Company Lockers Private Ltd.

Product LockedMe.com
Prototype of the Application
Name : RAJDEEP KUMAR GAUTAM
GitHub : https://github.com/rajdeepkgautam/LockedMeRKG

About

The prototype of the application is operated as a CLI (Command Line Program) without GUI. Its usage is to do file operations such as create new files along with content, delete a file or search a file from a specified directory and list them afterward in sorting order.

The implementation is done with the help of Java 8 and IDE IntelliJ.

PRODUCT's CAPABILITIES ➔

User Experience

1. It is a Full-Stack model, which has a completely new and modern design which serves as an interactive User Interface (UI).
2. Simple and Easy design with has a smooth work flow as the user proceed with the options.
3. Multiple options to proceed with each with an indicated option to click
4. User can easily enter the process, can go through the process, and can easily exit.

Technology Stack

1. Front-end and Back-end part is being implemented using Java Programming Language.
2. IntelliJ is used as the Integrated Development Environment(IDE) purpose.

3. Functionalities has been implemented using Data Structures and Sorting Techniques such as ArrayList, HashMap, Binary Search, Bubble Sort, and Strings.

Sprint Planning

The Implementation is done in two sprints which are mentioned below:

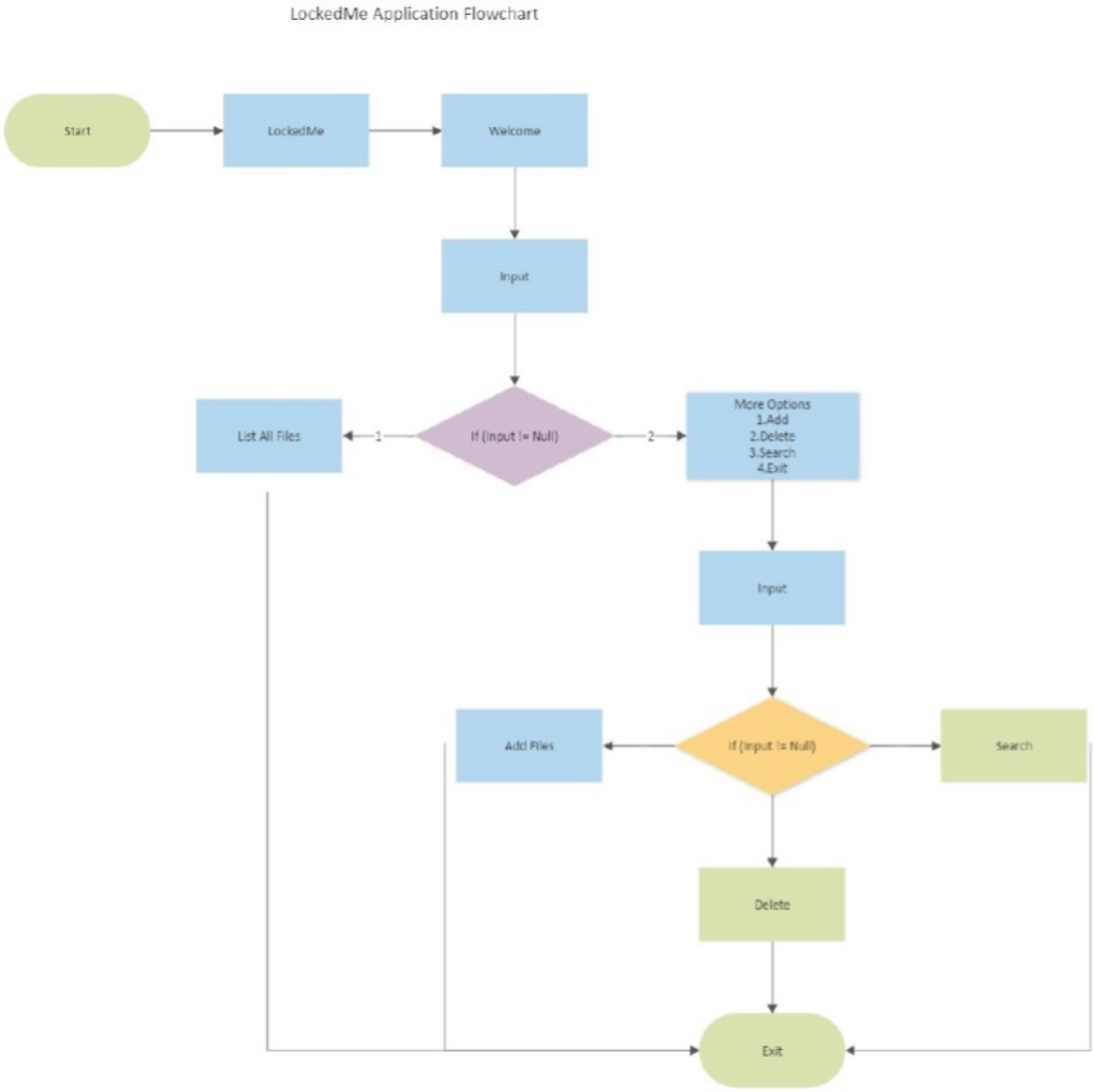
Sprint 1:

- Clarify the specification and requirements.
- Implement view content mechanism.
- Implement list of all files in sorted order.
- Implement functionality to close the program safely.

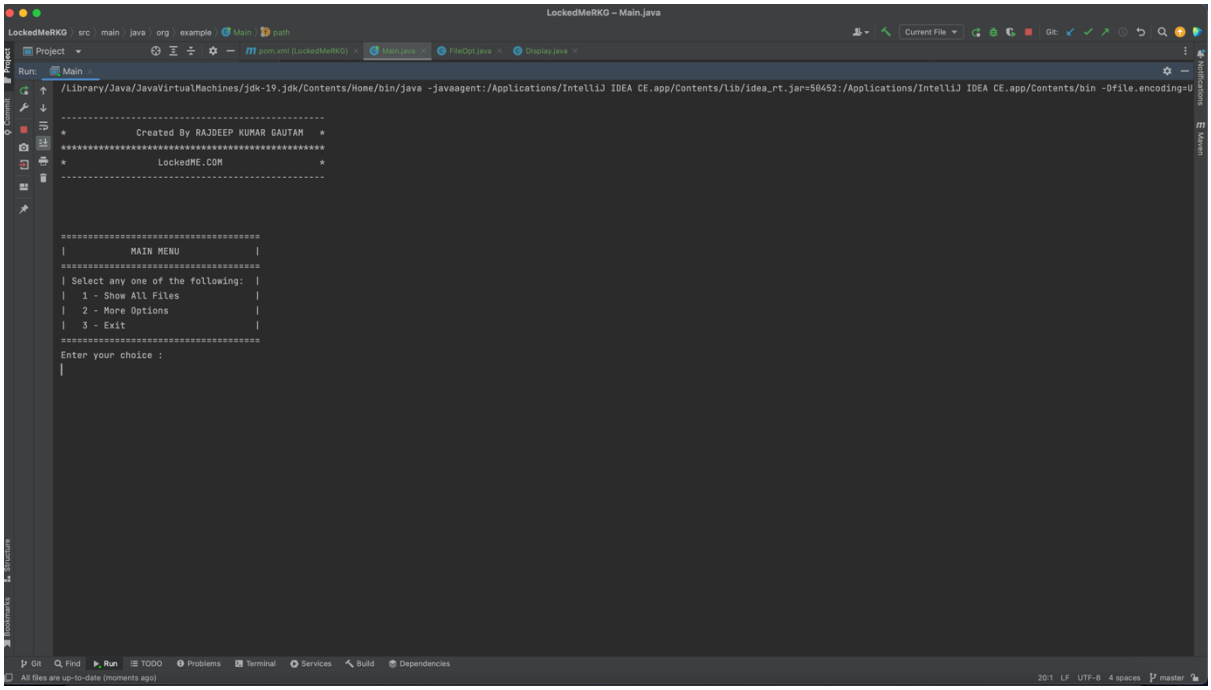
Sprint 2:

