

Práctica

DATA WAREHOUS

```
SELECT * FROM VISTA_EMPLE;
```

Salida de Script x Resultado de la Consulta x

SQL Se han recuperado 50 filas en 0,025 segundos

	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID
1	100	Steven	King	SKING	515.123.4567	17/06/03	AD_PRES	24000	(null)	(null)
2	101	Neena	Kochhar	NKOCHHAR	515.123.4568	21/09/05	AD_VP	17000	(null)	100
3	102	Lex	De Haan	LDEHAAN	515.123.4569	13/01/01	AD_VP	17000	(null)	100
4	145	John	Russell	JRUSSEL	011.44.1344.429268	01/10/04	SA_MAN	14000	0,4	100
5	146	Karen	Partners	KPARTNER	011.44.1344.467268	05/01/05	SA_MAN	13500	0,3	100
6	201	Michael	Hartstein	MHARTSTE	515.123.5555	17/02/04	MK_MAN	13000	(null)	100
7	108	Nancy	Greenberg	NGREENBE	515.124.4569	17/08/02	FI_MGR	12008	(null)	101
8	205	Shelley	Higgins	SHIGGINS	515.123.8080	07/06/02	AC_MGR	12008	(null)	101
9	147	Alberto	Errazuriz	AERRAZUR	011.44.1344.429278	10/03/05	SA_MAN	12000	0,3	100
10	168	Lisa	Ozer	LOZER	011.44.1343.929268	11/03/05	SA_REP	11500	0,25	148

```
SELECT FIRST_NAME, SALARY FROM (  
SELECT * FROM employees ORDER BY SALARY DESC  
);
```

Salida de Script x Resultado de la Consulta x

SQL Se han recuperado 50 filas en 0,032 segundos

	FIRST_NAME	SALARY
1	Steven	24000
2	Neena	17000
3	Lex	17000
4	John	14000
5	Karen	13500
6	Michael	13000
7	Nancy	12008
8	Shelley	12008
9	Alberto	12000
10	Lisa	11500

```
SELECT * FROM REGIONES1;  
  
CREATE VIEW VIEW_REGIONES AS SELECT * FROM REGIONES1;  
  
INSERT INTO VIEW_REGIONES VALUES(5,'ANTARTICA');  
  
INSERT INTO(SELECT * FROM REGIONES1) VALUES (6,'AUSTRALIA');
```

Salida de Script x Resultado de la Consulta x

SQL Todas las Filas Recuperadas: 7 en 0,002 segundos

	REGION_ID	REGION_NAME
1	1	Europe
2	2	Americas
3	3	Asia
4	4	Middle East and Africa
5	5	TTTT
6	5	ANTARTICA
7	6	AUSTRALIA

```
SELECT * FROM NOM_EMPLES;
SELECT * FROM SALARIOS;
```

	COD_EMPLE	FIRST_NAME
1	100	Steven
2	101	Neena
3	102	Lex
4	103	Alexander
5	104	Bruce
6	105	David
7	106	Valli
8	107	Diana
9	108	Nancy
10	109	Daniel
11	110	John

```
SELECT * FROM SALARIOS;
```

	COD_EMPLE	SALARY
1	100	24000
2	101	17000
3	102	17000
4	103	9000
5	104	6000
6	105	4800
7	106	4800
8	107	4200
9	108	12008
10	109	9000
11	110	8200

```
InsertAll2.sql
Hoja de Trabajo Generador de Consultas
WHEN DEPARTMENT_ID=100 THEN
  INTO FINANCIERO VALUES(EMPLOYEE_ID, FIRST_NAME||' '||LAST_NAME, SALARY, MANAGER_ID)
SELECT * FROM EMPLOYEES;

SELECT COUNT(*) FROM EMPLES_JEFES;
SELECT COUNT(*) FROM EMPLES_MANDOS;
SELECT COUNT(*) FROM EMPLES_NORMALES;

CREATE TABLE FINANCIERO (COD_EMPLE NUMBER, NOMBRE VARCHAR2(100), SALARIO NUMBER, RESPONSABLE NUMBER);
SELECT COUNT(*) FROM FINANCIERO;
```

