**package** com.LockedMe;

**import** java.io.File;

**import** java.io.IOException;

**import** java.nio.file.Files;

**import** java.nio.file.Path;

**import** java.nio.file.Paths;

**import** java.util.ArrayList;

**import** java.util.Arrays;

**import** java.util.Collections;

**import** java.util.List;

**import** java.util.Scanner;

**public** **class** Main {

Scanner sc = **new** Scanner(System.***in***);

**public** **void** printWelcomeScreen() {

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

System.***out***.println("Welcome to LockedMe.com");

System.***out***.println("This application was developed by Deepak R");

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

System.***out***.println("This application has following features\n"

+ "\*Retrieving the file names(created in main folder which is in current directory) in an ascending order\n"

+ "\*Adding, deleteing and searching user specified file in main folder\n"

+ "\*Option to close this application\n\n");

}

**public** **void** createMainFolder() {

File file = **new** File("main");

// If main folder doesn't exist, create main folder

**if** (!file.exists()) {

file.mkdirs();

System.***out***.println("main folder doesn't exist ,Created main folder in current working directory\n");

}

}

**public** **void** displayMenu() {

System.***out***.println( "\*\*\*\* Select any option number from below and press Enter \*\*\*\*\n"

+ "1) Retrieve all files inside 'main' folder\n" + "2) Display menu for File operations\n"

+ "3) Exit Application\n");

}

**public** **void** displayFileMenuOptions() {

System.***out***.println("\*\*\*\* Select any option number from below and press Enter \*\*\*\*\n"

+ "1) Add a file to 'main' folder\n" + "2) Delete a file from 'main' folder\n"

+ "3) Search for a file from 'main' folder\n" + "4) Show Previous Menu\n");

}

**public** **void** displayAllFiles(String path) {

createMainFolder();

List<String> filesList = getFileList("main",**new** ArrayList<String>());

System.***out***.println("Displaying all files in ascending order\n");

Collections.*sort*(filesList);

filesList.stream().forEach(System.***out***::println);

}

**public** List<String> getFileList(String path, List<String> filesNames) {

File folder = **new** File(path);

File[] files = folder.listFiles();

List<File> filesList = Arrays.*asList*(files);

Collections.*sort*(filesList);

**if** (files != **null** && files.length > 0) {

**for** (File file : filesList) {

**if** (file.isDirectory()) {

getFileList(file.getAbsolutePath(),filesNames);

} **else** {

filesNames.add(file.getName());

}

}

} **else** {

System.***out***.println("Main folder is empty");

}

**return** filesNames;

}

**public** **void** genericFeatures() {

**boolean** flag = **true**;

**while**(flag==**true**) {

**try** {

**this**.displayMenu();

**int** userInput = sc.nextInt();

**switch** (userInput) {

**case** 1:

displayAllFiles("main");

**break**;

**case** 2:

**this**.FileMenuOptions();

**break**;

**case** 3:

System.***out***.println("Program exited successfully.");

flag = **false**;

sc.close();

System.*exit*(0);

**break**;

**default**:

System.***out***.println("Please select a valid option from displayed options.");

}

} **catch** (Exception e) {

System.***out***.println(e.getClass().getName());

genericFeatures();

}

}

}

**public** **void** FileMenuOptions() {

**boolean** flag = **true**;

**while**(flag == **true**){

**try** {

**this**.displayFileMenuOptions();

**this**.createMainFolder();

**int** input = sc.nextInt();

**switch** (input) {

**case** 1:

// File Adding

System.***out***.println("Enter the name of the file to be added to the 'main' folder");

String fileName = sc.next();

**this**.createMainFolder();

Path path = Paths.*get*("./main/" + fileName);

**try** {

Files.*createFile*(path);

System.***out***.println(fileName + " created successfully");

} **catch** (IOException e) {

System.***out***.println("Failed to create file " + fileName);

System.***out***.println(e.getClass().getName());

}

**break**;

**case** 2:

// File delete

System.***out***.println("Enter the name of the file need to be deleted from 'main' folder");

String fileDelete = sc.next();

createMainFolder();

File fileObj = **new** File("main");

File[] files = fileObj.listFiles();

**if** (files != **null** && files.length > 0) {

**boolean** flag1=**false**;

**for** (File file : files) {

String fileName1 = file.getName();

**if** (fileDelete.equals(fileName1)) {

**if**(file.delete()) {

flag1=**true**;

System.***out***.println(fileName1 + " deleted successfully");

}

**else**

System.***out***.println("Failed to delete " + fileName1);

}

}

**if**(flag1==**false**)

System.***out***.println("File not found or Failed to delete entered file");

}

**else** {

System.***out***.println("File not found");

}

**break**;

**case** 3:

// File Search

System.***out***.println("Enter the name of the file to be searched from 'main' folder");

String fileName2 = sc.next();

createMainFolder();

File fileObj1 = **new** File("main");

File[] files1 = fileObj1.listFiles();

**boolean** flag1=**false**;

**for** (File file : files1) {

String fileName1 = file.getName();

**if**(fileName2.equals(fileName1)) {

flag1=**true**;

}

}

**if**(!flag1)

System.***out***.println("Not successfull-File not found ");

**else**

System.***out***.println("Success-File found in main directory");

**break**;

**case** 4:

// Go to Previous menu

**return**;

**default**:

System.***out***.println("Please select a valid option from dispalyed options.");

}

} **catch** (Exception e) {

System.***out***.println(e.getClass().getName());

FileMenuOptions();

}

}

}

**public** **static** **void** main(String[] args) {

Main obj1=**new** Main();

obj1.printWelcomeScreen();

obj1.createMainFolder();

obj1.genericFeatures();

}

}