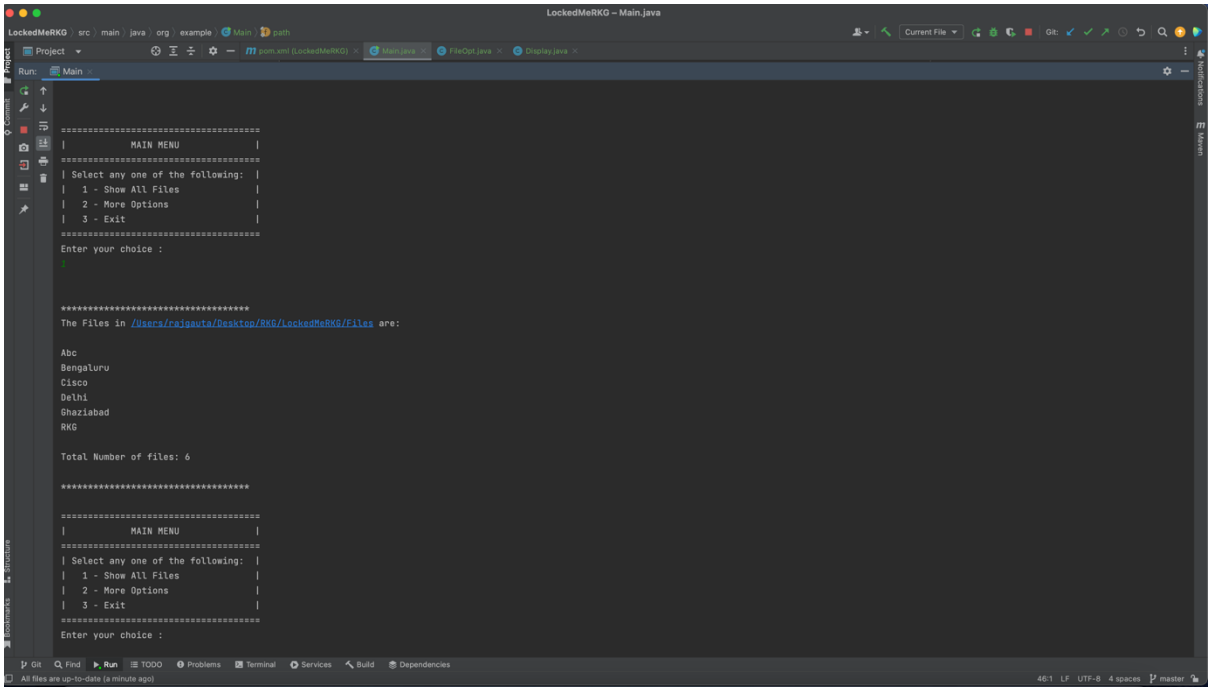
- Implement functionality to add create files along the content.
- Implement functionality to delete a file if it is present in that user specified directory.
- Implement functionality to search a file in the same directory.
- Documentation.

