# TUTORIAL 5

## Multidatabase Applications: Semantic and System Issues

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Many large organizations have data distributed in heterogeneous and autonomous information repositories. Studies of users' needs show that providing a systematic access to such multidatabase resources is and will continue be a major problem. The tutorial will address the state-of-the-art of the related technologies, including sematic and systems issues. The tutorial will

1. introduce the basic concepts of heterogeneous multidatabase systems and identify major research problems in the area;

2. discuss various approaches to the problem of developing applications in a multidatabase environment; and

3. review the current implementation efforts, discuss the current tendencies and future directions.

The tutorial will cover the following topics:

- Issues: Distribution, Heterogeneity, and Autonomy

- Alternatives: Inteoperability, Integration, and Interdependency

- Reference Schema and System architectures

- Semantic Heteorgeneity

- Schema analysis, interdependency, and integration

- System support for multisystem applications

- Processing of Multidatabase Queries

- Transaction issues in multidatabases