

Output:- Digital Locker System.

Adding the files to main:-

```
1 package com.lockedme;
2
3 import java.io.File;
4
5 public class FileOperations {
6
7     public static void createMainFolderIfNotPresent(String folderName) {
8         File file = new File(folderName);
9         // If file doesn't exist, create the main folder
10        if (!file.exists()) {
11            file.mkdirs();
12        }
13    }
14
15    public static void displayAllFiles(String path) {
16        FileOperations.createMainFolderIfNotPresent(path);
17        // All required files and folders inside "main" folder
18        // folder
19        System.out.println("Displaying all files with contents");
20
21        // listFilesInDirectory displays files along with their contents
22        List<String> fileListNames = FileOperations.listFilesInDirectory(path);
23
24        System.out.println("Displaying all files in the main folder");
25        Collections.sort(fileListNames);
26
27        fileListNames.stream().forEach(System.out::println);
28    }
29
30    public static List<String> listFilesInDirectory(String path) {
31        File dir = new File(path);
32        File[] files = dir.listFiles();
33        List<File> fileList = Arrays.asList(files);
34        Collections.sort(fileList);
35
36        if (files != null && files.length > 0) {
37            for (File file : fileList) {
38                //System.out.print(" ".repeat(indentation));
39            }
40        }
41    }
42}
```

VirtualMain [Java Application] C:\Program Files\Java\jre1.8.0_261\bin\javaw.exe (02-Oct-2021, 9:24:49 am)

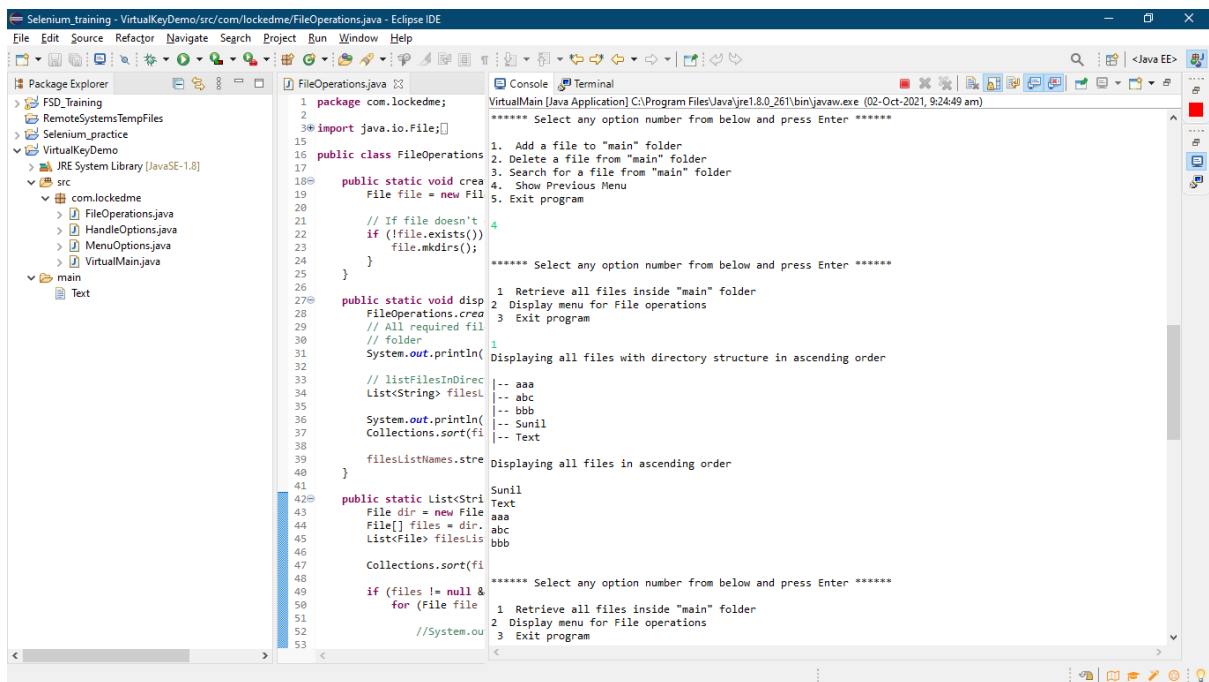
```
***** Select any option number from below and press Enter *****
1. Retrieve all file names in the "main" folder
2. Display menu for file operations
3. Exit program
Enter the name of the file to be added to the "main" folder
abc
Created successfully
Would you like to add some content to the file? (Y/N)
y
***** Select any option number from below and press Enter *****
```

```
1 package com.lockedme;
2
3 import java.io.File;
4
5 public class FileOperations {
6
7     public static void createMainFolderIfNotPresent(String folderName) {
8         File file = new File(folderName);
9         // If file doesn't exist, create the main folder
10        if (!file.exists()) {
11            file.mkdirs();
12        }
13    }
14
15    public static void displayAllFiles(String path) {
16        FileOperations.createMainFolderIfNotPresent(path);
17        // All required files and folders inside "main" folder
18        // folder
19        System.out.println("Displaying all files with contents");
20
21        // listFilesInDirectory displays files along with their contents
22        List<String> fileListNames = FileOperations.listFilesInDirectory(path);
23
24        System.out.println("Displaying all files in the main folder");
25        Collections.sort(fileListNames);
26
27        fileListNames.stream().forEach(System.out::println);
28    }
29
30    public static List<String> listFilesInDirectory(String path) {
31        File dir = new File(path);
32        File[] files = dir.listFiles();
33        List<File> fileList = Arrays.asList(files);
34        Collections.sort(fileList);
35
36        if (files != null && files.length > 0) {
37            for (File file : fileList) {
38                //System.out.print(" ".repeat(indentation));
39            }
40        }
41    }
42}
```