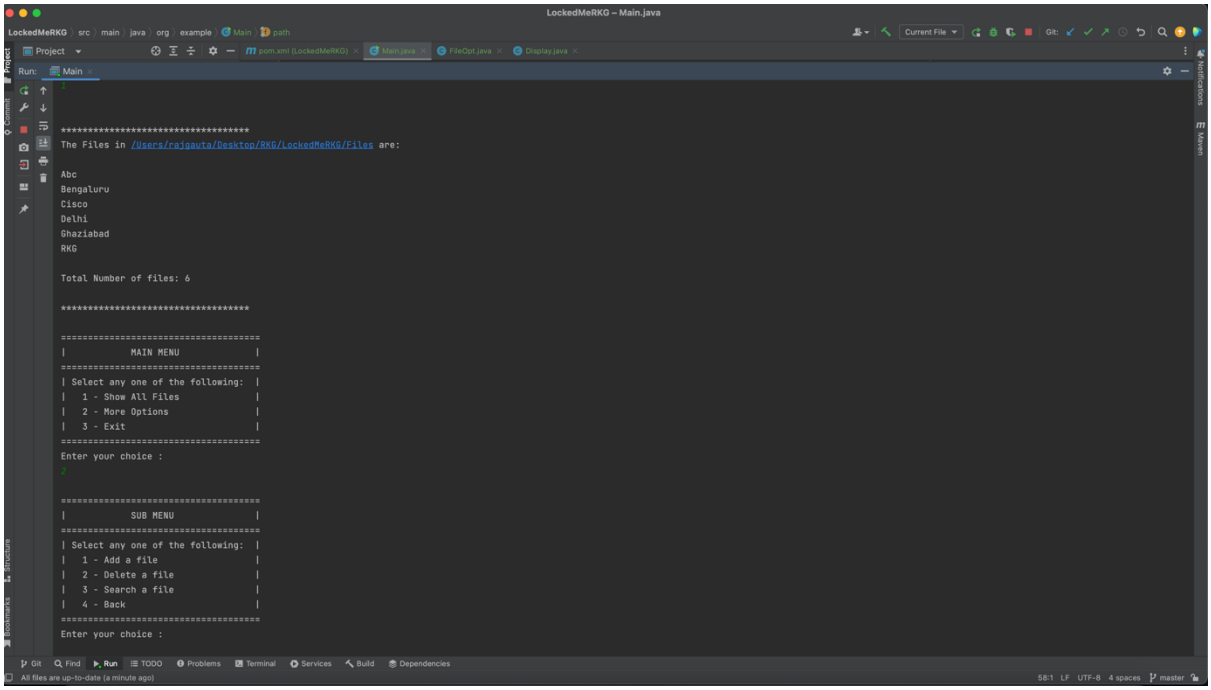
Flowchart-

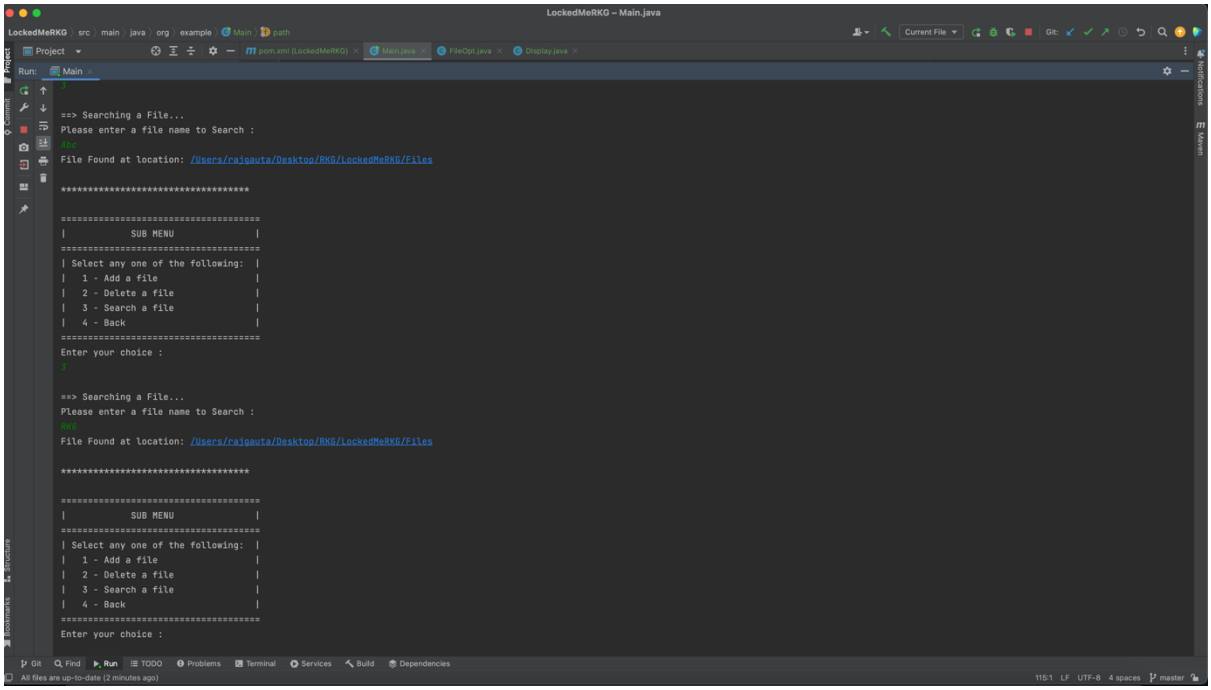

LockedMe Application Flowchart
Start
LockedMe
Welcome
Input
If (Input != Null)
1
List All Files
2
More Options
1.Add
2.Delete
3.Search
4.Exit
Input
If (Input != Null)
Add Files
Search
Delete
Exit

User Interface:-



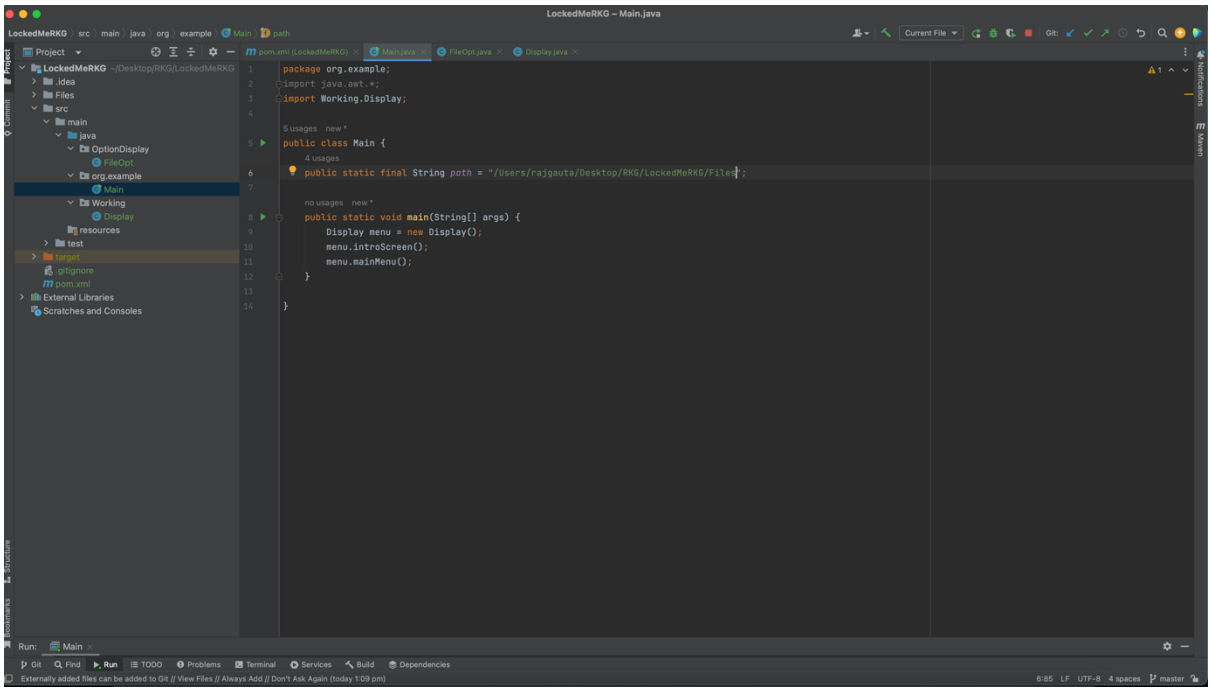



LockedMeRKG – Main.java
LockedMeRKG › src › main › java › org › example › Main › path
Current File
Git:
Project
pom.xml (LockedMeRKG)
Main.java
FileOpt.java
Display.java
Run: Main
****
The Files in /Users/rajgauta/Desktop/RKG/LockedMeRKG/Files are:
Abc
Bengaluru
Cisco
Delhi
Ghaziabad
RKG
Total Number of files: 6
****
==========
| MAIN MENU |
==========
| Select any one of the following: |
| 1 - Show All Files |
| 2 - More Options |
| 3 - Exit |
==========
Enter your choice :
2
==========
| SUB MENU |
==========
| Select any one of the following: |
| 1 - Add a file |
| 2 - Delete a file |
| 3 - Search a file |
| 4 - Back |
==========
Enter your choice :
Git
Find
Run
TODO
Problems
Terminal
Services
Build
Dependencies
All files are up-to-date (a minute ago)
58:1
LF
UTF-8
4 spaces
master