	COUNT(*)
1	0

```
SUBQUERIES CROUSE
SELECT E.FIRST_NAME AS NOMBRE, DC.NUM_EMPLE AS NUMERO_EMPLEADOS, E.DEPARTMENT_ID
FROM EMPLOYEES E,
(SELECT DEPARTMENT_ID, COUNT(*) AS NUM_EMPLE FROM EMPLOYEES GROUP BY DEPARTMENT_ID) DC
WHERE E.DEPARTMENT_ID = DC.DEPARTMENT_ID;

SELECT DEPARTMENT_ID, COUNT(*) AS NUM_EMPLE FROM EMPLOYEES GROUP BY DEPARTMENT_ID;

WITH VISTA_NUM_EMPLE AS
```

	NOMBRE	NUMERO_EMPLEADOS	DEPARTMENT_ID
1	Steven	3	90
2	Neena	3	90
3	Lex	3	90
4	Alexander	5	60
5	Bruce	5	60
6	David	5	60
7	Valli	5	60
8	Diana	5	60
9	Nancy	6	100
10	Daniel	6	100
11	John	6	100

```
SELECT DEPARTMENT_ID, COUNT(*) AS NUM_EMPLE FROM EMPLOYEES GROUP BY DEPARTMENT_ID;

WITH VISTA_NUM_EMPLE AS
( SELECT DEPARTMENT_ID, COUNT(*) AS NUM_EMPLE FROM EMPLOYEES GROUP BY DEPARTMENT_ID)
SELECT E.FIRST_NAME AS NOMBRE, DC.NUM_EMPLE AS NUMERO_EMPLEADOS, E.DEPARTMENT_ID
FROM EMPLOYEES E, VISTA_NUM_EMPLE DC;
```

	DEPARTMENT_ID	NUM_EMPLE
1	90	3
2	60	5
3	100	6
4	30	6
5	50	45
6	80	34
7	(null)	1
8	10	1
9	20	2
10	40	1
11	70	1

```

WITH VISTA_NUM_EMPL AS
( SELECT DEPARTMENT_ID, COUNT(*) AS NUM_EMPL FROM EMPLOYEES GROUP BY DEPARTMENT_ID)
SELECT E.FIRST_NAME AS NOMBRE, DC.NUM_EMPL AS NUMERO_EMPLEADOS, E.DEPARTMENT_ID
FROM EMPLOYEES E, VISTA_NUM_EMPL DC
WHERE E.DEPARTMENT_ID = DC.DEPARTMENT_ID;

WITH SUM_SALARIO AS (SELECT DEPARTMENT_ID, SUM(SALARY) AS SALARIO_DEPARTAMENTO FROM EMPLOYEES)
NUM_EMPL AS (SELECT DEPARTMENT_ID, COUNT(*) AS NUM_EMPLEADOS FROM EMPLOYEES GROUP BY DEPARTMENT_ID)
NUM_EMPL_TOTAL AS (SELECT COUNT(*) AS TOTAL_EMPLEADOS FROM EMPLOYEES)

