# LockedMe Software Development Plan

Developed by :

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## SDP overview:

* + Project Description: Develop a Java application for a file manager.
  + Project Goals: Create a secure file manager with option to add, delete, search and sorting files in it.
  + Project Timeline: Two sprints of one weeks each.
  + Project Team: Developer.
  + Development Methodology: Agile/Scrum.

## Sprint Management

* + **Sprint Planning (Sprint 1)**
* **Sprint Duration**: 1 week
* **Sprint Goal**:
  + Setup all prerequisites
  + Git Integration
  + SDP Creation
  + Maven Project creation
  + Project configuration
  + Welcome Screen
  + Home Screen Options listing
* **Sprint Execution:**
  + Day 1: Prerequisites setup
    - JDK installation
    - Eclipse IDE installation
  + Day 2: Git integration and Configuration
    - Create Git repository.
    - Configure mac with the git credentials.
  + Day 3-4: SDP Creation
  + Day 5: Maven Project setup and configuration
    - Install maven in eclipse and create a new project and configure the project.
  + Day 6: Welcome screen
    - ASCII art generation for welcome screen.
    - Console string UI as per the requirement.
    - Home screen redirection.
  + Day 7: Home Screen Options listing
    - Options listing as per the requirement (File Listing, File Operation and Exit).
    - Scanner object creation and input handling
    - Exit redirection to welcome screen.
  + **Sprint Planning (Sprint 2)**
* **Sprint Duration**: 1 week
* **Sprint Goal**:
  + File Class Creation and options redirection
  + File operation options screen creation and redirection
  + File creation and Adding to Array list and Deletion
  + File Listing and Heap sorting
  + File Search Feature
  + Git Readme creation
* **Sprint Execution:**
  + Day 8: File Class Creation
    - File class creation with constructors
    - Home screen switch case handling and redirection
  + Day 9: File operation options screen creation and redirection
    - File operation option listing page creation
    - Switch case handling and redirection
    - Scanner object creation and input handling
  + Day 10: File creation and Adding to Array list and Deletion.
    - File object creation and add to global Array list.
    - Deletion of file based on the scanner input.
  + Day 11-12: File Listing and Heap sorting
    - File list option redirection
    - Implemented heap sorting logic in sorting class.
    - Displayed the files in ascending order using the sort class.
  + Day 13: File Search Feature
    - Implemented the search feature using streams and filter methods.
    - User can see the multiple files based on the search key.
    - Option to go back to the list.
  + Day 14: Prepare the readme file in the GitHub and attach the screenshots.

## Application Overview

**Features**

* Welcome screen with and ASCII string in it
* Home screen with option: File List, File operations and Exit
* Files listed in ArrayList and in ascending order using Heap Sorting
* File Operations - Add, Delete, Search, Go Back
* Create a new File using custom constructor and add file to arrayList using '.add()' method
* Delete file using .remove() method
* Search feature implemented using streams and filter methodologies.

**Source Code Files**

The major purpose and functionality of the source code files, the role of each file and its relationship with other files are mentioned below:

* **Welcome.java**: Contains the welcome class of the project, responsible for initializing and running the application.
* **Home.java**: Class to list out the major 3 functionality of the application(Files list, File operations and Exit). In this class the code for the file listing is added.
* **HeapSorting.java**: The Files are sorted in ascending order using the Heap sorting technique, the codes for this technique is added in this class.
* **File.java**: Object class for the file, with three property (name, path and size).
* **FileOperations.java** : Operations options and their implementations are added in this class. Operations are:
  + Add Files
  + Delete Files
  + Search Files
  + Go Back