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Node Parsers

Instructors

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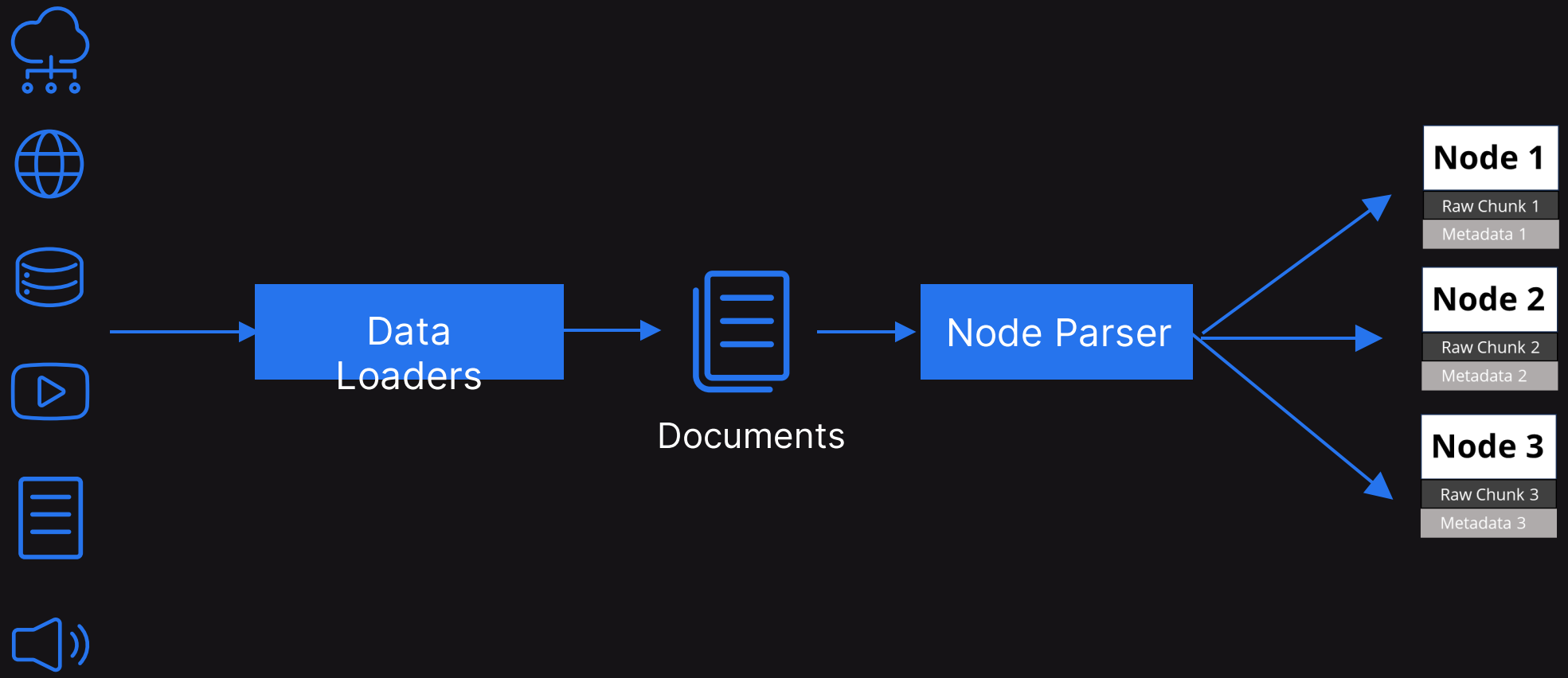
Documents in LlamaIndex