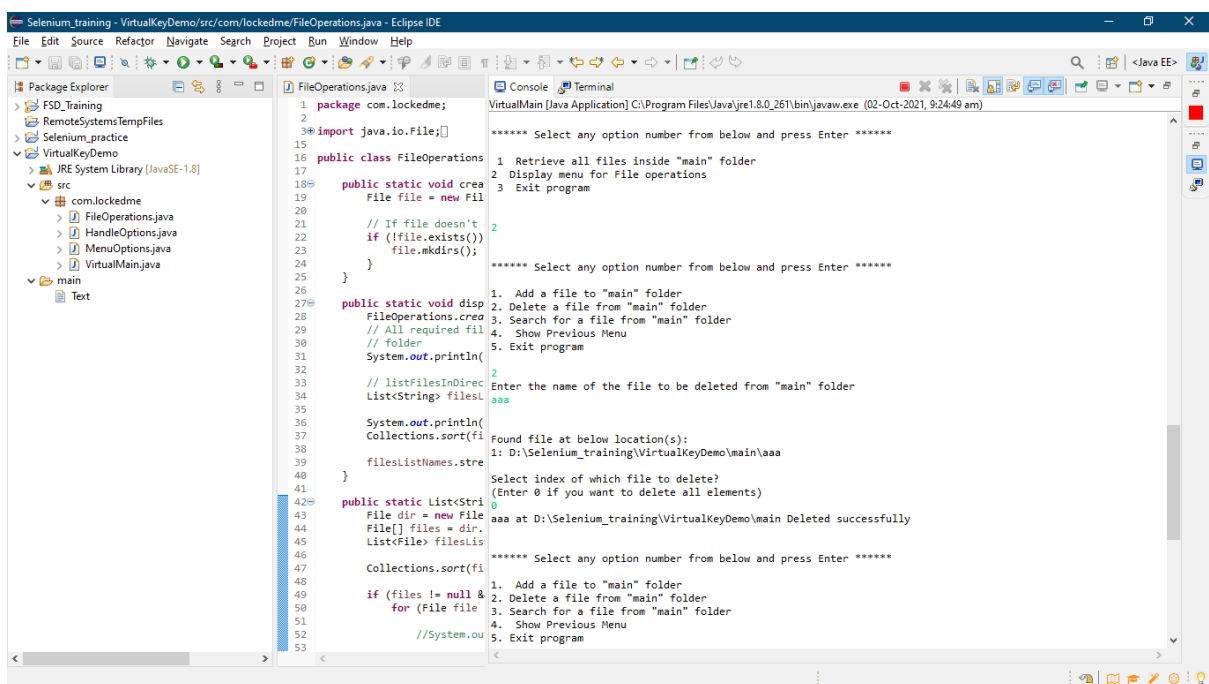
VirtualMain [Java Application] C:\Program Files\Java\jre1.8.0_261\bin\javaw.exe (02-Oct-2021, 9:24:49 am)

```
***** 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
Enter the name of the file to be added to the "main" folder
aaa
Created successfully
Would you like to add some content to the file? (Y/N)
y
***** 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
Enter the name of the file to be added to the "main" folder
bbb
Created successfully
Would you like to add some content to the file? (Y/N)
y
***** 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
```

