**Virtual key code:**

**1.For sorting file in ascending order:**

package ascending;

import java.io.\*;

import java.util.\*;

public class AscendingOrder {

static String directory= "C:/Users/poorv/Desktop/Repository-Java/Phase1\_VirtualKey\_Project/files";

public static void ascendingOrder() {

File[] files = new File(directory).listFiles();

Set<String> a = new TreeSet<>();

for(File file : files) {

if (!file.isFile()) {

continue;

}

a.add(file.getName());

}

a.forEach(i->System.out.println(i));

}

}

2**. Main code:**

package display;

import java.util.\*;

import ascending.AscendingOrder;

import operations.Operations;

public class App {

static Scanner sn = new Scanner(System.in);

public static void info() {

System.out.println("Welcome to the Page");

System.out.println("LockedMe.com");

System.out.println("Developed by Poorvi R");

System.out.println("Description of Application: Application/Prototype to add, delete, and search files");

}

public static void main() {

System.out.println("");

System.out.println("Welcome to Main Menu");

System.out.println("Press 1 to show file in Ascending Order");

System.out.println("Press 2 to view file operations");

System.out.println("Press 3 to Exit from the application");

int choice = sn.nextInt();

handle(choice);

}

public static void handle(int num) {

switch(num) {

case 1:

AscendingOrder.ascendingOrder();

break;

case 2:

Operations.FileOperations();

break;

case 3:

System.out.println("Exit");

System.exit(0);

break;

default:

System.out.println("Invalid input");

}

main();

}

public static void main(String[] args) {

info();

main();

}

}

3.**Operations:**

**package** operations;

**import** java.io.\*;

**import** java.nio.file.\*;

**import** java.util.\*;

**import** display.App;

**public** **class** Operations {

**static** Scanner *sn* = **new** Scanner(System.***in***);

//static String directory = "src/storage";

**static** String *directory* = "C:/Users/poorv/Desktop/Repository-Java/Phase1\_VirtualKey\_Project/files";

**public** **static** **void** FileOperations() {

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

System.***out***.println("Press 1 to Add a file");

System.***out***.println("Press 2 to Delete a file");

System.***out***.println("Press 3 to Search a file");

System.***out***.println("Press 4 to go Back to the Main Menu");

String choice = *sn*.nextLine();

*handle*(choice);

}

**public** **static** **void** handle(String num) {

**switch**(num) {

**case** "1":

System.***out***.println("You selected Add Operation");

*add*();

**break**;

**case** "2":

System.***out***.println("You selected Delete Operation");

*delete*();

**break**;

**case** "3":

System.***out***.println("You selected Search Operation");

*search*();

**break**;

**case** "4":

System.***out***.println("Going Back to Main Menu");

App.*main*();

**break**;

**default**:

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

}

*FileOperations*();

}

//to add a file

**public** **static** **void** add() **throws** InvalidPathException {

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

String input = *sn*.nextLine();

String appendedFile = "C:\\Users\\poorv\\Desktop\\Repository-Java\\Phase1\_VirtualKey\_Project\\files\\"+input;

File file = **new** File(appendedFile); //initialize File object and passing path as argument

**boolean** result;

**try**

{

result = file.createNewFile(); //creates a new file

**if**(result) // test if successfully created a new file

{

System.***out***.println("file created "+file.getCanonicalPath()); //returns the path string

}

**else**

{

System.***out***.println("File already exist at location: "+file.getCanonicalPath());

}

}

**catch** (IOException e)

{

e.printStackTrace(); //prints exception if any

}

}

// to delete a file

**public** **static** **void** delete() **throws** InvalidPathException {

System.***out***.println("Enter the file path (ex: c.txt)");

String input = *sn*.nextLine();

String Path = *directory* + "/" + input;

Path path;

**try** {

path = Paths.*get*(Path);

} **catch** (Exception e) {

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

**return**;

}

**if** (!Files.*exists*(path)) {

System.***out***.println("No such file existed,thus cannot be deleted");

**return**;

} **else** {

System.***out***.println("File is present");

}

File Delete = **new** File(Path);

**try** {

Delete.delete();

System.***out***.println("File is deleted");

}

**catch** (Exception e) {

System.***out***.println("Not able to delete file");

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

}

}

//to search a file

**public** **static** **void** search() **throws** InvalidPathException{

System.***out***.println("Enter the file to search (ex: a.txt)");

String input = *sn*.nextLine();

String Path = *directory* + "/" + input;

Path path;

**try** {

path = Paths.*get*(Path);

} **catch** (Exception e) {

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

**return**;

}

**if**(!Files.*exists*(path)) {

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

**return**;

} **else** {

System.***out***.println("File is present");

}

}

}