

Introducción a bases de datos

Sesión 1

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1. Ejemplos

```
1 # Ejemplo 2
2 SHOW DATABASES;
3 # +-----+
4 # | Database      |
5 # +-----+
6 # | classicmodels |
7 # | information_schema |
8 # | tienda        |
9 # +-----+
10 # 3 rows in set (0.11 sec)
11
12
13 USE tienda;
14 # Database changed
15
16
17 SHOW TABLES;
18 # +-----+
19 # | Tables_in_tienda |
20 # +-----+
21 # | articulo         |
22 # | empleado         |
23 # | puesto          |
24 # | venta            |
25 # +-----+
26 # 4 rows in set (0.12 sec)
27
28
29 DESCRIBE empleado;
30 # +-----+-----+-----+-----+-----+-----+
31 # | Field          | Type          | Null | Key | Default | Extra |
32 # +-----+-----+-----+-----+-----+-----+
33 # | id_empleado    | int           | NO   | PRI | NULL    |       |
34 # | id_puesto      | int           | NO   | MUL | NULL    |       |
35 # | nombre         | varchar(45)   | NO   |     | NULL    |       |
36 # | apellido_paterno | varchar(45)   | NO   |     | NULL    |       |
37 # | apellido_materno | varchar(45)   | NO   |     | NULL    |       |
38 # | rfc            | varchar(13)   | NO   |     | NULL    |       |
39 # +-----+-----+-----+-----+-----+-----+
40 # 6 rows in set (0.11 sec)
```

```
1 # Ejemplo 3
2 SELECT nombre FROM empleado;
3 # Output de 1000 registros de solo nombres
4
5 SELECT * FROM empleado;
6 # Output de 1000 registros de todos los campos de la tabla empleado
7
8
9 SELECT *FROM empleado WHERE apellido_paterno = 'Risom';
10 # +-----+-----+-----+-----+-----+-----+
11 # | id_empleado | id_puesto | nombre | apellido_paterno | apellido_materno | rfc |
```

```

12 # +-----+-----+-----+-----+-----+-----+
13 # |          5 |          668 | Gnni   | Risom          | Kalinowsky      | YTL0032309Z47 |
14 # +-----+-----+-----+-----+-----+-----+
15 # 1 row in set (0.11 sec)
16
17 SELECT * FROM empleado WHERE id_puesto > 100;
18 # Output de 892 registros cuyo id_puesto sea estrictamente mayor a 100
19
20 SELECT * FROM empleado WHERE id_puesto >= 100 AND id_puesto <= 200;
21 # Output de 100 registros cuyo id_puesto esta entre los valores 100 y 200
22
23 SELECT * FROM empleado WHERE id_puesto = 100 OR id_puesto = 200;
24 # +-----+-----+-----+-----+-----+-----+
25 # | id_empleado | id_puesto | nombre | apellido_paterno | apellido_materno | rfc           |
26 # +-----+-----+-----+-----+-----+-----+
27 # |          410 |          100 | Honor  | Parsonage        | Lowdyane         | YCWP007255G64 |
28 # |          307 |          200 | Suzy   | Ingerfield       | Aire             | SJUT182565W08 |
29 # |          310 |          200 | Harvey | Deeney           | Kennerley        | ZAHQ035377H15 |
30 # |          378 |          200 | Damita | Fishburn         | Rait             | WQZR682964E50 |
31 # +-----+-----+-----+-----+-----+-----+
32 # 4 rows in set (0.12 sec)
33 # Output de 4 registros cuyo id_puesto es 100 o 200
34
35 SELECT * FROM empleado WHERE id_puesto IN (100,200);
36 # Same as the top query

