File IO
java 8 interfaces

@interface MyAnn{

}

File IO

ByteStreams   Character Streams

InputStream   Reader
OutputStream   Writer

OutPutStream

ObjectOutPutStream   FilterOutputStream   FileOutPutStream

BufferedOutPutStream   PrintStream   DataOutPutStream

InputStream

ObjectInputStream   FilterInputStream   FileInputStream

BufferedInputStream   DataInputStream

Employee   file1.txt

id,   Data OutPut   File OutPut
name,   Stream   Stream
salary

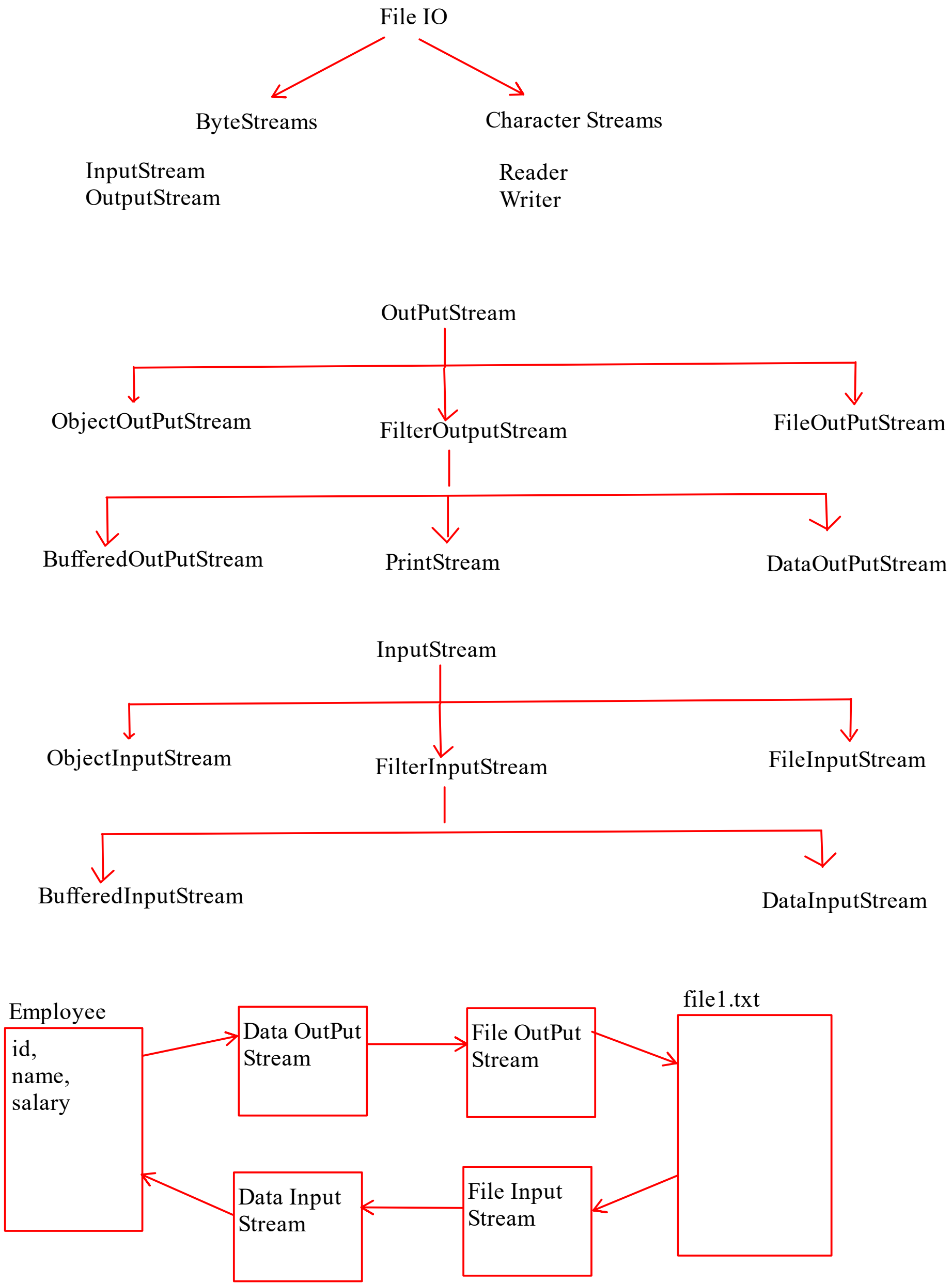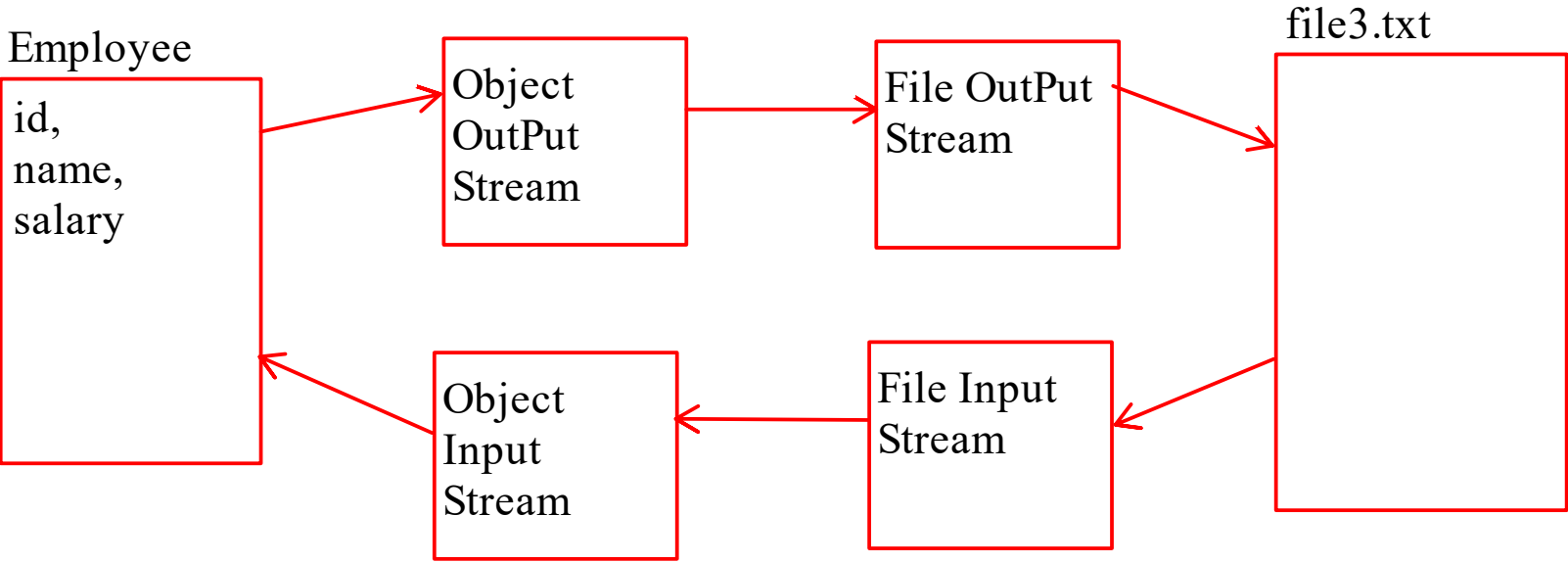   Data Input   File Input
                  Stream   Stream

