**Java Serialization**

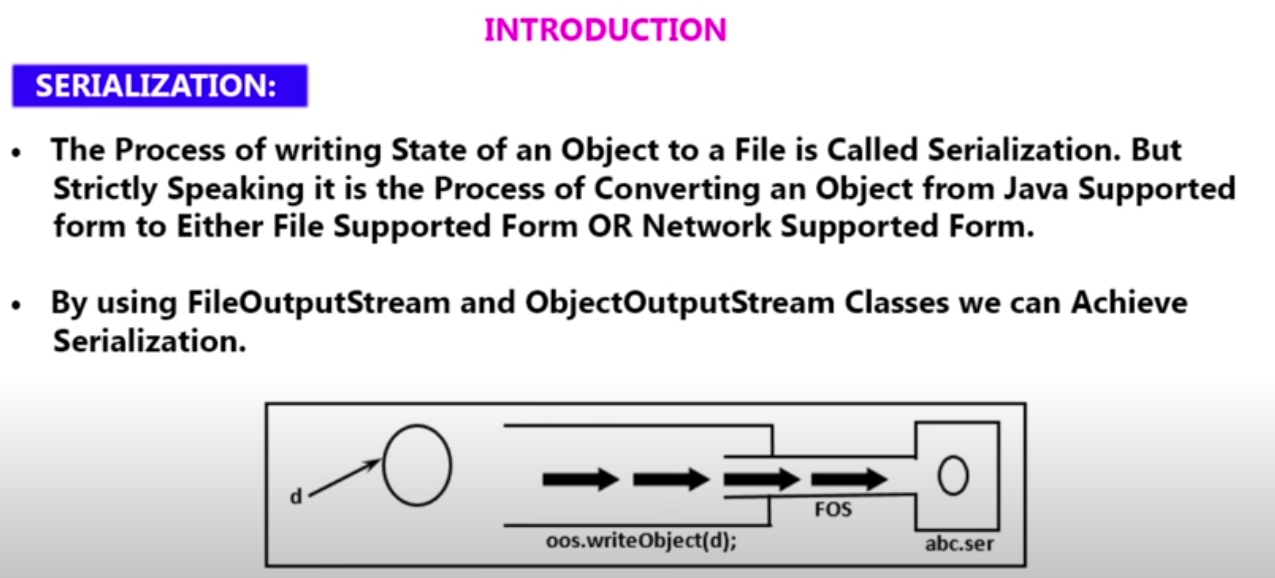
The process of saving state of an Object to a file is called Serialization.

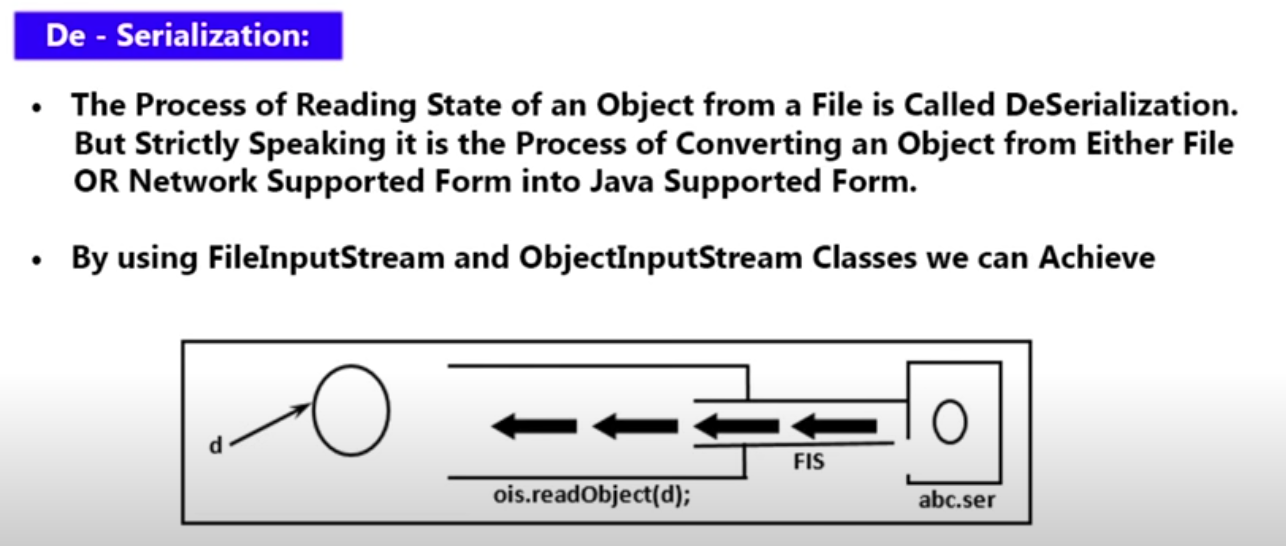
The process of converting an object from Java Supported form to File / Network supported form.

