

JAVA - DATAINPUTSTREAM

The `DataInputStream` is used in the context of `DataOutputStream` and can be used to read primitives.

Following is the constructor to create an `InputStream`:

```
InputStream in = DataInputStream(InputStream in);
```

Once you have `DataInputStream` object in hand, then there is a list of helper methods, which can be used to read the stream or to do other operations on the stream.

SN	Methods with Description
1	public final int read(byte[] r, int off, int len) throws IOException Reads up to len bytes of data from the input stream into an array of bytes. Returns the total number of bytes read into the buffer otherwise -1 if it is end of file.
2	Public final int read(byte [] b) throws IOException Reads some bytes from the inputstream an stores in to the byte array. Returns the total number of bytes read into the buffer otherwise -1 if it is end of file.
3	(a) public final Boolean readBooolean() throws IOException, (b) public final byte readByte() throws IOException, (c) public final short readShort() throws IOException (d) public final Int readInt() throws IOException These methods will read the bytes from the contained <code>InputStream</code> . Returns the next two bytes of the <code>InputStream</code> as the specific primitive type.
4	public String readLine() throws IOException Reads the next line of text from the input stream. It reads successive bytes, converting each byte separately into a character, until it encounters a line terminator or end of file; the characters read are then returned as a <code>String</code> .

Example:

Following is the example to demonstrate `DataInputStream` and `DataOutputStream`. This example reads 5 lines given in a file `test.txt` and convert those lines into capital letters and finally copies them into another file `test1.txt`.

```
import java.io.*;

public class Test{
    public static void main(String args[]) throws IOException{

        DataInputStream d = new DataInputStream(new
            FileInputStream("test.txt"));

        DataOutputStream out = new DataOutputStream(new
            FileOutputStream("test1.txt"));

        String count;
        while((count = d.readLine()) != null){
            String u = count.toUpperCase();
            System.out.println(u);
            out.writeBytes(u + " ,");
        }
    }
}
```

```
}  
d.close();  
out.close();  
}  
}
```

Here is the sample run of the above program:

```
THIS IS TEST 1 ,  
THIS IS TEST 2 ,  
THIS IS TEST 3 ,  
THIS IS TEST 4 ,  
THIS IS TEST 5 ,
```