LockedMe.com App

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ScreenShots

From Code

Project packages and classes:

```
Phase1Project
  JRE System Library [JavaSE-17]
  src
    phase1.project.com
      LockedMeApp.java
    phase1.project.exception
      ProperOptionValue.java
    phase1.project.utility
      MainMenu.java
      OperationsMenu.java
    module-info.java
```

Class LockedMeApp:

```java
 1 package phase1.project.com;
 2
 3 import java.io.File;
 4
 5 import phase1.project.exception.ProperOptionValue;
 6 import phase1.project.utility.*;
 7
 8 public class LockedMeApp {
 9     private static final String rootpath = new File("").getAbsolutePath();
10
11     public static void main(String[] args) throws ProperOptionValue {
12         System.out.println("Welcome to LockedMe.com App");
13         System.out.println("Developer: André Bessa");
14
15         MainMenu mainMenu = new MainMenu(rootpath); //object creation
16         mainMenu.run();  //calls run method from MainMenu class
17
18         System.out.println("Goodbye!");
19     }
20 }
21
```

Class MainMenu:

```java
1 package phase1.project.utility;
2
3 import java.io.File;
4 import java.util.Arrays;
5 import java.util.InputMismatchException;
6 import java.util.Scanner;
7
8 import phase1.project.exception.ProperOptionValue;
9
10 public class MainMenu {
11     private final String rootPath;
12     private final Scanner scanner = new Scanner(System.in);
13
14     public MainMenu(String rootPath) {  //constructor
15         this.rootPath = rootPath;
16     }
17
    public void run() throws ProperOptionValue {  //run method
        String con;
        do {
            displayMenu();
            int choice = getUserChoice();

            switch (choice) {
                case 1:
                    listFilesAscendingOrder();
                    break;
                case 2:
                    OperationsMenu operationsMenu = new OperationsMenu(rootPath);
                    operationsMenu.run();
                    break;
                case 3:
                    System.out.println("Goodbye!");
                    System.exit(0);    //closes the application
                default:
                    System.out.println("Invalid choice. Please enter a valid option.");
            }

            con = getUserInput("MainMenu: Do you want to display options again? (y)");
        } while ("y".equals(con));
    }

    private void displayMenu() {   // display main menu options
        System.out.println("Main Menu Options:");
        System.out.println("1. List files in ascending order");
        System.out.println("2. Navigate to the Operations Menu");
        System.out.println("3. Close the application");
        System.out.println("Please enter your choice");
    }

    private int getUserChoice() {
        while (true) {
            try {
                return scanner.nextInt();
            } catch (InputMismatchException e) {
                System.out.println("Invalid input. Please enter a valid number.");
                scanner.nextLine(); // Consume the invalid input
            }
        }
    }

    private void listFilesAscendingOrder() {   //display all files in ascending order
        File rootDirectory = new File(rootPath);
        String[] listOfFiles = rootDirectory.list();
        Arrays.sort(listOfFiles);
        for (String name : listOfFiles) {
            System.out.println(name);
        }
    }

    private String getUserInput(String prompt) {  // read the input Y and return as lowercase
        System.out.println(prompt);
        return scanner.next().toLowerCase();
    }
}
```

