**14. File Handling**

• **Theory:**

1. **Introduction to File I/O in Java (java.io package):-** File I/O (Input/Output) in Java allows you to read from and write to files on the filesystem. The java.io package provides the classes and interfaces necessary for handling file operations.

**Key Classes in java.io**

1. **File**
2. **FileInputStream**
3. **FileOutputStream**
4. **FileReader**:
5. **FileWriter**
6. **BufferedReader**
7. **BufferedWriter**
8. **PrintWriter**

**2.FileReader and FileWriter Classes:-**

* **FileReader Class**:- The FileReader class is used to read the contents of a file as a stream of characters. It reads bytes and decodes them into characters using a specified charset.
* **FileWriter Class:-** The FileWriter class is used to write characters to a file. It can create a new file or overwrite an existing file.

**3.BufferedReader and BufferedWriter:-**

* **BufferedReader:-** BufferedReader is used to read text from a character input stream. It buffers characters to provide efficient reading of characters, arrays, and lines.
* **BufferedWriter:-** BufferedWriter is used to write text to a character output stream. It buffers the output to provide efficient writing of characters, arrays, and strings.

**4. Serialization and Deserialization:-**

* **Serialization:-** To serialize an object in Java, the class of the object must implement the Serializable interface. This interface is a marker interface (it has no methods).
* **Deserialization:-** To deserialize an object, use the ObjectInputStream class to read the byte stream and reconstruct the object.