Query Evaluation on Schematic Correspondences in the Context of Dataspaces

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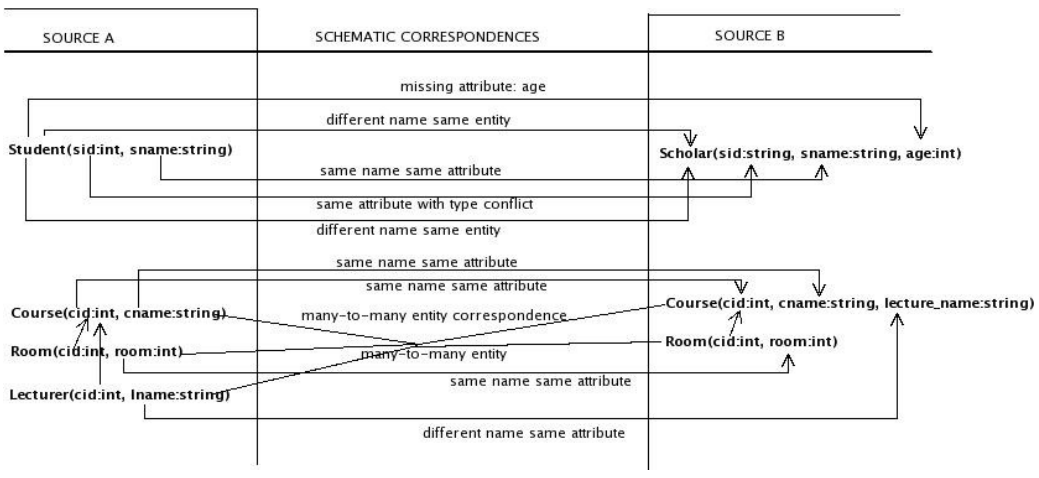
Background:

- Information management systems seek to provide low (labour) cost information integration services over large-scale and heterogeneous information spaces, namely dataspaces.
- The integration is realised by query translation between heterogeneous data sources.
- Example applications: scientific research, enterprise information management and personal information management.

Motivations:

- Conventional data integration features resolve heterogeneities heavily rely on labour and tool investments to elicit *semantic correspondences* between data instances residing at pair of data sources.

- Automating such process can generate significant amount of incomplete and inconsistent description between heterogeneous data sources which will subsequently impair the quality of the information integration service.
- Another type of correspondence, *Schematic correspondences,* are known to be more informative on schema elements which describe stored data instances, yet it requires less cost to elicit than those *semantic correspondences*.



Aim:

- To develop automated mechanisms to translate queries between heterogeneous data sources given information on their schematic correspondences.