package lockerPvtLtd;

import java.util.TreeSet;

import java.util.Scanner;

import java.io.File;

import java.io.FilenameFilter;

import java.io.IOException;

public class LockerMeApp{

//Creating a File object with a default directory.

File directoryPath = new File("C:\\Users\\Ravi\\Desktop\\FullStackDevelopment\\SimpliLearn");

//Constructor for LockerMeApp helps set-up new directory as per user Requirement.

LockerMeApp(String directory){

if(directory.equalsIgnoreCase("none")) {

// Do nothing.

}

else {directoryPath= new File(directory);}

}

// This method lists all files in a directory.

public void fileList() {

//List of all files and directories

TreeSet<String> treeFile= new TreeSet<String>();

String filesList[] = directoryPath.list();

if(filesList.length==0) {System.out.print("Sorry,there are no files in this directory.");}

else {

System.out.println("List of files and directories in ascending sorted order:");

for(String file : filesList) {

//System.out.print("File name: "+file.getName());

//System.out.println("File path: "+file.getAbsolutePath());

//System.out.print(" Size :"+file.getTotalSpace());

//System.out.println(" ");

treeFile.add(file);

}

// Display all Files in ascending sorted order.

for(String displayFile : treeFile){

System.out.println(displayFile);

}

}

}

// This method adds files in a directory.

public void fileAdd(String fileName) {

String fileInfo= directoryPath+"\\"+fileName;

File file= new File(fileInfo);

try {

if (file.createNewFile()) {

System.out.println(fileName+" file has been created.");}

else {System.out.println(fileName+" file has not been created. Please check your inputs, another file having the same name should not exist.");}

}

catch(Exception e) {e.printStackTrace();}

}

// This method deletes files from a directory.

public void fileDelete(String fileName) {

//List of all files and directories

String fileInfo= directoryPath+"\\"+fileName;

File file= new File(fileInfo);

try {

if (file.delete()) {

System.out.println(fileName+" file has been deleted.");}

else {System.out.println(fileName+" file has not been deleted. Please check the filename and location.");}

}

catch(Exception e) {e.printStackTrace();}

}

// This method searches for a file in a directory.

public void fileSearch(String fileName) {

//list all files on directory

File[] files = directoryPath.listFiles(new FilenameFilter() {

//apply a filter

@Override

public boolean accept(File dir, String name) {

boolean result;

if(name.startsWith(fileName)){

result=true;

}

else{

result=false;

}

return result;

}

});

//print all files on the directory

if(files.length==0) {System.out.println("There are no matching file names in our directory. Please check your input and try again.");}

else {

for(File f:files)

try {

System.out.println(f.getCanonicalFile());

} catch (IOException e) {

e.printStackTrace();

}

}

}

// The main class has all the options provided to user and accept user inputs.

public static void main(String args[]) {

Scanner sc = new Scanner(System.in);

String choice= null;

System.out.println("Please enter your name before starting the applictaion:");

String name= sc.nextLine();

System.out.println("WELCOME "+ name+ " !!!, to LockerMe application.");

System.out.println("This applictaion is designed to help you see, add, delete and search files from your desired directory.");

System.out.println("Please enter a directory path for your operations, enter 'none' to use default directory:");

String directory= sc.nextLine();

System.out.println("This application has been developed by:- Surabhi");

do {

Scanner scNew = new Scanner(System.in);

LockerMeApp userRequest= new LockerMeApp(directory);

System.out.println("\*--------------------------------------------\*");

System.out.println("Please choose one of the following three options:");

System.out.println("Enter 'L' is you want to see the List of saved file.");

System.out.println("Enter 'A' if you want to add a file.");

System.out.println("Enter 'D' if you want to delete a file.");

System.out.println("Enter 'S' if you want to Search for a file.");

System.out.println("Enter 'Q' is you want to quit the application : ");

choice= sc.nextLine();

if(choice.equalsIgnoreCase("L")) {

//System.out.println("This is the list of files and user names entered so far:");

userRequest.fileList();

}

else if(choice.equalsIgnoreCase("A")) {

System.out.println("please enter the file name, with extention, to be created:");

String fileToCreate= scNew.nextLine();

userRequest.fileAdd(fileToCreate);

}

else if(choice.equalsIgnoreCase("D")) {

System.out.println("please enter the file name, with extention, to be deleted:");

String fileToDelete= scNew.nextLine();

userRequest.fileDelete(fileToDelete);

}

else if(choice.equalsIgnoreCase("S")) {

System.out.println("please enter the file name to be searched:");

String fileToSearch= scNew.nextLine();

userRequest.fileSearch(fileToSearch);

}

else if(choice.equalsIgnoreCase("Q")) {

System.out.println("You have closed and exited the application.Goodbye and have a nice day.");}

else {System.out.println("This is not a valid input. Please enter from the menu below.");}

}while(!choice.equalsIgnoreCase("Q"));

}

}