ACLS

Graph-based

SS 2020 – Week 13
May 11

Schedule

Calendar Week	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Module Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Date	17.02.	24.02.	02.03.	09.03.	16.03.	23.03.	30.03.	06.04.	13.04.	20.04.	27.04.	04.05.	11.05.	18.05.
Topic														

15.06.2020
10.00am

February   March   April   May

Introduction & RDB

Structured Query Language

Database & Python

Database & R

Data Warehouse

Not only SQL

Graph Database

Special

Content

- Review   5'

- RDF & SPARQL   🎓   85'

- Knowledge Graph   🎓   45'

- Exercises   🔧   90'
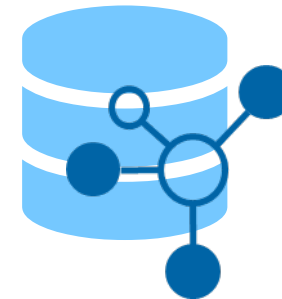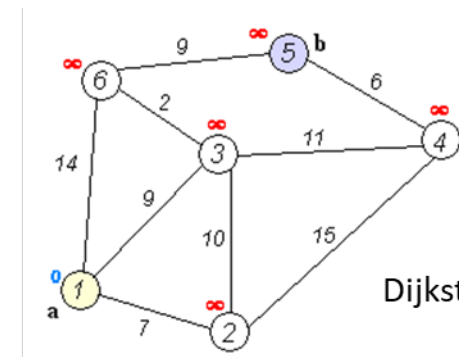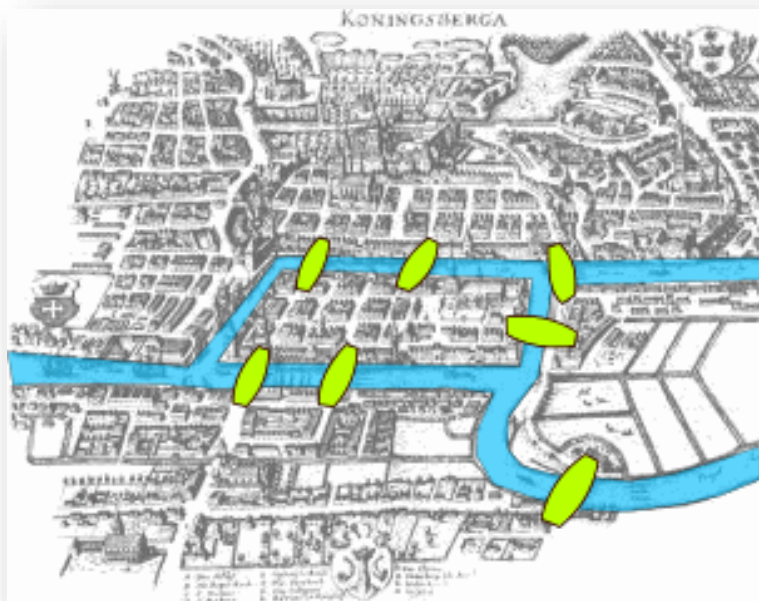
Content

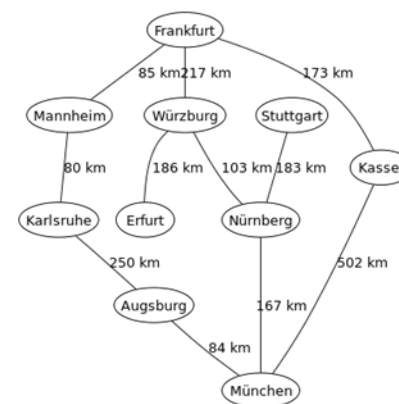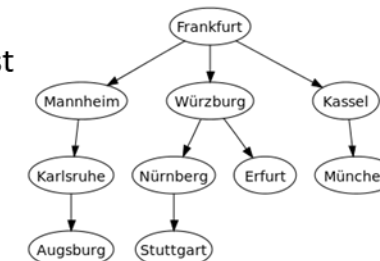|		
• Review		5'
• RDF & SPARQL	🎓	85'
• Knowledge Graph	🎓	45'
• Exercises	🔧	90'

