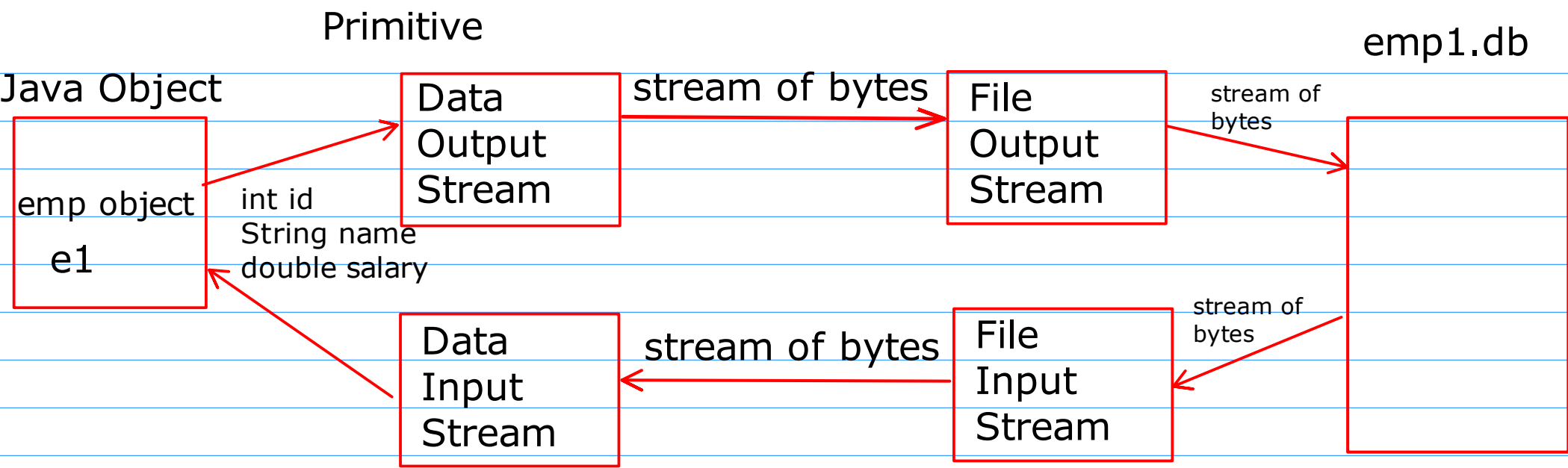


Chaining of IO Streams



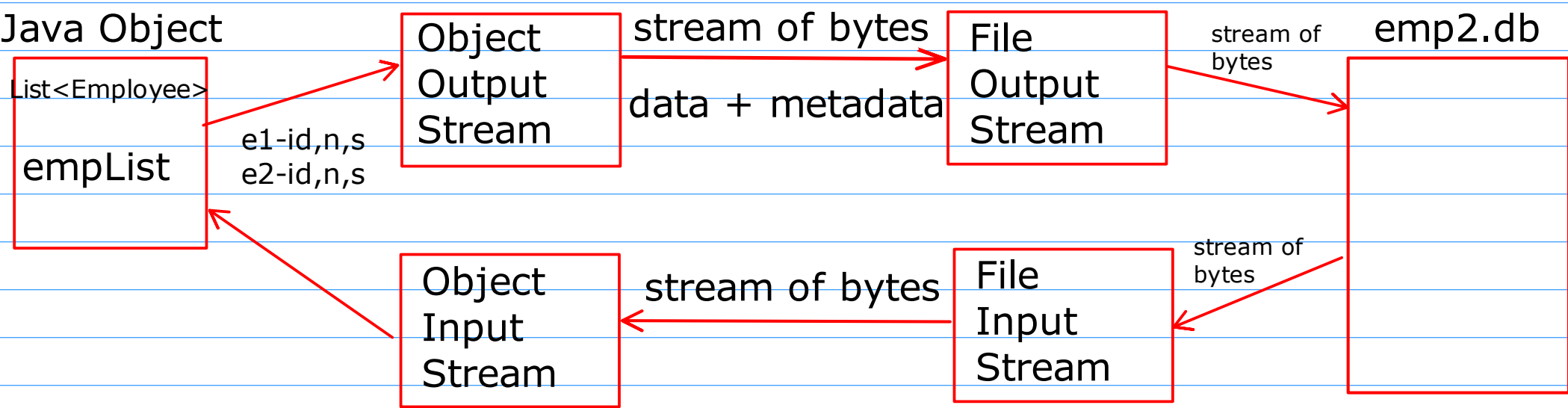
```
FileOutputStream fos = new FileOutputStream("emp1.db");
DataOutputStream dos = new DataOutputStream(fos);
dos.writeInt(e.empid);
dos.writeUTF(e.name);
dos.writeDouble(e.salary);
```

