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The java.io Package:

The package java.io contains the classes that handle fundamental input and output operations in Java. File handling in Java is achieved through I/O package.

I/O in Java is based on streams. A stream represents a flow of data or a channel of communication.

java.io contains classes that represent character streams. These character stream classes handle Unicode characters appropriately by using a character encoding to convert bytes to characters and vice versa. The I/O streams can be grouped as follows:

Input Streams:

Input streams read data from an input source. An input source can be a file, a string, or memory--anything that can contain data. All input streams inherit from InputStream--an abstract class that defines the programming interface for all input streams.
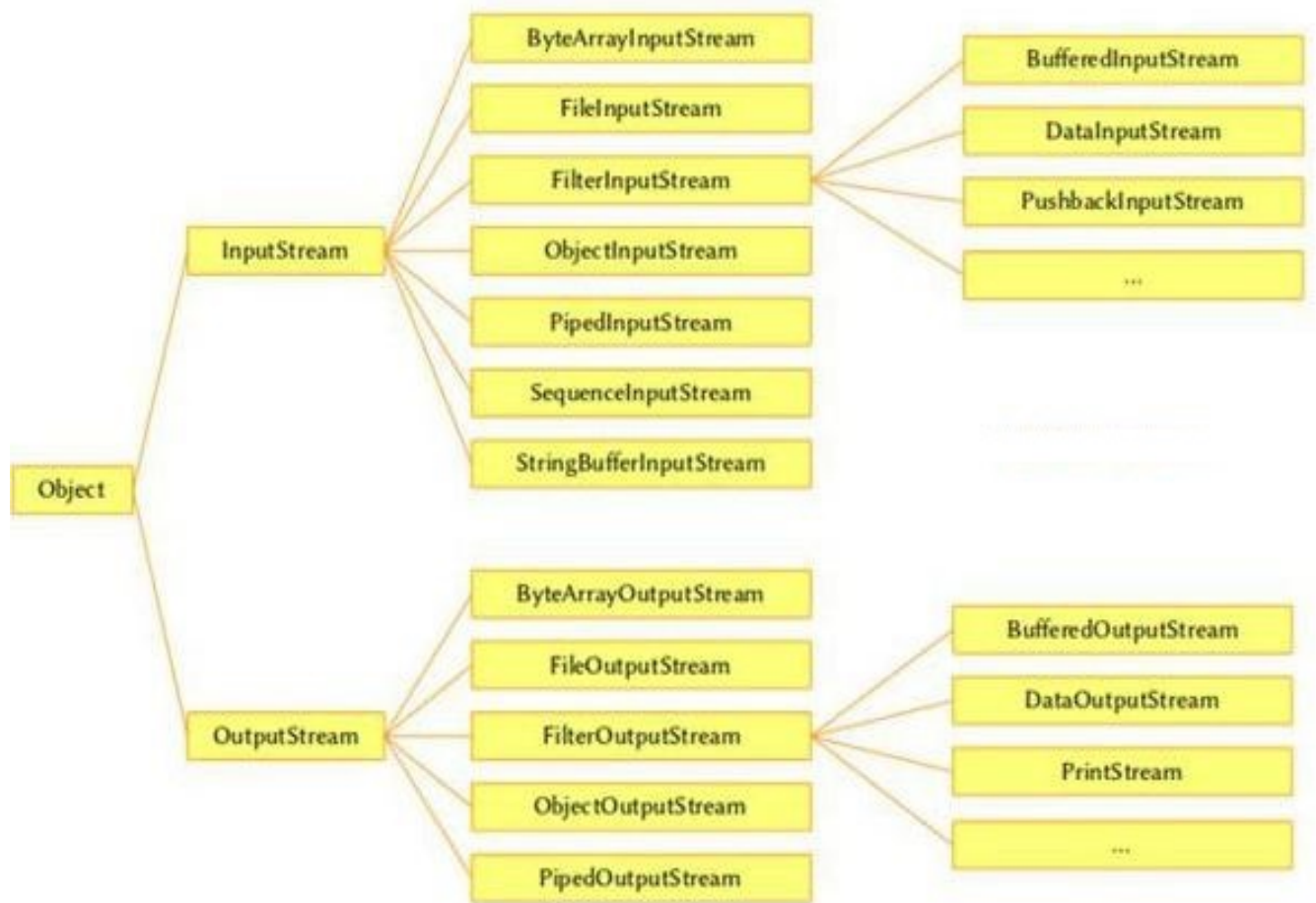
Output Streams:

Output streams write data to an output source. Similar to input sources, an output source can be anything that can contain data: a file, a string, or memory.The OutputStream class is a sibling to InputStream and is used to write data that can then be read by an input stream. The OutputStream class defines a programming interface for writing bytes or arrays of bytes to the stream and flushiing the stream.

The I/O classes can be grouped as follows:

- Classes for reading input from a stream of data.
- Classes for writing output to a stream of data.
- Classes that manipulate files on the local filesystem.
- Classes that handle object serialization.

InputStream and OutputStream Hierarchy:

Above mentioned are the different classes to read and write the stream of data.

Programs will be discussed in next class.

Exercise:
1. What is the use of I/O pacakage in Java?
2. What is the input and output stream?