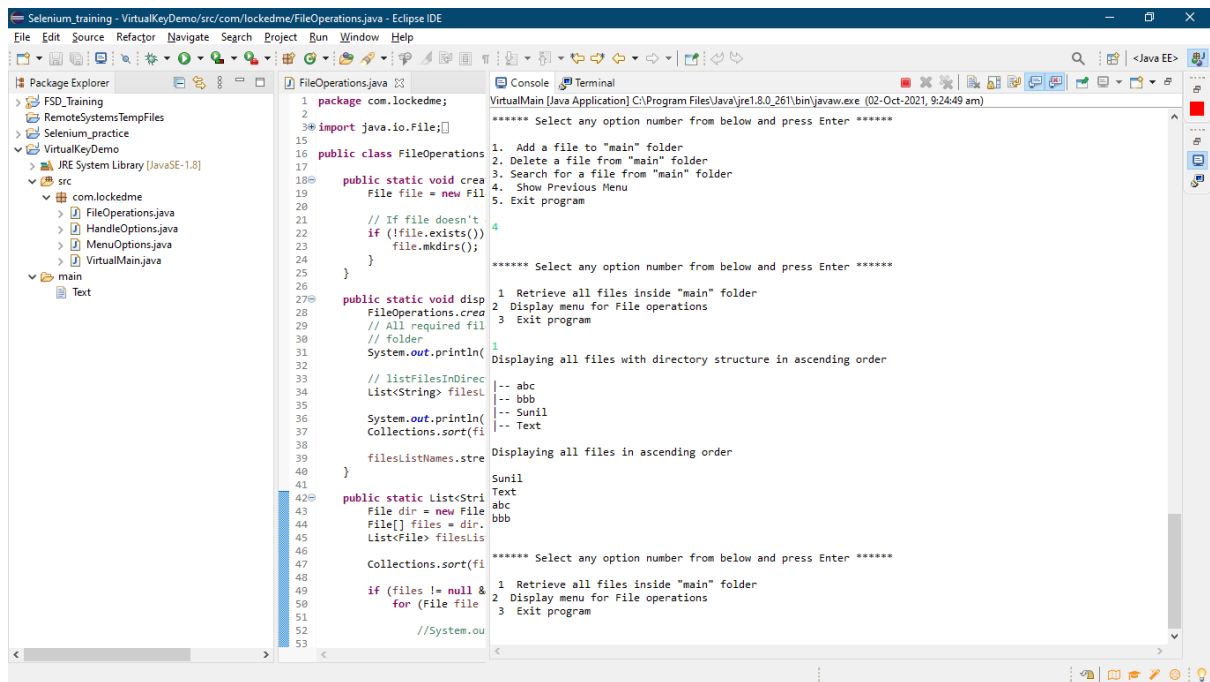
Retrieving the files after adding to main:-



