

1. What is Input and Output Stream in Java?

- **Input Stream:** Used to read data from a source (e.g., file, network).
- **Output Stream:** Used to write data to a destination (e.g., file, network).

2. What are the methods of OutputStream?

- `write(int b)`: Writes the specified byte to this output stream.
- `write(byte[] b)`: Writes `b.length` bytes from the specified byte array to this output stream.
- `write(byte[] b, int off, int len)`: Writes `len` bytes from the specified byte array starting at offset `off` to this output stream.
- `flush()`: Flushes this output stream and forces any buffered output bytes to be written out.
- `close()`: Closes this output stream and releases any system resources associated with this stream.

3. What is serialization in Java?

- Serialization is the process of converting an object into a byte stream, so it can be easily saved to a file or transmitted over a network.

4. What is the Serializable interface in Java?

- The `Serializable` interface is a marker interface (contains no methods) that enables the serialization of an object by the Java serialization mechanism.

5. What is deserialization in Java?

- Deserialization is the process of converting a byte stream back into a copy of the original object.

6. How is serialization achieved in Java?

- By implementing the `Serializable` interface and using `ObjectOutputStream` to write the object to a stream.

7. How is deserialization achieved in Java?

- By using `ObjectInputStream` to read the object from a stream.

8. How can you avoid certain member variables of a class from getting serialized?

- By marking them as `transient`.

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

- Some of the classes include `File`, `FileReader`, `FileWriter`, `BufferedReader`, `BufferedWriter`, `FileInputStream`, `FileOutputStream`, etc.

10. What is the difference between `Externalizable` and `Serializable` interface?

- `Serializable` is a marker interface, while `Externalizable` extends `Serializable` and requires the implementation of `writeExternal` and `readExternal` methods for custom serialization.