```

Resultado de la Consulta: x

Se han recuperado 50 filas en 0,028 segundos

NOMBRE	NUMERO_EMPLEADOS	DEPARTMENT_ID
1 Steven	3	90
2 Neena	3	90
3 Lex	3	90
4 Alexander	5	60
5 Bruce	5	60
6 David	5	60
7 Valli	5	60
8 Diana	5	60
9 Nancy	6	100
10 Daniel	6	100
11 John	6	100

```

WITH SUM_SALARIO AS (SELECT DEPARTMENT_ID, SUM(SALARY) AS SALARIO_DEPARTAMENTO FROM EMPLOYEES)
NUM_EMPL AS (SELECT DEPARTMENT_ID, COUNT(*) AS NUM_EMPLEADOS FROM EMPLOYEES GROUP BY DEPARTMENT_ID)
NUM_EMPL_TOTAL AS (SELECT COUNT(*) AS TOTAL_EMPLEADOS FROM EMPLOYEES)
SELECT DEPARTMENT_NAME, SALARIO_DEPARTAMENTO, NUM_EMPLEADOS, TOTAL_EMPLEADOS
FROM
DEPARTMENTS NATURAL JOIN SUM_SALARIO NATURAL JOIN NUM_EMPL, NUM_EMPL_TOTAL;

```

Resultado de la Consulta: x

Todas las Filas Recuperadas: 11 en 0,015 segundos

DEPARTMENT_NAME	SALARIO_DEPARTAMENTO	NUM_EMPLEADOS	TOTAL_EMPLEADOS
1 Executive	58000	3	107
2 IT	28800	5	107
3 Finance	51808	6	107
4 Purchasing	24900	6	107
5 Shipping	156400	45	107
6 Sales	304500	34	107
7 Administration	4400	1	107
8 Marketing	19000	2	107
9 Human Resources	6500	1	107
10 Public Relations	10000	1	107
11 Accounting	20308	2	107

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```

SELECT DEPARTMENT_ID, JOB_ID, SUM(SALARY)
FROM EMPLOYEES
GROUP BY ROLLUP(DEPARTMENT_ID, JOB_ID)
order by department_id, job_id;

```

Resultado de la Consulta: x

Todas las Filas Recuperadas: 33 en 0,009 segundos

DEPARTMENT_ID	JOB_ID	SUM(SALARY)
23 90	AD_VP	34000
24 90	(null)	58000
25 100	FI_ACCOUNT	39600
26 100	FI_MGR	12008
27 100	(null)	51608
28 110	AC_ACCOUNT	8300
29 110	AC_MGR	12008
30 110	(null)	20308
31 (null)	SA_REP	7000
32 (null)	(null)	7000
33 (null)	(null)	691416

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```

ORDER BY CITY, DEPARTMENT_NAME;

SELECT CITY, DEPARTMENT_NAME, COUNT(*) AS EMPLEADOS
FROM LOCATIONS NATURAL JOIN DEPARTMENTS JOIN EMPLOYEES USING (DEPARTMENT_ID)
GROUP BY CUBE(CITY, DEPARTMENT_NAME)
ORDER BY CITY, DEPARTMENT_NAME;

SELECT CITY, DEPARTMENT_NAME, JOB_ID, COUNT(*) AS EMPLEADOS
FROM LOCATIONS NATURAL JOIN DEPARTMENTS JOIN EMPLOYEES USING (DEPARTMENT_ID)
GROUP BY CUBE(CITY, DEPARTMENT_NAME, JOB_ID)
ORDER BY CITY, DEPARTMENT_NAME, JOB_ID;

```

Resultado de la Consulta: x

Todas las Filas Recuperadas: 30 en 0,009 segundos

CITY	DEPARTMENT_NAME	EMPLEADOS
20 (null)	Administration	1
21 (null)	Executive	3
22 (null)	Finance	6
23 (null)	Human Resources	1
24 (null)	IT	5
25 (null)	Marketing	2
26 (null)	Public Relations	1
27 (null)	Purchasing	6
28 (null)	Sales	34
29 (null)	Shipping	45
30 (null)	(null)	106

```

SELECT DEPARTMENT_ID, JOB_ID, SUM(SALARY), GROUPING(DEPARTMENT_ID), GROUPING(JOB_ID)
FROM EMPLOYEES
GROUP BY ROLLUP(DEPARTMENT_ID, JOB_ID)
order by department_id, job_id;

SELECT DECODE(GROUPING(JOB_ID), 1, 'TOTAL DEPARTAMENTO:', ||DEPARTMENT_ID, DEPARTMENT_ID) AS "DEPARTAMENTO",
DECODE(GROUPING(DEPARTMENT_ID), 1, 'TOTAL:', job_id) AS "TRABAJO",
SUM(SALARY) AS "TOTAL SALARIO"
FROM EMPLOYEES
WHERE DEPARTMENT_ID IS NOT NULL

