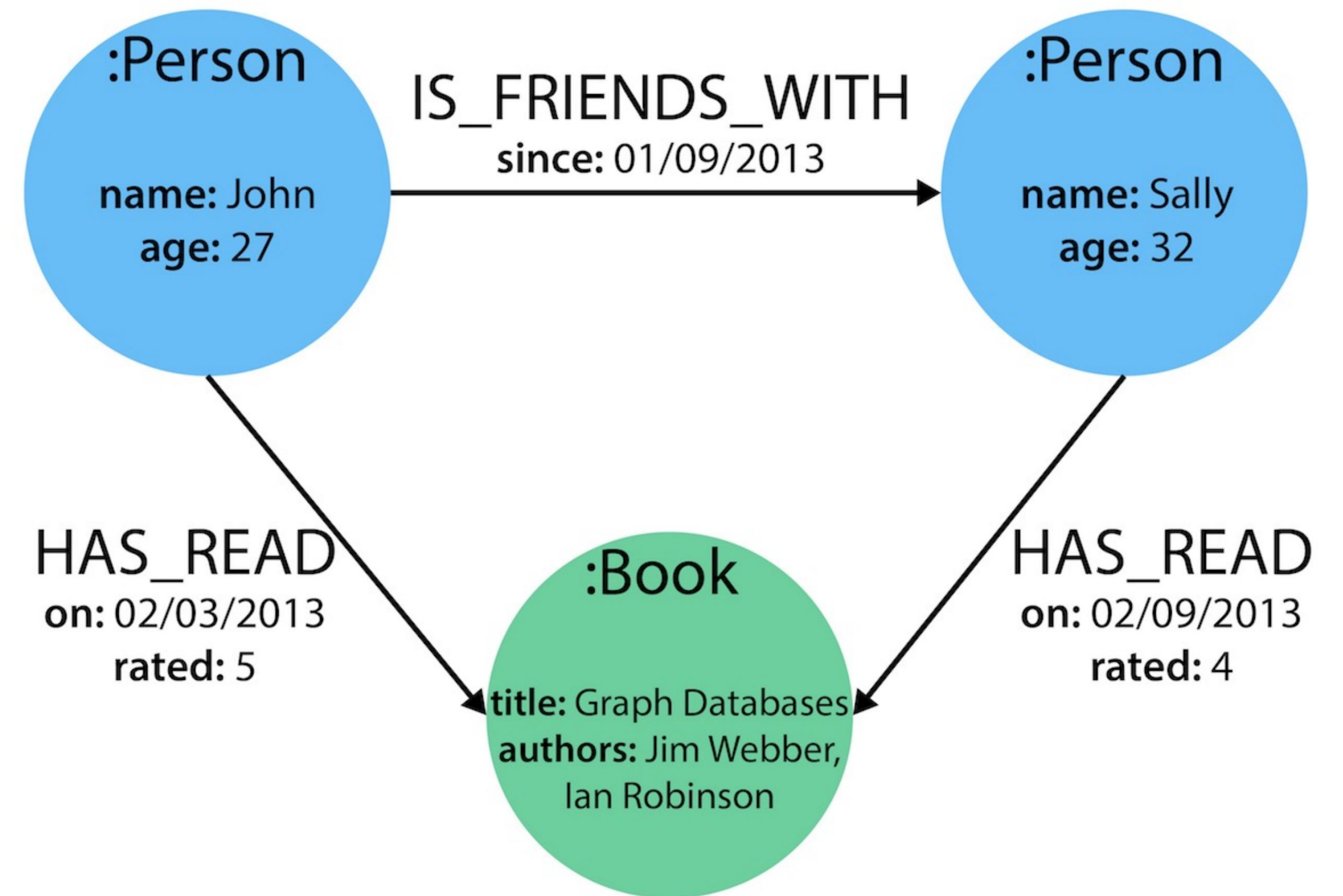


Neo4j: The Database for Graph

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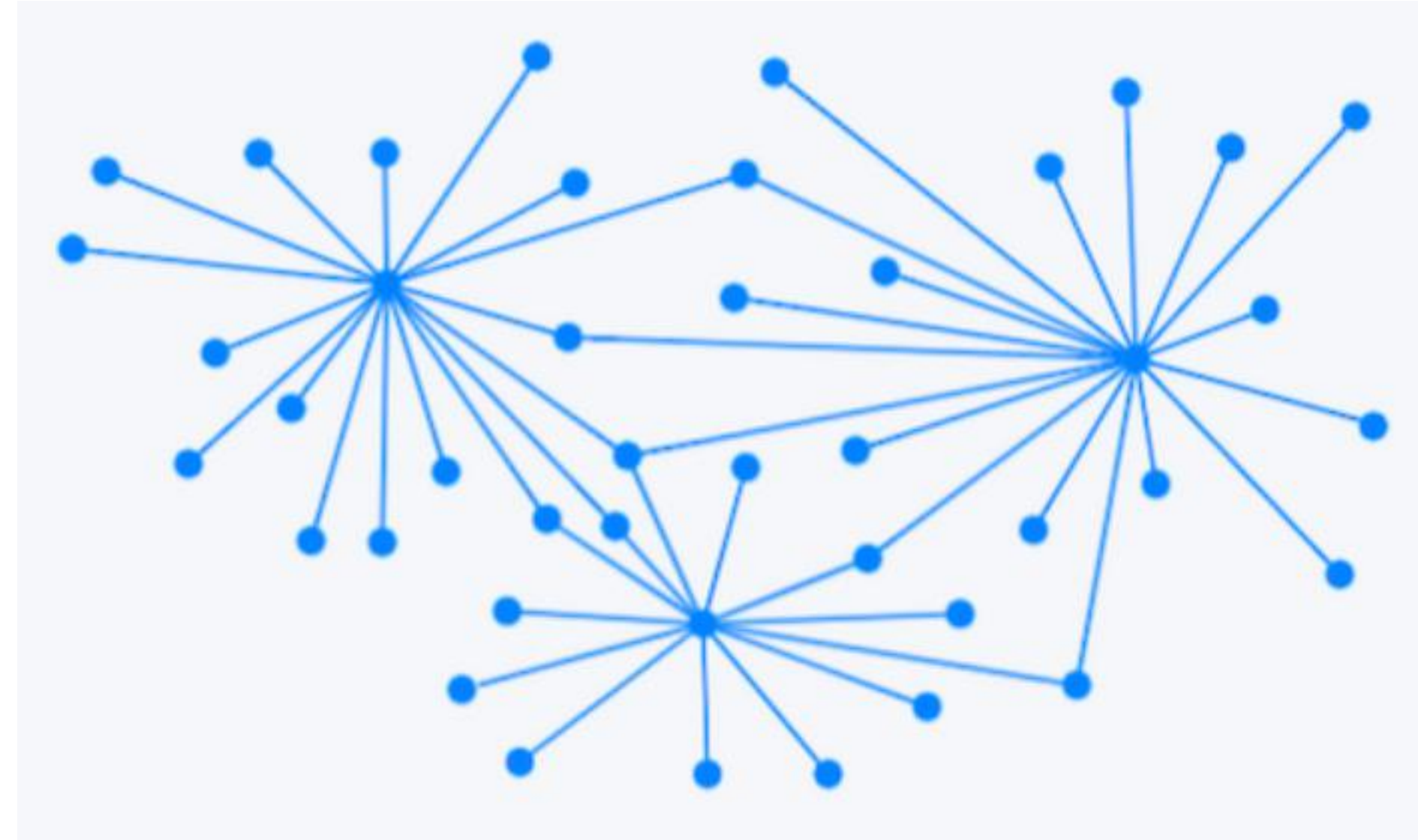
1. Introduction

- Graph-based NoSQL system.
- Node, Relationship, Property.



2. Motivation

- Store graphs as graphs
- No more complex joins
- Many-to-many relationships
- Find patterns & hidden connections