Deleting the file aaa:-



Retrieving the existing files after deleting one file(aaa):-



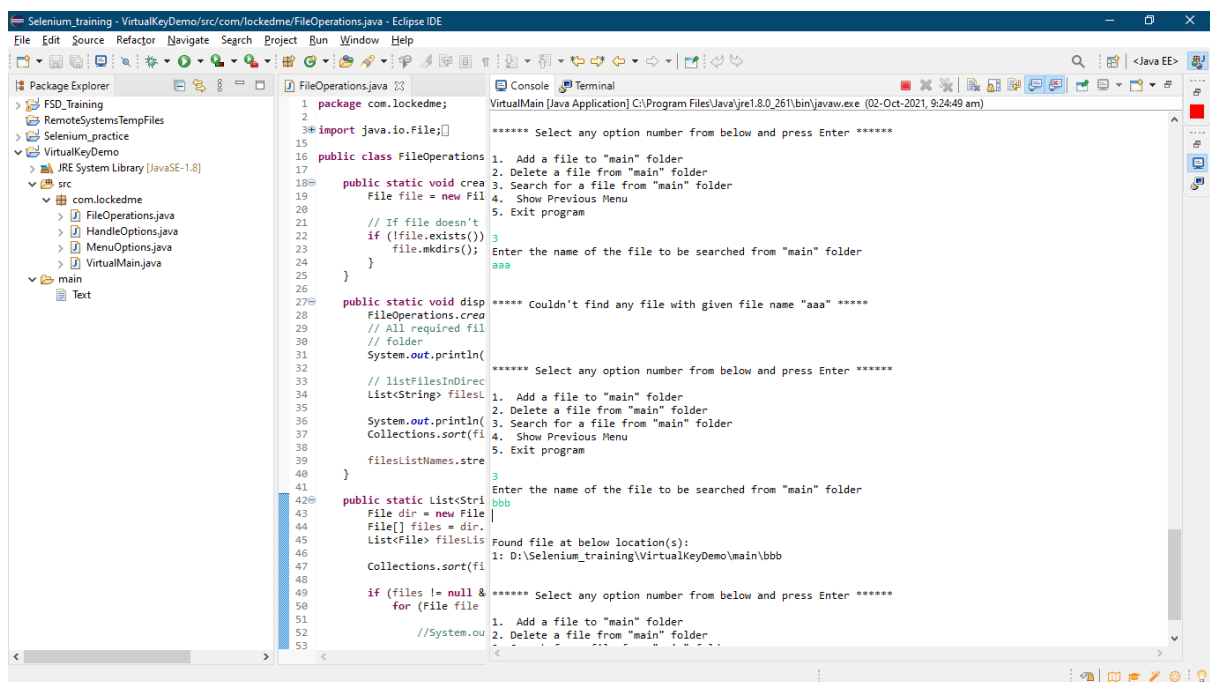
The screenshot shows the Eclipse IDE with the 'FileOperations.java' file open. The code defines a 'FileOperations' class with methods for creating, displaying, and deleting files. The 'main' method in 'VirtualMain.java' calls these methods. The console output shows the program's execution, including file creation, directory listing, and file deletion.

```
1 package com.lockedme;
2
3 import java.io.File;
4
5 public class FileOperations
6 {
7     // If file doesn't exist, create it
8     public static void createFile(String filename)
9     {
10         File file = new File(filename);
11         if (!file.exists())
12             file.mkdirs();
13     }
14
15     // List all files in a directory
16     public static void displayFiles(String dir)
17     {
18         FileOperations.createFile(dir);
19         // All required files are in the directory
20         // folder
21         System.out.println("Displaying all files with directory structure in ascending order");
22         // listFilesInDir returns an array of File objects
23         List<String> files = FileOperations.listFilesInDir(dir);
24         System.out.println("Displaying all files in ascending order");
25         Collections.sort(files);
26         for (String file : files)
27             System.out.println(file);
28     }
29
30     // Delete a file
31     public static void deleteFile(String filename)
32     {
33         File dir = new File(filename);
34         File[] files = dir.listFiles();
35         List<File> filesList = new ArrayList<>();
36         Collections.sort(filesList);
37         if (filesList != null && !filesList.isEmpty())
38             for (File file : filesList)
39                 file.delete();
40     }
41 }
42
43 public static void main(String[] args)
44 {
45     FileOperations.createFile("main");
46     FileOperations.displayFiles("main");
47     FileOperations.deleteFile("main/aaa");
48 }
```

