**package** course1\_VirtualKeyforYourRepositories;

**import** java.io.File;

**import** java.io.FileOutputStream;

**import** java.io.IOException;

**import** java.nio.file.DirectoryNotEmptyException;

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

**import** java.nio.file.NoSuchFileException;

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

**import** java.util.ArrayList;

**import** java.util.Scanner;

**public** **class** VirtualKeyforYourRepositories {

**static** String *filesPath*="H:\\Documents\\Study\\Simpli Learn\\PGP Program - CALTECH\\PG FSD Implement OOPS using JAVA with Data Structures and Beyond\\Assessment-VirtualKeyforYourRepositories\\File Folder";

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

// **TODO** Auto-generated method stub

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

System.***out***.println("\tWelcome to LockedMe - From Rahul Sharma \n");

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

*optionsSelection*();

}

**private** **static** **void** optionsSelection() **throws** IOException {

String[] arr = {"\n\n1. I wish to review my files",

"2. I wish to manage my files",

"3. Close the application"

};

**int** slen = arr.length;

**for**(**int** i=0; i<slen;i++){

System.***out***.println(arr[i]);

// display the all the Strings mentioned in the String array

}

**char** my\_temp;

**for**(my\_temp= 'A'; my\_temp <= 'Z'; ++ my\_temp)

*createFileUsingFileOutputStreamClass*(*filesPath*, String.*valueOf*(my\_temp));

System.***out***.println("\nEnter your choice:\t");

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

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

**switch** (options){

**case** 1:

*displayingTheFiles*();

*optionsSelection*();

**break**;

**case** 2:

*optionsInnerSelection*();

**break**;

**case** 3:

*closeApp*();

**break**;

**default**:

System.***out***.println("You have made an invalid choice!");

*optionsSelection*();

**break**;

}

}

**private** **static** **void** optionsInnerSelection() **throws** IOException {

String[] arr1 = {"\n\n1. Add a file to the existing directory list",

"2. Delete a specified file from the existing directory list",

"3. Search a user specified file from the directory",

"4. Return to the main menu"

};

System.***out***.println("\nPlease select the operation that you want to perform on the files\t");

**int** slen = arr1.length;

**for**(**int** i=0; i<slen;i++){

System.***out***.println(arr1[i]);

// display the all the Strings mentioned in the String array

}

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

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

**switch** (optionsI){

**case** 1:

System.***out***.println("Please enter the name for the file:");

String fileName = sc.next();

System.***out***.println("Please enter the info that you want to put in the file:");

String data = sc.next();

*addAFileToDirectory*(*filesPath*, fileName, data);

*displayingTheFiles*();

System.***out***.println("File added to the directory successfully");

*optionsInnerSelection*();

**break**;

**case** 2:

System.***out***.println("Please enter file name that you want to delete:");

String fileNameD = sc.next();

*deleteSpecifiedFileFromDirectory*(*filesPath*, fileNameD);

*optionsInnerSelection*();

**break**;

**case** 3:

System.***out***.println("Please enter file name that you want to search:");

String fileNameS = sc.next();

*searchSpecifiedFileFromDirectory*(*filesPath*, fileNameS);

*optionsInnerSelection*();

**break**;

**case** 4:

*optionsSelection*();

**break**;

**default**:

System.***out***.println("You have made an invalid choice!");

*optionsInnerSelection*();

**break**;

}

}

**private** **static** **void** createFileUsingFileOutputStreamClass(String filesPath,String fileName) **throws** IOException

{

String data = "Test data";

FileOutputStream out = **new** FileOutputStream(filesPath+"\\"+fileName+".txt");

out.write(data.getBytes());

out.close();

}

**private** **static** **void** addAFileToDirectory(String filesPath,String fileName,String data) **throws** IOException

{

FileOutputStream out = **new** FileOutputStream(filesPath+"\\"+fileName/\*+".txt"\*/);

out.write(data.getBytes());

out.close();

}

**private** **static** **void** deleteSpecifiedFileFromDirectory(String filesPath,String fileName) **throws** IOException

{

**try**

{

Files.*delete*(Paths.*get*(filesPath+"\\"+fileName/\*+".txt"\*/));

System.***out***.println("Deletion successful.");

System.***out***.println("Here is the list of remaining files:");

*displayingTheFiles*();

}

**catch**(NoSuchFileException e) //Not throwing NoSuchFileException

{

System.***out***.println("No such file exists");

}

**catch**(DirectoryNotEmptyException e)

{

System.***out***.println("Directory is not empty.");

}

**catch**(IOException e)

{

System.***out***.println("Invalid permissions.");

}

}

**private** **static** **void** searchSpecifiedFileFromDirectory(String filesPath,String fileName) **throws** IOException

{

File fObj = **new** File(filesPath);

**if**(fObj.exists() && fObj.isDirectory())

{

// array for the files of the directory pointed by fObj

File a[] = fObj.listFiles();

**for**(**int** i=0;i<a.length;i++) {

**if**(a[i].isFile() && a[i].getName().equals(fileName)) {

System.***out***.println(fileName+" is available in the directory");

**return**;

}

}

System.***out***.println("Ooops! "+fileName+" is not available in the directory");

}

}

**public** **static** **void** printFileNames(File[] a, **int** i, **int** lvl)

{

**if**(i == a.length)

{

**return**;

}

**if**(a[i].isFile())

{

System.***out***.println(a[i].getName());

}

*printFileNames*(a, i + 1, lvl);

}

**public** **static** **void** displayingTheFiles() {

File fObj = **new** File(*filesPath*);

**if**(fObj.exists() && fObj.isDirectory())

{

// array for the files of the directory pointed by fObj

File a[] = fObj.listFiles();

// display statements

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

System.***out***.println("Displaying Files from the directory : " + fObj);

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

// Calling the method

*printFileNames*(a, 0, 0);

}

}

**private** **static** **void** closeApp() {

System.***out***.println("Closing your application... \nThank you!");

}

}