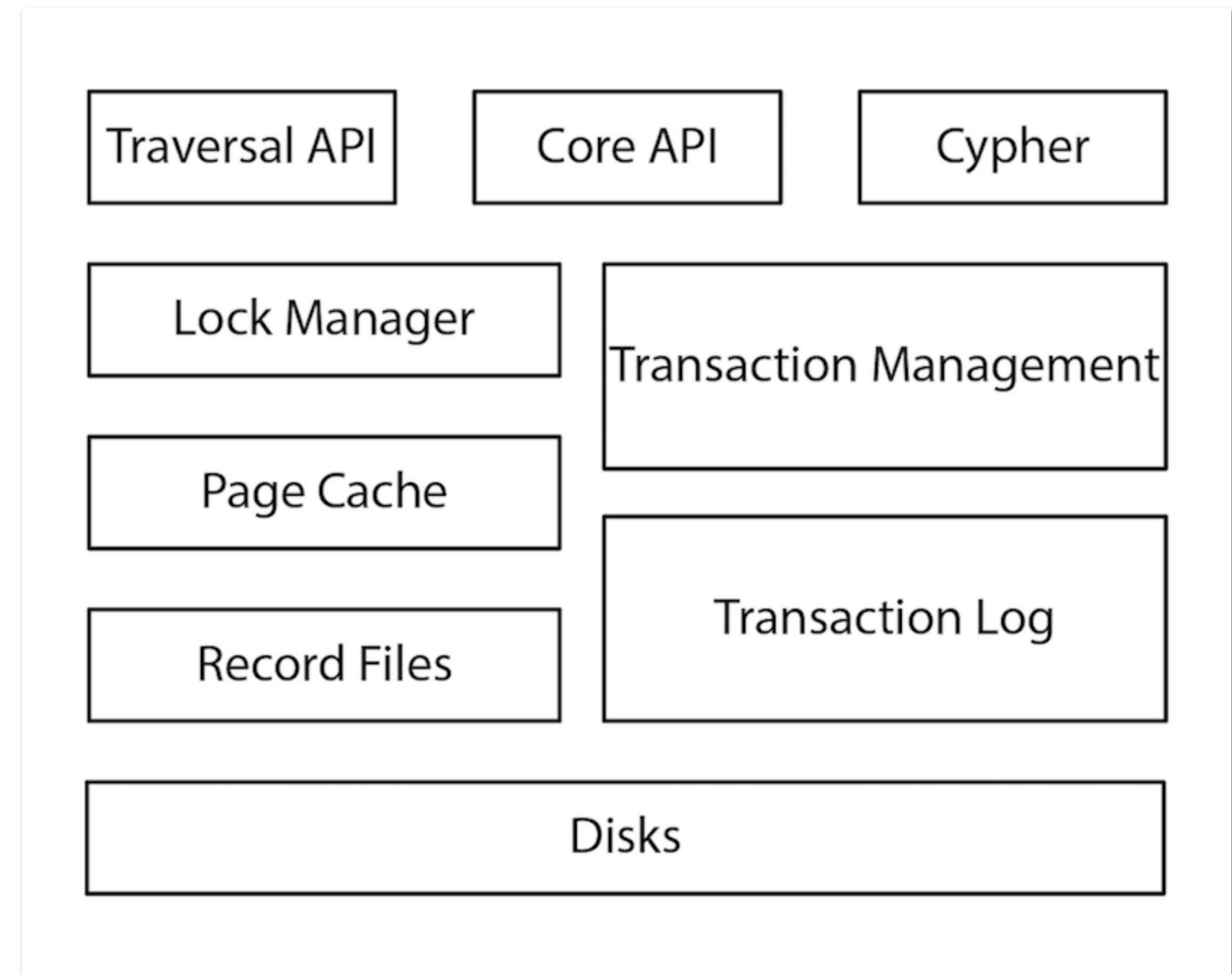


3. Characteristics

- Fast Query
- Scalable (huge data)
- ACID Compliance (guarantee integrity)
- Handful Libraries (faster development)