Review (1/4)
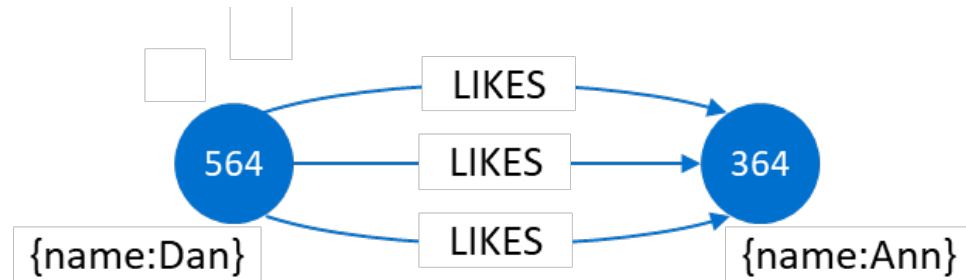
Graphs

Dijkstra's algorithm
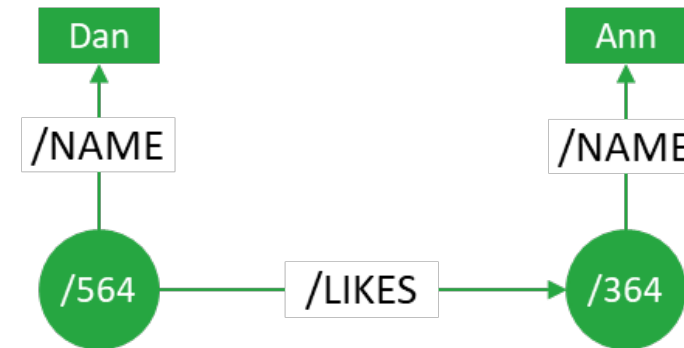

Breadth-first

Review (2/4)

