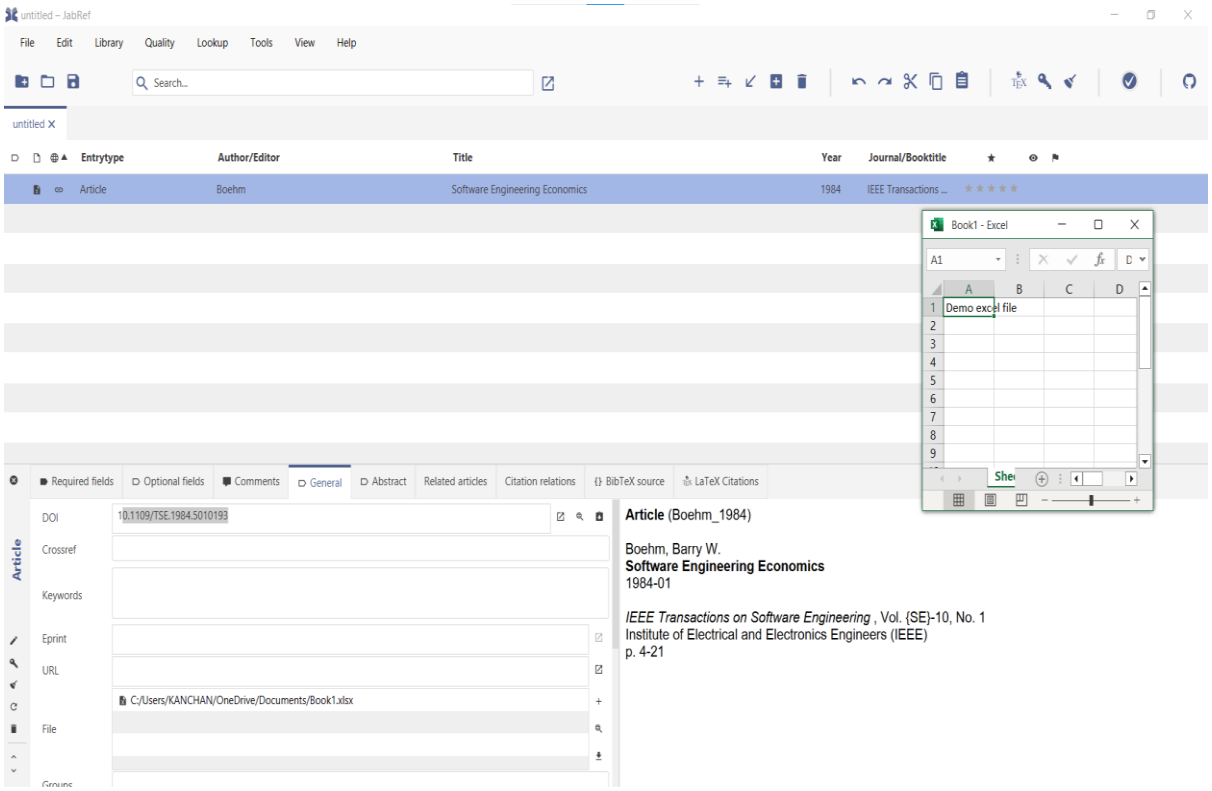
4) Here I added one entry by using DOI and all information is fetched.
   right clicking > Attach file



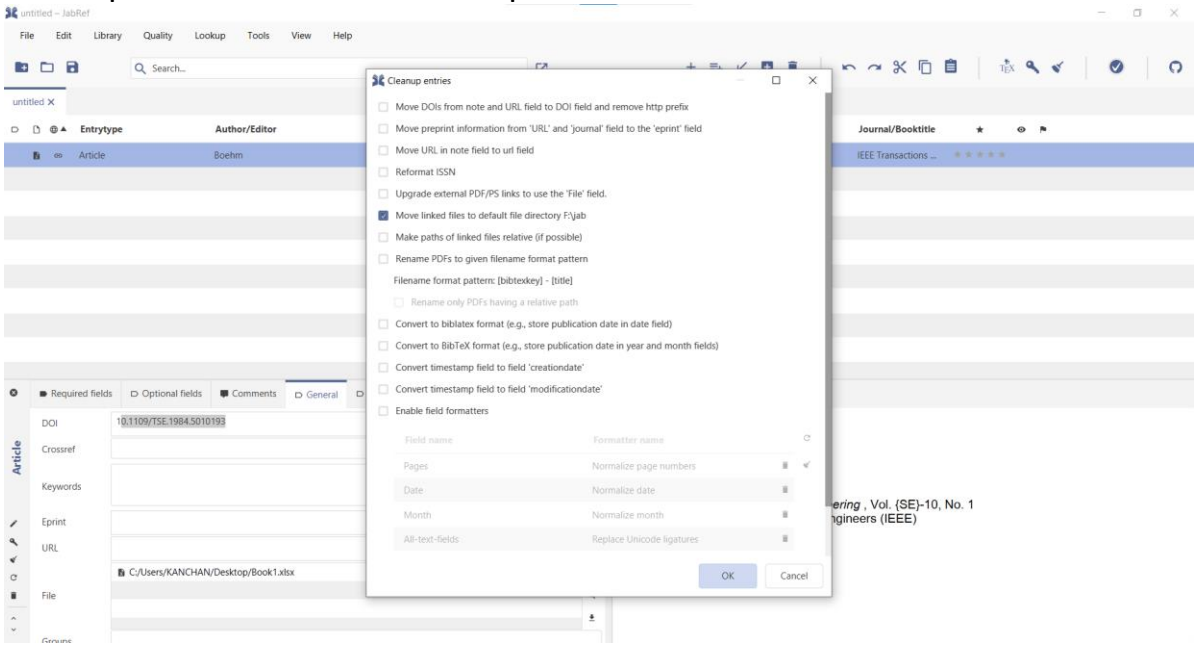
5) Attached Excel file .