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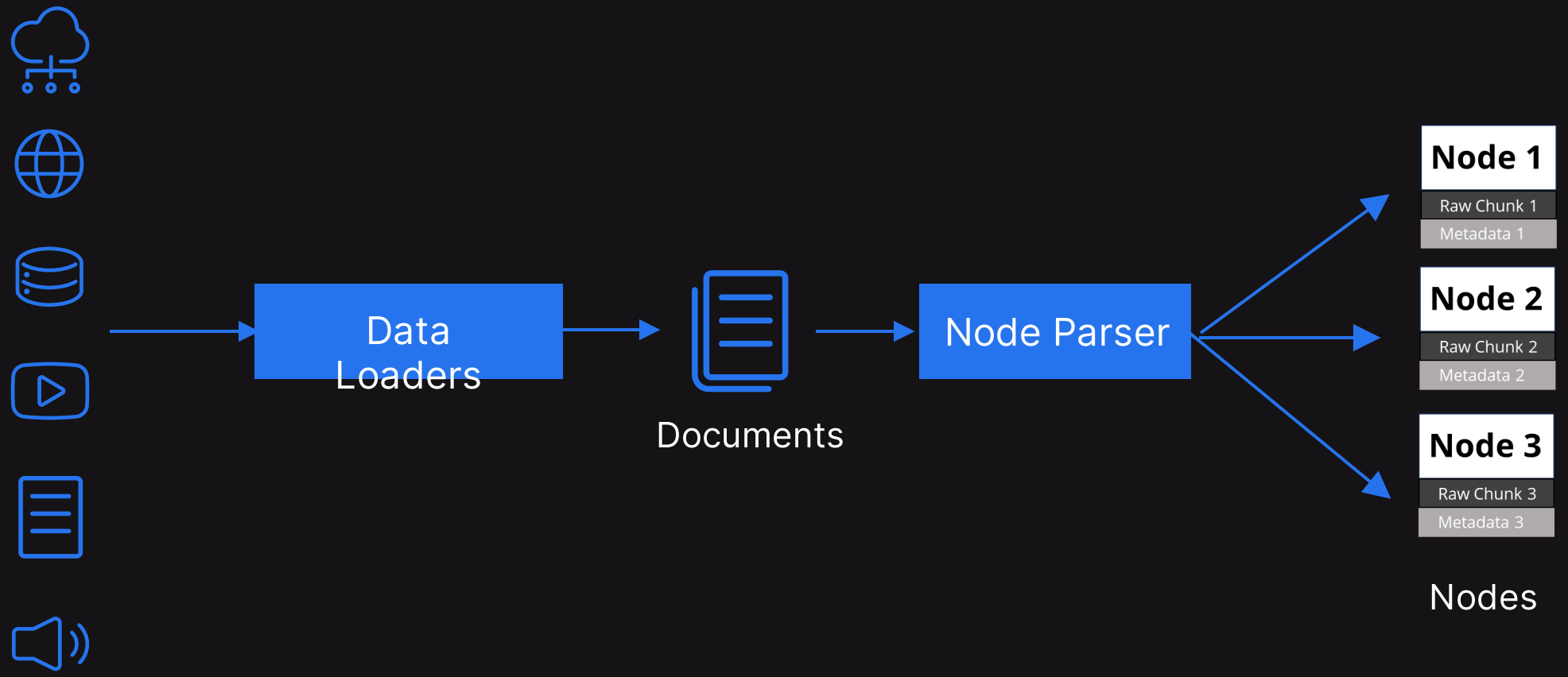
Nodes in LlamaIndex



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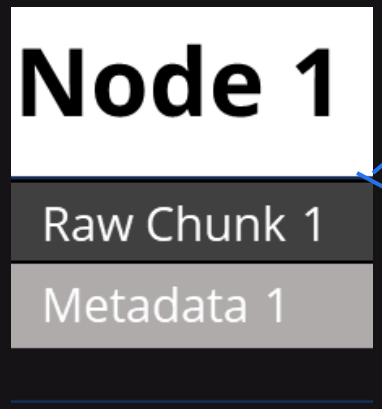
Node




```
nodes[0].text
```

```
'In this part, we\nwill discuss the corresponding configurations for four major\nparts of the Transformer, includin
g normalization, position\nembeddings, activation functions, and attention and bias.\nTo make this survey more self
-contained, we present the\ndetailed formulations for these configurations in Table 6.\nNormalization Methods. Trai
ning instability is a challeng-\ning issue for pre-training LLMs. To alleviate this issue,\nnormalization is a wide
ly adopted strategy to stabilize the\ntraining of neural networks. In the vanilla Transformer [22],\nLayerNorm [25
6] is employed. Recently, several advanced\nnormalization techniques have been proposed as alterna-\ntives to Layer
Norm, e.g., RMSNorm, and DeepNorm.\n•LayerNorm. In the early research, BatchNorm [265] is\na commonly used normaliz
ation method. However, it is\ndifficult to deal with sequence data of variable lengths and\nsmall-batch data. Thus,
LayerNorm [256] is introduced to\nconduct layerwise normalization. Specifically, the mean and\nvariance over all ac
```

Raw Chunk for Node

```
nodes[0].metadata
```

```
{'page_label': '23',
 'file_name': 'A Survey of Large Language Models.pdf',
 'file_path': 'A Survey of Large Language Models.pdf',
 'file_type': 'application/pdf',
 'file_size': 5664979,
 'creation_date': '2024-05-14',
 'last_modified_date': '2024-05-14'}
```