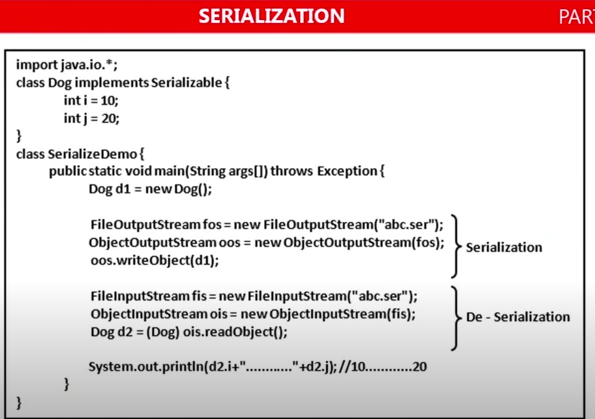
**Deserialization**:

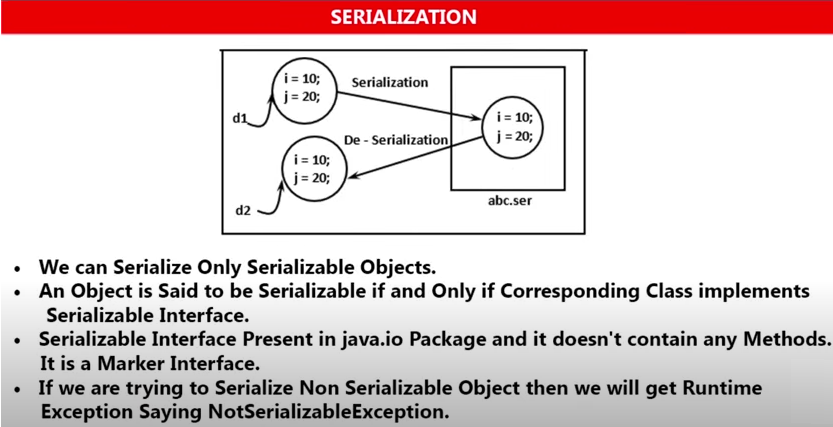
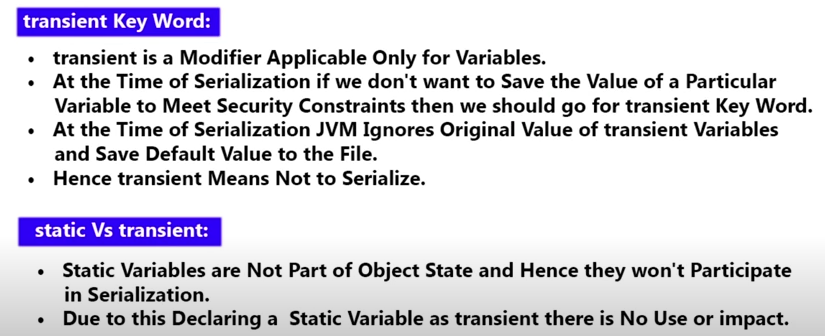
Process of reading state of an object from a file.

The process of converting a File / Network supported form to Java Supported form.

