

EECS4313: Homework 4

Goal: practice refactoring a code to a better structure and more maintainable code, which is easy to comprehend.

Description: You are given access to an open-source project called Free Mind, which is a mind mapping software written in java. Your job is to review the code and select one part of the code that you think needs refactoring. This part can be a class, method, or part of a method. As long as you identify the problem correctly, the size of the code that you select is not our concern. It can be as small as a loop, or as large as a class.

Then you should write a brief report in which you copy the code that you think is problematic, explain what is wrong with this code and why do you think it is problematic, how you refactor it, and how does the refactored code look like.

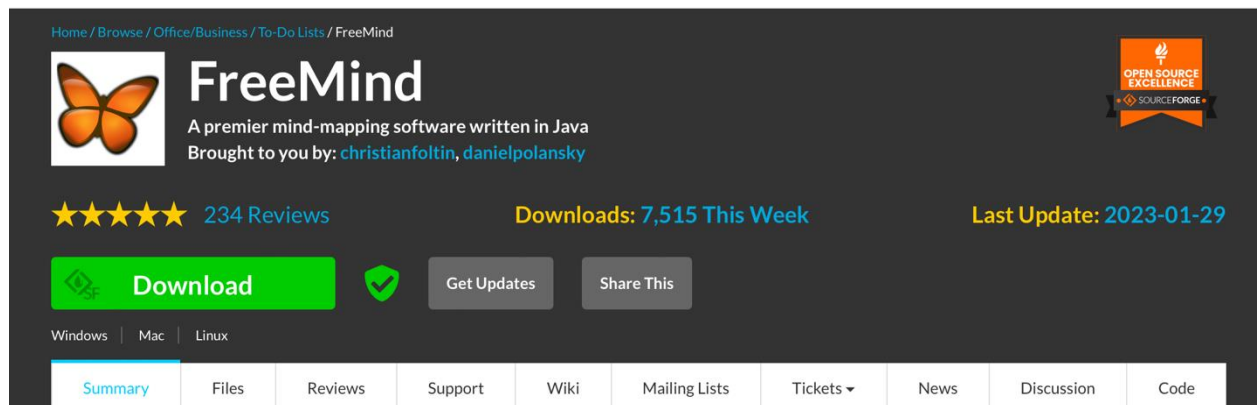
To provide the refactoring solution, you should only use the solutions that are discussed in the last two lectures.

Problematic Code	
Problem(s) Observed	
Refactoring Solution	
Suggested Refactored code	

Submission: One pdf file is submitted that contains the table above, answering the question of this homework.

Instruction on downloading and installation of Free Mind:

- 1) Click the link <https://sourceforge.net/projects/freemind/> .



- 2) Click download.
- 3) Once you download it, open the folder.
- 4) Now try to install it according to your environment.
- 5) After installing, search for **FreeMind** application on your environment and open it.
- 6) Once you open it, click on **File > New**. Change the name of the parent node (New Mindmap) as you want.
- 7) Then click **File > Import > Folder Structure**. Select any folder and see the magic.

Instruction on downloading and installation of JRE

- 1) Click on the link <https://www.oracle.com/ca-en/java/technologies/javase/javase9-archive-downloads.html>
- 2) On the top right corner, click on **View Accounts**, under the **Oracle Account** click **Create an Account**.
- 3) Create a new account.
- 4) After creating an account, under the section **Java SE Runtime Environment 9.0.4**, download the tool according to your environment.
- 5) It will ask you to accept license agreement and click download.
- 6) Once it is downloaded, open the installer and try to install it on your environment.