Asignación de Programación #4 -- Bases de Datos Espaciales

Sebastián Venegas Brenes - C18440

Página 1

3.

```
select c.*
from ciudades c, provincias p
where p.id = nvl(:P1_PROV, p.id) and
      sdo_contains(p.geometry, c.shape) = true
```

5.

```
select p.name as Nombre,
    count(c.id) as "Número de ciudades"
from provincias p left join ciudades c on
     sdo_relate(p.geometry, c.shape, 'mask=contains') = true
group by p.name
order by count(c.id) desc;
```

Página 2

8.

```
select s.*
from sismos s, ciudades c
where c.id = 21 and
      sdo_within_distance(c.shape, s.shape, 'distance = 20 units=km') = true;
```

Página 3

9.

```
select s.*
from sismos s, provincias p
where p.id = 'CRC' and
      sdo_contains(p.geometry, s.shape) = true;
```

10.

```
select s.*
from sismos s, provincias p
where p.id = 'CRC' and
      sdo_contains(p.geometry, s.shape) = true and
      s.magnitud > 5.0;
```

Página 4

11.

```
select s.*
from sismos s
where not exists (
    select *
    from provincias prov
    where sdo_contains(prov.geometry, s.shape) = true
);
```

Página 5

14.

```
select *
from sismos
where magnitud >= 6.0
```

15.

```
select sdo_aggr_convexhull(sdoaggrtype(shape, 0.005))
from sismos
where magnitud >= 6.0
```

16.

```
with convexhull as (
    select sdo_aggr_convexhull(sdoaggrtype(shape, 0.005)) as shape
    from sismos
    where magnitud >= 6.0
)
select sdo_geom.sdo_intersection(c.shape, p.geometry, 0.005)
from convexhull c, provincias p
where p.id = 'CRA';
```