VIRTUAL KEY SOURCE CODE

**import** java.io.File;

**import** java.io.IOException;

**import** java.util.Arrays;

**import** java.util.Scanner;

**public** **class** VirtualKey {

**static** String *DIRECTORY*;

File folder\_name;

**public** VirtualKey() {

*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\*\*\*\*\*\*\* Phase1.com \*\*\*\*\*\*\*";

**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("↳ Adding a file...Please Enter a File Name : ");

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

addFile(filename);

**break**;

}

**case** 'b' : {

System.***out***.print("↳ Deleting a file...Please Enter a File Name : ");

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

deleteFile(filename);

**break**;

}

**case** 'c' : {

System.***out***.print("↳ 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) {

System.***out***.println(***WELCOME\_PROMPT***);

VirtualKey menu = **new** VirtualKey();

menu.showPrimaryMenu();

}

}