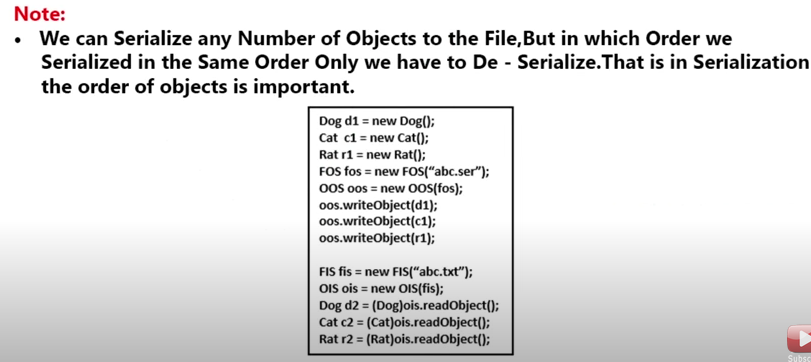


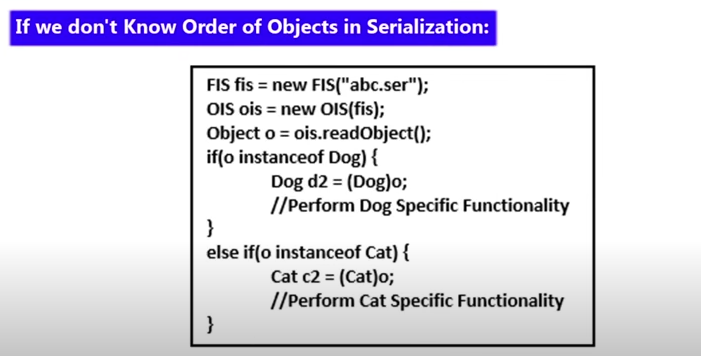


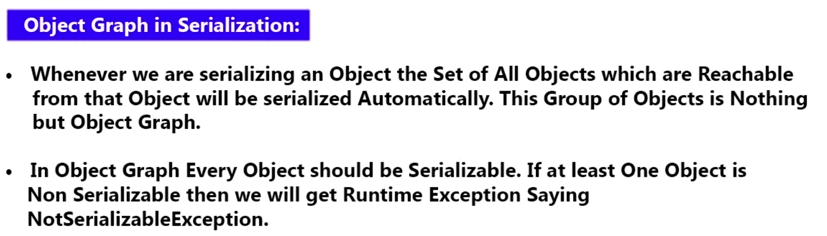


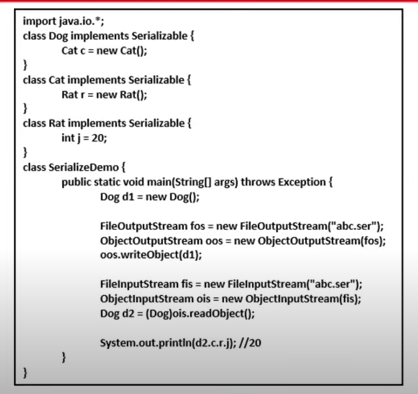
  


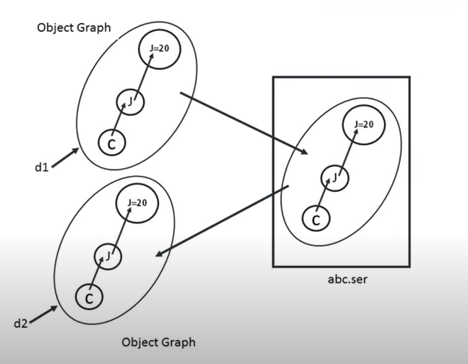


