**Documentation**

**Project Details:**

The project aims to digitize the products of the company **Lockers Pvt. Ltd.** The project name chosen for this initiative is **LockedMe.com** which will be an application for showcasing all the products of the company on a virtual platform.

**Developer Details: Shubhi Sinha, Full Stack Developer (Java)**

**Product Capabilities**

The product will aim at digitizing the company Lockers Pvt. Ltd. products so as to make their reach to greater masses and acquire more customers. Bringing their products on the virtual platform will enable them to connect with more new customers each passing day and hence will prove to be of great benefit to their business growth.

**Appearance**

The appearance of the application will be quite interactive and will give all the options for the user to interact with the application

It will first display the welcome screen, followed by:

* Application name and the developer details
* The details of the user interface such as options displaying the user interaction information
* Features to accept the user input to select one of the options listed

After each operation there will be a message displayed whether the operation requested by the user was completed or not. Hence, providing best service at each step. We aim to provide the best experience to the users of this application.

**User Interactions**

The various user interactions which will be available to the users at their service are:

1. Operation to list down all the files present in the directory in ascending order
2. Business level operations which include:
   1. Option to add a user specified file to the application
   2. Option to delete a user specified file from the application (case sensitive)
   3. Option to search a user specified file from the application (case sensitive)
   4. Navigation option to close the current execution context and return to the main context
3. Option to close the application

**Sprints**

Number of sprints planned – 2

Tasks to be completed under Sprint 1:

Designing the overall prototype of the application starting with welcome screen, developer details, displaying menu and designing the 3 main options which are:

* + - Option to list down all the files present in the directory in ascending order
    - Option for Business level operations
    - Option to close the application

Tasks to be completed under Sprint 2:

Defining all the options which come under business level operations which are:

* 1. Option to add a user specified file to the application
  2. Option to delete a user specified file from the application (case sensitive)
  3. Option to search a user specified file from the application (case sensitive)
  4. Navigation option to close the current execution context and return to the main context

**Algorithms and flowcharts of the application**

The algorithms/Data structures used in the project are:

* + 1. Binary Search- The most efficient search for finding the right file to be deleted and to be searched. As there was a need of case sensitivity in both the options of delete and search of a file, the method string1.compareTo(string2) is used while searching for the right file in Binary Search condition block. compareTo method takes into account the case of the file and hence returns a value which is 0 if the strings are equal.
    2. Sorting- Method name Arrays.sort() is used to display files in ascending order present in a directory.
    3. Array
       1. Data structure used in the project is Array in which all the file names are retrieved and then sorted for displaying in ascending order.
       2. It is used in the delete() method where the filenames are first stored in the array upon which Binary Search is done so as to get the right file for deletion
       3. It is used in the search() method where the filenames are first stored in the array upon which Binary Search is done so as to get the right file for deletion

**Flowchart**

WELCOME SCREEN

DEVELOPER DETAILS

MENU DISPLAY FOR DIFFERENT OPERATIONS

**Core concepts used in the project**

* + 1. **File Handling**
    2. **Exception Handling**
    3. **Searching**
    4. **Sorting**
    5. **Control Statements, Loops**

**Links to the GitHub repository**

[**https://github.com/shubhisinha2010/Phase1Project**](https://github.com/shubhisinha2010/Phase1Project)

**Conclusion**

The application in future can be enhanced:

1. By working more on the user interface of the application and embedding the related pictures of the products for greater user satisfaction and experience.
2. There can be introduced another option of asking feedback from the users such that the issues/ suggestions can be addressed in a much better way.
3. A payment gateway can be introduced in the application for advocating E-shopping from the application itself. This will enhance the business and growth of the sales.