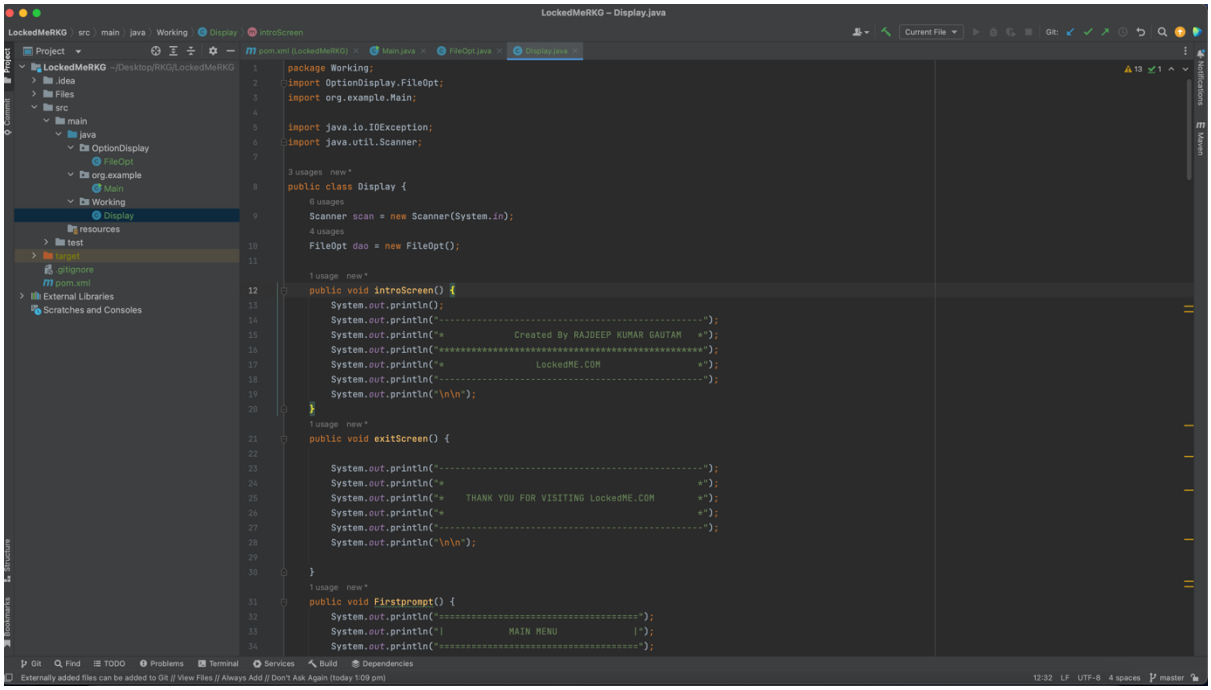

LockedMeRKG – Main.java
LockedMeRKG › src › main › java › org › example › Main › path
Current File
Git:
Project
pom.xml (LockedMeRKG)
Main.java
FileOpt.java
Display.java
Run: Main
3
==> Searching a File...
Please enter a file name to Search :
Abc
File Found at location: /Users/rajgauta/Desktop/RKG/LockedMeRKG/Files
****
==========
| SUB MENU |
==========
| Select any one of the following: |
| 1 - Add a file |
| 2 - Delete a file |
| 3 - Search a file |
| 4 - Back |
==========
Enter your choice :
3
==> Searching a File...
Please enter a file name to Search :
RKG
File Found at location: /Users/rajgauta/Desktop/RKG/LockedMeRKG/Files
****
==========
| SUB MENU |
==========
| Select any one of the following: |
| 1 - Add a file |
| 2 - Delete a file |
| 3 - Search a file |
| 4 - Back |
==========
Enter your choice :
Git
Find
Run
TODO
Problems
Terminal
Services
Build
Dependencies
All files are up-to-date (2 minutes ago)
115:1
LF
UTF-8
4 spaces
master

