

Java Garbage Collection Interview Questions and Answers Pdf

Question: 1

What are the disadvantages of reference counting in garbage collection?

An advantage of this schema is that it can run in small chunks of time closely interwoven with the execution of the program.

This characteristic makes it particularly suitable for real time environments where the program can't be interrupted for very long.

A disadvantage of reference counting is that it does not detect cycles.

A cycle is two or more objects that refer to one another.

Another disadvantage is the overhead of incrementing and decrementing the reference count each time.

Because of these disadvantages, references counting currently is out of favor.

Question: 2

What class of exceptions are generated by the Java run time system?

The Java runtime system generates Run time exception and Error exceptions.

Question: 3

What is garbage collection?

If no reference to an object, that object is assumed to be no longer needed, and the memory occupied by the object can be reclaimed.

This is known as garbage collection.

Question: 4

What is gc()?

gc() is a daemon thread.gc() method is defined in System class that is used to send request to JVM to perform garbage collection.

Question: 5

Does Java have destructors?

Garbage collector does the job working in the back ground. Java does not have destructors; but it has finalizers that do a similar job.

The syntax is

```
public void finalize()  
{  
  
    }  
}
```

If an object has a finalizer, the method is invoked before the system garbage collects the object.

Question: 6

Describe the Garbage Collection process in Java?

The JVM spec mandates automatic garbage collection outside of the programmer's control.

The System.gc() or Runtime.gc() is merely a suggestion to the JVM to run the GC process but is NOT guaranteed.

Question: 7

Explain the keywords native, transient, volatile, finally.

native – to use methods which written in other language.

transient – if u declare state of a class as transient then it's not saved in persistent area.

volatile – this is not optimized at the time of optimization because its value may be changed implicitly or explicitly.

finally – finally is used to do work prior of closing the program because of exception. It's always called by compiler either exception generated or not.

Question: 8

What kind of thread is the Garbage collector thread?

It is a daemon thread.

Question: 9

If an object is garbage collected, can it become reachable again?

Once an object is garbage collected, it ceases to exist. It can no longer become reachable again.

Question: 10

How will you invoke any external process in Java?

By `Runtime.getRuntime().exec(?)` method