```

```

1 # Ejemplo 4
2 SELECT * FROM puesto ORDER BY salario DESC;
3 # 1000 rows in set (0.22 sec)
4 # +-----+-----+-----+
5 # | id_puesto | nombre                               | salario |
6 # +-----+-----+-----+
7 # |          494 | Sales Representative                 | 29996.58 |
8 # |           18 | Speech Pathologist                  | 29967.17 |
9 # |          487 | Analog Circuit Design manager      | 29923.95 |
10 # |           79 | Junior Executive                    | 29916.06 |
11 # |          893 | Technical Writer                    | 29912.53 |
12 # |           39 | Help Desk Technician                | 29879.62 |
13 # |           33 | Biostatistician IV                  | 29842.41 |
14 # |           91 | Research Associate                   | 29800.09 |
15 # |          740 | Automation Specialist III           | 29771.91 |
16 # |          153 | Accounting Assistant I               | 29770    |
17 # |          979 | Food Chemist                        | 29769.81 |
18 # |          898 | Accounting Assistant II              | 29724.08 |
19 # |          576 | VP Product Management                | 29719.9  |
20 # |          629 | Senior Editor                       | 29711.2  |
21 # |           56 | Human Resources Assistant I         | 29685.55 |
22 # |          596 | Business Systems Development Analyst | 29667.53 |
23 # |          933 | Sales Representative                 | 29662.48 |
24 # |          366 | Web Developer IV                    | 29615.38 |
25 # |          432 | Computer Systems Analyst I          | 29602.29 |
26 # |           31 | General Manager                     | 29561.15 |
27 # |          216 | Account Executive                    | 29552.05 |
28 # |          132 | Administrative Assistant II         | 29512.59 |
29 # |          708 | Structural Engineer                 | 29488.39 |
30 # |          870 | Speech Pathologist                  | 29420.65 |
31 # |          821 | Internal Auditor                    | 29391.35 |
32 # |          917 | Sales Representative                 | 29336.16 |
33 # |          389 | Internal Auditor                    | 29318.7  |
34 # |           7  | Accounting Assistant III            | 29257.91 |
35 # |          152 | Junior Executive                    | 29226.46 |
36 # |          715 | General Manager                     | 29180.99 |
37 # |          168 | Product Engineer                    | 29175.25 |
38 # |          501 | Technical Writer                    | 29139.82 |
39 # |          832 | Senior Developer                    | 29130.04 |
40 # |          744 | Project Manager                     | 29126.11 |
41 # |          922 | Accounting Assistant II             | 29096.49 |
42 # |          931 | Nuclear Power Engineer              | 29072.24 |
43 # |          221 | Staff Scientist                     | 29052.89 |
44 # |          174 | Associate Professor                 | 29040.39 |
45 # |          253 | VP Quality Control                  | 29036.1  |

```

```

46 # |      595 | Editor | 28975.83 |
47 # |      823 | Actuary | 28967.82 |
48 # |      310 | Social Worker | 28955.95 |
49 # |      213 | Administrative Assistant I | 28952.63 |
50 # |      102 | Recruiter | 28929.3 |
51 # |      296 | Accountant IV | 28920.2 |
52 # |      696 | Editor | 28886.6 |
53 # |      619 | Recruiting Manager | 28885.36 |
54 # |      525 | Financial Advisor | 28842.5 |
55 # |      115 | Project Manager | 28841.26 |
56 # |      800 | Assistant Media Planner | 28810.15 |
57 # |      183 | Professor | 28789.65 |
58 # |         3 | Director of Sales | 28725.56 |
59 # |      410 | Senior Editor | 28710.97 |
60 # |      776 | Budget/Accounting Analyst II | 28698.82 |
61 # |      279 | Financial Advisor | 28665.52 |

```

```

62
63
64
65 SELECT * FROM puesto ORDER BY salario ASC;
66 # 1000 rows in set (0.22 sec)

```

```

67 # +-----+-----+-----+
68 # | id_puesto | nombre | salario |
69 # +-----+-----+-----+
70 # |      150 | Administrative Officer | 10013.44 |
71 # |      137 | Help Desk Operator | 10019.44 |
72 # |      834 | Senior Developer | 10026.46 |
73 # |      985 | Marketing Manager | 10041.21 |
74 # |      994 | Professor | 10057.91 |
75 # |      738 | Operator | 10086.03 |
76 # |      375 | Speech Pathologist | 10097.26 |
77 # |      208 | Financial Advisor | 10102.92 |
78 # |      463 | Research Associate | 10103.08 |
79 # |      211 | Community Outreach Specialist | 10117.81 |
80 # |         17 | Financial Analyst | 10145.15 |
81 # |      660 | Office Assistant IV | 10147.18 |
82 # |         46 | Senior Sales Associate | 10165.54 |
83 # |      765 | Engineer IV | 10170.77 |
84 # |      289 | Social Worker | 10185.35 |
85 # |      352 | Product Engineer | 10195.75 |
86 # |      135 | Chemical Engineer | 10208.84 |
87 # |      165 | Recruiting Manager | 10217.1 |
88 # |      187 | Director of Sales | 10232.21 |
89 # |      751 | Chief Design Engineer | 10233.93 |
90 # |      729 | Director of Sales | 10236.8 |
91 # |      275 | Social Worker | 10282.27 |
92 # |      161 | Junior Executive | 10298.53 |
93 # |      591 | Tax Accountant | 10303.46 |
94 # |      659 | Budget/Accounting Analyst IV | 10326.54 |
95 # |         53 | Accountant IV | 10343.33 |
96 # |      850 | Cost Accountant | 10351.34 |
97 # |      997 | Developer II | 10405.99 |
98 # |      441 | Paralegal | 10432.44 |