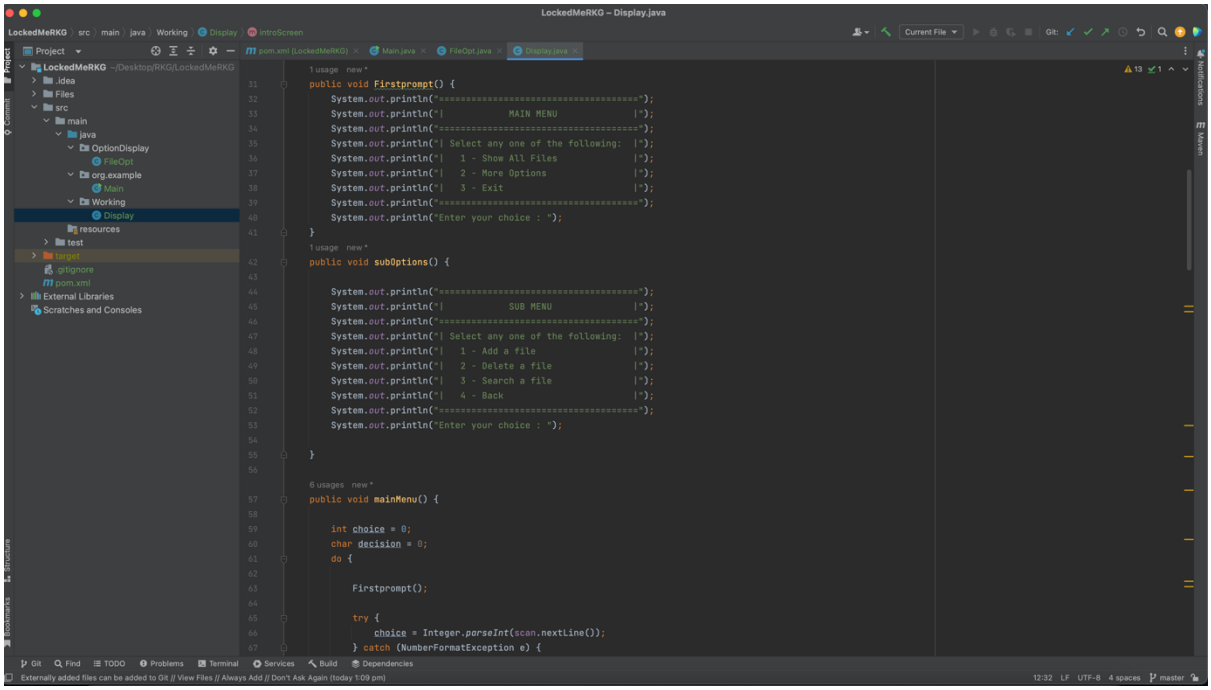
Source Code

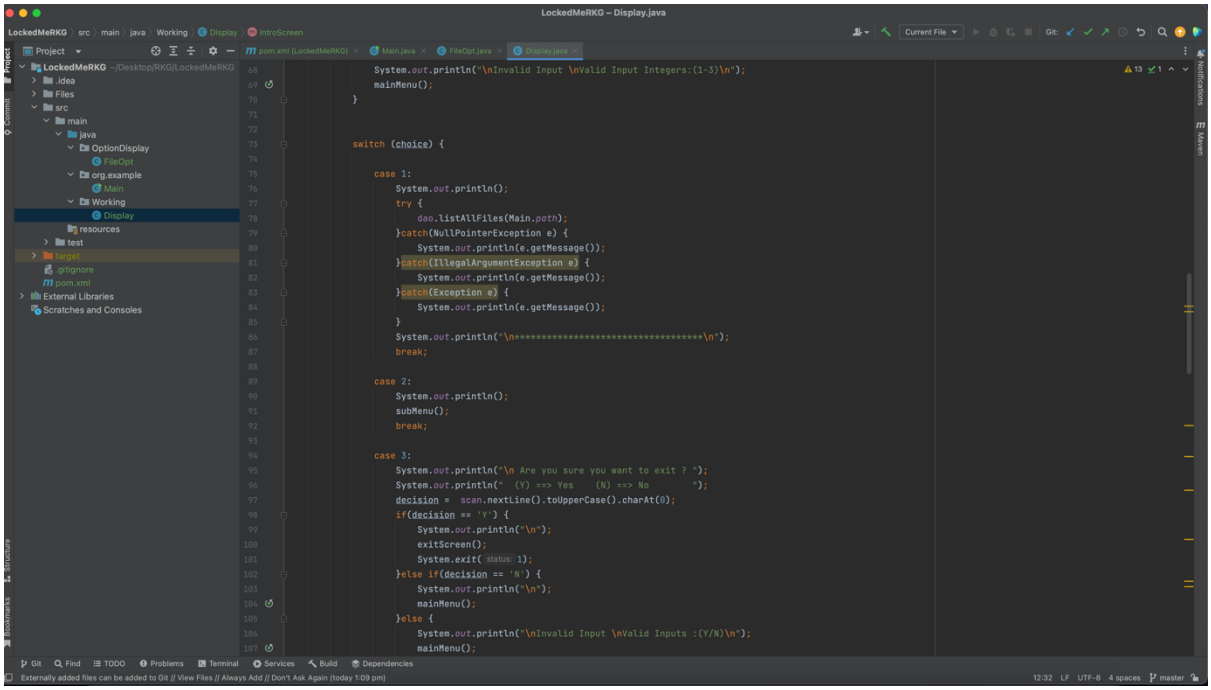
Main.java

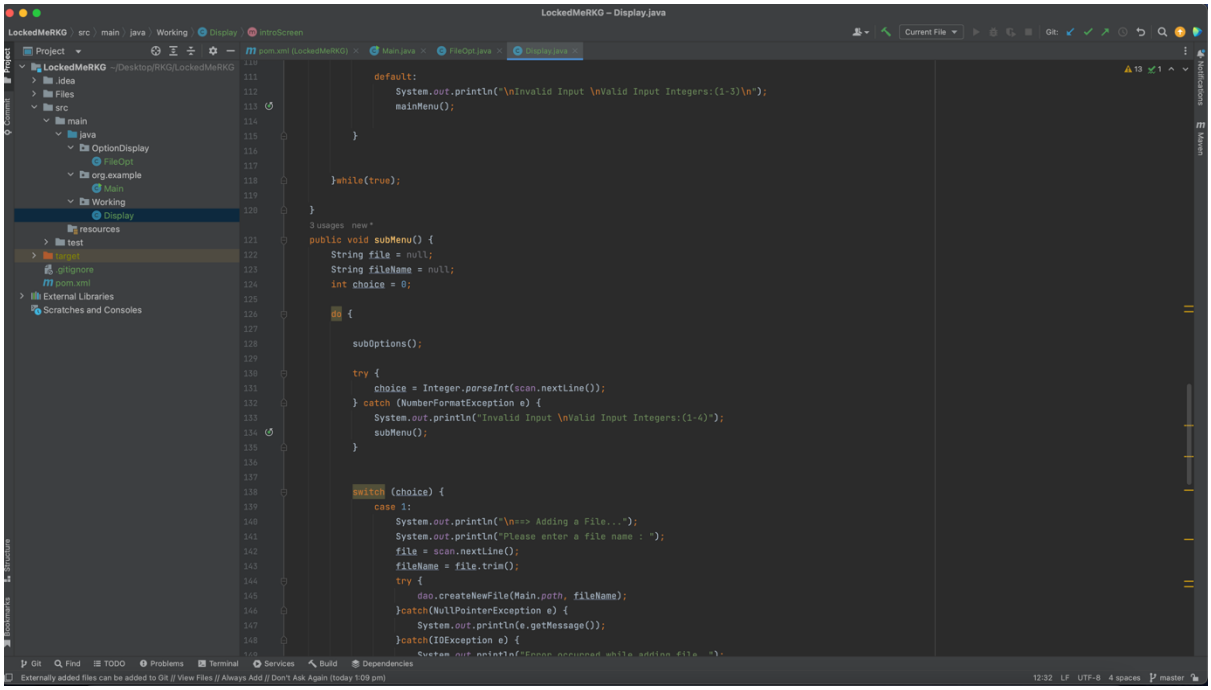


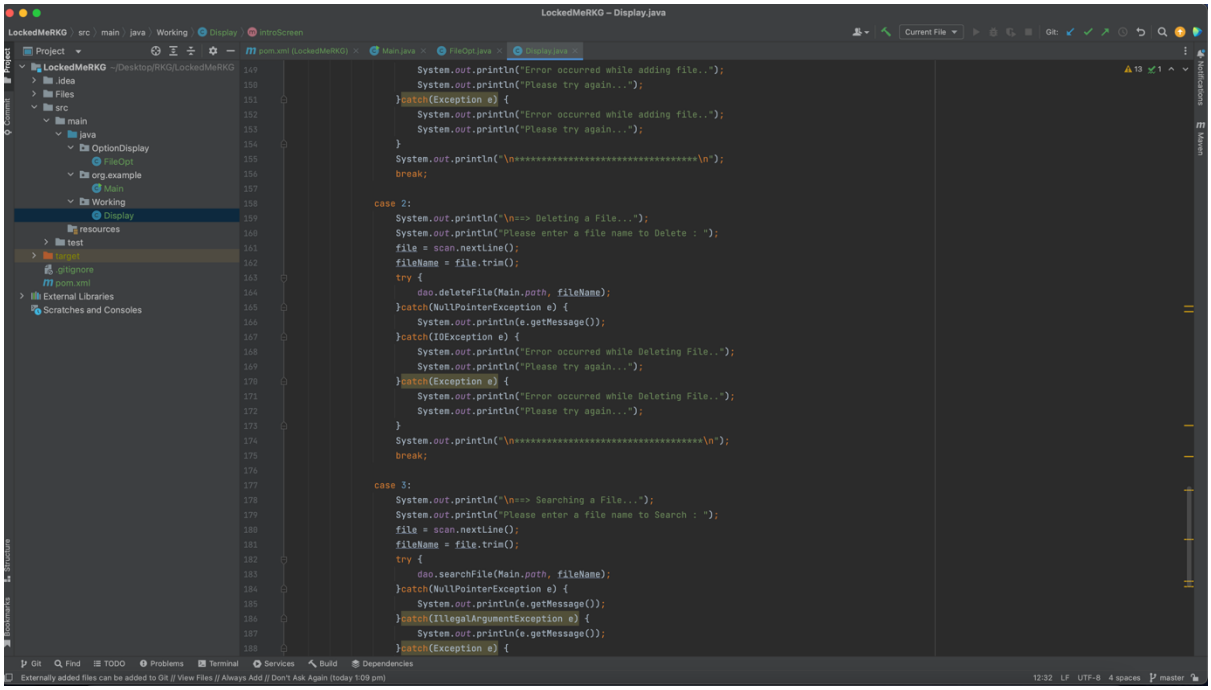
Display.java

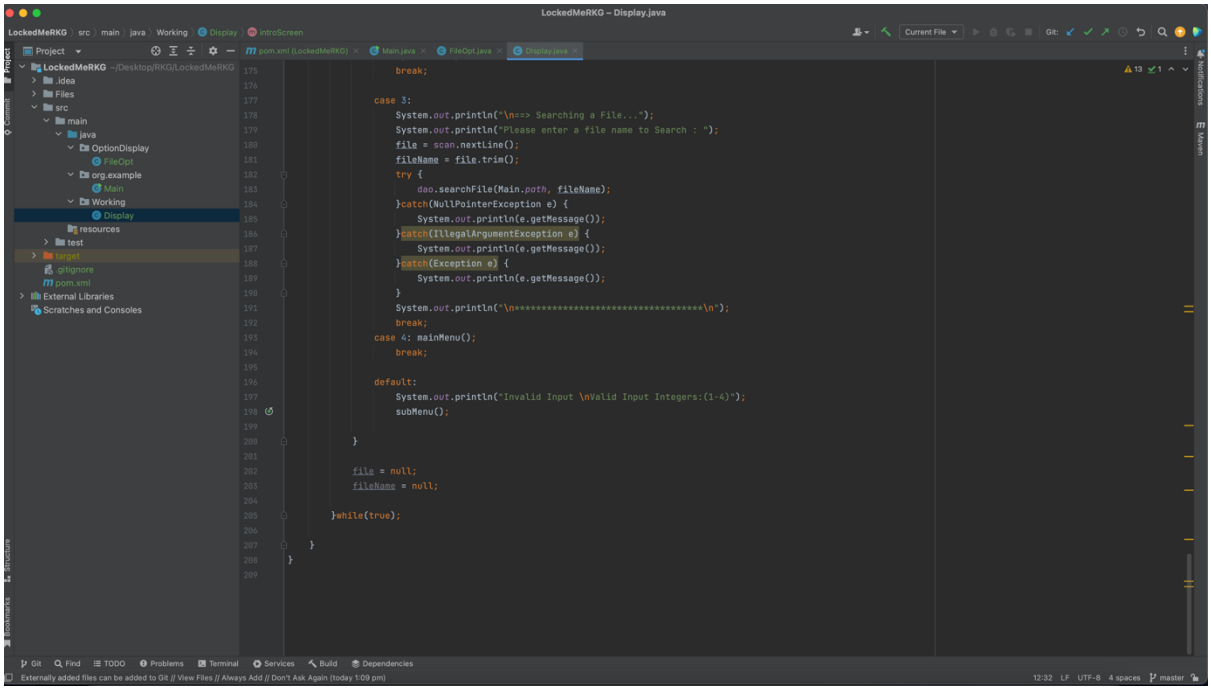




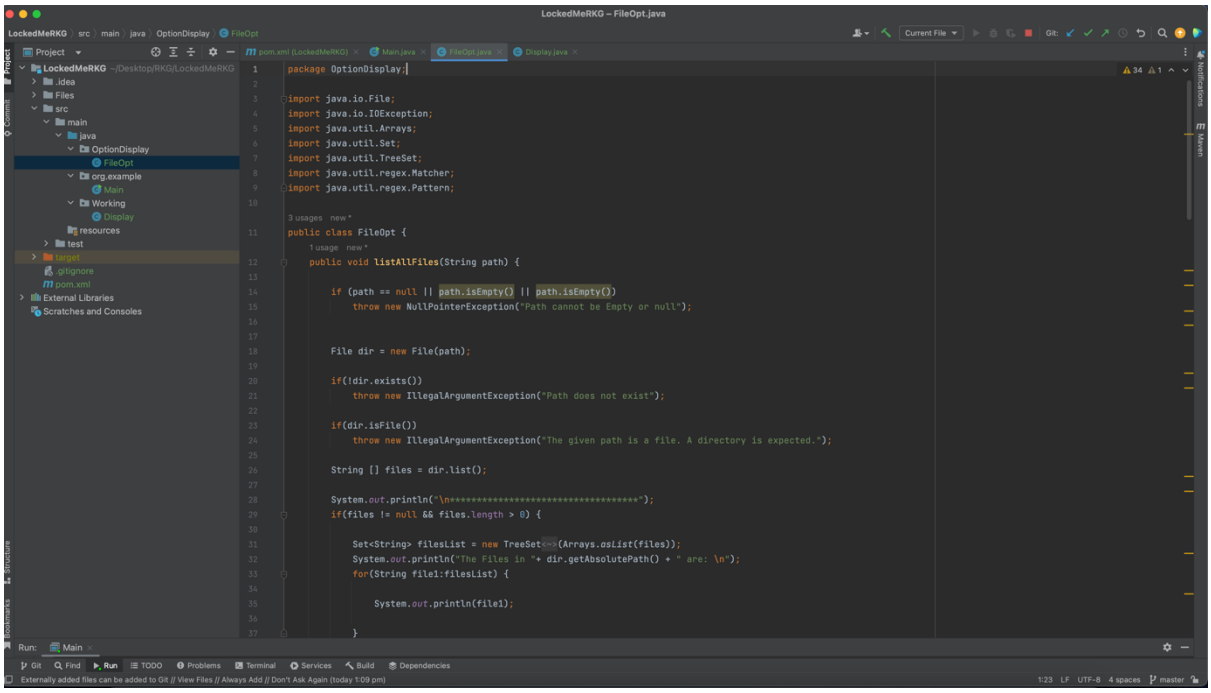

LockedMeRKG – Display.java
System.out.println("\nInvalid Input \nValid Input Integers:(1-3)\n");
mainMenu();
switch (choice) {
case 1:
System.out.println();
try {
dao.listAllFiles(Main.path);
}catch(NullPointerException e) {
System.out.println(e.getMessage());
}catch(IllegalArgumentException e) {
System.out.println(e.getMessage());
}catch(Exception e) {
System.out.println(e.getMessage());
}
System.out.println("\n**********\n");
break;
case 2:
System.out.println();
subMenu();
break;
case 3:
System.out.println("\n Are you sure you want to exit ? ");
System.out.println(" (Y) ==> Yes   (N) ==> No   ");
decision = scan.nextLine().toUpperCase().charAt(0);
if(decision == 'Y') {
System.out.println("\n");
exitScreen();
System.exit(status: 1);
}else if(decision == 'N') {
System.out.println("\n");
mainMenu();
}else {
System.out.println("\nInvalid Input \nValid Inputs :(Y/N)\n");
mainMenu();

