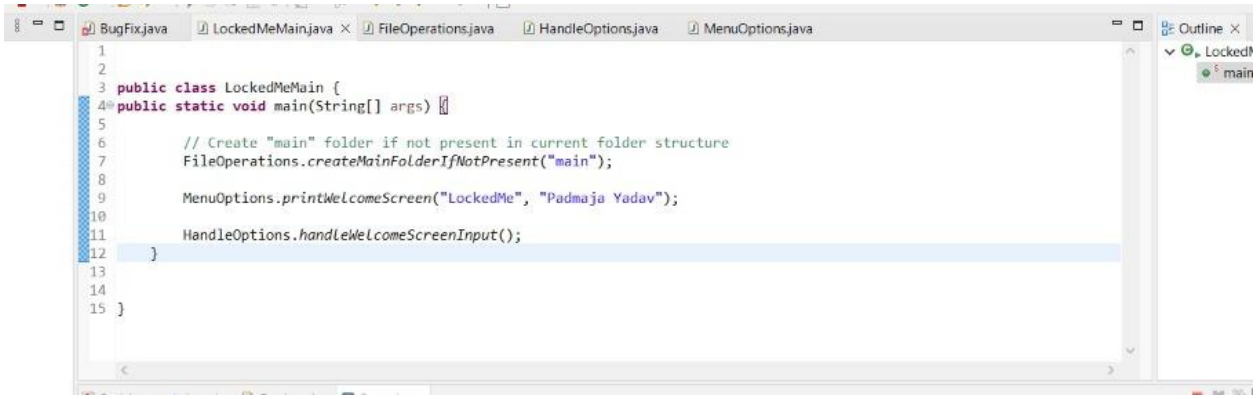
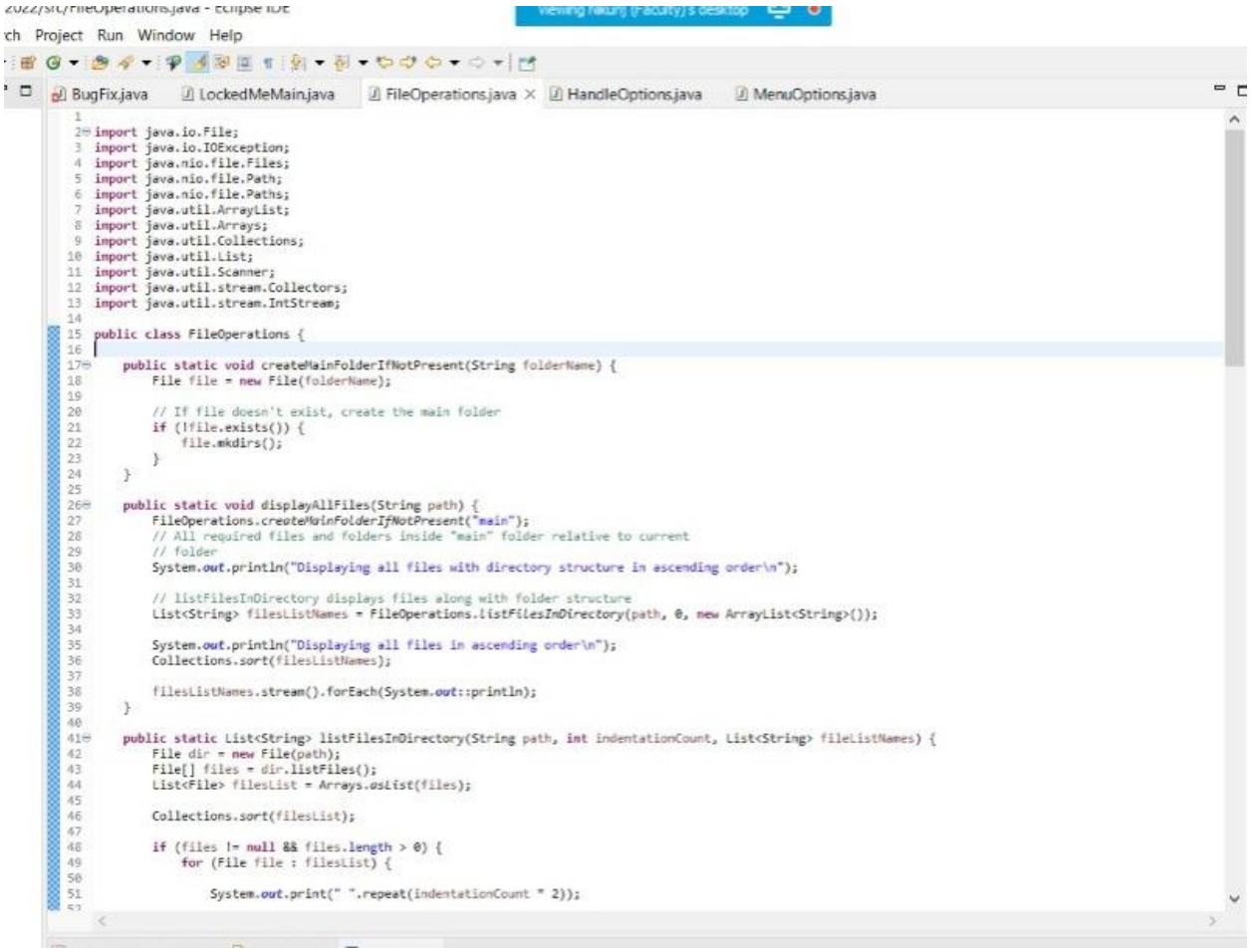
Main Program:



