DESCRIPTION

Project objective:

As a Full Stack Developer, complete the features of the application by planning the development in terms of sprints and then push the source code to the GitHub repository. As this is a prototyped application, the user interaction will be via a command line.

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 the 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:

    o Retrieving the file names in an ascending order

    o 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

    - Option to close the application

The goal of the company is to deliver a high-end quality product as early as possible.

The flow and features of the application:

- Plan more than two sprints to complete the application

- Document the flow of the application and prepare a flow chart

- List the core concepts and algorithms being used to complete this application

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

    o Application name and the developer details

    o The details of the user interface such as options displaying the user interaction information

    o 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:

    o 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 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

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

You must use the following:

- Eclipse/IntelliJ: An IDE to code for the application

- Java: A programming language to develop the prototype

- Git: To connect and push files from the local system to GitHub

- GitHub: To store the application code and track its versions

- Scrum: An efficient agile framework to deliver the product incrementally

- Search and Sort techniques: Data structures used for the project

- Specification document: Any open-source document or Google Docs

Following requirements should be met:

- The source code should be pushed to your GitHub repository. You need to document the steps and write the algorithms in it.

- The submission of your GitHub repository link is mandatory. In order to track your task, you need to share the link of the repository. You can add a section in your document.

- Document the step-by-step process starting from sprint planning to the product release.

- Application should not close, exit, or throw an exception if the user specifies an invalid input.

- You need to submit the final specification document which includes:
    - Project and developer details
    - Sprints planned and the tasks achieved in them
    - Algorithms and flowcharts of the application
    - Core concepts used in the project
    - Links to the GitHub repository to verify the project completion
    - Your conclusion on enhancing the application and defining the USPs (Unique Selling Points)