1. What’s the difference between final, finally? What is finalize()?

Final means can’t be changed

Finally is in the try catch and then finally do something

Finalized() is in garbage collection

1. What’s the difference between throw and throws?

Throw an exception

Throws some exception in the method declare

1. What are the two types of exceptions?

Checked exception, unchecked exception

1. What is error in java?

Some serious problem Java should not try to catch

1. Exception is object, true or false?

True

1. Can a finally block exist with a try block but without a catch?

Yes

1. From java 1.7, give an example of the try-resource feature.

static String readFirstLineFromFileWithFinallyBlock(String path)

throws IOException {

BufferedReader br = new BufferedReader(new FileReader(path));

try {

return br.readLine();

} finally {

br.close();

}

}

1. What will happen to the Exception object after exception handling?

Go to garbage collection

1. Can we use String as a condition in switch(str){} clause?

Yes

1. What’s the difference between ArrayList, LinkedList and vector?

Arraylist is based on array, vector is thread safe

1. What’s the difference between hashTable and hashMap?

Hashtable don’t allow null,hashMap can

Hashtable is thread safe

1. What is static import?

Allow to aceess the static member of class without class quailfication

1. What is static block?

Visible in the class

14. Explain the keywords:

default(java 1.8): allow interface to have an implementation, break:

break the for loop, continue: continue to next loop, synchronized: lock on this mthod, strictfp; strict float point, allow consistency across platiform, transient: should not be included in serilization, volatile: read and write in heap, instanceOf: class of

15. Create a program including two threads – thread read and thread write.

Input file ->Thread read -> Calculate -> buffered area

Buffered area -> Thread write -> output file

Detailed description is in assignment4.txt file.

Sample input.txt file.

Attached files are input.txt and a more detailed description file.

class ThreadRead extends Thread{

String name;

List<String> s = new ArrayList<>();

ThreadRead(String name, List<String> sb) {

this.name = name;

this.s = s;

}

public String calculate(String line) {

int sum = 0;

int sign = 1;

String[] split = line.split(" ");

for(String i : split) {

if(i.equals("")) break;

if(i.equals("+")){

sign = 1;

}else if(i.equals("-")) {

sign = -1;

}else {

sum += sign\*Integer.parseInt(i);

}

}

return line + " = " + sum;

}

@Override

public void run() {

BufferedReader br = null;

File f = new File("./src/main/java/assignment4/input.txt");

try {

FileReader read = new FileReader(f);

br = new BufferedReader(read);

while(br.readLine()!=null) {

sb.add(calculate(br.readLine()));

}

} catch (FileNotFoundException e) {

// TODO Auto-generated catch block

e.printStackTrace();

} catch (IOException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}finally {

try {

sb.add("End");

br.close();

} catch (IOException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

}

}

class ThreadWrite extends Thread{

String name;

BufferedWriter br = null;

List<String> s = new ArrayList<>();

ThreadWrite(String name, List<String> s) {

this.name = name;

this.s = s;

}

public void run() {

try {

BufferedWriter br = new BufferedWriter(new FileWriter("./output.txt"));

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

String temp = s.get(i);

if(temp.equals("End")) break;

br.write(temp);

}

} catch (IOException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}finally {

try {

br.close();

} catch (IOException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

}

}