UE20CS352 – OOAD with Java
Lab Assignment – 6

Java Serialization and Deserialization (with HashMap)

In this assignment, you are expected to self-learn the concepts of Serialization and Deserialization in Java. Using these concepts along with the use of HashMap data structure, write Java code to accomplish the following functionality.

- Every system makes use of a Config file that stores key-value pairs to store and retrieve configuration values such as Path, Version, System_Name etc.
- Instead of using a text file to store these key-value pairs, create a Java class that uses HashMap to manage these key-value pairs. The object should be serialized and stored in a "config.cfg" file to be used by any application element.
- An application element will check if the "config.cfg" file exists, if so, it will read and de-serialize the content into a Config object.
- If the config file does not exist, create a new Config Object (containing default values – say null)
- An application element can insert or update the values corresponding to a key. Then the Config object should be serialized and stored in "config.cfg" file for future use.

Write a sample application element to perform the operations listed above. Additionally, write code to print the contents of the updated Config object on the console.

Prepare a document with a summary of Serialization, Deserialization and HashMap (max 2 pages). In addition, copy your code with execution output.