

## **# Locked me- virtual-key-repository**

**Project name:** LockedMe.com

**Project github link:**

**<https://github.com/ankitapatil77/virtual-key-repository>**

## **# Background of the problem statement:**

Company Lockers Pvt. Ltd. hired you as a Full Stack Developer. They aim to digitize their products and chose LockedMe.com as their first project to start with. You're asked to develop a prototype of the application. The prototype of the application will be then presented to the relevant stakeholders for budget approval. Your manager has set up a meeting where you're asked to present the following in the next 15 working days (3 weeks):

**Specification document** - Product's capabilities, appearance, and user interactions

## **Number and duration of sprints required**

- Setting up Git and GitHub account to store and track your enhancements of the prototype
- Java concepts being used in the project
- Data Structures where sorting and searching techniques are used.

## **Generic features and three operations:**

1. Retrieving the file names in an ascending order
2. Business-level operations:
  - Option to add a user-specified file to the application
  - Option to delete a user-specified file from the application
  - Option to search a user-specified file from the application
  - Navigation option to close the current execution context and return to the main context
4. Option to close the application.

## **Project objective:**

Java Console based program allows users to input menu options for:

- 1) Displaying File/Folder structure.
- 2) Search for File/Folder recursively.
- 3) Add/Delete File/Folder recursively.

## **Component Hierarchy:**

LockedMeMainProgram.java :

This program contains the Main method. It's the entry point of the program.

FileMenuOption.java :

This program contains methods for displaying menu options.

FileHandleOption.java :

This program contains methods for handling different options from user input and calls respective methods from FileOperations.

FileOperation.java :

This program defines all the operations required for displaying, searching, deleting, and adding files/folder.

**Code to display the welcome screen. It should display:**

- 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

- The first option should return the current file names in ascending order. The root directory can be either empty or contain few files or folders in it
- The second option should return the details of the user interface such as options displaying the following:
  - Add a file to the existing directory list
  - You can ignore the case sensitivity of the file names
  - Delete a user-specified file from the existing directory list
  - You can add the case sensitivity on the file name in order to ensure that the right file is deleted from the directory list
  - Return a message if FNF (File not found)
  - Search a user-specified file from the main directory
  - You can add the case sensitivity on the file name to retrieve the correct file
  - Display the result upon the successful operation
  - Display the result upon unsuccessful operation
  - Option to navigate back to the main context
  - There should be a third option to close the application

Implemented the concepts such as exceptions, collections, and sorting techniques for source code optimization and increased performance

## **Sprints planning and Task completion**

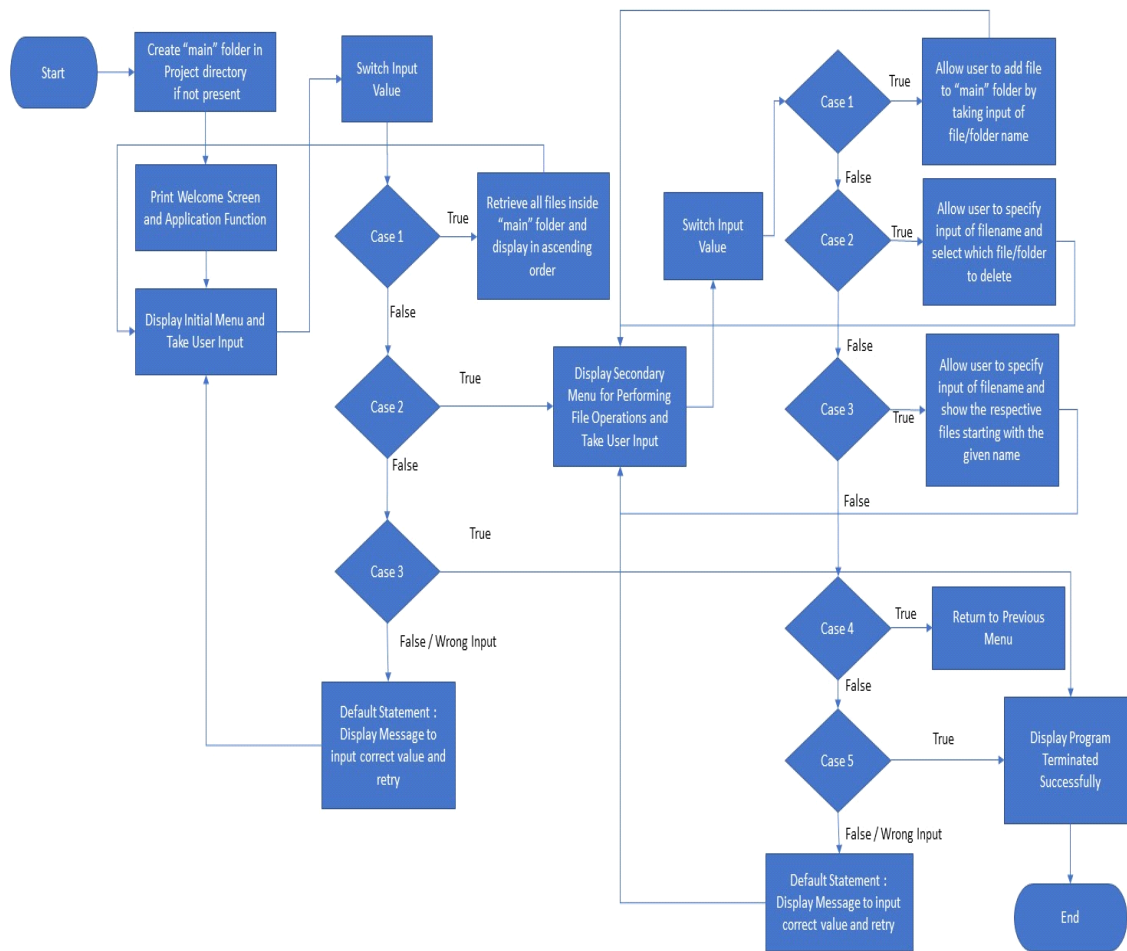
The project is planned to be completed in 1 sprint. Tasks assumed to be completed in the sprint are:

- Creating the flow of the application
- Initializing git repository to track changes as development progresses.
- Writing the Java program to fulfill the requirements of the project.
- Testing the Java program with different kinds of User input
- Pushing code to GitHub.

## **Core concepts used in project**

Collections framework, File Handling, Sorting, Exception Handling.

## **Flow of Application:**



## Project Steps:

**Step 1:** Creating a new project in Eclipse

**Step 2:** Writing a program in Java for the entry point of the application (**LockedMeMain.java**).

**Step 3:** Writing a program in Java to display Menu options available for the user (**FileMenuOptions.java**).

**Step 4:** Writing a program in Java to handle Menu options selected by user (**HandleOptions.java**)

**Step 5:** Writing a program in Java to perform the File operations as specified by

user (**FileOperations.java**)

**Step 6:** Pushing the code to GitHub repository