DataOutPutStream is responsible for converting data into sequence of bytes.
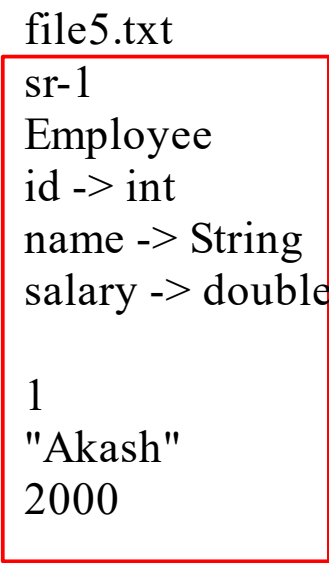To convert primimitive types into sequence of bytes

                    FileOutputStream fos = new FileOutputStream("Employee.db");
                    DataOutputStream dos = new DataOutputStream(fos);

Employee

id,
name,
salary

→ Object OutPut Stream → File OutPut Stream → file3.txt

file3.txt → File Input Stream → Object Input Stream → Employee

```
FileOutputStream fos = new FileOutputStream("file3.txt");
ObjectOutputStream oos = new ObjectOutputStream(fos);
```
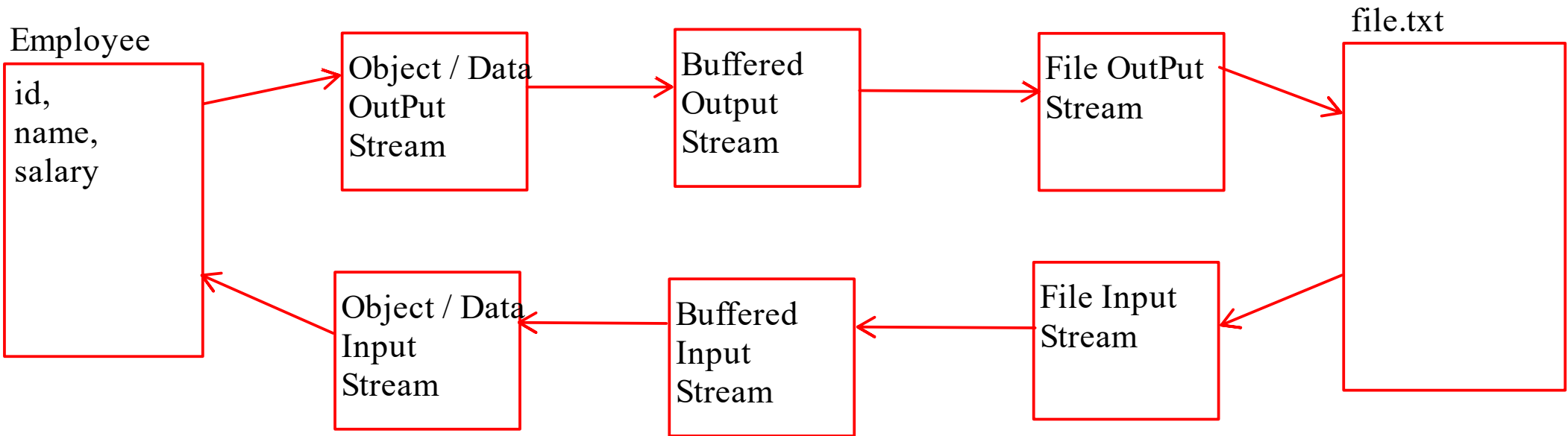
```
writeObject(){
// bytes
fos.write(bytes);
}
```

```
Employee{
int id
String name
double salary
Data doj;
String deptName
}
```

