Sentencias SQL

Laboratorio Base de Datos I.

Lenguaje de consulta SQL

Proyección

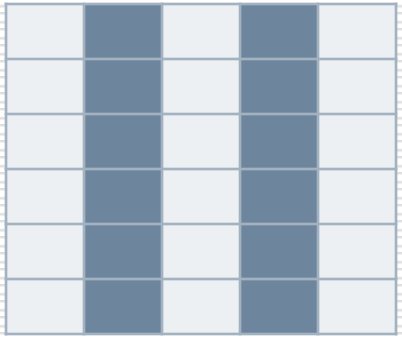


Tabla 1

Selección

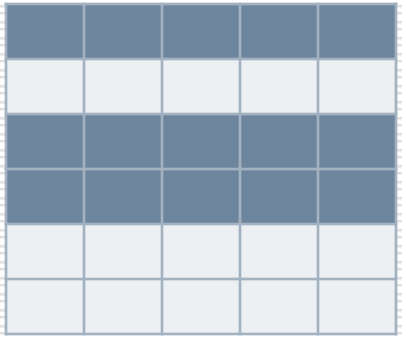


Tabla 1

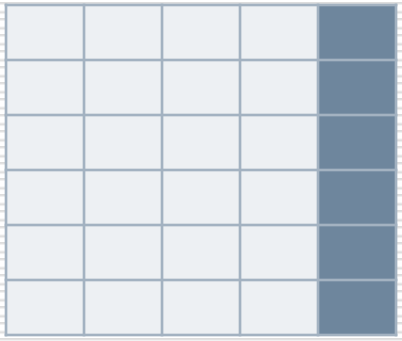


Tabla 1

Unión

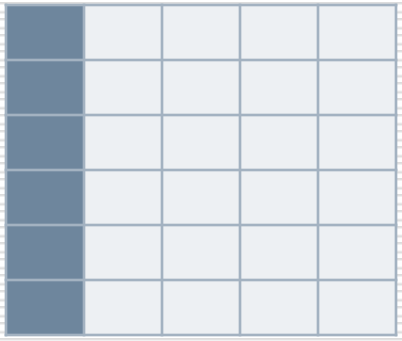


Tabla 2

Lenguaje SQL

- SELECT

  SELECT
  [TOP expresión [PERCENT] [WITH TIES]]
  <lista seleccionada> [INTO nueva_tabla]
  [**FROM** tabla]
  [WHERE condición]
  [GROUP BY expresión]
  [HAVING condición]
  [ORDER BY expresión [ASC | DESC]]

- Join
  - CROSS
  - INNER
  - OUTER (LEFT, RIGHT, FULL)

Sentencias SELECT Básicas 1ra.Parte

```
SELECT   *|{[DISTINCT] column|expression [alias],...}
FROM     table;
```

- **SELECT** identifica las columnas
- **FROM** identifica la tabla

Selección de Todas las Columnas

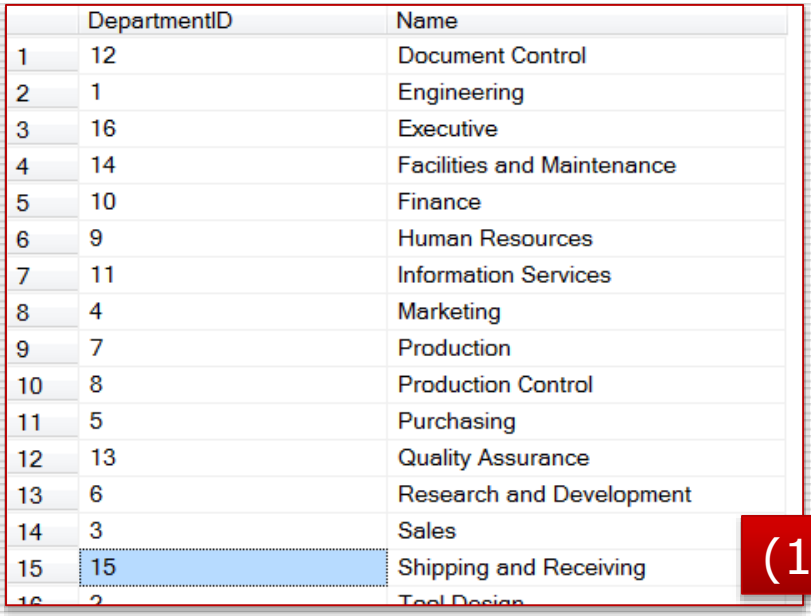
```
USE AdventureWorks;
GO
SELECT  *
FROM HumanResources.Department;
```