File Operation:


ch Project Run Window Help
BugFix.java
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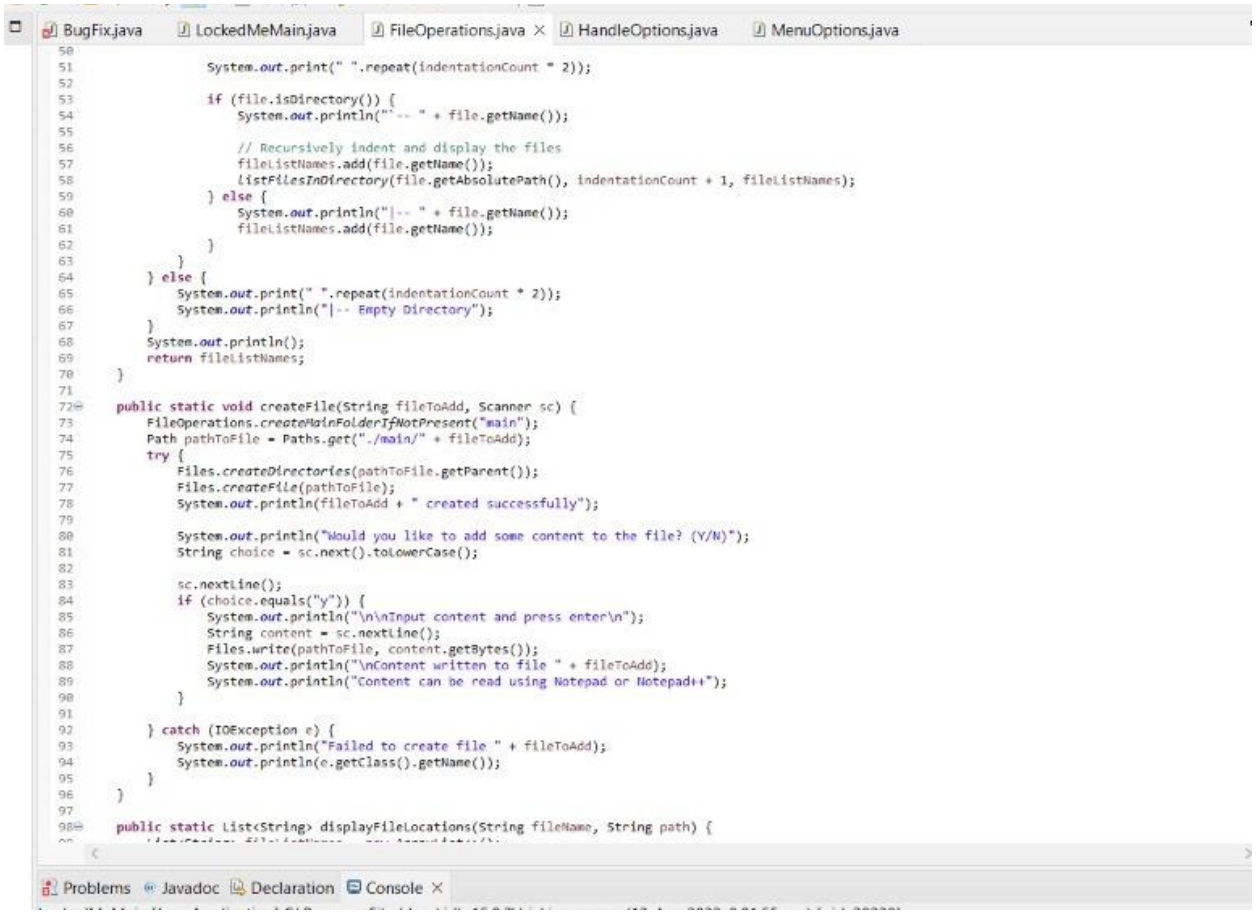
MenuOptions.java
import java.io.File;
import java.io.IOException;
import java.nio.file.Files;
import java.nio.file.Path;
import java.nio.file.Paths;
import java.util.ArrayList;
import java.util.Arrays;
import java.util.Collections;
import java.util.List;
import java.util.Scanner;
import java.util.stream.Collectors;
import java.util.stream.IntStream;
public class FileOperations {
public static void createMainFolderIfNotPresent(String folderName) {
File file = new File(folderName);
// If file doesn't exist, create the main folder
if (!file.exists()) {
file.mkdirs();
}
}
public static void displayAllFiles(String path) {
FileOperations.createMainFolderIfNotPresent("main");
// All required files and folders inside "main" folder relative to current
// folder
System.out.println("Displaying all files with directory structure in ascending order\n");
// listFilesInDirectory displays files along with folder structure
List<String> filesListNames = FileOperations.listFilesInDirectory(path, 0, new ArrayList<String>());
System.out.println("Displaying all files in ascending order\n");
Collections.sort(filesListNames);
filesListNames.stream().forEach(System.out::println);
}
public static List<String> listFilesInDirectory(String path, int indentationCount, List<String> fileListNames) {
File dir = new File(path);
File[] files = dir.listFiles();
List<File> filesList = Arrays.asList(files);
Collections.sort(filesList);
if (files != null && files.length > 0) {
for (File file : filesList) {
System.out.print(" ".repeat(indentationCount * 2));


