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FOR SOCIETY

Neo4j

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March 28, 2024

Roadmap

1. Data model and schema
2. Consistency and Replication
3. Security and Performance
4. Specific use cases and bit of history
5. Demo

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Data model

- Which data model is used in the DBMS if it's not relational? Illustrate if necessary (demo).[1]
- Option three

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[1] Ian Robinson, Jim Webber, and Emil Eifrem. *Graph databases: new opportunities for connected data*. O'Reilly Media, Inc., 2015. ISBN: 978-1-4919-3089-2.

Database schema

- Is it necessary or possible to define a database schema? How can that be done (demo)?

Consistency

How is the CAP theorem applied to the DBMS? What type of consistency is maintained in the system? Can you choose?

Replication

Describe how replication works in the DBMS.

Security

- Schema-based Security[2]
- Role-based access control[3]

[2] Neo4j Inc. *Fine-Grained Access Control for Better Security and Privacy*. URL: https://neo4j.com/product/neo4j-graph-database/security/.

[3] Neo4j Inc. *Built-in roles and privileges*. URL: https://neo4j.com/docs/operations-manual/current/authentication-authorization/built-in-roles/#auth-built-in-roles.

Schema-based Security

- Protect the nodes and relationships by controling users' ability to traverse and read from different parts of the graph.
- Ensures that only authorized users have access to the data they need to protect sensitive data.

Role-based access control

- An approach, where you can apply restrictions to roles assigned to users at any level of granularity throughout the graph.
- Simplifies the task of assigning permissions and helps ensure that your data is secure.

Performance

Compare the performance of the DBMS with other DBMSs of the same and/or different types (recent diagrams, give source, state how and what exactly was measured, be critical)

Specific use cases

For which kind of use cases is the DBMS specifically good for, and why?

History

Provide some economic information, e.g. market share, history, and any famous case(s)

Demo

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