

Spatial Query Languages

Standard Database Query
Languages

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Outline

1. What is a Query? Query Language?
2. Example Database Tables
3. SQL Overview: 3 Components
4. SELECT statement with 1 table
5. Multi-table SELECT statements
6. Why spatial extensions are needed?
7. 1-table spatial queries
8. Multi-table spatial queries
9. Trends

Learning Objectives

- After this segment, students will be able to
 - Describe purpose of a query
 - Describe purpose of a query language

What is a Query?

A query is a “question” posed to a database, expressed in a high-level declarative manner

- Mouse click on a map symbol
- Keyword typed in a search engine
- `SELECT S.name FROM Senator S
WHERE S.gender = 'F'`

What is a Query Language?

Query language expresses interesting questions about data, and restricts the set of possible queries

- Natural language, e.g., English
- Computer programming languages, e.g. Java,
- Structured Query Language (SQL)
- Graphical interfaces, e.g. web-search, mouse clicks on a map