Phase-1 Project

(Virtual Key for Your Repositories)

Project Name: LockedMe.com

Project Details:

A prototype of the application which is completely written in Java language. The user interaction will be via command line. The application provides basic File input and output operations like making directory, list down all the files, add a user specified file, delete a user specified file, search a user specified file.

Developer Details:

Name: Twarit Soni.

Simplilearn UserId: twarit.s88@gmail.com.

Sprint Planning and task achieved:

- Number of Sprints Planned: 3

Sprint 1:

In this Sprint the prime objective was to plan to write a code for the main Business level Operations like add, delete, search a user specified file.

- A FileOperations class was created. Methods like makeDirectory, addFile, deleteFile, searchFile, listFile were created.
- All the methods were successfully giving their required output.

Sprint 2:

In this Sprint the prime objective was to plan to write a code to display the Welcome Screen and Sub Menu.

- A MenuDisplay class was created. Start and mainMenu display method created.
- SubMenu screen display method were also created.
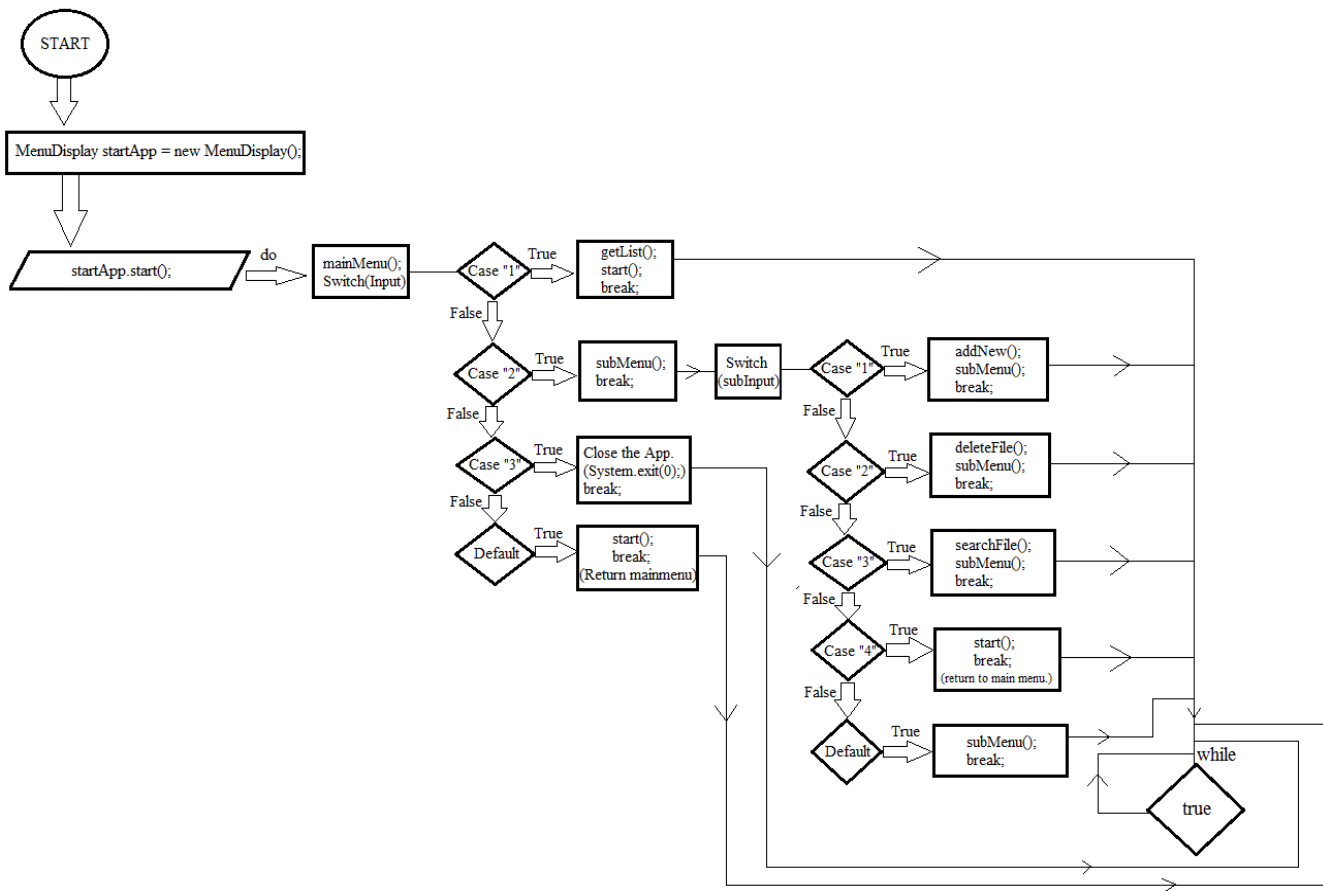- All the methods were successfully giving their required output.