file5.txt

```
sr-1
Employee
id -> int
name -> String
salary -> double

1
"Akash"
2000
```
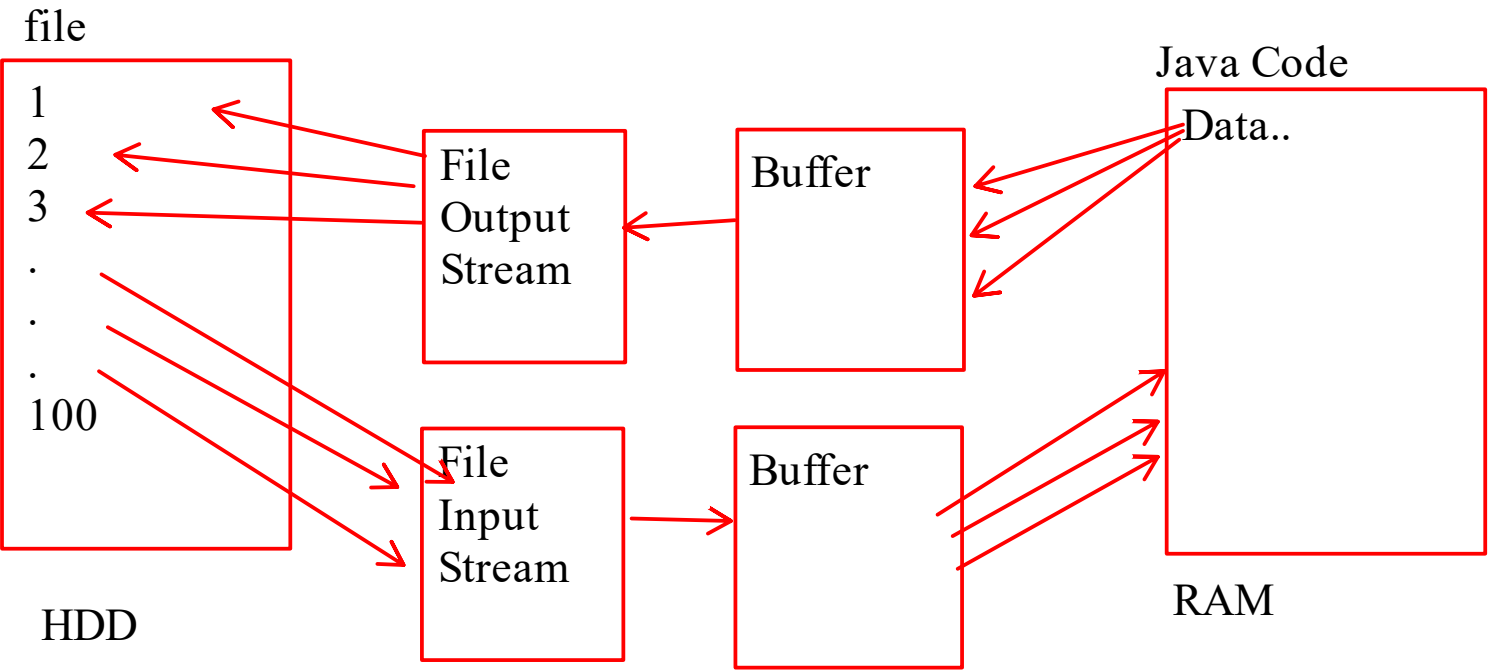
```
dos.writeInt(e.id);
dos.writeUTF(e.name);
dos.writeDouble(e.salary);
```

```
while(true){
int id  = dis.readInt();
String name = dis.readUTF();
double salary = dis.readDouble();
String deptName = dis.readUTF();
Employee e = new Employee(id,name,salary);
}
```

Employee

id,
name,
salary

→ Object / Data OutPut Stream → Buffered Output Stream → File OutPut Stream → file.txt

file.txt → File Input Stream → Buffered Input Stream → Object / Data Input Stream → Employee

```
FileOutputStream fos = new FileOutputStream("file.txt");
BufferedOutPutStream bos = new BufferedOutputStream(fos);
ObjectOutputStream oos = new ObjectOutputStream(bos);
```

file

1
2
3
.
.
.
100

HDD

File
Output
Stream

Buffer

Java Code

Data..

Buffer

File
Input
Stream

RAM

CharacterStreams

nio

```
FileReader fr = new FileReader("/Day15_Help.MD");
int ch;
while((ch=fr.read())!=-1){
sysout((char)ch);
}
```

Channels
Buffers

java8 interface