**Project Database II**

Φοιτητές:

Μακράκης Γεώργιος Μιχαήλ icsd13107

Σκούπρας Παύλος icsd13171

Ζέρβας Γεώργιος icsd13055

**Μέρος 1ο**

**ΑΠΛΑ ΕΡΩΤΗΜΑΤΑ**

**ΕΡΩΤΗΜΑ 1ο**

set serveroutput on;

DECLARE

CURSOR exe1 IS SELECT AREA FROM COUNTRY WHERE COUNTRY.NAME='Greece';

area1 COUNTRY.AREA%type;

CURSOR exe2 IS SELECT NAME,POPULATION,AREA FROM COUNTRY WHERE COUNTRY.AREA < area1 + area1\*0.05 AND COUNTRY. AREA > area1 - area1\*0.05;

name COUNTRY.NAME%type;

pop COUNTRY.POPULATION%type;

area2 COUNTRY.AREA%type;

BEGIN

OPEN exe1;

LOOP

FETCH exe1 into area1;

dbms\_output.put\_line(area1);

EXIT WHEN exe1%notfound OR exe1%rowcount=1 ;

END LOOP;

CLOSE exe1;

OPEN exe2;

LOOP

FETCH exe2 into name,pop,area2;

EXIT WHEN exe2%notfound;

dbms\_output.put\_line(name||' '||pop||' '||area2);

END LOOP;

CLOSE exe2;

END;

**ΕΡΩΤΗΜΑ 3ο**

create or replace

PROCEDURE SIMPLE3 (n1 IN VARCHAR2,c OUT SYS\_REFCURSOR)

AS

BEGIN

OPEN c FOR SELECT DISTINCT(GEO\_RIVER.RIVER) FROM GEO\_RIVER,COUNTRY WHERE n1=COUNTRY.NAME AND COUNTRY.CODE=GEO\_RIVER.COUNTRY;

END SIMPLE3;

**ΕΡΩΤΗΜΑ 5ο**

set serveroutput on;

SELECT NAME,AREA,e1.coordinates.latitude,e1.coordinates.longitude FROM ISLAND e1 WHERE ISLANDS='Ionic Islands';

**ΕΡΩΤΗΜΑ 7ο**

create or replace

PROCEDURE SIMPLE7N (k IN INT,c OUT SYS\_REFCURSOR)

AS

BEGIN

OPEN c FOR SELECT \* FROM (SELECT NAME,POPULATION FROM COUNTRY ORDER BY POPULATION DESC) WHERE ROWNUM <=k;

END SIMPLE7N;

**ΕΡΩΤΗΜΑ 9ο**

SELECT CITY.LATITUDE,CITY.LONGITUDE,CITY.NAME,COUNTRY.CAPITAL FROM CITY,COUNTRY WHERE CITY.NAME =COUNTRY.NAME;

**ΕΡΩΤΗΜΑ 11ο**

DECLARE

c2 COUNTRY.CODE%type;

c3 NUMBER;

CURSOR c1 IS SELECT DISTINCT CITY.COUNTRY,COUNT(CITY.NAME) FROM CITY,COUNTRY WHERE CITY.COUNTRY=COUNTRY.CODE AND CITY.POPULATION>&MILLIONS GROUP BY CITY.COUNTRY;

BEGIN

OPEN c1;

dbms\_output.put\_line('The Countries are:');

LOOP

FETCH c1 INTO c2,c3;

EXIT WHEN c1%notfound ;

IF c3>10 THEN

dbms\_output.put\_line(c2||' '||c3);

END IF;

END LOOP;

END;

**ΣΥΝΘΕΤΑ ΕΡΩΤΗΜΑΤΑ**

**ΕΡΩΤΗΜΑ 1ο**

SELECT COUNTRY.NAME,COUNTRY.POPULATION,COUNTRY.CAPITAL FROM ISMEMBER,COUNTRY

WHERE ISMEMBER.COUNTRY=COUNTRY.CODE AND ORGANIZATION='NATO' ORDER BY COUNTRY.POPULATION DESC;

**ΕΡΩΤΗΜΑ 3ο**

SET SERVEROUTPUT ON;

SELECT ENCOMPASSES.CONTINENT,ROUND(AVG(GDP)) FROM ECONOMY,ENCOMPASSES

WHERE (ENCOMPASSES.CONTINENT='Europe' OR ENCOMPASSES.CONTINENT='Africa')

AND ECONOMY.COUNTRY=ENCOMPASSES.COUNTRY GROUP BY ENCOMPASSES.CONTINENT;

**ΕΡΩΤΗΜΑ 5ο**

SELECT COUNTRY.NAME,COUNTRY.POPULATION,POPULATION.POPULATION\_GROWTH

FROM COUNTRY,POPULATION,ENCOMPASSES

WHERE ENCOMPASSES.CONTINENT='&CONTINENT'

AND POPULATION.POPULATION\_GROWTH < '&POPULATION\_GROWTH'

AND ENCOMPASSES.COUNTRY=COUNTRY.CODE

AND POPULATION.COUNTRY=COUNTRY.CODE ;

**ΕΡΩΤΗΜΑ 7ο**

set serveroutput on;

DECLARE

coun1 COUNTRY.NAME%TYPE;

coun2 COUNTRY.NAME%TYPE;

cap1 CITY.NAME%TYPE;

cap2 COUNTRY.CAPITAL%TYPE;

pop CITY.POPULATION%TYPE;

CURSOR c3 IS SELECT COUNTRY.NAME,CITY.NAME,CITY.POPULATION FROM BORDERS,COUNTRY

INNER JOIN CITY ON CITY.NAME=COUNTRY.CAPITAL

WHERE(BORDERS.COUNTRY2 = CITY.COUNTRY AND BORDERS.COUNTRY1='&K')