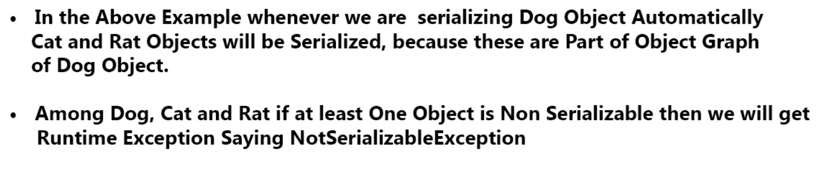


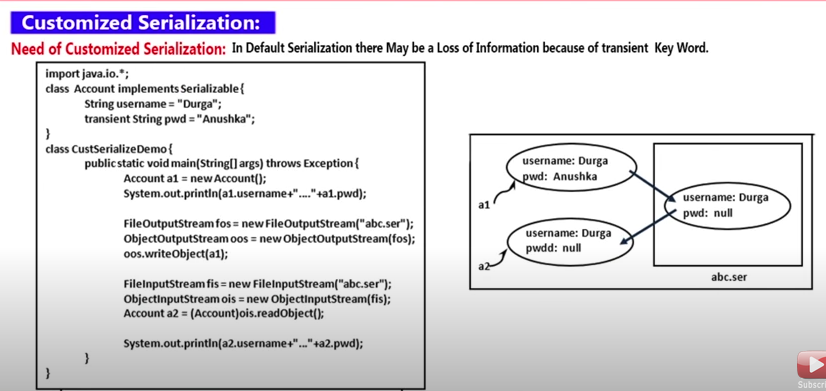


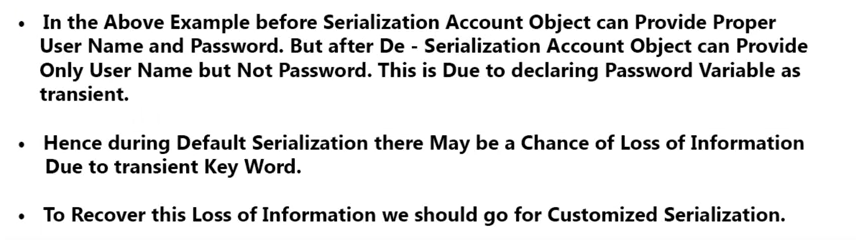




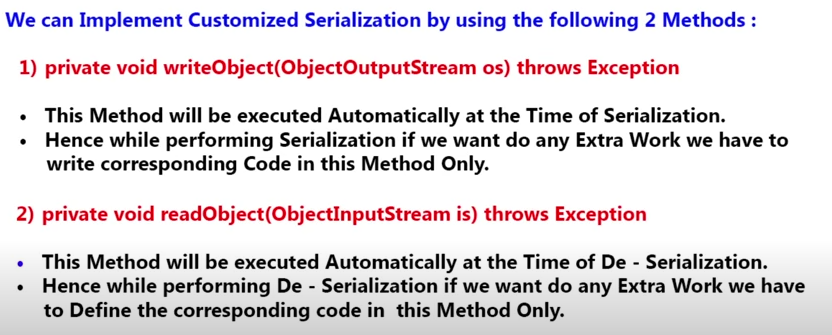


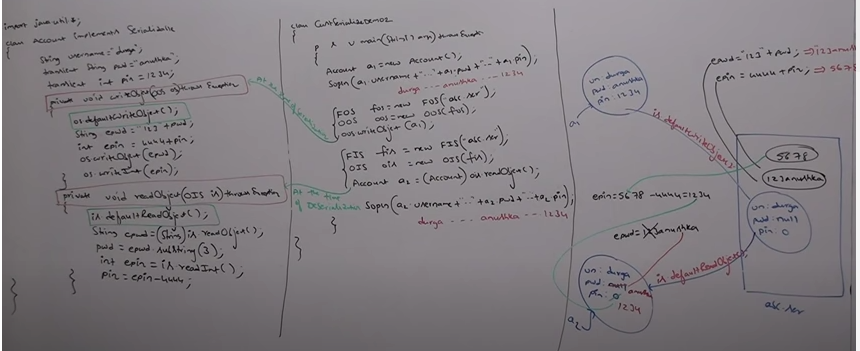