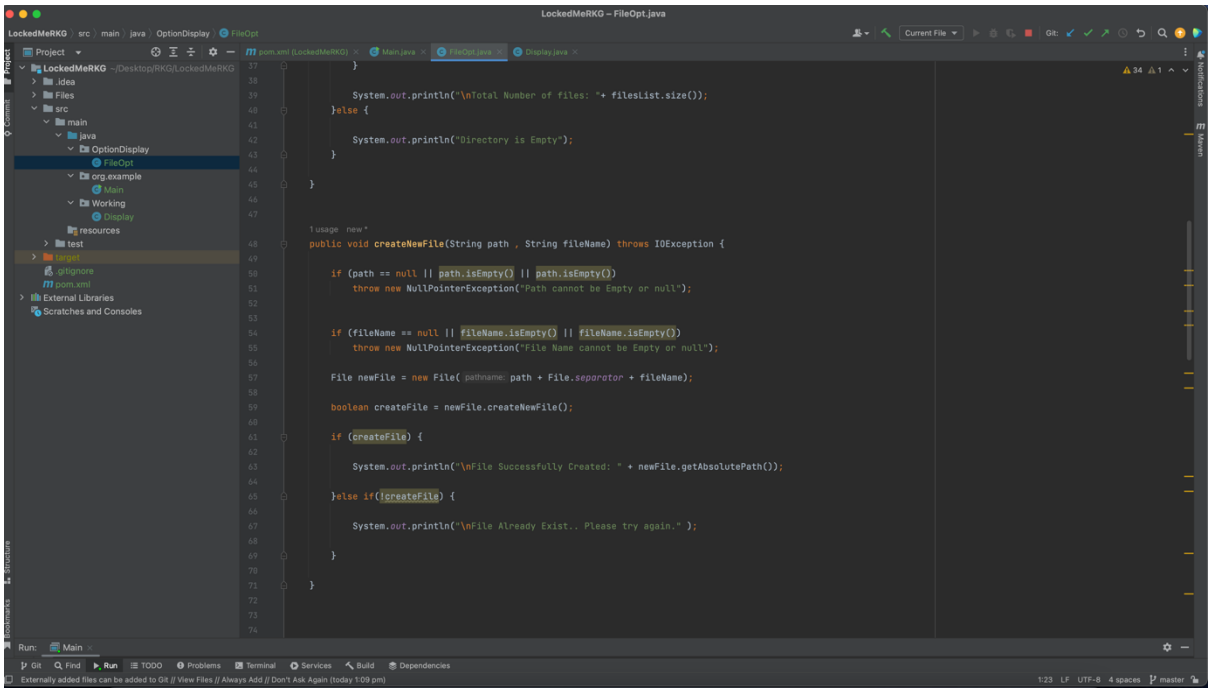

LockedMeRKG – Display.java
default:
System.out.println("\nInvalid Input \nValid Input Integers:(1-3)\n");
mainMenu();
}while(true);
}
3 usages new *
public void subMenu() {
String file = null;
String fileName = null;
int choice = 0;
do {
subOptions();
try {
choice = Integer.parseInt(scan.nextLine());
} catch (NumberFormatException e) {
System.out.println("Invalid Input \nValid Input Integers:(1-4)");
subMenu();
}
switch (choice) {
case 1:
System.out.println("\n==> Adding a File...");
System.out.println("Please enter a file name : ");
file = scan.nextLine();
fileName = file.trim();
try {
dao.createNewFile(Main.path, fileName);
}catch(NullPointerException e) {
System.out.println(e.getMessage());
}catch(IOException e) {

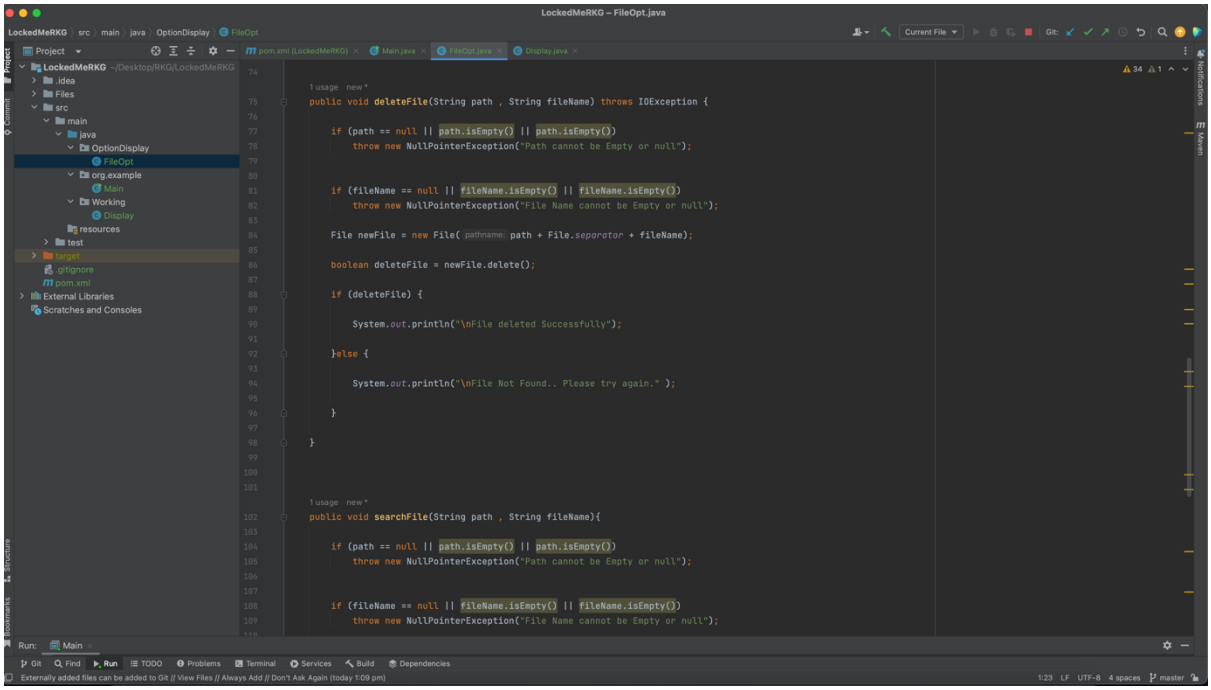

LockedMeRKG – Display.java
LockedMeRKG › src › main › java › Working › Display › introScreen
Current File
Git:
Project
LockedMeRKG ~/Desktop/RKG/LockedMeRKG
.idea
Files
src
main
java
OptionDisplay
FileOpt
org.example
Main
Working
Display
resources
test
target
.gitignore
pom.xml
External Libraries
Scratches and Consoles
pom.xml (LockedMeRKG)
Main.java
FileOpt.java
Display.java
System.out.println("Error occurred while adding file..");
System.out.println("Please try again...");
}catch(Exception e) {
System.out.println("Error occurred while adding file..");
System.out.println("Please try again...");
}
System.out.println("\n**********\n");
break;
case 2:
System.out.println("\n==> Deleting a File...");
System.out.println("Please enter a file name to Delete : ");
file = scan.nextLine();
fileName = file.trim();
try {
dao.deleteFile(Main.path, fileName);
}catch(NullPointerException e) {
System.out.println(e.getMessage());
}catch(IOException e) {
System.out.println("Error occurred while Deleting File..");
System.out.println("Please try again...");
}catch(Exception e) {
System.out.println("Error occurred while Deleting File..");
System.out.println("Please try again...");
}
System.out.println("\n**********\n");
break;
case 3:
System.out.println("\n==> Searching a File...");
System.out.println("Please enter a file name to Search : ");
file = scan.nextLine();
fileName = file.trim();
try {
dao.searchFile(Main.path, fileName);
}catch(NullPointerException e) {
System.out.println(e.getMessage());
}catch(IllegalArgumentException e) {
System.out.println(e.getMessage());
}catch(Exception e) {
Git
Find
TODO
Problems
Terminal
Services
Build
Dependencies
Externally added files can be added to Git // View Files // Always Add // Don't Ask Again (today 1:09 pm)
12:32
LF
UTF-8
4 spaces
master

