Possible SQL Queries

6. Name the cities within 1000000 units distance of the river of "Mississippi" (explicitly use tolerance of 0.5) and the corresonding countries they fall into. (Hint: SDO\_CONTAINS, SDO\_INSIDE)

SELECT c.name, n.name, SDO\_GEOM.SDO\_DISTANCE(r.GEOM, c.GEOM, 0.5) as distance

FROM csci5715.RIVERS r, csci5715.CITIES c, csci5715.COUNTRIES n

WHERE SDO\_GEOM.WITHIN\_DISTANCE(r.GEOM,1000000,c.GEOM, 0.5)='TRUE'

AND SDO\_CONTAINS(n.GEOM,c.GEOM)='TRUE'

AND r.name = 'Mississippi';

SELECT c.name, n.name

FROM csci5715.RIVERS r, csci5715.CITIES c, csci5715.COUNTRIES n

WHERE SDO\_GEOM.WITHIN\_DISTANCE(r.GEOM,1000000,c.GEOM, 0.5)='TRUE'

AND SDO\_CONTAINS(n.GEOM,c.GEOM)='TRUE'

AND r.name = 'Mississippi';

SELECT c.name, n.name

FROM csci5715.RIVERS r, csci5715.CITIES c, csci5715.COUNTRIES n

WHERE SDO\_CONTAINS(SDO\_GEOM.SDO\_BUFFER(r.GEOM,1000000,0.5),c.GEOM)='TRUE'

AND SDO\_CONTAINS(n.GEOM,c.GEOM)='TRUE'

AND r.name = 'Mississippi';

7. What is the distance from the river "Mississippi" to the city of "Chicago"? (get tolerance from USER\_SDO\_GEOM\_METADATA table)

SELECT c.name, SDO\_GEOM.SDO\_DISTANCE(r.GEOM, m.DIMINFO, c.GEOM, m.DIMINFO) as distance

FROM csci5715.RIVERS r, csci5715.CITIES c, USER\_SDO\_GEOM\_METADATA m

WHERE m.table\_name = 'CITIES' AND m.column\_name = 'GEOM'

AND c.name = 'Chicago'

AND r.name = 'Mississippi';

SELECT SDO\_GEOM.SDO\_DISTANCE(c.GEOM, m.DIMINFO, r.GEOM, m.DIMINFO) as distanceChicago2Mississippi

FROM csci5715.RIVERS r, csci5715.CITIES c, USER\_SDO\_GEOM\_METADATA m

WHERE m.table\_name = 'CITIES' AND m.column\_name = 'GEOM'

AND c.name = 'Chicago'

AND r.name = 'Mississippi';

9. Which country has the second largest area in the COUNTRIES table?

SELECT n.name, MAX(SDO\_GEOM.SDO\_AREA(n.GEOM, m.DIMINFO)) as area

FROM csci5715.COUNTRIES n, USER\_SDO\_GEOM\_METADATA m

WHERE m.table\_name = 'COUNTRIES' AND m.column\_name = 'GEOM'

AND area < (SELECT MAX(SDO\_GEOM.SDO\_AREA(n.GEOM, m.DIMINFO)) as area

FROM csci5715.COUNTRIES n, USER\_SDO\_GEOM\_METADATA m

WHERE m.table\_name = 'COUNTRIES' AND m.column\_name = 'GEOM');

SELECT MAX(SDO\_GEOM.SDO\_AREA(n.GEOM, 0.5)) as area

FROM csci5715.COUNTRIES n

WHERE area<(SELECT MAX(SDO\_GEOM.SDO\_AREA(n.GEOM, 0.5)) as area

FROM csci5715.COUNTRIES n);

SELECT SDO\_GEOM.SDO\_AREA(n.GEOM, 0.5) as area

FROM csci5715.COUNTRIES n

WHERE area=(SELECT DISTINCT SDO\_GEOM.SDO\_AREA(n.GEOM, 0.5) as area

FROM csci5715.COUNTRIES

ORDER BY area LIMIT 1,1);