**SOURCE CODE:**

**package** virtualkey;

**import** java.io.File;

**import** java.io.FileNotFoundException;

**import** java.io.IOException;

**import** java.io.PrintWriter;

**import** java.util.ArrayList;

**public** **class** businessoperation {

//Bubble sort to sort file in ascending order

**protected** **static** String[] sort\_sub(String array[], **int** size){

String temp = "";

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

**for**(**int** j=1; j<(size-i); j++){

**if**(array[j-1].compareToIgnoreCase(array[j])>0){

temp = array[j-1];

array[j-1]=array[j];

array[j]=temp;

}

}

}

**return** array;

}

//File listing function

**protected** **static** **void** listFiles() {

**int** fileCount = 0;

ArrayList<String> filenames = **new** ArrayList<String>();

File directoryPath = **new** File(System.*getProperty*("user.dir"));

File[] listOfFiles = directoryPath.listFiles();

fileCount = listOfFiles.length;

System.***out***.println("Files in ascending order: ");

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

**if** (listOfFiles[i].isFile()) {

filenames.add(listOfFiles[i].getName());

}

}

String[] str = **new** String[filenames.size()];

**for** (**int** i = 0; i < filenames.size(); i++) {

str[i] = filenames.get(i);

}

String[] sorted\_filenames = *sort\_sub*(str, str.length);

**for**(String currentFile: sorted\_filenames) {

System.***out***.println(currentFile);

}

}

//File delete function

**protected** **static** **void** deleteFile(String fileToBeDeleted) {

File file = **new** File( (System.*getProperty*("user.dir") ) + "\\" + fileToBeDeleted );

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

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

System.***out***.println("!File deleted successfully!");

}

} **else** {

System.***out***.println("Sorry, File wasn't deleted -(File Not Found)");

}

}

//File search function

**protected** **static** **void** searchFile(String fileToBeSearched) {

File file = **new** File( (System.*getProperty*("user.dir") ) + "\\" + fileToBeSearched );

//Check whether file whether file exists or not.

//If yes then display associated message

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

System.***out***.println("File Has Been Found");

} **else** {

System.***out***.println("Sorry,File is not here-(File Not Found)");

} PrintWriter pw;

**try** {

pw = **new** PrintWriter(fileToBeSearched); //may throw exception

pw.println("saved");

}

// providing the checked exception handler

**catch** (FileNotFoundException e) {

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

}

}

//File creation function

**protected** **static** **void** createFile (String fileToBeCreated) {

File file = **new** File( (System.*getProperty*("user.dir") ) + "\\" + fileToBeCreated );

**try** {

**if** (file.createNewFile() ) {

System.***out***.println("File Has Beeen Created!");

} **else** {

System.***out***.println("File already exists");

}

} **catch** (IOException e) {

e.printStackTrace();

}

}

}

**import** java.util.Scanner;

**import** java.io.IOException;

**public** **class** lockerkey {

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

**int** ch=0, choice=0;

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

System.***out***.println("\t VIRTUAL KEY");

**while**(**true**)

{

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

System.***out***.println("1. List Current Files");

System.***out***.println("2. Business Operations");

System.***out***.println("3. Close Application");

**try**{

ch = sc.nextInt();

}

**catch**(Exception e)

{

System.***out***.println("Null Exception occurred");

}

**switch**(ch)

{

**case** 1: //List function feature to list all files in ascending order.

businessoperation.*listFiles*();

**break**;

**case** 2:

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

System.***out***.println("1. To Add a File");

System.***out***.println("2. To Delete a File");

System.***out***.println("3. To Search for a File");

**try**{

choice = sc.nextInt();

}

**catch**(Exception e)

{

System.***out***.println("exception occured");

}

**switch**(choice)

{

**case** 1:

//Creation of a file takes place

System.***out***.println("Enter the Name of a file to be Created: ");

String fileCreate = sc.next();

// Calling the function to create the file

businessoperation.*createFile*(fileCreate);

**break**;

**case** 2:

//deletion of a file takes place

System.***out***.print("Enter the Name of a File to be Deleted: ");

String fileDelete = sc.next();

// Calling the function to delete the file

businessoperation.*deleteFile*(fileDelete);

**break**;

**case** 3:

//Search for a file takes place

System.***out***.println("Enter the Name of a File to be Searched: ");

String fileSearch = sc.next();

// Calling the function to search the file

businessoperation.*searchFile*(fileSearch);

**break**;

**default**:

//In the case of unprecedented input execute this

System.***out***.println("Invalid process!!");

**break**;

}

**break**;

**case** 3:

//Voluntarily exiting the application

sc.close();

System.***out***.println("\n It was nice having you here!!");

System.*exit*(1);

**break**;

**default**:

//In the case of unprecedented input execute this

System.***out***.println(" !!Invalid Input!!");

**break**;

}

}

}

}