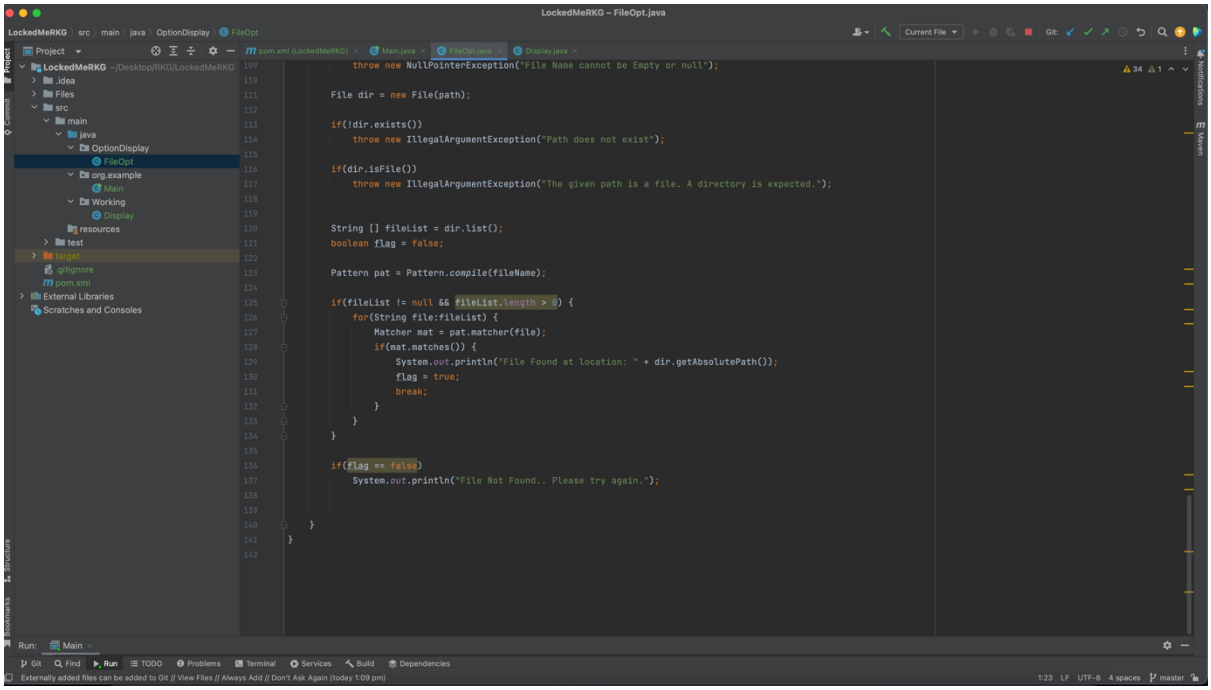

LockedMeRKG – Display.java
LockedMeRKG › src › main › java › Working › Display › introScreen
Current File
Git:
Project
LockedMeRKG ~/Desktop/RKG/LockedMeRKG
.idea
Files
src
main
java
OptionDisplay
FileOpt
org.example
Main
Working
Display
resources
test
target
.gitignore
pom.xml
External Libraries
Scratches and Consoles
pom.xml (LockedMeRKG)
Main.java
FileOpt.java
Display.java
break;
case 3:
System.out.println("\n==> Searching a File...");
System.out.println("Please enter a file name to Search : ");
file = scan.nextLine();
fileName = file.trim();
try {
dao.searchFile(Main.path, fileName);
}catch(NullPointerException e) {
System.out.println(e.getMessage());
}catch(IllegalArgumentException e) {
System.out.println(e.getMessage());
}catch(Exception e) {
System.out.println(e.getMessage());
}
System.out.println("\n**********\n");
break;
case 4: mainMenu();
break;
default:
System.out.println("Invalid Input \nValid Input Integers:(1-4)");
subMenu();
}
file = null;
fileName = null;
}while(true);
}
}
Git
Find
TODO
Problems
Terminal
Services
Build
Dependencies
Externally added files can be added to Git // View Files // Always Add // Don't Ask Again (today 1:09 pm)
12:32
LF
UTF-8
4 spaces
master

fileOpt.java






LockedMeRKG – FileOpt.java
LockedMeRKG › src › main › java › OptionDisplay › FileOpt
Project
LockedMeRKG ~/Desktop/RKG/LockedMeRKG
.idea
Files
src
main
java
OptionDisplay
FileOpt
org.example
Main
Working
Display
resources
test
target
.gitignore
pom.xml
External Libraries
Scratches and Consoles
pom.xml (LockedMeRKG)
Main.java
FileOpt.java
Display.java
1 usage new *
public void deleteFile(String path , String fileName) throws IOException {
if (path == null || path.isEmpty() || path.isEmpty())
throw new NullPointerException("Path cannot be Empty or null");
if (fileName == null || fileName.isEmpty() || fileName.isEmpty())
throw new NullPointerException("File Name cannot be Empty or null");
File newFile = new File(pathname: path + File.separator + fileName);
boolean deleteFile = newFile.delete();
if (deleteFile) {
System.out.println("\nFile deleted Successfully");
}else {
System.out.println("\nFile Not Found.. Please try again.");
}
}
1 usage new *
public void searchFile(String path , String fileName){
if (path == null || path.isEmpty() || path.isEmpty())
throw new NullPointerException("Path cannot be Empty or null");
if (fileName == null || fileName.isEmpty() || fileName.isEmpty())
throw new NullPointerException("File Name cannot be Empty or null");
Run: Main
Git Find Run TODO Problems Terminal Services Build Dependencies
Externally added files can be added to Git // View Files // Always Add // Don't Ask Again (today 1:09 pm)
1:23 LF UTF-8 4 spaces master


LockedMeRKG – FileOpt.java
throw new NullPointerException("File Name cannot be Empty or null");
File dir = new File(path);
if(!dir.exists())
throw new IllegalArgumentException("Path does not exist");
if(dir.isFile())
throw new IllegalArgumentException("The given path is a file. A directory is expected.");
String [] fileList = dir.list();
boolean flag = false;
Pattern pat = Pattern.compile(fileName);
if(fileList != null && fileList.length > 0) {
for(String file:fileList) {
Matcher mat = pat.matcher(file);
if(mat.matches()) {
System.out.println("File Found at location: " + dir.getAbsolutePath());
flag = true;
break;
}
}
}
if(flag == false)
System.out.println("File Not Found.. Please try again.");
}
}
Run: Main
Git Find Run TODO Problems Terminal Services Build Dependencies
Externally added files can be added to Git // View Files // Always Add // Don't Ask Again (today 1:09 pm)
1:23 LF UTF-8 4 spaces master

Conclusion

1: The prototype is robust and platform independent.

2: User can easily use the prototype and safely exit out of it.

3: The prototype has a good interface with CLI (Command Line Interface).

4: As a developer, we can enhance it by introducing several new features such as appending in a file or overwriting a file and the file details for which user selected.

5: This prototype though is robust but user can only interact it with terminal or CLI so we can develop a good GUI interface for more better user-friendly.