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Design principles of the Metadata Querying Language (MQL) implemented in the ATLAS Metadata Interface (AMI) ecosystem

This poster describes the design principles of the Metadata Querying Language (MQL) implemented in AMI, a metadata-oriented domain-specific language allowing to query databases without knowing the relation between tables.With this simplified yet generic grammar, MQL permits writing complex queries much more simply than Structured Query Language (SQL).

What is MQL?

The Metadata Querying Langage (MQL) is a domain specific langage for executing queries on a RDBMS closly to spoken language.

Physicist: « I want to list the names of the datasets that have files with size > 0 »

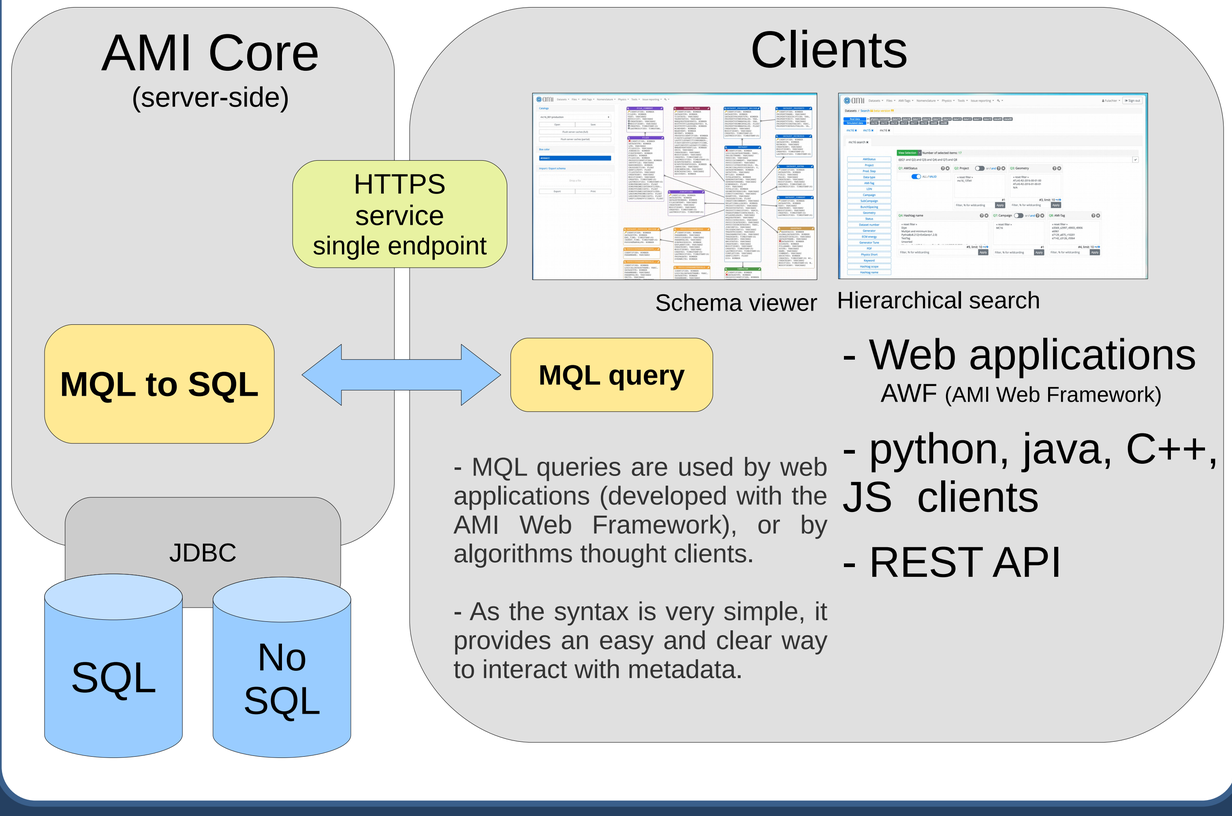
MQL: « It's easy !

```
SELECT dataset.name WHERE file.size > 0 »
```