	DepartmentID	Name	GroupName	ModifiedDate
1	1	Engineering	Research and Development	1998-06-01 00:00:00.000
2	2	Tool Design	Research and Development	1998-06-01 00:00:00.000
3	3	Sales	Sales and Marketing	1998-06-01 00:00:00.000
4	4	Marketing	Sales and Marketing	1998-06-01 00:00:00.000
5	5	Purchasing	Inventory Management	1998-06-01 00:00:00.000
6	6	Research and Development	Research and Development	1998-06-01 00:00:00.000
7	7	Production	Manufacturing	1998-06-01 00:00:00.000
8	8	Production Control	Manufacturing	1998-06-01 00:00:00.000
9	9	Human Resources	Executive General and Administration	1998-06-01 00:00:00.000
10	10	Finance	Executive General and Administra	

(16 filas afectadas)

Selección de Columnas Específicas

```
USE AdventureWorks;
GO
SELECT  DepartmentID, Name
FROM HumanResources.Department;
```



	DepartmentID	Name
1	12	Document Control
2	1	Engineering
3	16	Executive
4	14	Facilities and Maintenance
5	10	Finance
6	9	Human Resources
7	11	Information Services
8	4	Marketing
9	7	Production
10	8	Production Control
11	5	Purchasing
12	13	Quality Assurance
13	6	Research and Development
14	3	Sales
15	15	Shipping and Receiving
16	2	Tool Design

(16 filas afectadas)

Expresiones Aritméticas

Pueden ser creadas con datos numéricos y operadores aritméticos.

Operador	Descripción
+	Suma
-	Resta
*	Multiplicación
/	División

Uso de Operadores Aritméticos

```
SELECT Name, StandardCost, ListPrice, ListPrice - StandardCost
FROM Production.Product
```

	Name	StandardC...	ListPrice	Diferencia
1	LL Mountain Seat Assembly	98,77	133,34	34,57
2	ML Mountain Seat Assembly	108,99	147,14	38,15
3	HL Mountain Seat Assembly	145,87	196,92	51,05
4	LL Road Seat Assembly	98,77	133,34	34,57
5	ML Road Seat Assembly	108,99	147,14	38,15
6	HL Road Seat Assembly	145,87	196,92	51,05
7	LL Touring Seat Assembly	98,77	133,34	34,57
8	ML Touring Seat Assembly	108,99	147,14	38,15
9	HL Touring Seat Assembly	145,87	196,92	51,05
10	HL Road Frame - Black, 58	1059,31	1431,50	372,19

Prioridad de Operador

*** / + -**

- La multiplicación y la división tienen prioridad sobre la suma y la resta.
- Los operadores de idéntica prioridad se evalúan de izquierda a derecha.
- Los paréntesis se utilizan para forzar evaluaciones prioritarias y para clarificar sentencias.

Prioridad de Operador

```
SELECT Name, StandardCost, 5 * StandardCost + 100
FROM Production.Product
```

	Name	StandardCost	operacion
1	LL Mountain Seat Assembly	98,77	593,85
2	ML Mountain Seat Assembly	108,99	644,95
3	HL Mountain Seat Assembly	145,87	829,35
4	LL Road Seat Assembly	98,77	593,85
5	ML Road Seat Assembly	108,99	644,95
6	HL Road Seat Assembly	145,87	829,35
7	LL Touring Seat Assembly	98,77	593,85
8	ML Touring Seat Assembly	108,99	644,95
9	HL Touring Seat Assembly	145,87	829,35
10	HL Road Frame - Black, 58	1059,31	5396,55

Uso de Paréntesis

```
SELECT Name, (5* StandardCost/100) + ListPrice
FROM Production.Product
```

	Name	precioFinal
1	LL Mountain Seat Assembly	138,2785
2	ML Mountain Seat Assembly	152,5895
3	HL Mountain Seat Assembly	204,2135
4	LL Road Seat Assembly	138,2785
5	ML Road Seat Assembly	152,5895
6	HL Road Seat Assembly	204,2135
7	LL Touring Seat Assembly	138,2785
8	ML Touring Seat Assembly	152,5895
9	HL Touring Seat Assembly	204,2135

Eliminación de Filas Duplicadas

Elimine filas duplicadas mediante la palabra clave `DISTINCT` de la cláusula `SELECT`.

```
SELECT DISTINCT ProductSubcategoryID
FROM Production.Product;
```

Recuperar el primer conjunto de filas de un resultado

- **TOP** (expression) [PERCENT] [WITH TIES]

```
SELECT TOP 10 ListPrice
FROM Production.Product
ORDER BY ListPrice DESC
```

(10 filas afectadas)

```
SELECT TOP 10 WITH TIES ListPrice
FROM Production.Product
ORDER BY ListPrice DESC
```

(13 filas afectadas)

Contar cantidad de registros

- **COUNT** ({ [[ALL | DISTINCT] expression] | * })

  Contar las filas mediante la palabra clave COUNT(*) de la cláusula SELECT.

```
SELECT count (*)
FROM Production.Product;
```

```
SELECT count (DISTINCT ProductSubcategoryID)
FROM Production.Product;
```

Fin Tema

- ¿Preguntas?