```

Resultado de la Consulta x

Todas las Filas Recuperadas: 33 en 0,017 segundos

	DEPARTMENT_ID	JOB_ID	SUM(SALARY)	GROUPING(DEPARTMENT_ID)	GROUPING(JOB_ID)
1	10	AD_ASST	4400	0	0
2	10	(null)	4400	0	1
3	20	MK_MAN	13000	0	0
4	20	MK_REP	6000	0	0
5	20	(null)	19000	0	1
6	30	PU_CLERK	13900	0	0
7	30	PU_MAN	11000	0	0
8	30	(null)	24900	0	1
9	40	HR_REP	6500	0	0
10	40	(null)	6500	0	1
11	50	SH_CLERK	64300	0	0

```

SELECT DECODE(GROUPING(JOB_ID), 1, 'TOTAL DEPARTAMENTO:', ||DEPARTMENT_ID, DEPARTMENT_ID) AS "DEPARTAMENTO",
DECODE(GROUPING(DEPARTMENT_ID), 1, 'TOTAL:', job_id) AS "TRABAJO",
SUM(SALARY) AS "TOTAL SALARIO"
FROM EMPLOYEES
WHERE DEPARTMENT_ID IS NOT NULL
GROUP BY ROLLUP(DEPARTMENT_ID, JOB_ID)
order by department_id, job_id;

```

Resultado de la Consulta x

Todas las Filas Recuperadas: 31 en 0,012 segundos

	DEPARTAMENTO	TRABAJO	TOTAL SALARIO
1	10	AD_ASST	4400
2	TOTAL DEPARTAMENTO:10	(null)	4400
3	20	MK_MAN	13000
4	20	MK_REP	6000
5	TOTAL DEPARTAMENTO:20	(null)	19000
6	30	PU_CLERK	13900
7	30	PU_MAN	11000
8	TOTAL DEPARTAMENTO:30	(null)	24900
9	40	HR_REP	6500
10	TOTAL DEPARTAMENTO:40	(null)	6500
11	50	SH_CLERK	64300

```

SELECT DEPARTMENT_ID, SUM(SALARY)
FROM EMPLOYEES
WHERE DEPARTMENT_ID IS NOT NULL
GROUP BY GROUPING SETS(DEPARTMENT_ID)
order by department_id;

SELECT DEPARTMENT_ID, JOB_ID, SUM(SALARY)
FROM EMPLOYEES
WHERE DEPARTMENT_ID IS NOT NULL
GROUP BY DEPARTMENT_ID, JOB_ID

```

Resultado de la Consulta x

Todas las Filas Recuperadas: 11 en 0,003 segundos

	DEPARTMENT_ID	SUM(SALARY)
1	10	4400
2	20	19000
3	30	24900
4	40	6500
5	50	156400
6	60	28800
7	70	10000
8	80	304500
9	90	58000
10	100	51608
11	110	20308

```
SELECT DEPARTMENT_ID, JOB_ID, SUM(SALARY)
FROM EMPLOYEES
WHERE DEPARTMENT_ID IS NOT NULL
GROUP BY GROUPING SETS(DEPARTMENT_ID, JOB_ID)
order by department_id;
```

DEPARTMENT_ID	JOB_ID	SUM(SALARY)
7	70 (null)	10000
8	80 (null)	304500
9	90 (null)	58000
10	100 (null)	51608
11	110 (null)	20308
12	(null) ST_CLERK	55700
13	(null) SA_MAN	61000
14	(null) SA_REP	243500
15	(null) SH_CLERK	64300
16	(null) AD_ASST	4400
17	(null) MK_MAN	13000

