

# Streams & Pipes

10 April 2024 15:35

## Streams recap

A stream is a sequence of data that is being moved from one point to another over time

Ex: a stream of data being transferred from one file to another within the same computer

Work with data in chunks instead of waiting for the entire data to be available at once

If you're transferring file contents from fileA to fileB, you don't wait for entire fileA content to be saved in temporary memory before moving it into fileB

Instead, the content is transferred in chunks over time which prevents unnecessary memory usage

Stream is infact a built-in node module that inherits from the event emitter class

Other modules internally use streams for their functioning

## Types of Streams

**Readable streams** from which data can be read

**Writable streams** to which we can write data

**Duplex streams** that are both Readable and Writable

**Transform streams** that can modify or transform the data as it is written and read

Ex: Reading from a file as readable stream

Ex: Writing to a file as writable stream

Ex: Sockets as a duplex stream

Ex: File compression where you can write compressed data and read de-compressed data to and from a file as a transform stream

## Pipes