Metadata for Node

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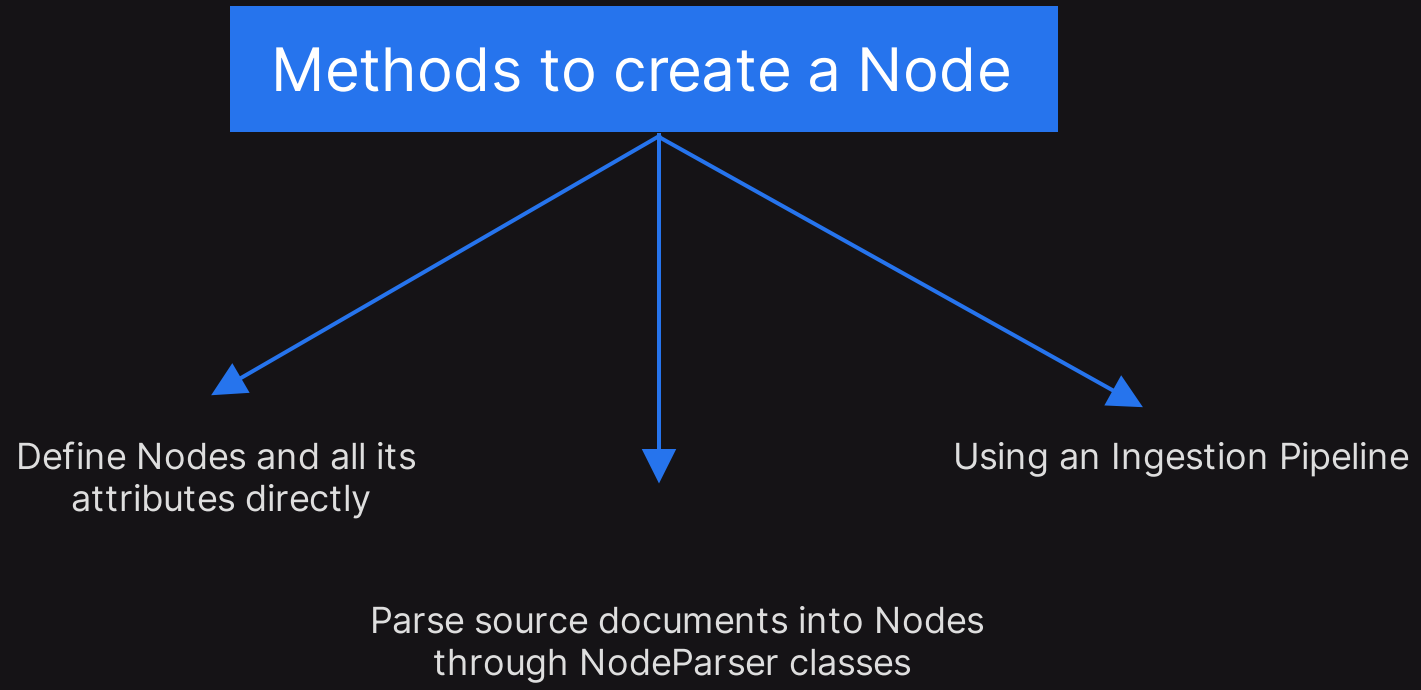
Methods to create Nodes



