**package** Myfiles;

**import** java.io.File;

**import** java.io.FileWriter;

**import** java.io.IOException;

**import** java.util.Arrays;

**import** java.util.Collections;

**import** java.util.LinkedList;

**import** java.util.Scanner;

**import** java.util.regex.Matcher;

**import** java.util.regex.Pattern;

**public** **class** Myfile {

//This block contain standard Error message and default path.

**static** **final** String ***errorMessage*** = " If Some error occured please contact admin: gouthamkamath71@gmail.com";

**static** **final** String ***projectFilesPath*** = "D:/";

// This method display menu options, application name and Developer name.

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

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

System.***out***.println("\tWelcome to Github");

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

System.***out***.println("\tDesigned by:- Gowtham S Kamath");

System.***out***.println("\t1. Display all Files, Folders (In Ascending Order).");

System.***out***.println("\t2. Add a new file.");

System.***out***.println("\t3. Delete a file.");

System.***out***.println("\t4. Search a file.");

System.***out***.println("\t5. Exit from Application.");

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

}

**public** **static** **boolean** fileNamevalidation(String ch) {

// This method check that input choice should be only number (1-5).

// Do not contain any character, white space or blank space.

// input Example- abc.txt.

// false mean pass the test

**boolean** t = **true**;

String pat = "^[a-zA-Z](?:[a-zA-Z0-9 .\_-]\*[a-zA-Z0-9])?\\.[a-zA-Z0-9\_-]+$";

Pattern p = Pattern.*compile*(pat);

Matcher m = p.matcher(ch);

**if** (m.matches() == **true**) {

t = **false**;

} **else** {

System.***out***.println(" please enter proper file name eg abc.txt");

t = **true**;

}

**return** t;

}

// This method is shows all files and folders present in "projectFilesPath" in

// ascending order.

// As per requirement of project.

**public** **static** **void** getAllFiles() {

**try** {

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

File[] listOfFiles = folder.listFiles();

**if** (listOfFiles.length == 0) {

System.***out***.println("No Files exist");

} **else** {

Arrays.*sort*(listOfFiles, Collections.*reverseOrder*());

**for** (**var** l : listOfFiles) {

System.***out***.println(l.getName());

}

}

} **catch** (Exception Ex) {

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

}

}

//This method is sub method that is used to write in file.

**public** **static** **void** WriteToFiles(String Path) {

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

**try** {

FileWriter Writer = **new** FileWriter(Path);

System.***out***.println("Enter the Text that you want to save in file.(Press Enter key to save)");

String In = Sc.nextLine();

Writer.write(In);

Writer.close();

System.***out***.println("Successfully written in file.");

} **catch** (Exception e) {

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

e.printStackTrace();

} **finally** {

}

}

// This method is used to create new file in TXT format.

// Also prevent duplicate file formation.

**public** **static** **void** createFiles() **throws** IOException {

**try** {

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

String fileName;

System.***out***.println("Enter the filename: ");

fileName = obj.nextLine();

String newpath = (***projectFilesPath*** + "\\" + fileName);

**boolean** b = *fileNamevalidation*(fileName);

**while** (b) {

b = **false**;

*createFiles*();

}

File F1 = **new** File(newpath);

**if** (F1.exists()) {

System.***out***.println(" The given filename name already present, give new file name.");

*createFiles*();

} **else** {

F1.createNewFile();

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

*WriteToFiles*(newpath);

}

} **catch** (Exception ex) {

System.***out***.println("Some error has occcured");

}

}

// This method delete the given file from path.

**public** **static** **void** deleteAllFiles() {

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

**try** {

String fileName;

System.***out***.println("Enter the file name to be deleted");

fileName = obj.nextLine();

File file = **new** File(***projectFilesPath*** + "\\" + fileName);

**if** ((file.exists() == **true**) && (fileName != "null")) {

file.delete();

System.***out***.println("File " + fileName + " deleted SuccessFully : ");

} **else** {

System.***out***.println("File do not exists or you are entering space");

}

} **catch** (Exception ex) {

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

} **finally** {

}

}

/\* This method will search the files from the directory \*/

**public** **static** **void** searchFiles() {

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

**try** {

String fileName;

System.***out***.println("Enter the file name to be Searched");

fileName = obj.nextLine();

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

File[] listOfFiles = folder.listFiles();

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

**for** (**var** l : listOfFiles)

filenames.add(l.getName());

**if** (filenames.contains(fileName))

System.***out***.println("File " + fileName + "is available at " + folder.getAbsolutePath());

**else**

System.***out***.println("File " + fileName + "is not available");

} **catch** (Exception ex) {

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

} **finally** {

}

}

**public** **static** **boolean** numbervalidation(String ch) {

// This method check that input choice is only number

// do not contain any character, white space or blank space.

// choice between 1 to 5 only.

**boolean** t = **true**;

String pat = "[1-5]";

Pattern p = Pattern.*compile*(pat);

Matcher m = p.matcher(ch);

**if** (m.matches() == **true**) {

t = **false**;

} **else** {

System.***out***.println("You are not entering number bewteen 1 to 5");

t = **true**;

}

**return** t;

}

// This method is used to repeat the options and keep main program very simple.

**public** **static** **void** loopme() {

*displayMenu*();

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

String ch = **null**;

**do** {

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

System.***out***.println("Enter your number Choice :- ");

ch = obj.next();

flag = *numbervalidation*(ch);

} **while** (flag == **true**);

**int** cha = Integer.*parseInt*(ch);

**switch** (cha) {

**case** 1:

*getAllFiles*();

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

*loopme*();

**break**;

**case** 2:

**try** {

*createFiles*();

} **catch** (IOException e) {

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

e.printStackTrace();

}

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

*loopme*();

**break**;

**case** 3:

*deleteAllFiles*();

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

*loopme*();

**break**;

**case** 4:

*searchFiles*();

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

*loopme*();

**break**;

**case** 5:

System.***out***.println("Thanks for selecting Github");

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

System.*exit*(0);

}

}

//This is client code(main method). As all method in this project are public Static .

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

**try** {

*loopme*();

} **catch** (Exception e) {

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

}

}

}