Java IO Stream Interview Questions and Answers Pdf

Question: 1

What is object serialization?

Serializing an object involves encoding its state in a structured way within a byte array.

Once an object is serialized, the byte array can be manipulated in various ways; it can be written to a file, sent over a network using a socket based connection or RMI, or persisted within a database as a BLOB.

The serialization process encodes enough information about the object type within the byte stream, allowing the original object to be easily recreated upon deserialization at a later point in time.

Question: 2

What is a stream?

A Stream is an abstraction that either products or consumes information.

Question: 3

What are the types of Streams and classes of the Streams?

There are two types of Streams and they are

Byte Streams: Provide a convenient means for handling input and output of bytes.

Character Streams: provide a convenient means for handling input and output of characters.

Byte stream classes: Are defined by using two abstract classes, namely InputStream and OutputStream.

Character Streams classes: are defined by using two abstract classes, namely Reader and Writer.

Question: 4

What is serialization and deserialization?

Serialization is the process of writing the states of an object to byte stream.

Deserialization is the process of restoring these objects.

Question: 5

What is a transient variable?

A transient variable is a variable that may not be serializable.

If you don't want some field to be serialized, you can mark the field transient or static.

Question: 6

What is the difference between Reader/Writer and InputStream/Output Stream?

The Reader/Writer class is character oriented and the InputStream/OutputStream class is byte oriented.

Question: 7

What one should take care of while serializable the object?

One should make sure that all the included objects are also serializable.

If any objects is not serializable then it throws a NotSerializableException.

Question: 8

What is Stream Unique Identifier (SUID) that is written out as part of the serial stream?

The serialization process uses a unique identification value to keep track of the persisted objects.

When a Serializable or Externalizable object is saved, its fully qualified class name and the Stream Unique Identifier (SUID) of the class is written out of the stream.

The SUID is a unique 64 bit hash and is obtained by applying the SHA – 1 message digest algorithm to the serialized class, including its name, field types and method signatures.

This steps is important as its prevents the data persisted by one class from being read by another class with the same name.

For any class to be able to read successfully from an object stream, it is imperative that its SUID matches the SUID of the serialized data in the stream.

Question: 9

Does serialization depend on the browser, platform, or VM?

The serialization format is independent of browser, independent of JVM vendor and independent of platform.

So serialization should work with any combination of the above.

Question: 10

What is the difference between the file and random access file classes?

The File class encapsulates the files and directories of the local file system.

The RandomAccessFile class provides the methods needed to directly access data contained in any part of a file.