Virtual Key for Repositories Project

The Code for this project is Hosted at: <https://github.com/12143356557/Practiseprojects.git>

Project is completed by Rachana V K

## 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.

Creating this specification document highlighting application capabilities, appearance, and user interactions

## Core concepts used in project

Collection’s framework, File Handling, Sorting, Flow Control, Recursion, Exception Handling, Streams API

## Demonstrating the product capabilities, appearance, and user interactions

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

* Open Eclipse
* Go to File -> New -> Project -> Java Project -> Next.
* Type in any project name and click on “Finish.”
* Select your project and go to File -> New -> Class.
* Enter **LockedMeMain** in any class name, check the checkbox “public static void main(String[] args)”, and click on “Finish.”

Step 2: Writing a program in Java

package Virtualkey;

import java.io.File;

import java.io.IOException;

import java.util.Arrays;

import java.util.Scanner;

public class LockedMe {

static String DIRECTORY;

File folder\_name;

public LockedMe() {

DIRECTORY = System.getProperty("user.dir");

folder\_name = new File(DIRECTORY+"/files");

if (!folder\_name.exists())

folder\_name.mkdirs();

System.out.println("DIRECTORY : "+ folder\_name.getAbsolutePath());

}

private static final String WELCOME\_PROMPT =

"\n-------- Lockedme-------"+

"\n-------- Rachana ---------\n";

private static final String MAIN\_MENU\_PROMPT =

"\nMAIN MENU - Select any of the following: \n"+

"1 -> List files in directory\n"+

"2 -> Add, Delete or Search\n"+

"3 -> Exit Program";

private static final String SECONDARY\_MENU\_PROMPT =

" \nSelect any of the following: \n"+

" a -> Add a file\n"+

" b -> Delete a file\n"+

" c -> Search a file\n"+

" d -> GoBack";

void showPrimaryMenu() {

System.out.println(MAIN\_MENU\_PROMPT);

try{

Scanner scanner = new Scanner(System.in);

int option = scanner.nextInt();

switch (option){

case 1 : {

showFiles();

showPrimaryMenu();

}

case 2 : {

showSecondaryMenu();

}

case 3 : {

System.out.println("Thank You");

System.exit(0);

}

default: showPrimaryMenu();

}

}

catch (Exception e){

System.out.println("Please enter 1, 2 or 3");

showPrimaryMenu();

}

}

void showSecondaryMenu() {

System.out.println(SECONDARY\_MENU\_PROMPT);

try{

Scanner scanner = new Scanner(System.in);

char[] input = scanner.nextLine().toLowerCase().trim().toCharArray();

char option = input[0];

switch (option){

case 'a' : {

System.out.print("â†³ Adding a file...Please Enter a File Name : ");

String filename = scanner.next().trim().toLowerCase();

addFile(filename);

break;

}

case 'b' : {

System.out.print("â†³ Deleting a file...Please Enter a File Name : ");

String filename = scanner.next().trim();

deleteFile(filename);

break;

}

case 'c' : {

System.out.print("â†³ Searching a file...Please Enter a File Name : ");

String filename = scanner.next().trim();

searchFile(filename);

break;

}

case 'd' : {

System.out.println("Going Back to MAIN menu");

showPrimaryMenu();

break;

}

default : System.out.println("Please enter a, b, c or d");

}

showSecondaryMenu();

}

catch (Exception e){

System.out.println("Please enter a, b, c or d");

showSecondaryMenu();

}

}

void showFiles() {

if (folder\_name.list().length==0)

System.out.println("The folder is empty");

else {

String[] list = folder\_name.list();

System.out.println("The files in "+ folder\_name +" are :");

Arrays.sort(list);

for (String str:list) {

System.out.println(str);

}

}

}

void addFile(String filename) throws IOException {

File filepath = new File(folder\_name +"/"+filename);

String[] list = folder\_name.list();

for (String file: list) {

if (filename.equalsIgnoreCase(file)) {

System.out.println("File " + filename + " already exists at " + folder\_name);

return;

}

}

filepath.createNewFile();

System.out.println("File "+filename+" added to "+ folder\_name);

}

void deleteFile(String filename) {

File filepath = new File(folder\_name +"/"+filename);

String[] list = folder\_name.list();

for (String file: list) {

if (filename.equals(file) && filepath.delete()) {

System.out.println("File " + filename + " deleted from " + folder\_name);

return;

}

}

System.out.println("Delete Operation failed. FILE NOT FOUND");

}

void searchFile(String filename) {

String[] list = folder\_name.list();

for (String file: list) {

if (filename.equals(file)) {

System.out.println("FOUND : File " + filename + " exists at " + folder\_name);

return;

}

}

System.out.println("File NOT found (FNF)");

}

public static void main(String[] args) {

// TODO Auto-generated method stub

System.out.println(WELCOME\_PROMPT);

LockedMe menu = new LockedMe();

menu.showPrimaryMenu();

}

}