LPG vs RDF

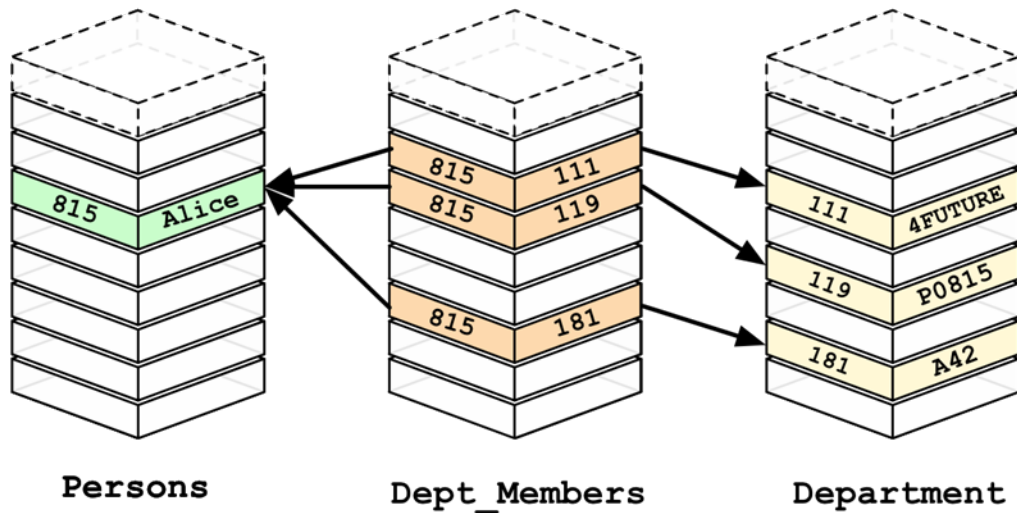### Labeled Properties Graph

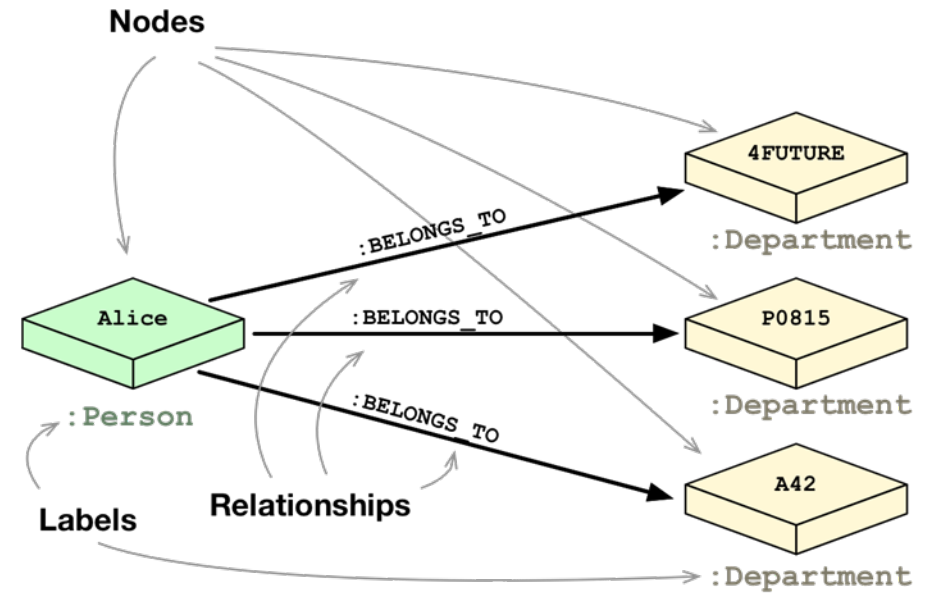### Resource Description Framework

Review (3/4)
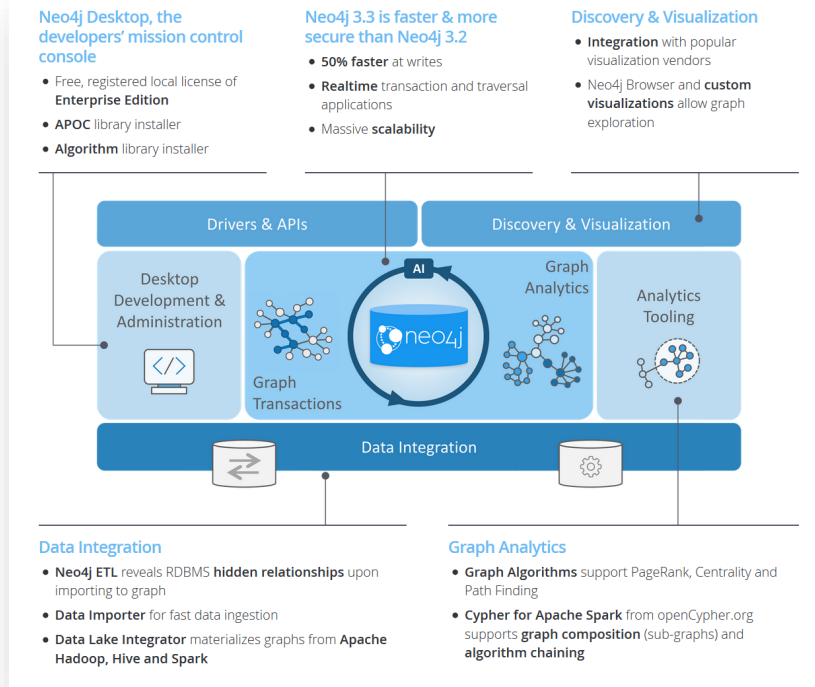
Relational ➡ Labeled Properties Graph
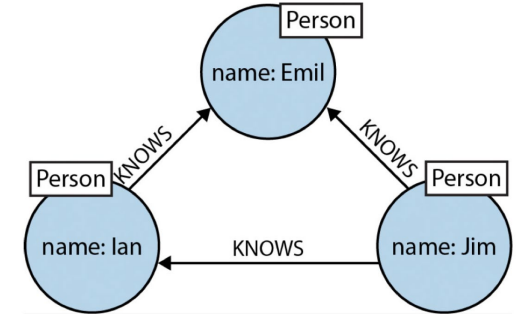

Functionality: Relational Algebra

Functionality: Graph Theory

Review (4/4)

Neo4j & CYPHER

- **Nodes** are «drawn» in parentheses:
  `()`

- **Edges** are «drawn» using pairs of dashes with greater-than or less-than signs and square brackets in between:
  `-[]->`
  `<-[]-`


```
()-[]->()
```

```
(:Person)-[:KNOWS]->(:Person)
```

```
(:Person {name:'Jim'})-[:KNOWS]->(:Person {name:'Ian'})
```

Content

- Review   5'
- **RDF & SPARQL**   🎓   **85'**
- Knowledge Graph   🎓   45'
- Exercises   🔧   90'

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RDF & SPARQL

10.05.2020   R. Vorburger   1

Content

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Knowledge Graph

10.05.2020   R. Vorburger   1