Anexo XI: Consultas y pruebas realizadas sobre las consultas

Creación del Database Link para acceder a las tablas de la base de datos origen

```sql
/* DATABASE LINK TO THE OLTP DATABASE LUZ *****/
CREATE DATABASE LINK LUZ_OLTP1
CONNECT TO system
IDENTIFIED BY asus
USING 'localhost:1521/luz';
```

Consulta 1

```sql
/* QUERY 1 ******************************************/
CREATE OR REPLACE VIEW CONSULTA1 AS
SELECT * FROM W_METER_SUMMARY_M ORDER BY YEARNUMBER, MONTHNUMBER, METER_WID;
```

```sql
/* TEST FOR THE QUERY 1 *******************************************/
SELECT METER_WID, W_DATE_D.MONTHNUMBER, W_DATE_D.YEARNUMBER, SUM(CONSUMPTION),
SUM(ENERGYCOST) FROM W_CONSUMPTION_F
INNER JOIN W_DATE_D ON W_CONSUMPTION_F.DATE_WID=W_DATE_D.DATE_WID
GROUP BY W_CONSUMPTION_F.METER_WID, W_DATE_D.MONTHNUMBER, W_DATE_D.YEARNUMBER
ORDER BY W_DATE_D.YEARNUMBER, W_DATE_D.MONTHNUMBER, W_CONSUMPTION_F.METER_WID;
```

Consulta 2

```sql
/* QUERY 2 ******************************************/
CREATE OR REPLACE VIEW CONSULTA2 AS
SELECT
    CITY_WID,
    YEARNUMBER,
    MONTHNUMBER,
    METER_WID,
    CONSUMPTION_M,
    (SELECT CONSUMPTION_M FROM W_CITY_SUMMARY_M WHERE CITY_WID=T.CITY_WID
     AND YEARNUMBER=T.YEARNUMBER
     AND MONTHNUMBER=T.MONTHNUMBER)*80/100 AS TOTAL80
FROM W_CITY_METER_SUMMARY_M T
WHERE (T.CONSUMPTION_M>(SELECT CONSUMPTION_M FROM W_CITY_SUMMARY_M WHERE CITY_WID=T.CITY_WID
AND YEARNUMBER=T.YEARNUMBER
AND MONTHNUMBER=T.MONTHNUMBER)*80/100)
ORDER BY YEARNUMBER, MONTHNUMBER, CITY_WID, METER_WID;
```

```sql
/* TEST FOR THE QUERY 2 *******************************************/
SELECT
    TO_NUMBER(TO_CHAR(T.DATE_WID, 'MM')) AS MONTHNUMBER,
    TO_NUMBER(TO_CHAR(T.DATE_WID, 'YYYY')) AS YEARNUMBER,
    T1.CITY_WID,
    T. METER_WID,
    SUM(T. CONSUMPTION) AS C,
    ((SELECT SUM(CONSUMPTION) FROM W_CONSUMPTION_F P INNER JOIN W_ADDRESS_D P1 ON
    P.ADDRESS_WID=P1.ADDRESS_WID
WHERE
    TO_NUMBER(TO_CHAR(P.DATE_WID, 'MM'))= TO_NUMBER(TO_CHAR(T.DATE_WID, 'MM'))
AND
    TO_NUMBER(TO_CHAR(P.DATE_WID, 'YYYY'))=TO_NUMBER(TO_CHAR(T.DATE_WID, 'YYYY'))
AND
    P1.CITY_WID=T1.CITY_WID)*80/100) AS TOTAL80
FROM W_CONSUMPTION_F T INNER JOIN W_ADDRESS_D T1 ON T.ADDRESS_WID=T1.ADDRESS_WID
GROUP BY
```
Consulta 3

/* QUERY 3 *****************************************************************/
CREATE OR REPLACE VIEW CONSULTA3 AS
SELECT YEARNUMBER, MONTHNUMBER, COUNTRY_WID, CITY_WID, CONSUMPTION_M FROM W_COUNTRY_CITY_SUMMARY_M
ORDER BY YEARNUMBER, MONTHNUMBER, COUNTRY_WID, CITY_WID;
/* TEST FOR THE QUERY 3***************************************************/
CREATE OR REPLACE VIEW CONSULTA3 AS
SELECT YEARNUMBER, MONTHNUMBER, COUNTRY_WID, CITY_WID, CONSUMPTION_M FROM W_COUNTRY_CITY_SUMMARY_M
WHERE MONTHNUMBER=3 AND COUNTRY_WID=286
ORDER BY YEARNUMBER, MONTHNUMBER, COUNTRY_WID, CITY_WID;

