CSCI 2120:
Software Design & Development II
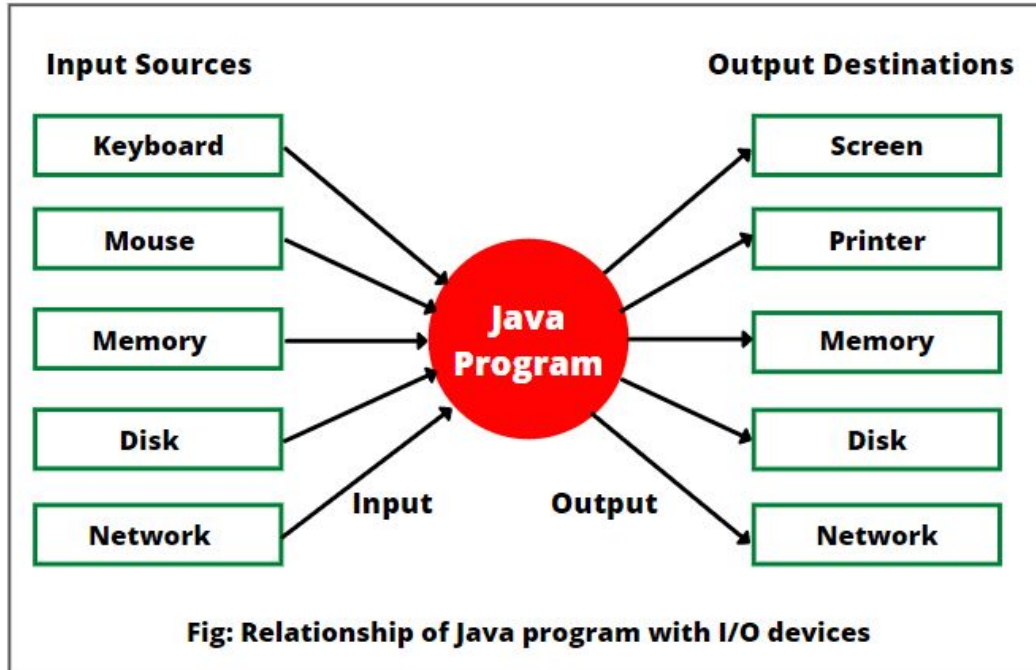
io api
Java I/O Overview

Overview

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Introduction

Java IO (Input and Output) is a process of reading data from a source and writing data to a destination.

Fig: Relationship of Java program with I/O devices

Examples of input sources that read data to a program, are keyboard, mouse, memory, disk, network, or another program.

Examples of output destinations that write data out of a program are screen, printer, memory, disk, network, or another program.

Java IO Classes and Interfaces

Java language introduces a rich set of I/O classes and interfaces in the core API, mostly in the `java.io` package. The I/O classes defined by `java.io` are listed in the below table:

InputStream	OutputStream	Reader	Writer

● ByteArrayInputStream
● FileInputStream
● FilterInputStream
  ○ BufferedInputStream
  ○ DataInputStream
  ○ PushbackInputStream
● ObjectInputStream
● PipedInputStream
● SequenceInputStream
	● ByteArrayOutputStream
	● FileOutputStream
	● FilterOutputStream
	  ○ BufferedOutputStream
	  ○ DataOutputStream
	  ○ PrintStream
	● ObjectOutputStream
	● PipedOutputStream
		● BufferedReader
		  ○ LineNumberReader
		● CharArrayReader
		● FilterReader
		  ○ PushbackReader
		● InputStreamReader
		  ○ FileReader
		● PipedReader
		● StringReader
			● BufferedWriter
			● CharArrayWriter
			● FilterWriter
			● OutputStreamWriter
			  ○ FileWriter
			● PipedWriter
			● PrintWriter
			● StringWriter

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Console **StreamTokenizer**	**File** **FileDescriptor** **FilePermission** **RandomAccessFile**	**ObjectStreamClass** **ObjectStreamField** **SerializablePermission**

stream utilities   *file utilities*   *serialization utilities*

Java IO Classes and Interfaces

The interfaces defined by `java.io` are listed below:

Closeable	FileFilter	ObjectOutput
DataInput	FilenameFilter	ObjectStreamConstants
DataOutput	Flushable	ObjectInput
Externalizable	ObjectInputValidation	Serializable

END

Java IO Classes and Interfaces