OR (BORDERS.COUNTRY1 = CITY.COUNTRY AND BORDERS.COUNTRY2='&K');

BEGIN

OPEN c3;

LOOP

FETCH c3 INTO coun1,cap1,pop;

EXIT WHEN c3%notfound;

dbms\_output.put\_line(coun1||' '||cap1||' '||pop);

END LOOP;

END;

**ΕΡΩΤΗΜΑ 9ο**

create or replace

FUNCTION ADVAN9(conti IN VARCHAR2,sea IN VARCHAR2)

RETURN SYS\_REFCURSOR

IS

c1 SYS\_REFCURSOR;

con COUNTRY.NAME%TYPE;

num NUMBER;

BEGIN

OPEN c1 FOR SELECT DISTINCT COUNTRY.NAME,COUNT(DISTINCT ORGANIZATION) FROM ISMEMBER,ENCOMPASSES,GEO\_SEA,COUNTRY

WHERE ENCOMPASSES.CONTINENT=conti AND GEO\_SEA.SEA=sea

AND ISMEMBER.COUNTRY=ENCOMPASSES.COUNTRY AND GEO\_SEA.COUNTRY=ENCOMPASSES.COUNTRY

AND GEO\_SEA.COUNTRY=COUNTRY.CODE GROUP BY COUNTRY.NAME;

LOOP

FETCH c1 INTO con,num;

EXIT WHEN c1%notfound ;

END LOOP;

RETURN c1;

END ADVAN9;

**ΕΡΩΤΗΜΑ 11ο**

SELECT POLITICS.GOVERNMENT,COUNT(POLITICS.COUNTRY) FROM POLITICS,ISMEMBER

WHERE POLITICS.COUNTRY=ISMEMBER.COUNTRY AND ISMEMBER.ORGANIZATION='EU' GROUP BY POLITICS.GOVERNMENT ;

**ΕΡΩΤΗΜΑ 13ο**

SELECT DISTINCT (COUNTRY.NAME), GEO\_LAKE.LAKE,LAKE.AREA,COUNT(GEO\_LAKE.PROVINCE)

FROM COUNTRY,GEO\_LAKE,LAKE

WHERE GEO\_LAKE.COUNTRY=COUNTRY.CODE AND GEO\_LAKE.LAKE=LAKE.NAME

GROUP BY COUNTRY.NAME, GEO\_LAKE.LAKE,LAKE.AREA

HAVING COUNT(GEO\_LAKE.PROVINCE)>2;

**ΕΡΩΤΗΜΑ 15ο**

SELECT C1.NAME,C1.CAPITAL FROM COUNTRY C1,ISMEMBER I1

INNER JOIN ISMEMBER I2 ON I2.COUNTRY = I1.COUNTRY WHERE I1.ORGANIZATION='C' AND I2.ORGANIZATION='EU' AND C1.CODE=I1.COUNTRY;

**ΕΡΩΤΗΜΑ 17ο**

DECLARE

CURSOR f IS SELECT CITY.NAME,CITY.LONGITUDE,CITY.LATITUDE FROM CITY,ENCOMPASSES WHERE ENCOMPASSES.CONTINENT='Europe' AND ENCOMPASSES.COUNTRY=CITY.COUNTRY;

CURSOR s IS SELECT CITY.NAME,CITY.LONGITUDE,CITY.LATITUDE FROM CITY,ENCOMPASSES WHERE ENCOMPASSES.CONTINENT='Europe' AND ENCOMPASSES.COUNTRY=CITY.COUNTRY;

CURSOR c3 IS SELECT DISTINCT (DIST.city1),MIN(SUM(SELECT CAST(DIST.distance AS NUMBER) FROM DIST)) FROM DIST ORDER BY DIST.city1;

c1\_name CITY.NAME%TYPE;

c1\_long CITY.LONGITUDE%TYPE;

c1\_lat CITY.LATITUDE%TYPE;

c2\_name CITY.NAME%TYPE;

c2\_long CITY.LONGITUDE%TYPE;

c2\_lat CITY.LATITUDE%TYPE;

ci DIST.city1%TYPE;

k long;

m number(38,127);

i long;

BEGIN

OPEN f;

LOOP

FETCH f INTO c1\_name,c1\_long,c1\_lat;

OPEN s;

LOOP

FETCH s INTO c2\_name,c2\_long,c2\_lat;

m:=0;

i:=2\*ASIN(SQRT(POWER(SIN((c1\_lat-c2\_lat)/2),2)+COS(c1\_lat)\*COS(c2\_lat)\*POWER(SIN((c1\_long-c2\_long)/2),2)))\*6371.01;

BEGIN

INSERT INTO DIST(city1,city2,distance) VALUES (c1\_name,c2\_name,i);

END;

dbms\_output.put\_line(c1\_name||' '||c2\_name||' '||m);

EXIT WHEN s%notfound;

END LOOP;

CLOSE s;

EXIT WHEN f%notfound;

END LOOP;

CLOSE f;

OPEN c3;

LOOP

FETCH c3 INTO ci,k;

dbms\_output.put\_line(ci||' '||k);

EXIT WHEN c3%notfound;

END LOOP;

CLOSE c3;

END;

CREATE GLOBAL TEMPORARY TABLE dist

(city1 VARCHAR2(50) NOT NULL,

city2 VARCHAR2(50)NOT NULL,

distance number(38,38) )

ON COMMIT DELETE ROWS;

**Μέρος 2ο**

Στο αρχείο JavaOracle είναι το project που έχουμε κάνει. Εάν ανοίξετε το MainPage.jsp αρχείο μπορείτε να κατευθυνθείτε σε όλο το project χωρίς να ανοίξετε αλλό αρχείο.

Σας ευχαριστούμε πολύ.