

\* IO operation \*

\* Assignment Solutions \*

Q.1 What is input and output stream in Java?

Ans 1 A stream can be defined as a sequence of data. the `InputStream` is used to read data from a source and the `OutputStream` is used for writing data to a destination.

Q.2 What are the methods of `OutputStream`?

Ans 2 • `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.

Q.3 What is serialization in Java?

Ans 3 Serialization is the process of converting an object into a stream of data by 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.

Q.4 What is the Serializable interface in Java?

Ans 4 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.

Q.5 What is deserialization in Java?

Ans 5 deserialization is the process of converting a stream of bytes back into a object instance. This is done after an object has been serialized.

Q.6 How is serialization achieved in Java?

Ans 6 ~~Serialization is achieved in Java by creating a stream of bytes and using them to recreate the original object.~~



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.

Q.7 How is deserialization achieved in Java?

Ans.7 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.

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

Ans.8 Mark member variables as static or transient, and those member variables will no more be part of serialization.

Q.9 What classes and variables in the Java IO and API and one important to work with files in Java.

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

Ans.9 File  
RandomAccessFile  
FileInputStream  
FileReader  
FileOutputStream  
FileWriter

Q.10 What is diff. b/w Extensibilizable and Serialization interface?

<u>Ans.10</u>	Serializable	Extensibilizable
Methods	It is a marker interface and it does not have any method	It's not a marker interface. It has methods called withExternal() and readExternal()
Control over	It provides less Control	Extensibilizable provides
Serializ-ation	over Serialization as it's not mandatory	You get Control over the Serialization



to define readObject() process of it if and writeObject() important to variable to override writeExternal() -writeExternal() and readExternal() methods.
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Construction Call during deserialization	Construction is not called during deserialization	Construction is called during deserialization.
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