

Command Line Interface Tool for Automatized Database Benchmarks

Institute: Eastern Switzerland University of Applied Science

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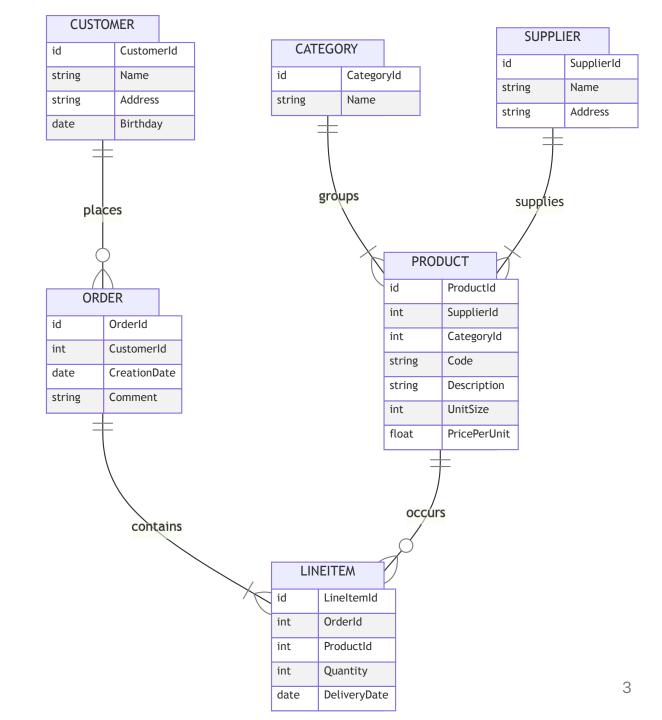
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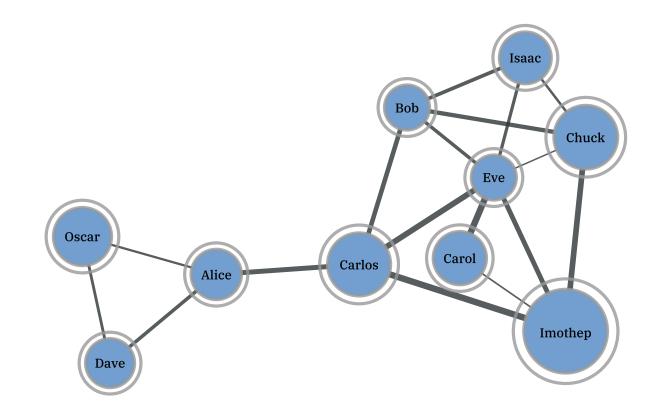
Relational DBMS

- tables are entities
- relationships using keys
- homogenous data through schema



Graph-Based DBMS

- attributed nodes and edges
- relationships are first class elements
- heterogenous data (schema-less)



Query Languages

Query adult customers

```
-- SQL
SELECT * FROM Customer c WHERE c.Age >= 18

-- Cyper
MATCH (c:Customer) WHERE c.Age > 18 RETURN c;
```

Show top clients based on revenue

```
-- SQL
SELECT c.CustomerId, c.Name, SUM(p.Total) FROM Customer c
INNER JOIN Purchase p on c.CustomerId = p.CustomerId
GROUP BY c.CustomerId, c.Name ORDER BY SUM(p.Total) DESC
-- Cyper
MATCH (c:Customer)-[:MAKES]->(p:Purchase)
RETURN c.Name, SUM(p.Total) AS TotalOrderValue ORDER BY TotalOrderValue DESC
```

System Setup

Command Line Interface

Result Analysis

Conclusion

thanks!