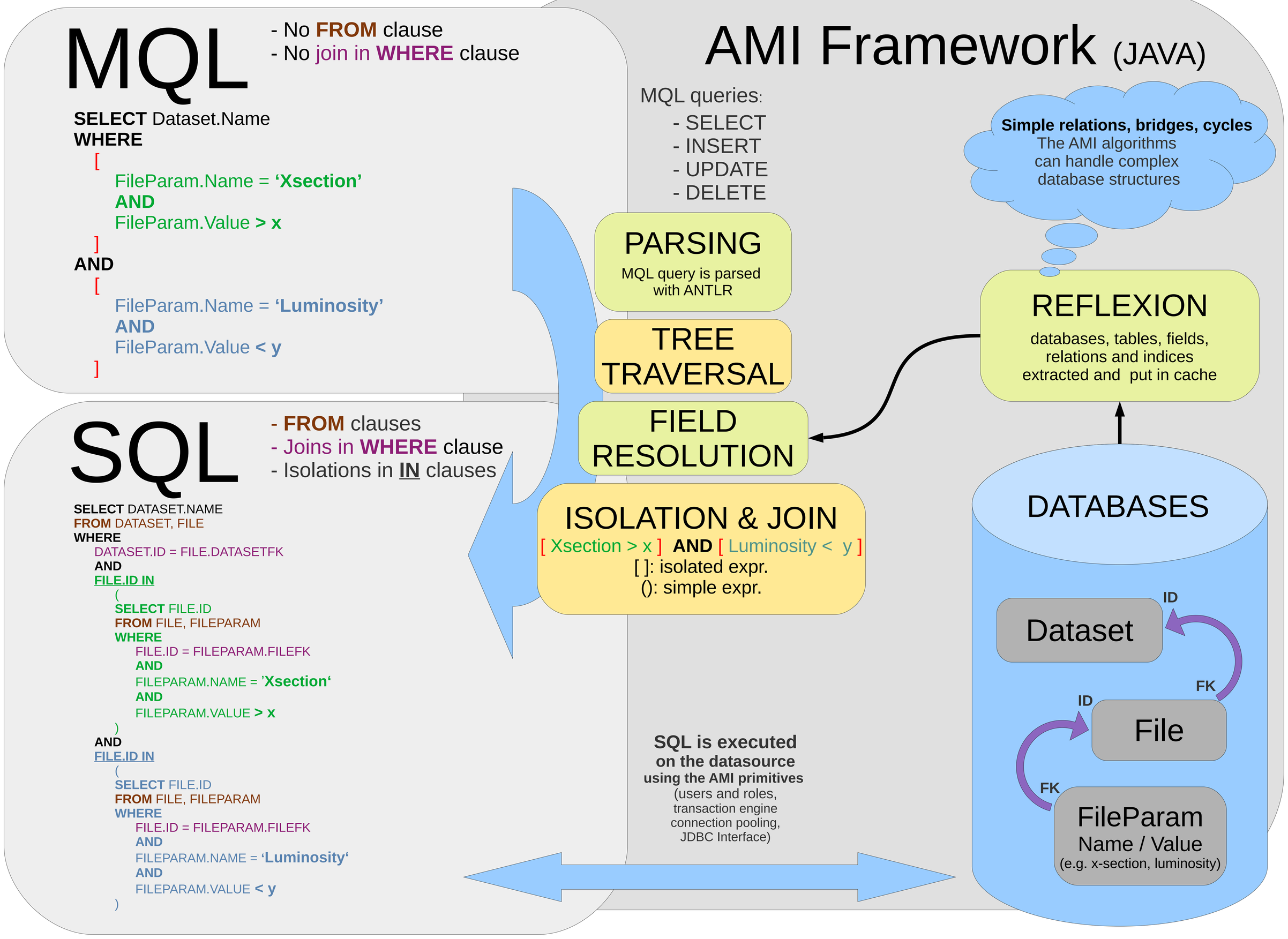
SQL: « It depends on your DB schema...

```
SELECT dataset.name FROM dataset,file WHERE dataset.Id
= file.FK AND file.size > 0 »
```

AMI clients



MQL to SQL



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Refs.: [1] The ATLAS Metadata Interface (AMI) 2.0 metadata ecosystem: new design principles and features
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