class OperationsMenu:

```java
1 package phase1.project.utility;
2
3 import java.io.File;
4 import java.util.InputMismatchException;
5 import java.util.Scanner;
6 import phase1.project.exception.*;
7
8
9 public class OperationsMenu {
10     private final String rootPath;
11     private final Scanner scanner = new Scanner(System.in);
12
13     public OperationsMenu(String rootPath) {  //constructor
14         this.rootPath = rootPath;
15     }
16
17     public void run() throws ProperOptionValue { //run method
18         String con;
19         do {
20             displayMenu();
21             int choice = getUserChoice();
22
23             switch (choice) {
24                 case 1:
25                     addFile();
26                     break;
27                 case 2:
28                     deleteFile();
29                     break;
30                 case 3:
31                     searchFile();
32                     break;
33                 case 4:
34                     return;
35                 default:
36                     System.out.println("Invalid choice. Please enter a valid option.");
37             }
38
39             con = getUserInput("OperationsMenu: Do you want to display options again? (y)");
40
41
42         } while ("y".equalsIgnoreCase(con));
43     }
44
45
46     private void displayMenu() {  // display operation menu options
47         System.out.println("Operations Menu Options:");
48         System.out.println("1. Add a file to the directory list");
49         System.out.println("2. Delete a file from the directory list");
50         System.out.println("3. Search for a file in the directory");
51         System.out.println("4. Navigate back to the main context");
52         System.out.println("Please enter your choice");
53     }
54
55     private int getUserChoice() {
56         while (true) {
57             try {
58                 return scanner.nextInt();
59             } catch (InputMismatchException e) {
60                 System.out.println("Invalid input. Please enter a valid number.");
61                 scanner.nextLine(); // Consume the invalid input
62             }
63         }
64     }
65
67     private void addFile() {  //add file method
68         String filename = getUserInput("Please enter the file name").toLowerCase(); // Convert to lowercase to ignore case sensitivity
69         File file = new File(rootPath + File.separator + filename);
70
71         if (file.exists()) {   //validates if file already exists
72             System.out.println("File already exists");
73         } else {
74             try {
75                 if (file.createNewFile()) {  // creates the file
76                     System.out.println("New file created with name: " + filename);
77                 } else {
78                     System.out.println("Failed to create the file");
79                 }
80             } catch (Exception e) {
81                 System.out.println("An error occurred: " + e.getMessage());
82             }
83         }
84     }
85
```

```java
 86⊖    private void deleteFile() {  //delete file method
 87         String filename = getUserInput("Please enter the file name");
 88         File file = new File(rootPath + File.separator + filename);
 89
 90         if (file.exists() && file.delete()) {  //validates if file exists and deletes it, return true
 91             System.out.println("File deleted");
 92         } else {
 93             System.out.println("File not present with the name: " + filename);
 94         }
 95     }
 96
 97⊖    private void searchFile() { //method to search file
 98         String filename = getUserInput("Please enter the file name");
 99         File file = new File(rootPath + File.separator + filename);
100
101         if (file.exists()) {//check if file exists
102             System.out.println("File exists");
103         } else {
104             System.out.println("File not present");
105         }
106     }
107
108⊖    private String getUserInput(String prompt) {  //reads the user inputs
109         System.out.println(prompt);
110         return scanner.next();
111     }
112 }
113
```

Class ProperOptionValue:

```java
package phase1.project.exception;

public class ProperOptionValue extends Exception{

    public ProperOptionValue() {  //no-argument constructor

    }

    public ProperOptionValue (String name){  //constructor
        super(name);

    }
}
```

ScreenShots

From Console

MainMenu Option List Files(1), Continue(y), Not Continue (!y) and Close Application(3):

```
Console ×
<terminated> LockedMeApp [Java Application] C:\Users\asus\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspo
Welcome to LockedMe.com App
Developer: André Bessa
Main Menu Options:
1. List files in ascending order
2. Navigate to the Operations Menu
3. Close the application
Please enter your choice
1
.classpath
.git
.project
.settings
bin
src
MainMenu: Do you want to display options again? (y)
y
Main Menu Options:
1. List files in ascending order
2. Navigate to the Operations Menu
3. Close the application
Please enter your choice
1
.classpath
.git
.project
.settings
bin
src
MainMenu: Do you want to display options again? (y)
n
Goodbye!


Welcome to LockedMe.com App
Developer: André Bessa
Main Menu Options:
1. List files in ascending order
2. Navigate to the Operations Menu
3. Close the application
Please enter your choice
3
Goodbye!
```

OperationsMenu(2), BackToMainMenu(4), SearchFile
NotPresent(3), No Display Options(!y)

```
Welcome to LockedMe.com App
Developer: André Bessa
Main Menu Options:
1. List files in ascending order
2. Navigate to the Operations Menu
3. Close the application
Please enter your choice
2
Operations Menu Options:
1. Add a file to the directory list
2. Delete a file from the directory list
3. Search for a file in the directory
4. Navigate back to the main context
Please enter your choice
4
MainMenu: Do you want to display options again? (y)
y
Main Menu Options:
1. List files in ascending order
2. Navigate to the Operations Menu
3. Close the application
Please enter your choice
2

Operations Menu Options:
1. Add a file to the directory list
2. Delete a file from the directory list
3. Search for a file in the directory
4. Navigate back to the main context
Please enter your choice
3
Please enter the file name
a.txt
File not present
OperationsMenu: Do you want to display options again? (y)
n
MainMenu: Do you want to display options again? (y)
n
Goodbye!
```

