

Jeanfranco david Farfan Escobedo  
RA: 230222

Scheme of tourists buying tickets to access museums

```
CREATE METRIC Euclidean2D USING LP2
FOR Ubication(Latitude FLOAT, Longitude FLOAT);
```

```
CREATE TABLE Turist (
    NameTurist CHAR(30),
    Nationality CHAR(30),
```

```
CREATE TABLE Ticket (
    NameTicket CHAR(30),
    NameTurist CHAR(30),
    NameMuseum CHAR(30));
```

```
CREATE TABLE Museum (
    NameMuseum CHAR(30),
    FrontalMuseum STILLIMAGE,
    LatMuseum FLOAT,
    LongitMuseum FLOAT,
    METRIC (Coordinate) Ubication (
    LatMuseum AS Latitude,
    LongitMuseum AS Longitude )
    USING (Euclidean2D));
```

```
CREATE INDEX MuseumIndex ON Museum (
    Coordinate) Ubication (Lat AS Latitude, Longit AS Longitude)
    USING Euclidean2D;
```

1. Select the museums nearer to 5 units of a given coordinate

```
SELECT * FROM Museum WHERE Coordinate NEAR (
    -20.22 AS Latitude, 70.28 AS Longitude)
    RANGE 5.0;
```

2. Select the museums nearer to 5 units of a given coordinate, with a latitude greater than 16.9

```
SELECT * FROM Museum WHERE Coordinate NEAR
    (-14.32 as Latitude, 20.78 as Longitude)
    STOP AFTER 5 AND Lat > 16.9;
```

3. Selecting the four museums with frontal photos more similar to the one given in the query.

```
SELECT * FROM Museum WHERE FrontalMuseum NEAR 'c:\CoricanchaFrontal.jpg'      STOP
AFTER 4;
```

4. Suppose we want to recover the 3 museums closest to the museum whose name is "Coricancha".

```
SELECT * FROM Museum WHERE Coordinate NEAR ( SELECT LatMuseum AS Latitude,
    LongitMuseum AS Longitude FROM Museum WHERE name='Coricancha') STOP  AFTER 3;
```

5. recover the museums and photos of five museums whose coordinates are closer to the "Coricancha" museum

```
SELECT NameMuseum, FrontalMuseum FROM Museum WHERE Coordinate NEAR ALL  
  (SELECT Coordinate FROM Museum WHERE name like '% Coricancha')  
STOP AFTER 5;
```