LockedMe.com

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LockedMe.com

(Sprint work and Project Specification)

Version History

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Purpose	Application screen shots
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Table of Contents

1. Modules in the project 3
2. Sprint Work 3
3. Project GitHub link 3
4. Core Concept Used 4
5. Folder Structure 5
6. LockedMeProject.java 5
7. FileManager.java 10

1. Modules in the project

1. **Display All files**
2. **Add File**
3. **Delete File**
4. **Search File**

2. Sprint Work

Sprint Number	**Modules**
1	**Display All Files** (Displays the names of all the files in a given folder in alphabetical order) **Add File** (Creates a files in a folder and adds contents to the file) **Delete File** (Deletes the file from a given folder)
2	**Search File** (Searches a file in a folder. Informs user whether files exists or does not exist in a folder) **Testing** (Verify all modules are working as expected) **Documentation** (Create project specifications with screen shots of each modules)

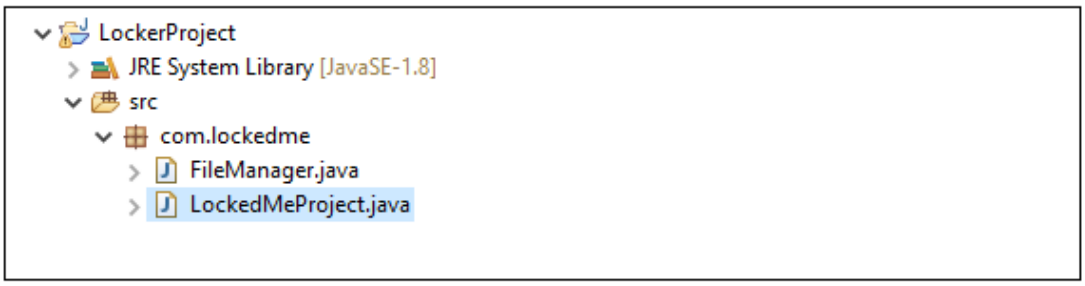
3. Project GitHub link

Repository Name	Project-1
Repository URL	https://github.com/durgapathak18/Project-1

4. Core Concept Used

- Object Oriented Programming
- File Handling
- Exception Handling
- Java Loops
- Java 8 stream
- Arrays and Collections
- Scanner

5. Folder Structure



6. LockedMeProject.java

```
package com.lockedme;

import java.util.ArrayList;
import java.util.List;
import java.util.Scanner;

/**
 * Driver class
 *
 * @author Durga Pathak
 *
 */
public class LockedMeProject
{

	static final String FOLDER_LOCATION = "C:\\Users\\15124\\eclipse-workspace\\LockedMeFiles";

	public static void main(String[] args)
	{
		// Variable declaration
		int proceed = 1;
		int choice;
```

```
        String userInput;

        // Create scanner object to get input from user
        Scanner scanner = new Scanner(System.in);

        do
        {
                // Display Menu
                displayMenu();

                System.out.println("Enter your choice:");
                userInput = scanner.nextLine();

                // Logic to let user know if they key invalid entry.
                while (userInput == null || userInput.length() == 0 || !userInput.matches("\\d"))
                {
                        System.err.println("Invalid choice. \nEnter number between 1 and 5.");
                        displayMenu();
                        System.out.println("Enter your choice:");
                        userInput = scanner.nextLine();
                }

                choice = Integer.parseInt(userInput);

                switch (choice) {
                case 1: getAllFiles();
                                break;
                case 2: createFiles(scanner);
                                break;
                case 3: deleteFile(scanner);
                                break;
                case 4: searchFile(scanner);
                                break;
                case 5:
                                System.out.println("\nThank you for visiting lockedme.com \nVisit us again.");
                                System.exit(0);
                                break;
                default:
                                System.err.println("\nLooks like you picked invalid option. Try again.");
                                break;
                }
        } while (proceed > 0);

        scanner.close();
}

private static void displayMenu()
```

```
{
        System.out.println("\n\n*************************************************************");
        System.out.println("\t\t\tLockedMe.com");
        System.out.println("*************************************************************");
        System.out.println("1. Display all files");
        System.out.println("2. Add new file");
        System.out.println("3. Delete a file");
        System.out.println("4. Search a file");
        System.out.println("5. Exit");
        System.out.println("*************************************************************");

}

/**
 * Gets the name of all files.
 */
private static void getAllFiles()
{
        // Gets the name of all files in the given folder
        List<String> namesOfAllFiles = FileManager.getNamesOfAllFiles(FOLDER_LOCATION);

        // Print file names
        namesOfAllFiles.stream().forEach(name -> System.out.println(name));
}

/**
 * This method creates a file
 */
private static void createFiles(Scanner scanner)
{
        // Variable declarations
        String fileName;
        int totalNumOfLines;
        boolean isContentSaved = false;
        String userInput;
        List<String> listOfContent = new ArrayList<String>();

        // Read file name from user
        System.out.println("Enter File Name: ");
        fileName = scanner.nextLine();

        // Ask user for how many lines of content they intend to write to a file
        System.out.print("Enter the number of lines in the file: ");
        userInput = scanner.nextLine();

        // If user enters invalid input, don't save content
        if (userInput == null || userInput.length() == 0 || !userInput.matches("\\d"))
```

```
		{
			isContentSaved = false;
		}
		else
		{
			totalNumOfLines = Integer.parseInt(scanner.nextLine());

			// Collect content for each line
			for (int i = 1; i <= totalNumOfLines; i++)
			{
				System.out.println("Enter content for line " + i);
				listOfContent.add(scanner.nextLine());

			}

			// Save content to the file
			isContentSaved = FileManager.writeContentToFile(FOLDER_LOCATION, fileName,
listOfContent);
		}

		if (isContentSaved)
		{
			System.out.println("\nContent successfully saved to " + fileName);
		} else
		{
			System.err.println("Unable to write content to file. \nCheck input and try again. If issue
persists, contact support@simplilearn.com");
		}

	}

	/**
	 * Deletes a file in the folder
	 */
	private static void deleteFile(Scanner scanner)
	{
		// Variable declaration
		String fileName;
		System.out.println("Enter file name to delete: ");
		fileName = scanner.nextLine();

		boolean isFileDeleted = FileManager.deleteFile(FOLDER_LOCATION, fileName);

		if (isFileDeleted)
		{
			System.out.println("\n" + fileName + " is deleted successfully.");
		}
```

```
            else
            {
                System.err.println("\nUnable to delete specified file. Verify if given file exist and try again.");
            }

        }

        /**
         * Searches a file in the folder
         */
        private static void searchFile(Scanner scanner)
        {

            // Variable declaration
            String fileName;
            System.out.println("Enter file name to search: ");
            fileName = scanner.nextLine();

            boolean isFileDeleted = FileManager.searchFile(FOLDER_LOCATION, fileName);

            if (isFileDeleted)
            {
                System.out.println("\n" + fileName + " exists in the folder");
            }
            else
            {
                System.err.println("\n"  + fileName + " does not exist in specified folder.");
            }

        }

}
```

