***Input and output stream in java***

**Java I/O** (Input and Output) is used to process the input*and*produce the output*.*

Java uses the concept of a stream to make I/O operation fast. The java.io package contains all the classes required for input and output operations.

We can perform **file handling in Java** by Java I/O API.

**Stream**

A stream is a sequence of data. In Java, a stream is composed of bytes.

In Java, 3 streams are created for us automatically. All these streams are attached with the console.

**1) System.out:**standard output stream

**2) System.in:**standard input stream

**3) System.err:**standard error stream

Let's see the code to print **output and an error** message to the console.

1. System.out.println("simple message");
2. System.err.println("error message");

The explanation of OutputStream and InputStream classes are given below:

OutputStream

Java application uses an output stream to write data to a destination; it may be a file, an array, peripheral device or socket.

InputStream

Java application uses an input stream to read data from a source; it may be a file, an array, peripheral device or socket.

Let's understand the working of Java OutputStream and InputStream by the figure given below as-







**Example-**

**1.Read a file line by line using Scanner class**

**import** java.io.\*;

**import** java.util.Scanner;

**public** **class** ReadLineByLineExample2 {

**public** **static** **void** main(String args[]) {

**try** {

//the file to be opened for reading

FileInputStream fis = **new** FileInputStream("Demo.txt");

Scanner sc = **new** Scanner(fis); // file to be scanned

//returns true if there is another line to read

**while** (sc.hasNextLine()) {

System.***out***.println(sc.nextLine()); // returns the line that was skipped

}

sc.close(); // closes the scanner

} **catch** (IOException e) {

e.printStackTrace();

}

}

}

**Example- Write the file using File Writer class**In this example, we are writing the data in the file testout.txt using Java FileWriter class.

**package** com.test

**import** java.io.FileWriter;

**public** **class** FileWriterExample {

**public** **static** **void** main(String args[]){

**try**{

FileWriter fw=**new** FileWriter("D:\\testout.txt");

fw.write("Velocity corporate training center pune.");

fw.close();

}**catch**(Exception e){

System.***out***.println(e);

}

System.***out***.println("Success...");

}

}