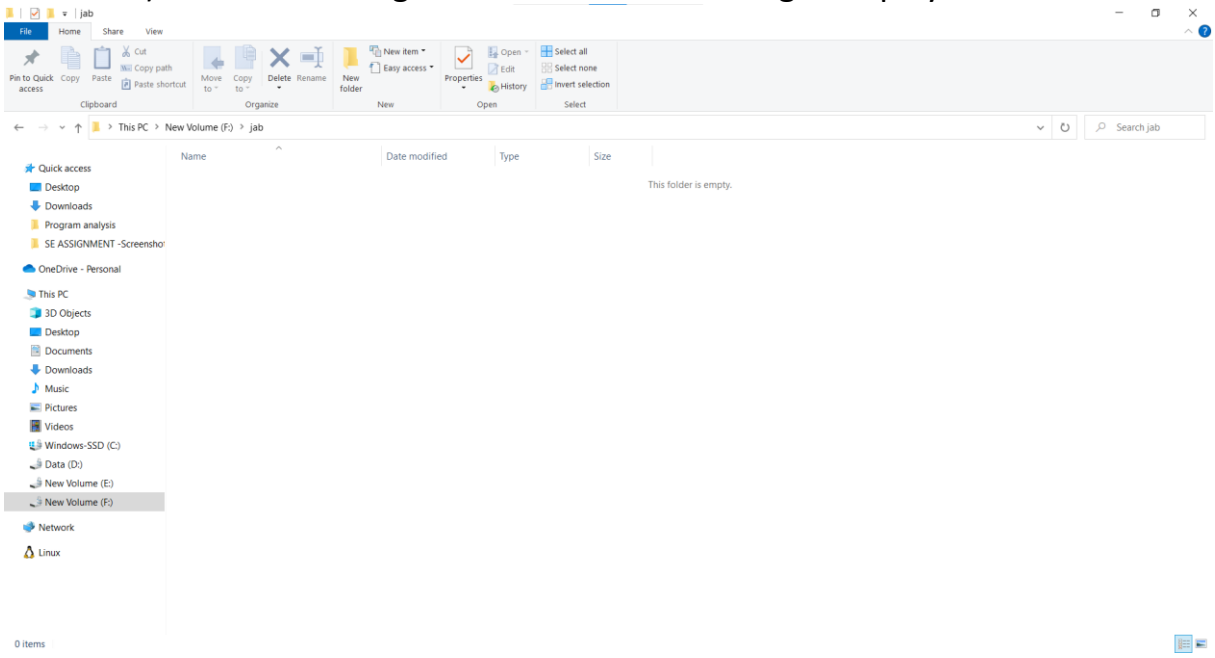
6) Keeping Excel sheet open.