BugFix.java
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System.out.print(" ".repeat(indentationCount * 2));
if (file.isDirectory()) {
System.out.println("'-- " + file.getName());
// Recursively indent and display the files
fileListNames.add(file.getName());
listFilesInDirectory(file.getAbsolutePath(), indentationCount + 1, fileListNames);
} else {
System.out.println("|-- " + file.getName());
fileListNames.add(file.getName());
}
}
} else {
System.out.print(" ".repeat(indentationCount * 2));
System.out.println("|-- Empty Directory");
}
System.out.println();
return fileListNames;
}
public static void createFile(String fileToAdd, Scanner sc) {
FileOperations.createMainFolderIfNotPresent("main");
Path pathToFile = Paths.get("./main/" + fileToAdd);
try {
Files.createDirectories(pathToFile.getParent());
Files.createFile(pathToFile);
System.out.println(fileToAdd + " created successfully");
System.out.println("Would you like to add some content to the file? (Y/N)");
String choice = sc.next().toLowerCase();
sc.nextLine();
if (choice.equals("y")) {
System.out.println("\n\nInput content and press enter\n");
String content = sc.nextLine();
Files.write(pathToFile, content.getBytes());
System.out.println("\nContent written to file " + fileToAdd);
System.out.println("Content can be read using Notepad or Notepad++");
}
} catch (IOException e) {
System.out.println("Failed to create file " + fileToAdd);
System.out.println(e.getClass().getName());
}
}
public static List<String> displayFileLocations(String fileName, String path) {
Problems
Javadoc
Declaration
Console

BugFix.java | LockedMeMain.java | FileOperations.java | HandleOptions.java | MenuOptions.java

```
    public static void searchFileRecursively(String path, String fileName, List<String> fileListNames) {
        File dir = new File(path);
        File[] files = dir.listFiles();
        List<File> filesList = Arrays.asList(files);

        if (files != null && files.length > 0) {
            for (File file : filesList) {

                if (file.getName().startsWith(fileName)) {
                    fileListNames.add(file.getAbsolutePath());
                }

                // Need to search in directories separately to ensure all files of required
                // fileName are searched
                if (file.isDirectory()) {
                    searchFileRecursively(file.getAbsolutePath(), fileName, fileListNames);
                }
            }
        }
    }

    public static void deleteFileRecursively(String path) {

        File currFile = new File(path);
        File[] files = currFile.listFiles();

        if (files != null && files.length > 0) {
            for (File file : files) {

                String fileName = file.getName() + " at " + file.getParent();
                if (file.isDirectory()) {
                    deleteFileRecursively(file.getAbsolutePath());
                }

                if (file.delete()) {
                    System.out.println(fileName + " deleted successfully");
                } else {
                    System.out.println("Failed to delete " + fileName);
                }
            }
        }

        String currFileName = currFile.getName() + " at " + currFile.getParent();
        if (currFile.delete()) {
            System.out.println(currFileName + " deleted successfully");
        } else {
            System.out.println("Failed to delete " + currFileName);
        }
    }
}
```

