

### 1. What is Input and Output Stream in Java?

**Ans.** The Input Stream is used to read data from a source and the Output Stream is used for writing data to a destination.

### 2. What are the methods of Output Stream?

- ➔ write() - writes the specified byte to the output stream.
- ➔ write(byte[] array) - writes the bytes from the specified array to the output stream.
- ➔ flush() - forces to write all data present in the output stream to the destination
- ➔ close() - closes the output stream.

### 3. What is serialization in Java?

**Ans:** Serialization is the process of converting an object into a stream of bytes to transfer it over a network or to store it in a file or database. In Java, serialization is done by implementing the Serializable interface.

### 4. What is the Serializable interface in Java?

**Ans:** The Serializable interface in Java is a marker interface that has no methods. It is used to mark classes that can be serialized, meaning their object instances can be converted into a stream of bytes.

### 5. What is deserialization in Java?

**Ans:** Deserialization is the process of converting a stream of bytes back into an object instance. This is done after an object has been serialized.

### 6. How is serialization achieved in Java?

**Ans:** Serialization is achieved in Java by implementing the Serializable interface. When an object is serialized, its state is converted into a stream of bytes, which can then be transferred over a network or stored in a file or database.

### 7. How is deserialization achieved in Java?

**Ans:** Deserialization is achieved in Java by reading a stream of bytes and using them to recreate the original object instance. This is done by calling the readObject() method of an ObjectInputStream instance.

### 8. How can you avoid certain member variables of class from getting Serialized?

**Ans:** Mark member variables as static or transient, and those member variables will no more be a part of Serialization.

### 9. What classes are available in the Java IO File Classes API?

**Ans:** The following classes are available in the Java IO API and are important to work with files in Java.

- ➔ File
- ➔ RandomAccessFile
- ➔ FileInputStream
- ➔ FileReader
- ➔ FileOutputStream
- ➔ FileWriter

## 10. What is Difference between Externalizable and Serialization interface ?

Ans:

	Serializable	Externalizable
<b>Methods</b>	It is a marker interface and it doesn't have any method.	It's not a marker interface.  It has method's called writeExternal() and readExternal()
<b>Default Serialization process</b>	YES, Serializable provides its own default serialization process, we just need to implement a Serializable interface.	NO, we need to override writeExternal() and readExternal() for the serialization process to happen
<b>Customize serialization process</b>	We can customize default serialization process by defining following methods in our class >readObject() and writeObject()	Serialization process is completely customized  We need to override the Externalizable interface's writeExternal() and readExternal() methods.
<b>Control over</b>	It provides less control	Externalizable provides
<b>Serialization</b>	over Serialization as it's not mandatory to define readObject() and writeObject() methods.	you great control over the serialization process as it is important to override writeExternal() and readExternal() methods.
<b>Constructor call during deSerialization</b>	Constructor is not called during deSerialization.	Constructor is called during deSerialization.