4. Architecture

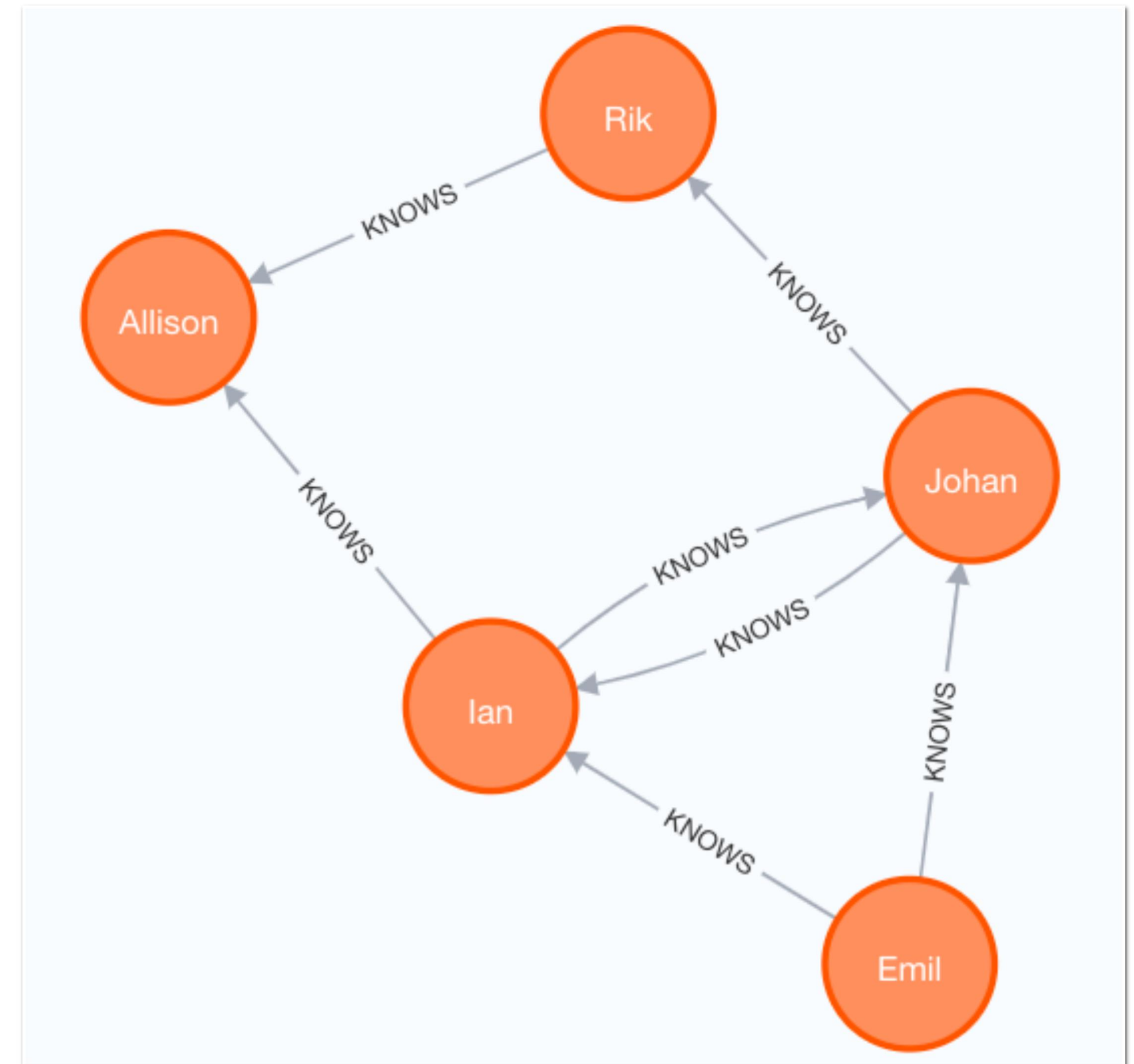
- Cypher: Graph Query Language
- Disk: Nodes, Relationship, Properties.



Store File	Record size	Contents
neostore.nodestore.db	15 B	Nodes
neostore.relationshipstore.db	34 B	Relationships
neostore.propertystore.db	41 B	Properties for nodes and relationships
neostore.propertystore.db.strings	128 B	Values of string properties
neostore.propertystore.db.arrays	128 B	Values of array properties

5. Example

- CREATE (ee:Person {name: 'Emil'})
- CREATE (jj:Person {name: 'Johan'})
- MATCH (ee:Person) WHERE ee.name = 'Emil'
- MATCH (jj:Person) WHERE jj.name = 'Johan'
- CREATE (ee)-[:KNOWS]->(jj)
- MATCH (ee:Person)-[:KNOWS]-(friends)
WHERE ee.name = 'Emil' RETURN friends



Thank You!

Reference

- [1] Neo4j Documentation from <https://neo4j.com/>.
- [2] Graph Databases by Ian Robinson, Jim Webber, and Emil Eifrem.