Console Output:

```
VirtualMain [Java Application] C:\Program Files\Java\jre1.8.0_261\bin\javaw.exe (02-Oct-2021, 9:24:49 am)
***** 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
4
***** Select any option number from below and press Enter *****
1. Retrieve all files inside "main" folder
2. Display menu for File operations
3. Exit program
1
Displaying all files with directory structure in ascending order
--- abc
--- bbb
--- Sunil
--- Text
Displaying all files in ascending order
Sunil
Text
abc
bbb
***** Select any option number from below and press Enter *****
1. Retrieve all files inside "main" folder
2. Display menu for File operations
3. Exit program
2
```

Searching the deleted file and existing file:-



The screenshot shows the Eclipse IDE with the 'FileOperations.java' file open. The code is the same as in the previous screenshot, but the 'main' method in 'VirtualMain.java' now includes a search for a file. The console output shows the program's execution, including file creation, directory listing, file deletion, and file search.

```
1 package com.lockedme;
2
3 import java.io.File;
4
5 public class FileOperations
6 {
7     // If file doesn't exist, create it
8     public static void createFile(String filename)
9     {
10         File file = new File(filename);
11         if (!file.exists())
12             file.mkdirs();
13     }
14
15     // List all files in a directory
16     public static void displayFiles(String dir)
17     {
18         FileOperations.createFile(dir);
19         // All required files are in the directory
20         // folder
21         System.out.println("Displaying all files with directory structure in ascending order");
22         // listFilesInDir returns an array of File objects
23         List<String> files = FileOperations.listFilesInDir(dir);
24         System.out.println("Displaying all files in ascending order");
25         Collections.sort(files);
26         for (String file : files)
27             System.out.println(file);
28     }
29
30     // Delete a file
31     public static void deleteFile(String filename)
32     {
33         File dir = new File(filename);
34         File[] files = dir.listFiles();
35         List<File> filesList = new ArrayList<>();
36         Collections.sort(filesList);
37         if (filesList != null && !filesList.isEmpty())
38             for (File file : filesList)
39                 file.delete();
40     }
41
42     // Search for a file
43     public static void searchFile(String filename)
44     {
45         File dir = new File(filename);
46         File[] files = dir.listFiles();
47         List<File> filesList = new ArrayList<>();
48         Collections.sort(filesList);
49         if (filesList != null && !filesList.isEmpty())
50             for (File file : filesList)
51                 if (file.getName().equals(filename))
52                     System.out.println(file.getAbsolutePath());
53     }
54 }
55
56 public static void main(String[] args)
57 {
58     FileOperations.createFile("main");
59     FileOperations.displayFiles("main");
60     FileOperations.deleteFile("main/aaa");
61     FileOperations.searchFile("main/aaa");
62 }
```

Console Output:

```
VirtualMain [Java Application] C:\Program Files\Java\jre1.8.0_261\bin\javaw.exe (02-Oct-2021, 9:24:49 am)
***** 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
3
Enter the name of the file to be searched from "main" folder
aaa
***** Couldn't find any file with given file name "aaa" *****
***** 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
3
Enter the name of the file to be searched from "main" folder
bbb
Found file at below location(s):
1: D:\Selenium_training\VirtualKeyDemo\main\bbb
***** 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
2
```