

Exercise sheet 3

Abgabe: 10.01.2011 bis 23:59 Uhr

Write spatial SQL-Queries for the following tasks:

1. Find the total length of river sections (Table Hydrography) that are contained entirely within (operator within) each sector of primary education (Table Elementary). The result should give the length per sector name (column Elementary.name).
2. Find the distance (operator distance) between the centers of all possible pairs of urban areas (Table Urban). The result should give for each pair of centers the following information: the name of the first area, the name of the second area, and the distance of their centers. The same pairs should not appear more than once (even with another order of the names) and there should not be displayed the distances between the areas from themselves.
3. Find the names of 3 water entities (records in Table Water) whose centers are closer to the center of the water entity named (field Water.Landname) 'North Lake'. From the result you should exclude the entity North Lake itself.
4. Find the names of the sectors of elementary education (entity Elementary) that fully contain (operator contains) exactly 2 water entities (Table Water).
5. Find the coordinates of points at which two or more different rail sections (Table Rails) intersect (operator intersects).
6. Find the names of railway companies (column Rails.fename) that do not fully contain (operator contains) any railway section within the urban area (Table Urban) named 'Mission Viejo, CA'. We are interested only for company names that are not empty.
7. Find the names of the sectors of Secondary Education (Secondary) with area larger than each of the sectors of elementary education (Elementary).
8. Find which type of road (field Roads.fetype) includes the smallest total length of road sections.
9. Find the street names (Roads.fename) that are of type (Roads.fetype) 'Blvd' and are being intersected (operator intersects) with a larger number of distinct sectors of primary education than the road named (Roads.fename) '10th'.