7) Cleanup icon> move linked files option



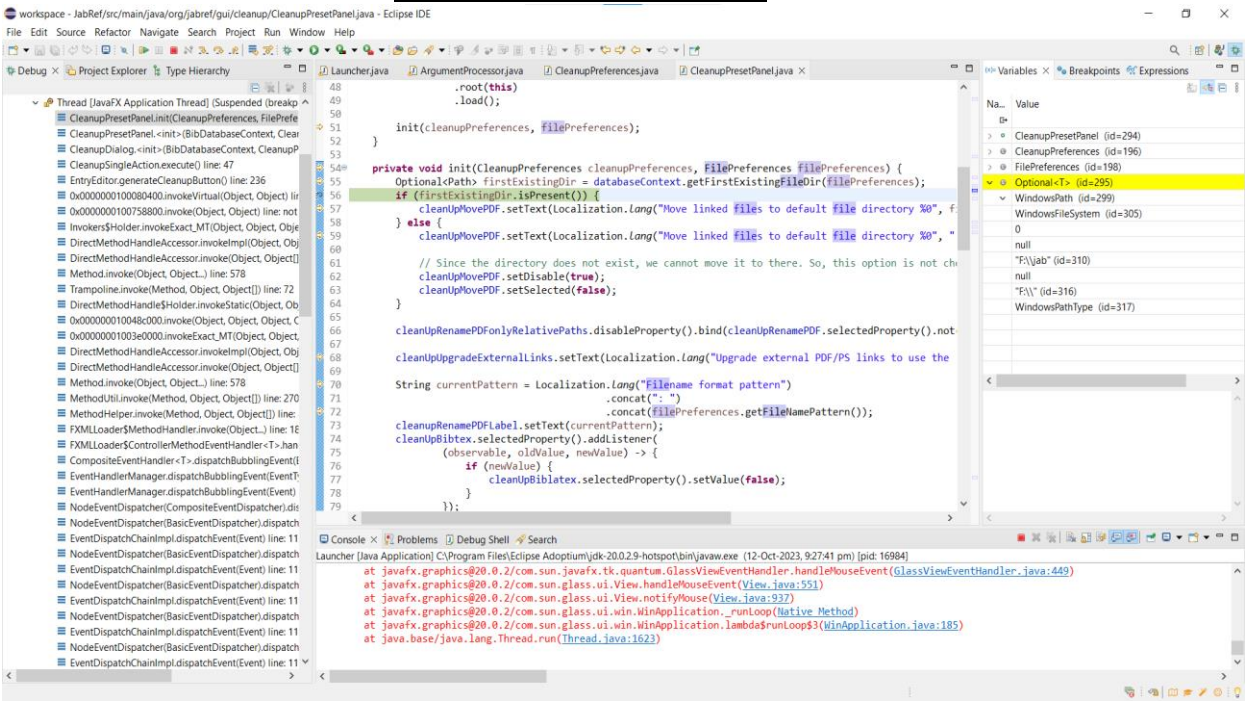
8) Files does not get moved and no warning is displayed.



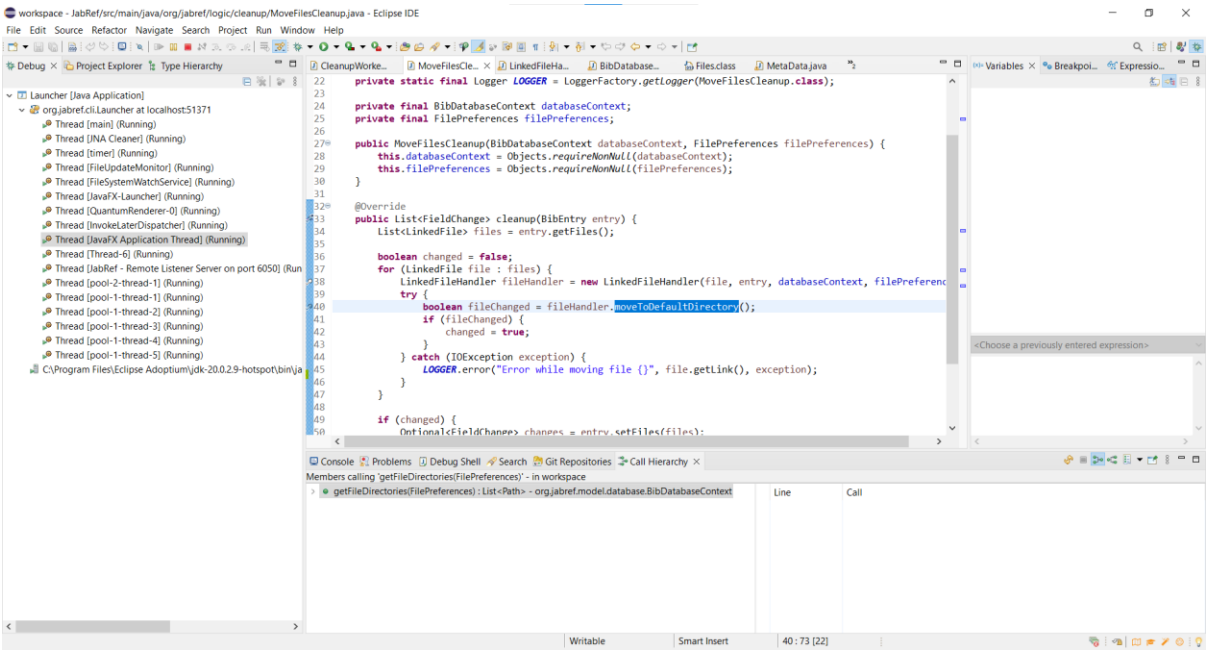
Search Strategies used:

Search using words, Cleanup , Preferences. Found Page:

CleanupPresetPanel.java

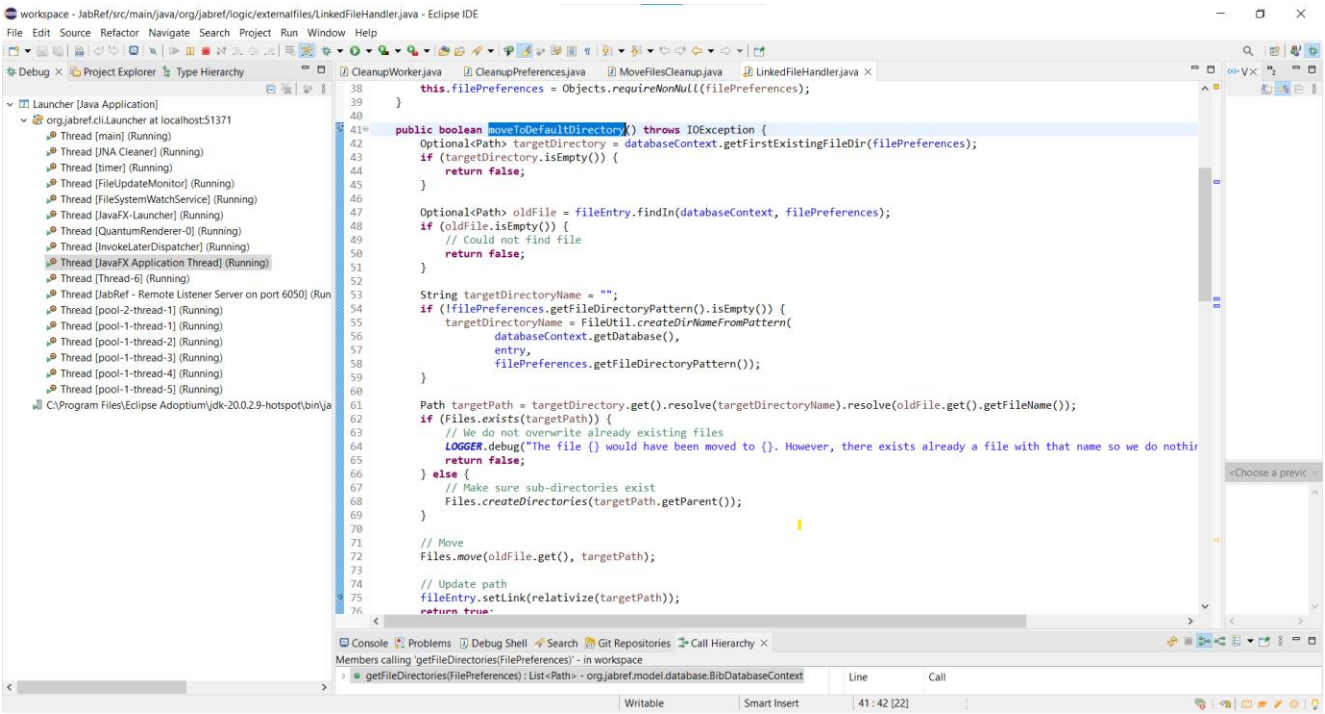


Here found cleanup method which calls movetoDefaultDirectory() method.



Found the location which performs move operation.

Declaration of movetoDefaultDirectory() method.
This method performs move operation to default directory.



Experience with process:

For accessing project and importing it into eclipse IDE and running it I used developer documentation at [Advanced: Eclipse as IDE | Developer Documentation (jabref.org)](jabref.org).
After running project I explored the project UI and got the idea of bug by checking details mentioned at
https://github.com/JabRef/jabref/issues/10121.

I was able to reproduce bug by uploading attached file in excel format and then keeping it open. After which I used cleanup icon to move this already opened file to preferred location.
Preferred location can also be set by going to files> preferences>Linked files. (Attached screenshots).
After which I used keywords such as cleanup, move files to search in code and found few files which were performing this move operation.
I also went through method calls in method leading me to the method which exactly moves files to preferred location.
In this way concept location was found using matching keywords and relating concepts from operation.