Consulta 4

/* QUERY 4 ***************************************************/
CREATE OR REPLACE VIEW CONSULTA4 AS
SELECT COMPANY_WID, YEARNUMBER, MONTHNUMBER, CORRECTREADINGS, TOTALREADINGS,
TO_CHAR((CORRECTREADINGS/TOTALREADINGS)*100, '999.99') AS READINGS_OK
FROM W_COMPANY_SUMMARY_M
ORDER BY YEARNUMBER;
/* TEST FOR THE QUERY 4***************************************************/
select company_wid,
TO_NUMBER(TO_CHAR(DATE_WID, 'MM')) AS MONTHNUMBER,
TO_NUMBER(TO_CHAR(DATE_WID, 'YYYY')) AS YEARNUMBER,
count(consumption) as casos,
sum(case when consumption >0 then 1 else 0 end) as correct,
(sum(case when consumption >0 then 1 else 0 end)*100/count(consumption)) as por
FROM W_CONSUMPTION_F
WHERE COMPANY_WID=53 AND TO_NUMBER(TO_CHAR(DATE_WID, 'MM'))=1
group by company_wid, TO_NUMBER(TO_CHAR(DATE_WID, 'MM')) , TO_NUMBER(TO_CHAR(DATE_WID, 'YYYY'));
SELECT company_wid,date_wid,consumption
FROM W_CONSUMPTION_F
WHERE COMPANY_WID=53 AND TO_NUMBER(TO_CHAR(DATE_WID, 'MM'))=1 and TO_NUMBER(TO_CHAR(DATE_WID, 'YYYY'))=2013;

Consulta 5

/* QUERY 5 ***************************************************/
CREATE OR REPLACE VIEW CONSULTA5 AS
SELECT METER_WID, TO_CHAR(METERINSTALLATIONDATE, 'DD/MM/YYYY') AS METERDATE,
trunc((to_number(to_char(sysdate,'yyyymmdd'))-to_number(to_char(sysdate,'yyyymmdd')))/10000) AS AGE
FROM W_METER_D
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Ordenar por fecha de instalación;

/* TEST FOR QUERY 5 *********************************************/
SELECT W_METER_D.METER_WID, TO_CHAR(INSTALLATIONDATE, 'DD/MM/YYYY') AS METERDATE,
       TRUNC((TO_NUMBER(TO_CHAR(SYSDATE, 'YYYYMMDD')) - 
              TO_NUMBER(TO_CHAR(INSTALLATIONDATE, 'YYYYMMDD')))/10000) AS AGE
FROM METER@LUZ_OLTP1 INNER JOIN W_METER_D ON METER.SERIALNUMBER=W_METER_D.METERCODE
ORDER BY INSTALLATIONDATE;

Consulta 6

/*****************************/
/* QUERY 6 *********************************************/
CREATE OR REPLACE VIEW CONSULTA6 AS
SELECT YEARNUMBER, COUNTRY_WID, CONSUMPTION, ENERGYCOST,
       TO_CHAR((CONSUMPTION/ENERGYCOST), '99.999999') AS AVERAGE_COST
FROM W_COUNTRY_SUMMARY_Y
ORDER BY YEARNUMBER, COUNTRY_WID;

/* TEST FOR QUERY 6 *************************************************************/
SELECT TO_NUMBER(TO_CHAR(DATE_WID, 'YYYY')) AS YEARNUMBER,
       COUNTRY_WID, SUM(CONSUMPTION), SUM(ENERGYCOST),
       TO_CHAR((SUM(CONSUMPTION)/SUM(ENERGYCOST)), '99.999999') AS AVERAGE_COST
FROM W_CONSUMPTION_F INNER JOIN W_ADDRESS_D ON
       W_CONSUMPTION_F.ADDRESS_WID=W_ADDRESS_D.ADDRESS_WID
GROUP BY TO_NUMBER(TO_CHAR(DATE_WID, 'YYYY')), COUNTRY_WID
ORDER BY TO_NUMBER(TO_CHAR(DATE_WID, 'YYYY')), COUNTRY_WID;