7. FileManager.java

```
package com.lockedme;

import java.io.File;
import java.io.FileWriter;
import java.util.Arrays;
import java.util.List;
import java.util.stream.Collectors;

/**
 * This class contains methods to manage files
 *
 * @author Durga Pathak
 *
 */
public class FileManager
{
	/**
	 * This method returns the list of names of files in given folder.
	 *
	 * @param folderLocation
	 * @return List of File Names
	 */
	public static List<String> getNamesOfAllFiles(final String folderLocation)
	{
		// Create File Object
		File file = new File(folderLocation);

		// Gets all files into an array
		File[] listOfFiles = file.listFiles();

		// Collect the name of each file in the given folder location
		List<String> fileNames = Arrays.asList(listOfFiles).stream().map(lof ->
lof.getName()).collect(Collectors.toList());

		// Sort files in alphabetical order
		fileNames.stream().sorted();
		return fileNames;

	}

	/**
	 * This method writes the contents to a given file name in specified folder location.
	 *
```

```
	 * @param folderLocation
	 * @param fileName
	 * @param contentList
	 * @return boolean (if file saved successfully or not)
	 */
	public static boolean writeContentToFile(final String folderLocation, final String fileName, final List<String>
contentList) {

		try
		{
			// Create File Object
			File file = new File(folderLocation, fileName);
			FileWriter fileWriter = new FileWriter(file);

			// Loop through each file content and write it to the file
			for (String content : contentList) {
				fileWriter.write(content + "\n");

			};

			// Close file writer
			fileWriter.close();
			return true;

		} catch (Exception e)
		{
			return false;
		}

	}

	/**
	 * This method deletes the given file from the given folder.
	 *
	 * @param folderLocation
	 * @param fileName
	 * @return boolean
	 */
	public static boolean deleteFile(final String folderLocation, final String fileName)
	{
		// File to delete
		File file = new File(folderLocation + "\\" + fileName);

		try
		{
			// Delete file
			if (file.delete())
```

```
                {
                        return true;
                }
        } catch (Exception e)
        {
                return false;
        }
        return false;

    }

    /**
     * This method searches files in a given folder and informs the user if file exists or not.
     *
     * @param folderLocation
     * @param fileName
     * @return boolean
     */
    public static boolean searchFile(final String folderLocation, final String fileName) {

        // Create file object with given folder location and file name
        File file = new File(folderLocation + "\\" + fileName);

        // Return if file exists or not
        return file.exists();

    }

}
```