1. Using the Internet and other available resources, write a paper explaining what is serialization? When do you use serialization?

We cannot talk about serialization without deserialization. Serialization is the process of translating data sets (data structures/objects state) into a format that can be stored on a storage media or transfer over a network connect. Deserialization is opposite of serialization. It retrieves the data into its actual form (object state) by translating the byte format file.

Using a byte stream library, object converted into an object and write on a file. For deserialization, byte stream covert the byte data into object.

When do you user Serialization? When ever the program is sending data from one machine to another using any sort of medium (wireless or wire). What serialization do is it converts a multi dimension object into single dimension (BYTE data), which make it universal to read on any machine. To read back that Byte data, program needs to decode using deserialization method. This make data transfer and storing easier and efficient.

In Java, we implement Serializable interface to make the object serializable. If a class does not implement this interface than JVC throw an Error. The Static and Transient fields in a serialized object will not serialized or deserialized

Reference:

<https://docs.oracle.com/javase/tutorial/essential/io/bytestreams.html>

https://stackoverflow.com/questions/4548816/when-should-we-implement-serializable-interface