```

```

99
100
101 SELECT * FROM puesto ORDER BY salario;
102 # 1000 rows in set (0.22 sec)
103 # Same as the previous query

```

```

104
105
106 SELECT * FROM empleado LIMIT 5;

```

```

107 # +-----+-----+-----+-----+-----+-----+
108 # | id_empleado | id_puesto | nombre | apellido_paterno | apellido_materno | rfc |
109 # +-----+-----+-----+-----+-----+-----+
110 # |          1 |      235 | Enrichetta | Bodechon | Ivkovic | CLKQ293450Y89 |
111 # |          2 |      659 | Morey | Bowskill | Metham | SAUJ115055X38 |
112 # |          3 |      745 | Jeannette | Potes | Heisler | HIPN989807Q14 |
113 # |          4 |      139 | Cassey | Womersley | Chapell | X0FW986548J75 |
114 # |          5 |      668 | Gnni | Risom | Kalinowsky | YTL0032309Z47 |
115 # +-----+-----+-----+-----+-----+-----+
116 # 5 rows in set (0.11 sec)

```

2. Retos

```
1 # Reto 1
2 DESCRIBE articulo;
3 # +-----+-----+-----+-----+-----+
4 # | Field          | Type          | Null | Key | Default | Extra |
5 # +-----+-----+-----+-----+-----+
6 # | id_articulo    | int           | NO   | PRI | NULL    |       |
7 # | nombre         | varchar(45)   | NO   |     | NULL    |       |
8 # | precio         | double        | NO   |     | NULL    |       |
9 # | iva            | double        | NO   |     | NULL    |       |
10 # | cantidad       | int           | NO   |     | 0       |       |
11 # +-----+-----+-----+-----+-----+
12 # 5 rows in set (0.11 sec)
13
14
15
16 DESCRIBE puesto;
17 # +-----+-----+-----+-----+-----+
18 # | Field          | Type          | Null | Key | Default | Extra |
19 # +-----+-----+-----+-----+-----+
20 # | id_puesto      | int           | NO   | PRI | NULL    |       |
21 # | nombre         | varchar(45)   | NO   |     | NULL    |       |
22 # | salario        | double        | NO   |     | NULL    |       |
23 # +-----+-----+-----+-----+-----+
24 # 3 rows in set (0.12 sec)
25
26
27
28 DESCRIBE venta;
29 # +-----+-----+-----+-----+-----+
30 # | Field          | Type          | Null | Key | Default | Extra |
31 # +-----+-----+-----+-----+-----+
32 # | id_venta       | int           | NO   | PRI | NULL    |       |
33 # | id_articulo    | int           | NO   | MUL | NULL    |       |
34 # | id_empleado    | int           | NO   | MUL | NULL    |       |
35 # | clave          | varchar(45)   | NO   |     | NULL    |       |
36 # | fecha          | timestamp     | NO   |     | CURRENT_TIMESTAMP | DEFAULT_GENERATED on update
37 # |               | CURRENT_TIMESTAMP |
38 # +-----+-----+-----+-----+-----+
39 # 5 rows in set (0.11 sec)
40
41 ### Formato del reto:
42 # +-----+-----+-----+-----+-----+
43 # | Type          | Description
44 # +-----+-----+-----+-----+-----+
45 # | int           | Valores enteros con signo de 4 bytes
46 # | double        | Valores reales de 8 bytes segun el estandar de MySQL
47 # | varchar       | Valores de caracteres equivalentes a 1 byte dependiendo de su tamaño en
48 # | escritura     |
49 # | timestamp     | Valores en formato de fecha como YYYY-MM-DD hh:mm:ss[.fraction]
```



```

68 # |          52 | Information Systems Manager | 27462.67 |
69 # |          53 | Accountant IV | 10343.33 |
70 # |          54 | Dental Hygienist | 16095.89 |
71 # |          55 | Tax Accountant | 19793.16 |