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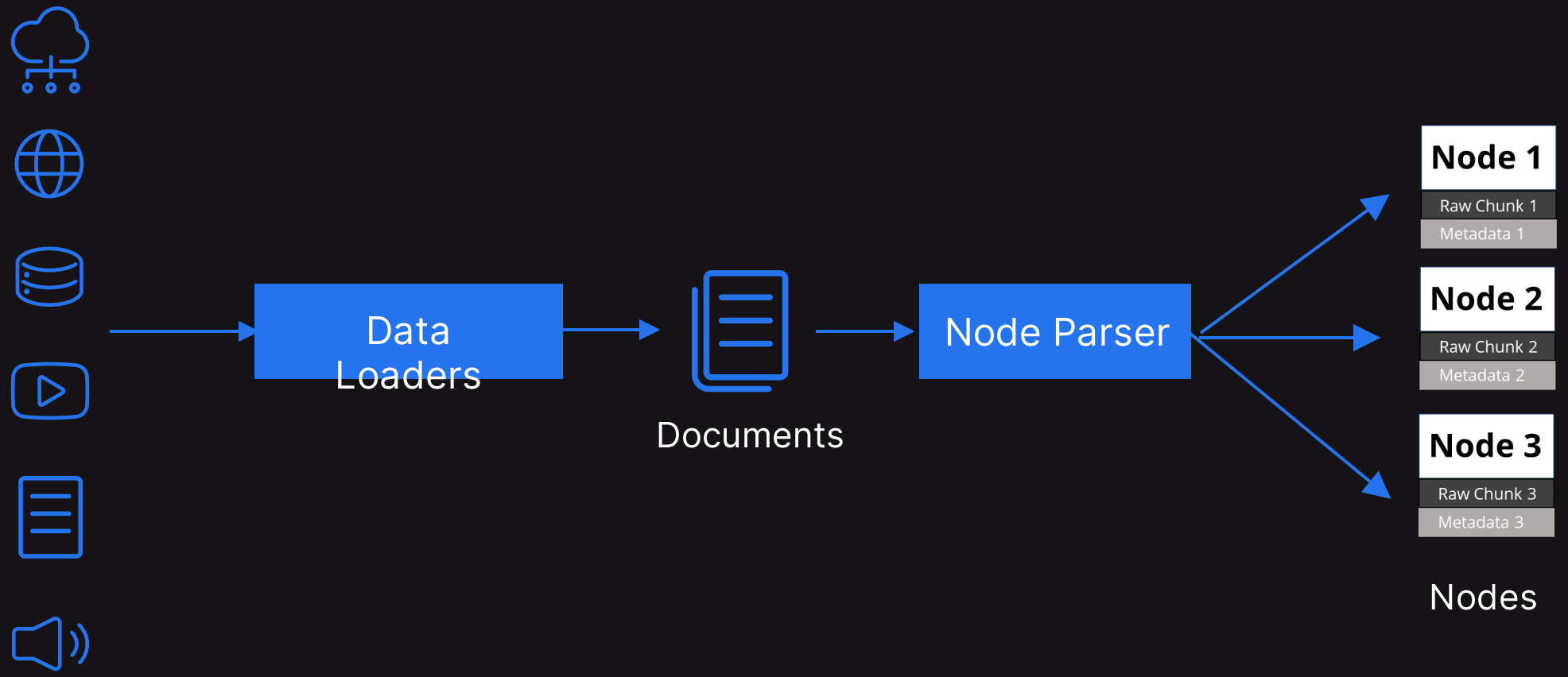
Introduction to Node Parsers



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Node Parsers

Node Parsers break down data into manageable pieces (nodes) based on specific rules or formats, such as text, HTML, JSON, or CSV.

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Node Parsers in Llama Index

- **TextNodeParser**
  For parsing plain text from documents and articles
- **HTMLNodeParser**
  For parsing HTML documents
- **JSONNodeParser**
  Processes JSON data structures
- **CSVNodeParser**
  Handles CSV files by extracting data from rows

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Node Parsers in Llama Index

- **MarkdownNodeParser**

  Specifically designed for Markdown files

- **HierarchicalNodeParser**

  Creates a recursive hierarchy of nodes by splitting documents into multiple levels of nodes.

- **SimpleFileNodeParser**

  Handling of different file formats within a single application.

- **SimpleNodeParser**

  Splits documents into text nodes using a sentence splitter by default.

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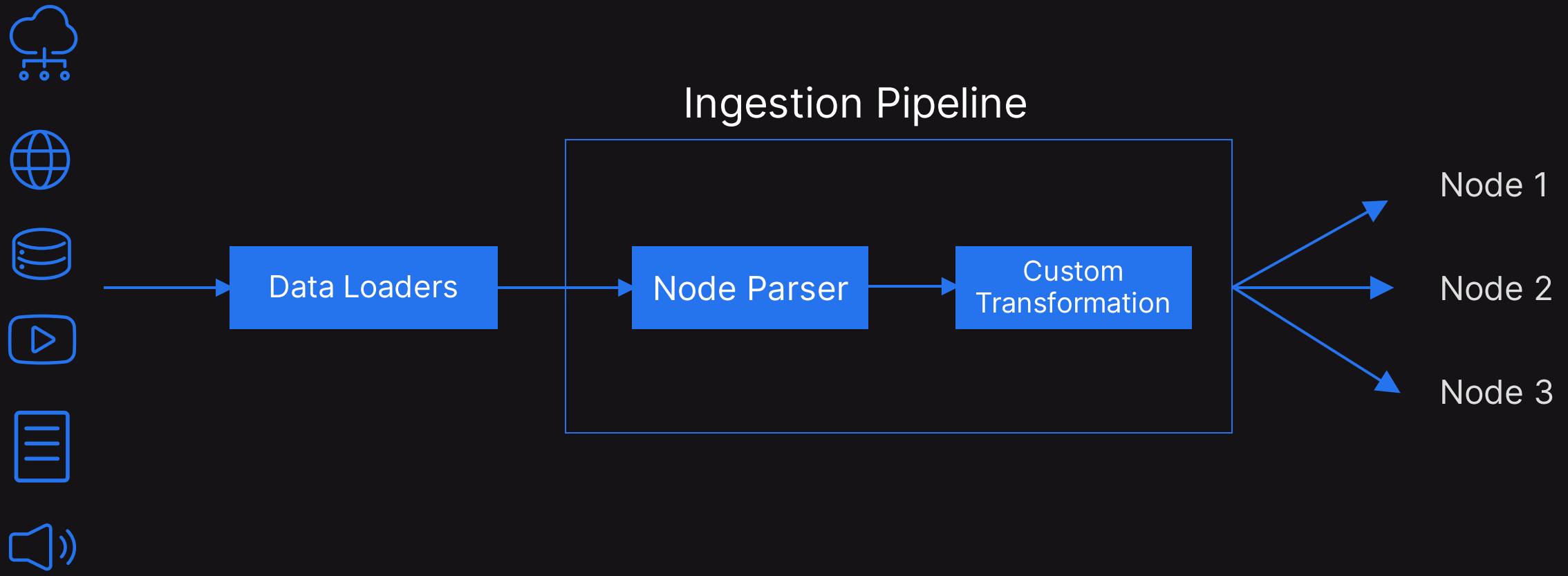
Ingestion Pipeline