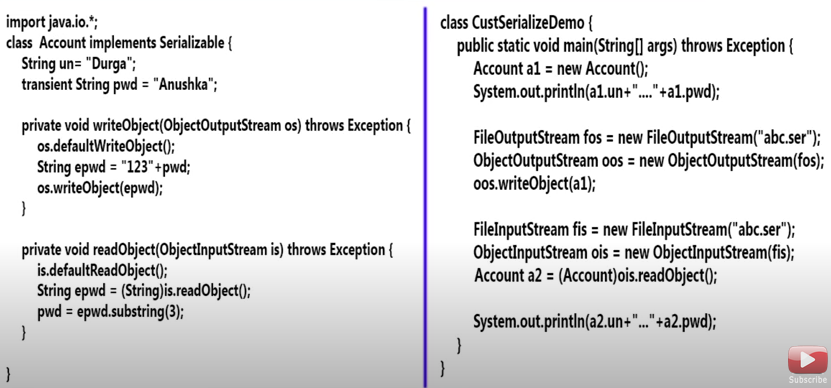


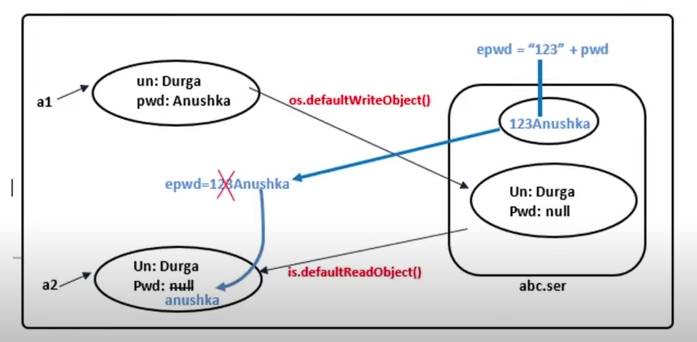


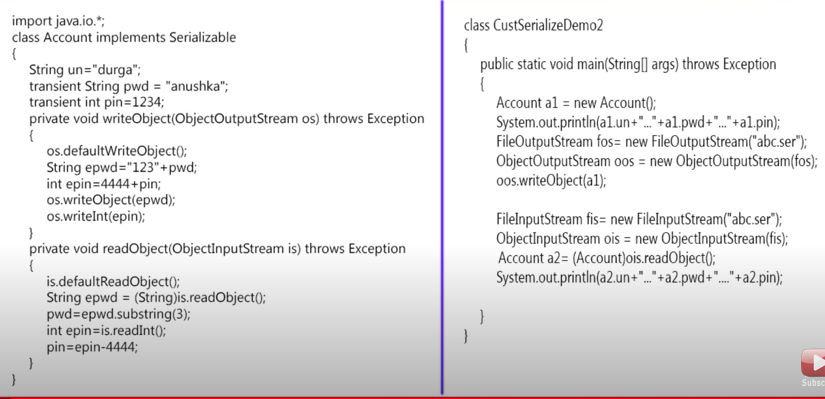
**Any method executed automatically by JVM is called callback method**