Consulta 7

/*****************************/
/* QUERY 7 *********************************************/
CREATE OR REPLACE VIEW CONSULTA7 AS
SELECT YEARNUMBER, MONTHNUMBER, METER_WID, ENERGYCOST
FROM W_METER_SUMMARY_M
ORDER BY YEARNUMBER, MONTHNUMBER, METER_WID;

/* TEST FOR QUERY 7 *************************************************************/
SELECT TO_NUMBER(TO_CHAR(DATE_WID, 'YYYY')) AS YEARNUMBER, 
       TO_NUMBER(TO_CHAR(DATE_WID, 'MM')) AS MONTHNUMBER, 
       METER_WID,
       SUM(ENERGYCOST)
FROM W_CONSUMPTION_F
GROUP BY TO_NUMBER(TO_CHAR(DATE_WID, 'YYYY')), 
       TO_NUMBER(TO_CHAR(DATE_WID, 'MM')),
       METER_WID
ORDER BY TO_NUMBER(TO_CHAR(DATE_WID, 'YYYY')), 
       TO_NUMBER(TO_CHAR(DATE_WID, 'MM')),
       METER_WID;

Consulta 8

/*****************************/
/* QUERY 8 *********************************************/
CREATE OR REPLACE VIEW CONSULTA8 AS
SELECT *
FROM (
    SELECT
        CITY_WID, METER_WID, CONSUMPTION_T,
        DENSE_RANK() OVER (PARTITION BY CITY_WID ORDER BY CONSUMPTION_T DESC) drnk
    FROM W_CITY_METER_SUM_T
)
WHERE drnk<=10
ORDER BY CITY_WID, METER_WID, CONSUMPTION_T DESC;

/* TEST FOR QUERY 8 **************************************************************/
/* THE TEST ITSELF IS TOO COMPLEX **********************************************/

SELECT
    CITY_WID, METER_WID, SUM(CONSUMPTION)
FROM W_CONSUMPTION_F INNER JOIN W_ADDRESS_D ON
    W_CONSUMPTION_F.ADDRESS_WID=W_ADDRESS_D.ADDRESS_WID
GROUP BY CITY_WID, METER_WID
ORDER BY CITY_WID, SUM(CONSUMPTION) DESC, W_CONSUMPTION_F.METER_WID

Consulta 9

/*******************************************************************************/
/* QUERY 9 *********************************************************************/
CREATE OR REPLACE VIEW CONSULTA9 AS
SELECT CITY_WID, CONSUMPTION м/CONSUMERNUMBER AS AVERAGE_CONSUM FROM W_CITY_SUMMARY_M
ORDER BY YEARNUMBER, MONTHNUMBER, CITY_WID;

/* TEST FOR QUERY 9 **************************************************************/
SELECT
    TO_NUMBER(TO_CHAR(DATE_WID, 'YYYY')) AS YEARN,
    TO_NUMBER(TO_CHAR(DATE_WID, 'MM')) AS MONTHN,
    A1.CITY_WID,
    SUM(T.CONSUMPTION),
    (SELECT COUNT(DISTINCT CONSUMER_WID) FROM W_CITY_CONS_SUMMARY_M WHERE
        MONTHNUMBER=TO_NUMBER(TO_CHAR(DATE_WID, 'MM')) AND CITY_WID=A1.CITY_WID) AS PERSON,
    SUM(T.CONSUMPTION) / (SELECT COUNT(DISTINCT CONSUMER_WID) FROM W_CITY_CONS_SUMMARY_M
        WHERE MONTHNUMBER=TO_NUMBER(TO_CHAR(DATE_WID, 'MM')) AND CITY_WID=A1.CITY_WID) AS
    AVERAGE_CONSUM
FROM W_CONSUMPTION_F t INNER JOIN W_ADDRESS_D A1 ON T.ADDRESS_WID=A1.ADDRESS_WID
GROUP BY A1.CITY_WID, TO_NUMBER(TO_CHAR(DATE_WID, 'YYYY'))
ORDER BY TO_NUMBER(TO_CHAR(DATE_WID, 'YYYY')), TO_NUMBER(TO_CHAR(DATE_WID, 'MM')),
    CITY_WID ;