```

```

74 SELECT*FROM articulo WHERE precio>1000 AND iva>100;
75 # 787 rows in set (0.22 sec)

```

#	id_articulo	nombre	precio	iva	cantidad
79	2	Pasta - Angel Hair	4391.73	959.51	503
80	3	Soup Campbells - Tomato Bisque	2991.35	587.59	604
81	4	Wine - Valpolicella Masi	2625.2	770.1	575
82	5	Mousse - Banana Chocolate	3701.62	893.46	248
83	7	Nantucket - Kiwi Berry Cctl.	5579.47	1012.33	527
84	8	Wine - Fontanafredda Barolo	2684.64	327.16	682
85	9	Lotus Rootlets - Canned	1996.46	324.72	636
86	10	Wine - Vovray Sec Domaine Huet	6066.99	890.47	397
87	11	Cake - Pancake	5271.11	821.28	64
88	12	Chocolate Liqueur - Godet White	1616.78	612.63	929
89	13	Appetizer - Southwestern	1771.99	248.16	589
90	14	Carbonated Water - Cherry	3808.49	133.03	914
91	15	Jolt Cola	5875.28	780.3	437
92	16	Oranges	5005.68	803.38	898
93	19	Peppercorns - Green	5812.1	357.24	663
94	20	Tray - 16in Rnd Blk	4724.1	311.89	893
95	22	Nut - Almond, Blanched, Ground	4086.49	154.98	730
96	23	Wine - Sake	3072	526.62	167
97	24	Okra	6466.53	805.3	738
98	25	Pork - Smoked Back Bacon	1044.45	716.54	476
99	26	Cheese - Monterey Jack	4433.92	562.54	141
100	27	Pasta - Elbows, Macaroni, Dry	3668.7	253.66	392
101	28	Coffee - Frthy Coffee Crisp	1770.31	860.79	16
102	29	Mountain Dew	1630.22	980.38	52
103	30	Beans - Green	4735.16	451.6	247
104	31	Bagelers - Cinn / Brown	1201.25	939.77	210
105	32	Puree - Guava	3270.65	602.96	263
106	34	Sun - Dried Tomatoes	1716.98	301.25	778
107	36	Coffee - French Vanilla Frothy	4261.52	1029.47	890
108	38	Hipnotiq Liquor	6638.33	977.32	198
109	39	Beer - AlexANDer Kieths, Pale Ale	6712.71	299.59	696
110	40	Puree - Kiwi	1558.25	484.02	695
111	41	Beef Striploin Aaa	4788.21	1027.86	410
112	43	Energy - Boo - Koo	6631.4	881.1	806
113	44	Trueblue - Blueberry Cranberry	2286.94	1078.52	205
114	45	Pepper - Cayenne	1166.28	594.94	609
115	48	Soup - French Onion	2585.34	891.52	204
116	49	Crush - Orange, 355ml	6349.73	515.99	831
117	50	Apple - Granny Smith	6373.67	507.58	690
118	52	Foil - 4oz Custard Cup	3958.14	691.62	315
119	53	Bread - 10 Grain Parisian	4410.58	771.38	661
120	54	Nut - Macadamia	4498.54	728.64	657
121	55	Wine - White, Schroder And Schyl	5343.02	982.17	764
122	57	Mix - Cocktail Strawberry Daiquiri	1681.16	835.41	122
123	58	Lid Coffee Cup 8oz Blk	3241.68	965.66	198
124	59	Lettuce - Sea / Sea Asparagus	6514.92	459.74	850
125	60	Cookies Oatmeal Raisin	3923.92	963.36	48
126	62	Shrimp, Dried, Small / Lb	1425	353.5	514
127	63	Wine - Gewurztraminer Pierre	4164.17	103.66	618
128	65	Brocolinni - Gaylan, Chinese	3327.51	358.34	395
129	66	Dates	6478.49	209.2	632
130	67	Trout Rainbow Whole	5648.18	586.53	897
131	68	Beer - Sleemans Honey Brown	4566.34	885.95	125
132	69	Pork - Butt, Boneless	5633.38	130.24	490
133	71	Beef - Striploin Aa	2769.14	803.92	252

```

138 SELECT*FROM venta WHERE id_articulo IN(135,963) AND id_empleado IN(835,369);