Java Object

```
public static void write(Employee e) {
    try (FileOutputStream fos = new FileOutputStream("emp1.db")) {
        try (DataOutputStream dos = new DataOutputStream(fos)) {
            dos.writeInt(e.empid);
            dos.writeUTF(e.name);
            dos.writeDouble(e.salary);
        }
    }
}
```

Stream of bytes

```
FileInputStream fis = new FileInputStream("emp1.db");
DataInputStream dis = new DataInputStream(fis);
```



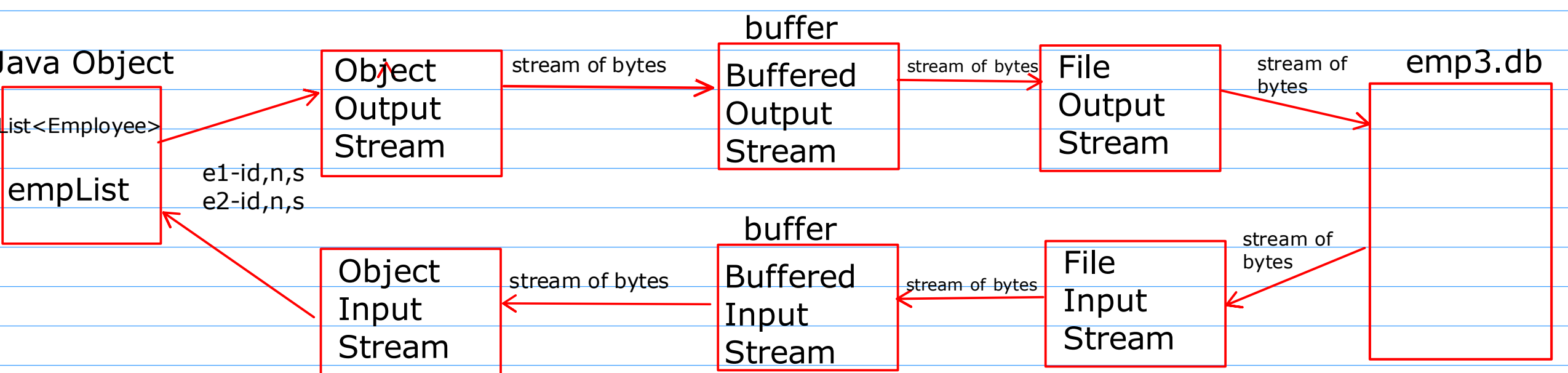
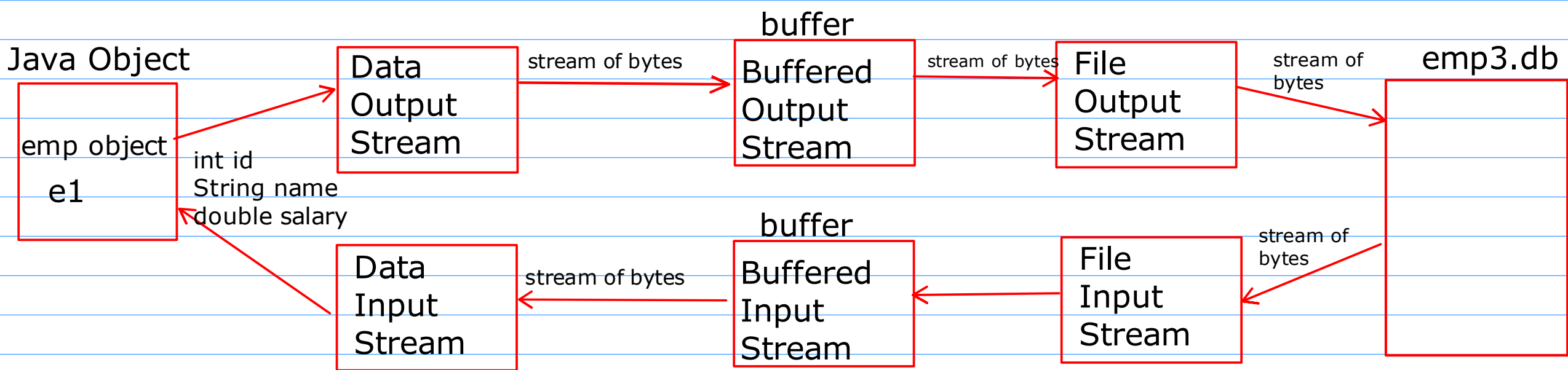
```
FileOutputStream fos = new FileOutputStream("emp2.db");
ObjectOutputStream oos = new ObjectOutputStream(fos);
oos.writeObject(e);
```

Marker Interface
- Cloneable,Serializable

```
FileInputStream fis = new FileInputStream("emp2.db");
ObjectInputStream dis = new ObjectInputStream(fis);
```

Seralization

- it is process where the object is converted into the stream of bytes so that it can be tranferred over the network



```
FileOutputStream fos = new FileOutputStream("emp2.db");
BufferOutputStream bos = new BufferedOutputStream(fos);
ObjectOutputStream oos = new ObjectOutputStream(bos);
oos.writeObject(e);
```