

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

Final is a modifier that ensures that attributes are constant and classes/methods can't be inherited or overridden. Finally is a keyword used in try catch blocks to do something no matter what the outcome is. Finalize is used in garbage collection.

2. What's the difference between throw and throws?

Throw can throw one exception while throws, which is extended by the method using it, can throw multiple exceptions because it specifies all of the type of errors that a method might cause.

3. What are the two types of exceptions?

There are checked (compile time) and unchecked (runtime) exceptions.

4. What is error in java?

Error is another subclass of Throwable like Exception and it comes from an illegal operation from the user.

5. 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.

```
try (FileReader filer = new FileReader(path) {  
    // block of code using file reader  
    // this try resources feature basically closes the resource automatically for us after the  
    block of code within is executed  
}
```

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

It will be handled by 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?

An ArrayList is just a resizable array while a LinkedList has an actual doubly linked list data structure to keep track of the elements within it. An array list is better for storing or accessing the data while a linked list is better when you want to manipulate the data. Vectors are deprecated in newer versions of java.

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

hashTable is synchronized and thread safe while hashMap isn't.

12. What is static import?

Static import lets us use the static methods and attributes of a class without having to use the class name when calling the method.

13. What is static block?

A static block of code in a class will be loaded and executed automatically when a class is loaded into memory. This means a static block of code can be executed without doing anything in the main method for instance or before anything in the main method is even executed.

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

break will end a loop

continue will only skip that iteration of the loop

synchronized keyword means that an object or method can only be accessed by one thread at a time so that it is thread safe, preventing errors that would arise from having multiple threads accessing a method/attribute at the same time

instanceOf is used to detect if an object is an instance of a certain class

volatile keyword is used to make sure that an attribute is thread safe

strictfp guarantees that the precision will remain the same for a floating point number across platforms

transient is used to prevent serialization of an object

default can be a keyword used to specify a block of code that is executed if none of the cases are met in a switch case block. It is also an access modifier from java 1.8 onwards which means an attribute or method can only be accessed from within the same package.