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```
SELECT * FROM PIVOT;
```

```
SELECT *
FROM (SELECT PRODUCTO, CANTIDAD FROM pivot)
```

CODIGO	CLIENTE	PRODUCTO	CANTIDAD
1	1	1 AGUACATES	10
2	2	1 BANANAS	20
3	3	1 MANZANA	30
4	4	2 AGUACATES	40
5	5	2 MANZANA	50
6	6	3 AGUACATES	60
7	7	3 BANANAS	70
8	8	3 MANZANA	80
9	9	3 NARANJA	90
10	10	4 AGUACATES	100

```
SELECT *
FROM (SELECT PRODUCTO, CANTIDAD FROM pivot)
PIVOT ( count(CANTIDAD) FOR (PRODUCTO) IN ('AGUACATES','BANANAS','MANZANA','NARANJA'));
```

```
SELECT *
FROM (SELECT PRODUCTO, CANTIDAD FROM pivot)
```

Salida de Script x

Resultado de la Consulta x

SQL

Todas las Filas Recuperadas: 1 en 0,008 segundos

	'AGUACATES'	'BANANAS'	'MANZANA'	'NARANJA'
1	4	2	3	1

```

SELECT *
FROM (SELECT PRODUCTO, CANTIDAD FROM pivot)
PIVOT (SUM(CANTIDAD) AS CANTIDAD FOR (PRODUCTO) IN ('AGUACATES','BANANAS','MANZANA','NARANJA'));

SELECT *
FROM (SELECT CLIENTE,PRODUCTO, CANTIDAD FROM pivot)
PIVOT (SUM(CANTIDAD) AS CANTIDAD FOR (PRODUCTO) IN ('AGUACATES','BANANAS','MANZANA','NARANJA'));

```

	'AGUACATES'_CANTIDAD	'BANANAS'_CANTIDAD	'MANZANA'_CANTIDAD	'NARANJA'_CANTIDAD
1	210	90	160	90

```

SELECT *
FROM (SELECT CLIENTE,PRODUCTO, CANTIDAD FROM pivot)
PIVOT (SUM(CANTIDAD) AS CANTIDAD FOR (PRODUCTO) IN ('AGUACATES','BANANAS','MANZANA','NARANJA'));

```

	CLIENTE	'AGUACATES'_CANTIDAD	'BANANAS'_CANTIDAD	'MANZANA'_CANTIDAD	'NARANJA'_CANTIDAD
1	1	10	20	30	(null)
2	2	40	(null)	50	(null)
3	3	60	70	80	90
4	4	100	(null)	(null)	(null)

```

CREATE TABLE UN_PIVOT AS
SELECT *
FROM (SELECT CLIENTE,PRODUCTO, CANTIDAD FROM pivot)
PIVOT (SUM(CANTIDAD) FOR (PRODUCTO) IN ('AGUACATES' AS "AGUACATES",'BANANAS' AS "BANANA",'MANZANA'

SELECT * FROM UN_PIVOT;

SELECT * FROM UN_PIVOT

```

	CLIENTE	AGUACATES	BANANA	MANZANA	NARANJA
1	1	10	20	30	(null)
2	2	40	(null)	50	(null)
3	3	60	70	80	90
4	4	100	(null)	(null)	(null)

```

SELECT * FROM UN_PIVOT
UNPIVOT (CANTIDAD FOR PRODUCTO IN ("AGUACATES","BANANA","MANZANA","NARANJA"))
ORDER BY CLIENTE,PRODUCTO;

```

	CLIENTE	PRODUCTO	CANTIDAD
1	1	AGUACATES	10
2	1	BANANA	20
3	1	MANZANA	30
4	2	AGUACATES	40
5	2	MANZANA	50
6	3	AGUACATES	60
7	3	BANANA	70
8	3	MANZANA	80
9	3	NARANJA	90
10	4	AGUACATES	100

