Assignment 4

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

Final is a key word, which meaning is can’t change, finally is part of the garbage collection usually come with try and catch, finalize is the method in java which is to perform clean up processing.

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

Throw is to throw an exception in the program inside a function, throws is a keyword used in the method signature used to declare an exception

1. What are the two types of exceptions?

Checked exception and unchecked exception

1. What is error in java?

Error is illegal operation performed by the user is will detected until the program is compiled or executed.

1. Exception is object, true or false?

true

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

yes

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

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

The exception object will be garbage collected In the next garbage collection

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

yes

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

ArrayList: is uses a array as implementation it is better in search operation

LinkedList is used doubly linked list as it’s implementation, it good in add and removing operation

Vector is thread safe it’s slower than Arraylist because the synchronized and it’s increase the size by double the size 100%

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

They are same in the use but the difference is hashTable is thread safety hashMap is not and another thing is hashMap all the key and value be null but hashTable does not allow that

12. What is static import?

Static import help us access the static members of a class directly without class name or any object

13. What is static block?

Static block is a set of instruction that is run only once when a class is loaded into memory.

14. Explain the keywords: default(java 1.8), break, continue, synchronized, strictfp, transient, volatile, instanceOf

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| Default | Is used to specify the default block of code in a switch statement |
| Break | Break the loop or switch statement |
| Continue | Used to continue the loop |
| Synchronized | Used to specify the critical sections or method in multithreaded code |
| Strictfp | Used to restrict the floating-point calculations to ensure portability |
| Transient | Is used in serialization |
| Volatile | Is used to indicate that a variable may change asynchronously |
| instanceOf | Used to test whether the object is an instance of the specified class or implement an interface |

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