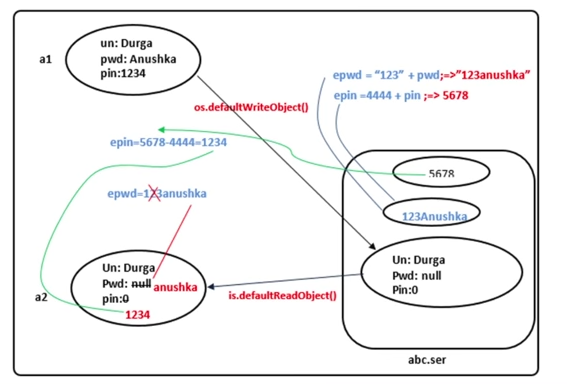


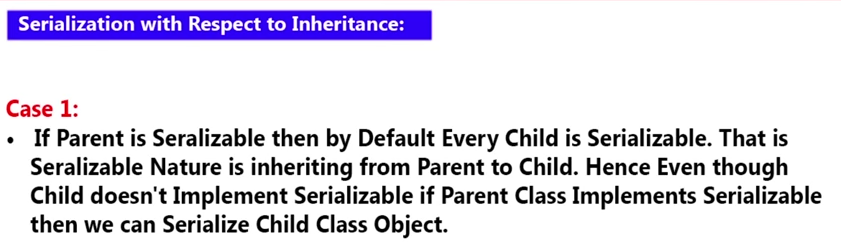


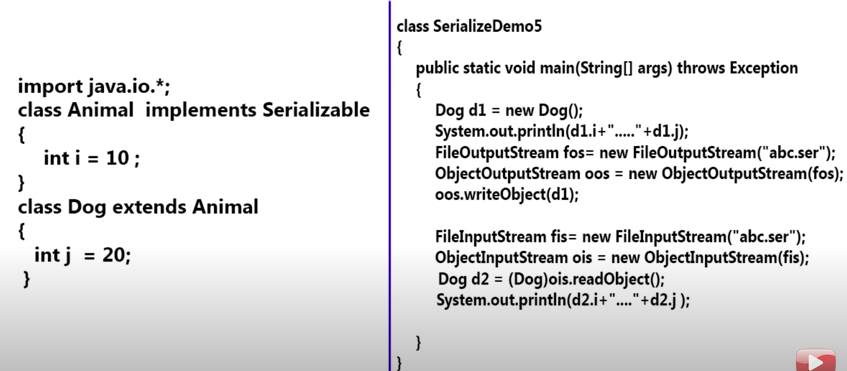


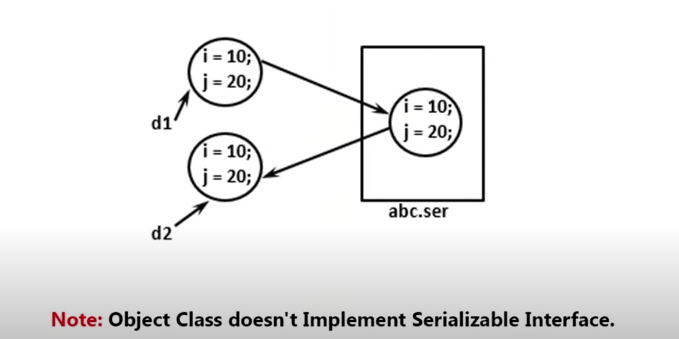


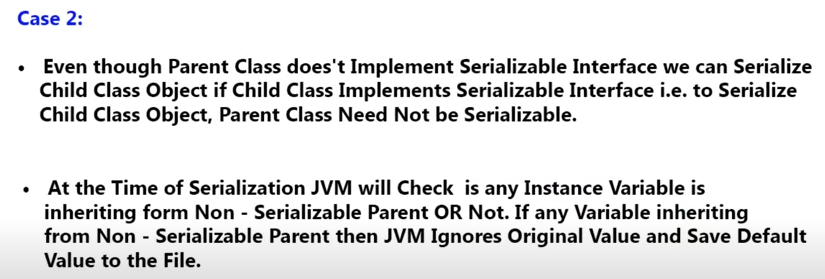


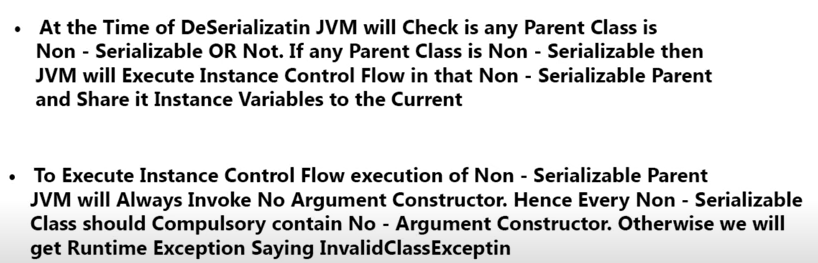


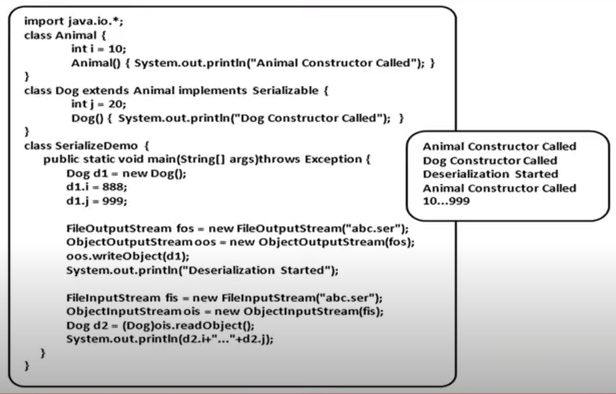


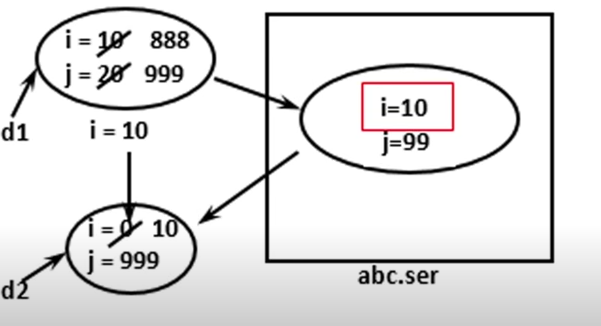










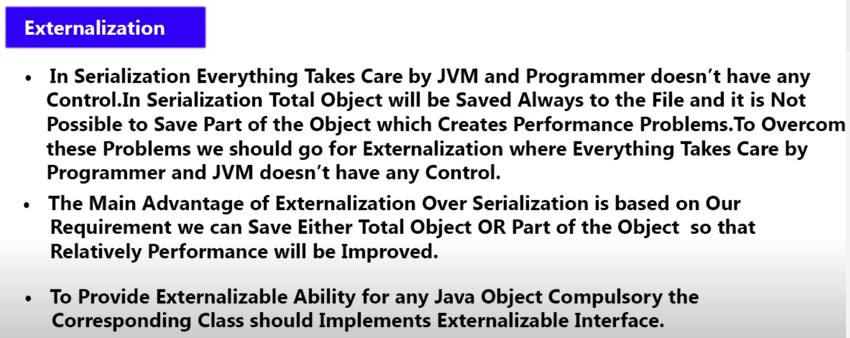