OperationsMenu(2),AddFile(1),AddFileAlreadyPresent(1),
SearchFilePresent(3),SearchFileNotPresent(3)

```
Welcome to LockedMe.com App
Developer: André Bessa
Main Menu Options:
1. List files in ascending order
2. Navigate to the Operations Menu
3. Close the application
Please enter your choice
2
Operations Menu Options:
1. Add a file to the directory list
2. Delete a file from the directory list
3. Search for a file in the directory
4. Navigate back to the main context
Please enter your choice
1
Please enter the file name
a.txt
New file created with name: a.txt
OperationsMenu: Do you want to display options again? (y)
y
Operations Menu Options:
1. Add a file to the directory list
2. Delete a file from the directory list
3. Search for a file in the directory
4. Navigate back to the main context
Please enter your choice
1
Please enter the file name
a.txt
File already exists
OperationsMenu: Do you want to display options again? (y)
y
```

```
Operations Menu Options:
1. Add a file to the directory list
2. Delete a file from the directory list
3. Search for a file in the directory
4. Navigate back to the main context
Please enter your choice
3
Please enter the file name
a.txt
File exists
OperationsMenu: Do you want to display options again? (y)
y
Operations Menu Options:
1. Add a file to the directory list
2. Delete a file from the directory list
3. Search for a file in the directory
4. Navigate back to the main context
Please enter your choice
3
Please enter the file name
b.txt
File not present
OperationsMenu: Do you want to display options again? (y)
n
MainMenu: Do you want to display options again? (y)
n
Goodbye!
```

OperationsMenu(2), DeleteFileNotPresent(2), DeleteFilePresent(2)

```
Welcome to LockedMe.com App
Developer: André Bessa
Main Menu Options:
1. List files in ascending order
2. Navigate to the Operations Menu
3. Close the application
Please enter your choice
1
.classpath
.git
.project
.settings
a.txt
bin
src
MainMenu: Do you want to display options again? (y)
y
Main Menu Options:
1. List files in ascending order
2. Navigate to the Operations Menu
3. Close the application
Please enter your choice
2
Operations Menu Options:
1. Add a file to the directory list
2. Delete a file from the directory list
3. Search for a file in the directory
4. Navigate back to the main context
Please enter your choice
2
Please enter the file name
b.txt
File not present with the name: b.txt
OperationsMenu: Do you want to display options again? (y)
y
```

```
Operations Menu Options:
1. Add a file to the directory list
2. Delete a file from the directory list
3. Search for a file in the directory
4. Navigate back to the main context
Please enter your choice
2
Please enter the file name
a.txt
File deleted
OperationsMenu: Do you want to display options again? (y)
n
MainMenu: Do you want to display options again? (y)
y
Main Menu Options:
1. List files in ascending order
2. Navigate to the Operations Menu
3. Close the application
Please enter your choice
1
.classpath
.git
.project
.settings
bin
src
MainMenu: Do you want to display options again? (y)
n
Goodbye!
```

InvalidInputs

```
Welcome to LockedMe.com App
Developer: André Bessa
Main Menu Options:
1. List files in ascending order
2. Navigate to the Operations Menu
3. Close the application
Please enter your choice
4
Invalid choice. Please enter a valid option.
MainMenu: Do you want to display options again? (y)
y
Main Menu Options:
1. List files in ascending order
2. Navigate to the Operations Menu
3. Close the application
Please enter your choice
a
Invalid input. Please enter a valid number.
2
Operations Menu Options:
1. Add a file to the directory list
2. Delete a file from the directory list
3. Search for a file in the directory
4. Navigate back to the main context
Please enter your choice
5
Invalid choice. Please enter a valid option.
OperationsMenu: Do you want to display options again? (y)
y

Operations Menu Options:
1. Add a file to the directory list
2. Delete a file from the directory list
3. Search for a file in the directory
4. Navigate back to the main context
Please enter your choice
a
Invalid input. Please enter a valid number.
4
MainMenu: Do you want to display options again? (y)
n
Goodbye!
```