Sprint 3:

In this Sprint the prime objective was to test the application and handle the exceptions.

- MainClass class created.

- MenuDisplay Object was instantiated and start method was called.
- The application executed successfully by giving required output on user specified input.

Flowchart and Algorithms:

START

MenuDisplay startApp = new MenuDisplay();

startApp.start(); — do — mainMenu(); Switch(Input)

Case "1" — True — getList(); start(); break;
False

Case "2" — True — subMenu(); break; — Switch (subInput) — Case "1" — True — addNew(); subMenu(); break;
False — False

Case "3" — True — Close the App. (System.exit(0);) break; — Case "2" — True — deleteFile(); subMenu(); break;
False — False

Default — True — start(); break; (Return mainmenu) — Case "3" — True — searchFile(); subMenu(); break;
False

Case "4" — True — start(); break; (return to main menu.)
False

Default — True — subMenu(); break; — while

true

- The program starts by instantiating an object of the MenuDisplay class in the main method. Then start method is called that displays the mainMenu.
- In the start( ) method all the instructions are written under a do-while loop which has 'true' condition, that means the program does not terminates.
- Through switch-case an input is taken by the user. On correct input one of the cases get executed and returns back to the desired main/sub menu after successful execution of the case.(refer flowchart above.)
- The FileOperations class consist of the main business level operations like add, search, delete, list. All the methods uses the File handling(Input/Output) concepts. These methods can be called from submenu( ) method.
- The directory is created first by calling makeDir( ) method.
- The addNew( ) method creates a new file into the directory on user specified input by using create new file method of File class.

- The getList( ) method stores file list in an ArrayList and then the list is sorted through sort method of collections framework of java.
- The deleteFile( ) method deletes the user specified file from the directory by using delete method of File class. The file name specified by user is case sensitive so as to ensure that correct file is deleted.
- The searchFile( ) method search the user specified file from the directory by using contains method of the ArrayList class. The file name specified by user is case sensitive so as to ensure that correct file is found.
- The program can be closed by giving the specified input displayed in main menu. When System.exit(0) executes, the program terminates itself.

Core Concepts used:

The application is completely written in Java language. The concepts which are used to develop this application are as follows:

- Classes, objects and methods.
- Switch Statement.
- If –else statement.
- Do-while loop.
- Recursion.
- Exception handling.
- ArrayList Data structure.
- Collections framework.
- File handling.
- Iterator.
- Scanner class.

Github Link: https://github.com/twarit08/LockedMe.com_Phase1Project-TwaritSoni.git

Conclusion:

The development of the prototype of the application applies many core concepts of Java language. It also provide an experience to develop an application in an incremental way i.e., Sprint planning and also setting up Git and Github account to store and track our enhancements of the prototype.

The prototype application can be enhanced by adding some features like writing into the file, rename the file name, read the file, retrieving file through password.

In this prototype application features like case sensitivity, to ensure the correct file retrieval in searching and deleting a file and an easy user interface provides user to efficiently manage a file defines the Unique Selling Points of this application.