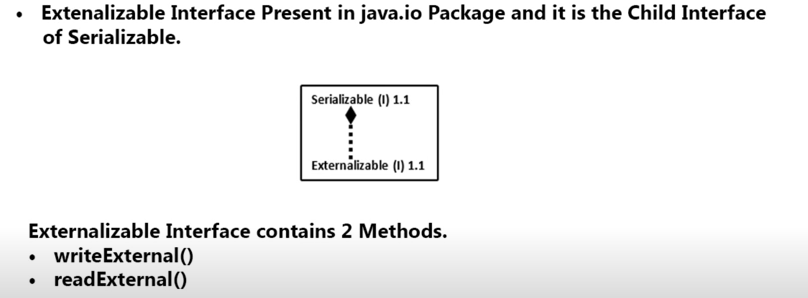
**Externalization:**

**Disadvantage of Serialization**

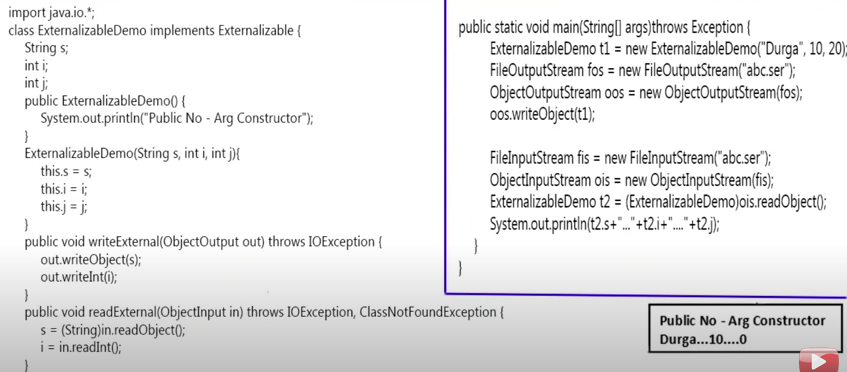
1. In Serialization, everything is taken care by JVM. Programmer does not have any control.
2. In Serialization, it is not possible to save part of Object.

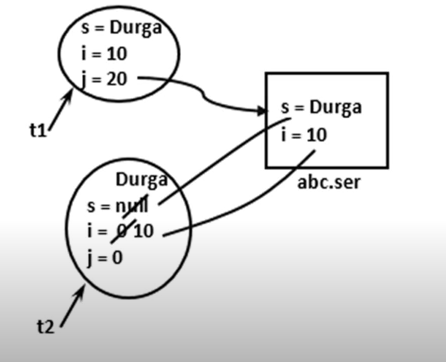
In Externalization programmer will have to handle everything.

