Comparison Report

MarkLogic Architechture :

MarkLogic VS MongoDB :

MarkLogic

- ❑ Multi-model Database
- ❑ Ideal for complex data integration use cases – especially for large data sets with multiple data models, rapidly changing data, or quickly evolving business needs.
- ❑ Native support for JSON, XML, RDF/OWL/Turtle, geospatial.

MongoDB

- ❑ Document Database.
- ❑ Ideal for non-transactional applications that need an easy-to-use JSON document database.
- ❑ Native support for JSON-like documents (BSON), geospatial.
- ❑ MongoDB possesses Master-Slave replication.

MarkLogic vs Other NoSQL Databases :

Feature	MarkLogic	MongoDB	Cassandra	Neo4j
Model	Multi-model	Document	Wide-column	Graph
ACID	Full	Limited	No	Full
Search	Built-in	Basic	No	No
Security	Advanced (HIPAA-ready)	Good	Basic	Good
License	Proprietary	OSS + Paid	OSS + Paid	OSS + Paid

Strengths :

- Multi-model with ACID compliance

- Built-in search & semantic support

- Ideal for secure, regulated industries

Weaknesses :

- Proprietary & costly

- Smaller community

- Steep learning curve

Best Use Cases :

- MarkLogic → Healthcare records integration, financial compliance, government intelligence.

- MongoDB → Web/mobile apps, content management systems.

- Cassandra → Large-scale analytics, IoT sensor data.

- Neo4j → Social graphs, fraud detection, recommendation engines.