**Table creation**

CREATE TABLE global\_points (

id SERIAL PRIMARY KEY,

name VARCHAR(64),

location GEOMETRY(POINT,4326));

INSERT INTO global\_points (name, location) VALUES

('Portland Place', ST\_SetSRID(ST\_MakePoint(-118.282480,34.032731), 4326)),

('Vermont Jeff', ST\_SetSRID(ST\_MakePoint(-118.291384,34.025354), 4326)),

('Expo Vermont', ST\_SetSRID(ST\_MakePoint(-118.291403,34.018425), 4326)),

('Jeff Figueroa', ST\_SetSRID(ST\_MakePoint(-118.280185,34.021888), 4326)),

('Expo Figueroa', ST\_SetSRID(ST\_MakePoint(-118.282379,34.018433), 4326)),

('Doheny Library', ST\_SetSRID(ST\_MakePoint(-118.283920,34.020237), 4326)),

('Biegler Hall', ST\_SetSRID(ST\_MakePoint(-118.288565,34.020566), 4326)),

('Psychology Department', ST\_SetSRID(ST\_MakePoint(-118.288974,34.021502), 4326)),

('Cinematic School', ST\_SetSRID(ST\_MakePoint(-118.287058,34.023470), 4326));

**1.** SELECT ST\_AsText(ST\_ConvexHull(ST\_Collect(location))) AS convex\_hull FROM global\_points;

ouput:

"convex\_hull"

"POLYGON((-118.291403 34.018425,-118.291384 34.025354,-118.28248 34.032731,-118.280185 34.021888,-118.282379 34.018433,-118.291403 34.018425))"

**2.** SELECT p2.name, ST\_AsText(p2.location) FROM global\_points As p1, global\_points as p2 WHERE p1.name= 'Portland Place' and p1.name<>p2.name ORDER BY ST\_Distance(p1.location,p2.location) LIMIT 3;

output:

"name";"st\_astext"

"Cinematic School";"POINT(-118.287058 34.02347)"

"Jeff Figueroa";"POINT(-118.280185 34.021888)"

"Vermont Jeff";"POINT(-118.291384 34.025354)"