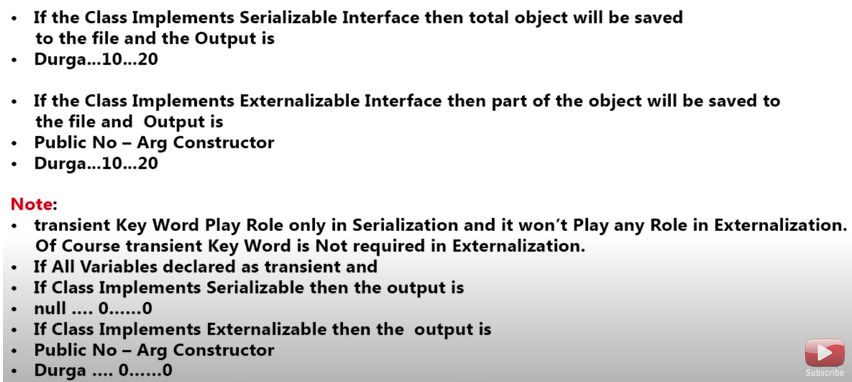


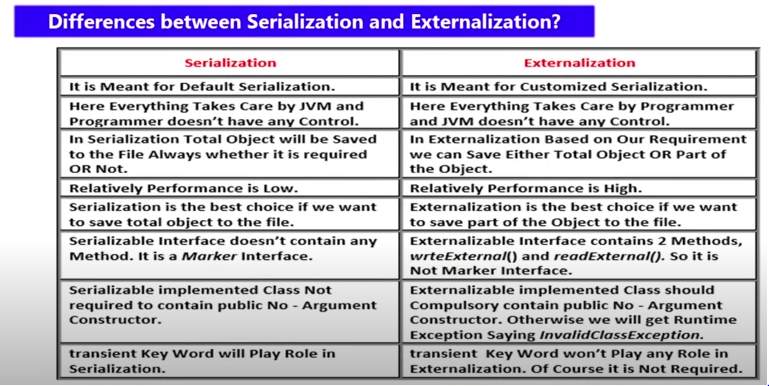


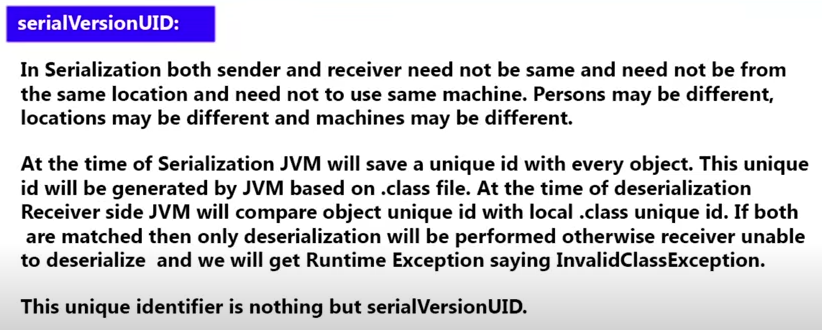


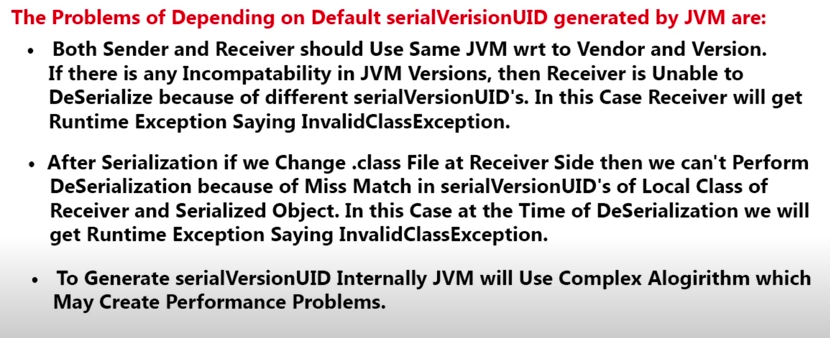


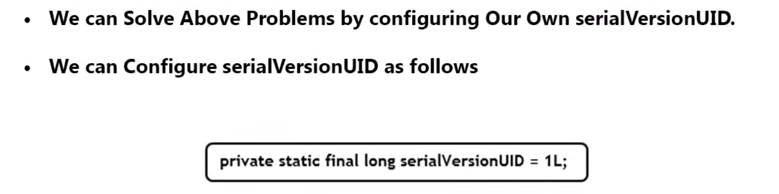


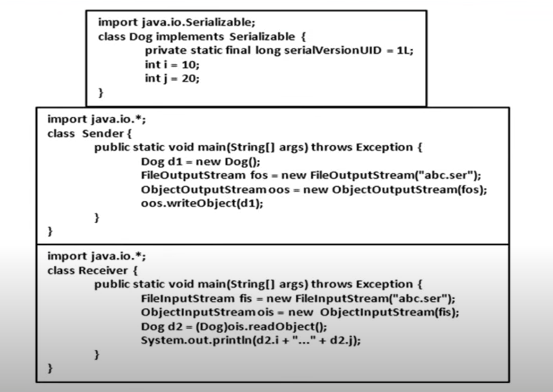


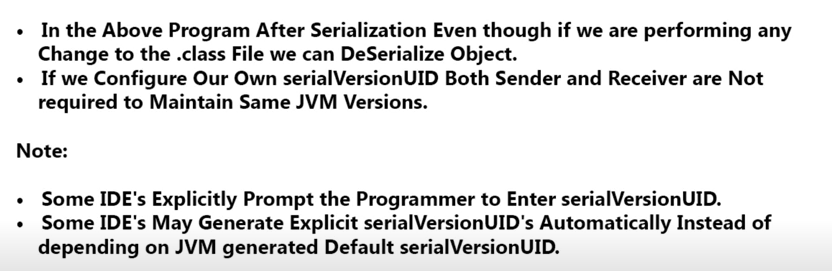












**serialVersionUID is a special static variable used by the serialization and deserialization process, to verify that a local class is compatible with the class used to serialize an object. It's not just a static variable as others, which are not serialized. When an object of a class is serialized, the class name and serial version UID are written to the stream of bytes. When it's deserialized, the JVM checks if the serial version UID read from the stream of bytes is the same as the one of the local class. If they're not, it doesn't even try to deserialize the object, because it knows the classes are incompatible**