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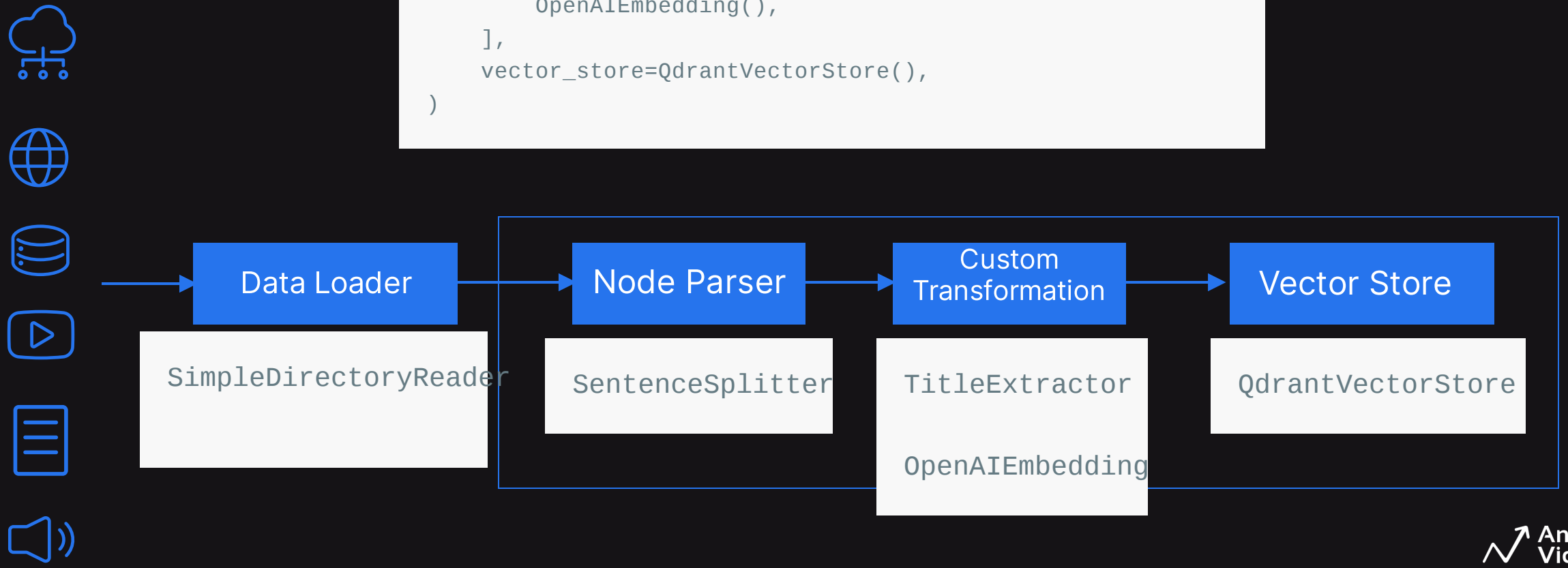
Ingestion Pipeline: Example

```
pipeline = IngestionPipeline(
    transformations=[
        SentenceSplitter(chunk_size=500, chunk_overlap=25),
        TitleExtractor(),
        OpenAIEmbedding(),
    ],
    vector_store=QdrantVectorStore(),
)
```



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Thank You

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