

Temporal Databases 1

INFO-H-415

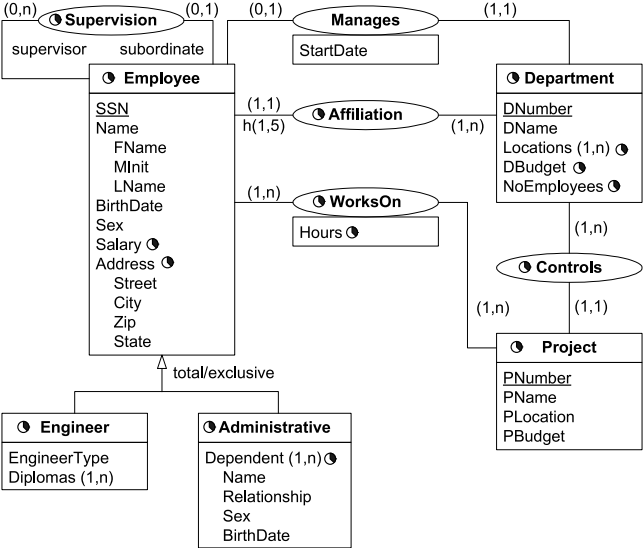
Université Libre de Bruxelles

October 13, 2021

Plan

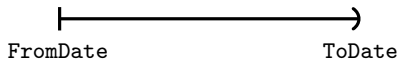
- ▶ **First** session
 - ▶ Translate the MADS model into a relational schema (20 min.)
 - ▶ Temporal Join
 - ▶ Temporal Difference
- ▶ **Second** session
 - ▶ Coalescing
 - ▶ Temporal Aggregation

MADS Model

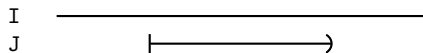
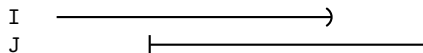
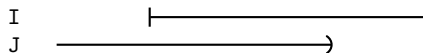
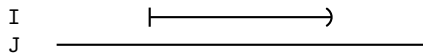


Temporal Relations

A relation has a validity interval



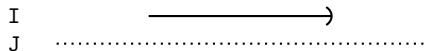
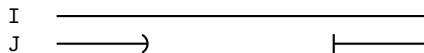
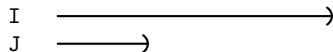
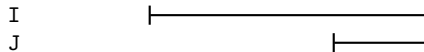
Temporal Join



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Temporal Difference

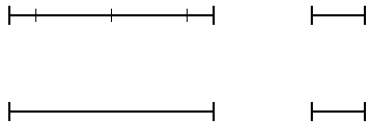


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Coalescing

► Result:



Dataset

- ▶ Available on the UV
- ▶ Setup
 - ▶ Create a database
 - ▶ Run `createtable.sql`
 - ▶ Run `dbload.sql`

Exercices

- ▶ **First** session
 - ▶ Translate the MADS model into a relational schema (20 min.)
 - ▶ Queries 1 – 8
 - ▶ (5): sequenced join (slide 94 of the course notes)
 - ▶ (6): sequenced difference (slide 99)

- ▶ **Second** session and third sessions
 - ▶ Queries 9 – 13
 - ▶ Temporal constraints