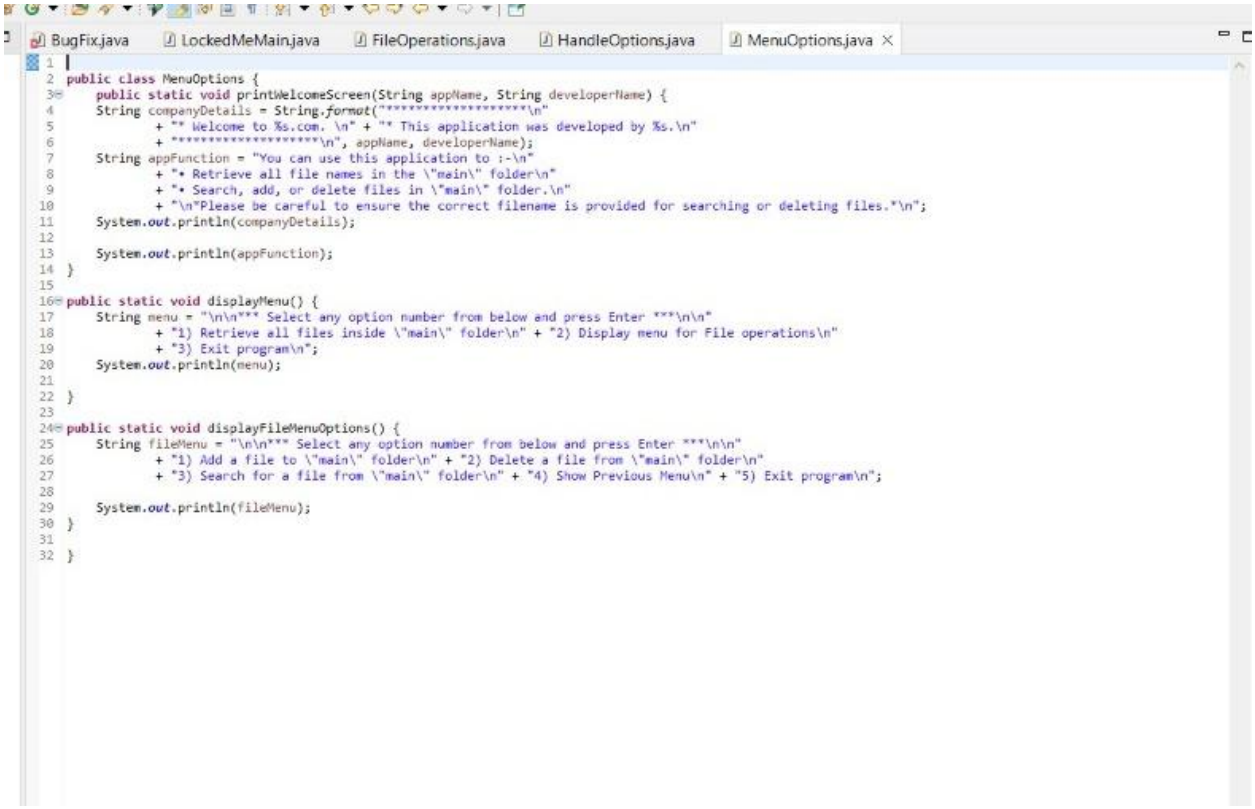
Handle Options:

BugFix.java | LockedMeMain.java | FileOperations.java | HandleOptions.java | MenuOptions.java

```java
import java.util.List;
import java.util.Scanner;

public class HandleOptions {
    public static void handleWelcomeScreenInput() {
        boolean running = true;
        Scanner sc = new Scanner(System.in);
        do {
            try {
                MenuOptions.displayMenu();
                int input = sc.nextInt();

                switch (input) {
                case 1:
                    FileOperations.displayAllFiles("main");
                    break;
                case 2:
                    HandleOptions.handleFileMenuOptions();
                    break;
                case 3:
                    System.out.println("Program exited successfully.");
                    running = false;
                    sc.close();
                    System.exit(0);
                    break;
                default:
                    System.out.println("Please select a valid option from above.");
                }
            } catch (Exception e) {
                System.out.println(e.getClass().getName());
                handleWelcomeScreenInput();
            }
        } while (running == true);
    }

    public static void handleFileMenuOptions() {
        boolean running = true;
        Scanner sc = new Scanner(System.in);
        do {
            try {
                MenuOptions.displayFileMenuOptions();
                FileOperations.createMainFolderIfNotPresent("main");

                int input = sc.nextInt();
                switch (input) {
                case 1:
                    // File Add
                    System.out.println("Enter the name of the file to be added to the \"main\" folder");
                    String fileToAdd = sc.next();

                    FileOperations.createFile(fileToAdd, sc);
```


```
                    String fileToDelete = sc.next();

                    FileOperations.createMainFolderIfNotPresent("main");
                    List<String> filesToDelete = FileOperations.displayFileLocations(fileToDelete, "main");

                    String deletionPrompt = "\nSelect index of which file to delete?"
                            + "\n(Enter 0 if you want to delete all elements)";
                    System.out.println(deletionPrompt);

                    int idx = sc.nextInt();

                    if (idx != 0) {
                        FileOperations.deleteFileRecursively(filesToDelete.get(idx - 1));
                    } else {

                        // If idx == 0, delete all files displayed for the name
                        for (String path : filesToDelete) {
                            FileOperations.deleteFileRecursively(path);
                        }
                    }


                    break;
                case 3:
                    // File/Folder Search
                    System.out.println("Enter the name of the file to be searched from \"main\" folder");
                    String fileName = sc.next();

                    FileOperations.createMainFolderIfNotPresent("main");
                    FileOperations.displayFileLocations(fileName, "main");


                    break;
                case 4:
                    // Go to Previous menu
                    return;
                case 5:
                    // Exit
                    System.out.println("Program exited successfully.");
                    running = false;
                    sc.close();
                    System.exit(0);
                default:
                    System.out.println("Please select a valid option from above.");
                }
            } catch (Exception e) {
                System.out.println(e.getClass().getName());
                handleFileMenuOptions();
            }
        } while (running == true);
    }
}
```

Menu Options:


BugFix.java
LockedMeMain.java
FileOperations.java
HandleOptions.java
MenuOptions.java
public class MenuOptions {
public static void printWelcomeScreen(String appName, String developerName) {
String companyDetails = String.format("********************\n"
+ "* Welcome to %s.com. \n" + "* This application was developed by %s.\n"
+ "********************\n", appName, developerName);
String appFunction = "You can use this application to :-\n"
+ "• Retrieve all file names in the \"main\" folder\n"
+ "• Search, add, or delete files in \"main\" folder.\n"
+ "\n*Please be careful to ensure the correct filename is provided for searching or deleting files.*\n";
System.out.println(companyDetails);
System.out.println(appFunction);
}
public static void displayMenu() {
String menu = "\n\n*** Select any option number from below and press Enter ***\n\n"
+ "1) Retrieve all files inside \"main\" folder\n" + "2) Display menu for File operations\n"
+ "3) Exit program\n";
System.out.println(menu);
}
public static void displayFileMenuOptions() {
String fileMenu = "\n\n*** Select any option number from below and press Enter ***\n\n"
+ "1) Add a file to \"main\" folder\n" + "2) Delete a file from \"main\" folder\n"
+ "3) Search for a file from \"main\" folder\n" + "4) Show Previous Menu\n" + "5) Exit program\n";
System.out.println(fileMenu);
}
}

Output:

```
*** Select any option number from below and press Enter ***

1) Add a file to "main" folder
2) Delete a file from "main" folder
3) Search for a file from "main" folder
4) Show Previous Menu
5) Exit program

1
Enter the name of the file to be added to the "main" folder
padmajayadav
padmajayadav created successfully
Would you like to add some content to the file? (Y/N)
y


Input content and press enter

hai

Content written to file padmajayadav
Content can be read using Notepad or Notepad++


*** Select any option number from below and press Enter ***

1) Add a file to "main" folder
2) Delete a file from "main" folder
3) Search for a file from "main" folder
4) Show Previous Menu
5) Exit program

5
Program exited successfully.
```