# Consuming with a Streaming API



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## The Problems



## Generic JSON Processing

#### Tools

Apply common understanding to different JSON docs, eg: jq, formatting

#### Validation

Check that all fields in a doc have a certain property

#### **Transformation**

Modification of any JSON documents



# Binding APIs support specific types, not generic/unstructured documents



#### Performance





#### **DOM and Binding APIs are slower**

Convert the entire document into an in-memory object

#### **Streaming uses less memory + CPU**

Processes each token in the JSON document one-by-one so you only need to do the minimal work



## API Usage



## Demo



Basic API usage

Parse the Bank Loan document



## Demo

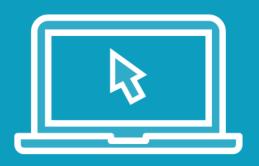


**Servlet Integration** 

Approve/Deny the a loan application



### Demo



#### Performance comparison

- Example parsing benchmark
- Memory consumption for a large document



## Conclusions



## Streaming Comparison

Pros

Cons

Better performance

Faster

Less memory

Generic code possible

API is much harder to use

Less productive for developers



## Summary



Streaming API: 3<sup>rd</sup> consuming option

**Best performance** 

Generic code on unstructured JSON