```

```

139 # +-----+-----+-----+-----+-----+
140 # | id_venta | id_articulo | id_empleado | clave | fecha |
141 # +-----+-----+-----+-----+-----+
142 # | 7 | 963 | 369 | 47335-894 | 2019-06-08 00:00:00 |
143 # | 6 | 135 | 835 | 0049-0032 | 2020-02-03 15:05:27 |
144 # +-----+-----+-----+-----+-----+
145 # 2 rows in set (0.11 sec)
146
147
148 SELECT*FROM venta WHERE (id_articulo=135 OR id_articulo=963) AND (id_empleado=835 OR id_empleado
=369);
149 # +-----+-----+-----+-----+-----+
150 # | id_venta | id_articulo | id_empleado | clave | fecha |
151 # +-----+-----+-----+-----+-----+
152 # | 7 | 963 | 369 | 47335-894 | 2019-06-08 00:00:00 |
153 # | 6 | 135 | 835 | 0049-0032 | 2020-02-03 15:05:27 |
154 # +-----+-----+-----+-----+-----+
155 # 2 rows in set (0.11 sec)

1 # Reto 3
2 SELECT*FROM puesto ORDER BY salario DESC LIMIT 5;
3 # +-----+-----+-----+-----+-----+
4 # | id_puesto | nombre | salario |
5 # +-----+-----+-----+-----+-----+
6 # | 494 | Sales Representative | 29996.58 |
7 # | 18 | Speech Pathologist | 29967.17 |
8 # | 487 | Analog Circuit Design manager | 29923.95 |
9 # | 79 | Junior Executive | 29916.06 |
10 # | 893 | Technical Writer | 29912.53 |
11 # +-----+-----+-----+-----+-----+
12 # 5 rows in set (0.11 sec)

```

3. Ejercicio

```

1 # 1
2 use classicmodels;
3 # Describimos la tabla employees para saber campos
4 # mysql> desc employees;
5 # +-----+-----+-----+-----+-----+
6 # | Field | Type | Null | Key | Default | Extra |
7 # +-----+-----+-----+-----+-----+
8 # | employeeNumber | int | NO | PRI | NULL | |
9 # | lastName | varchar(50) | NO | | NULL | |
10 # | firstName | varchar(50) | NO | | NULL | |
11 # | extension | varchar(10) | NO | | NULL | |
12 # | email | varchar(100) | NO | | NULL | |
13 # | officeCode | varchar(10) | NO | MUL | NULL | |
14 # | reportsTo | int | YES | MUL | NULL | |
15 # | jobTitle | varchar(50) | NO | | NULL | |
16 # +-----+-----+-----+-----+-----+
17 # 2
18 SELECT lastName FROM employees;
19 # Output contain
20 # 23 rows in set (0.11 sec)
21
22 # 3
23 SELECT lastName,firstName,jobTitle FROM employees;
24 # Output contain
25 # 23 rows in set (0.11 sec)
26
27 # 4
28 SELECT*FROM employees;
29 # Output contain
30 # 23 rows in set (0.11 sec)
31
32 # 5
33 SELECT lastName,firstName,jobTitle FROM employees WHERE jobTitle="Sales Rep";
34 # Output contain

```

```

35 # 17 rows in set (0.11 sec)
36
37 # 6
38 SELECT lastName,firstName,jobTitle,officeCode FROM employees WHERE jobTitle="Sales Rep" AND
    officeCode=1;
39 # Output contain
40 # 2 rows in set (0.11 sec)
41
42 # 7
43 SELECT lastName,firstName,jobTitle,officeCode FROM employees WHERE jobTitle="Sales Rep" OR
    officeCode=1;
44 # Output contain
45 # 21 rows in set (0.11 sec)
46
47 # 8
48 SELECT lastName,firstName,officeCode FROM employees WHERE officeCode>=1 AND officeCode<=3;
49 # Output contain
50 # 10 rows in set (0.11 sec)
51
52 # 9
53 SELECT lastName,firstName,jobTitle FROM employees WHERE jobTitle<>"Sales Rep";
54 # Output contain
55 # 6 rows in set (0.11 sec)
56
57 # 10
58 SELECT lastName,firstName,officeCode FROM employees WHERE officeCode>5;
59 # Output contain
60 # 6 rows in set (0.11 sec)
61
62 # 11
63 SELECT lastName,firstName,officeCode FROM employees WHERE officeCode<=4;
64 # Output contain
65 # 15 rows in set (0.11 sec)
66
67 # Para esta tabla primero un describe
68
69 # mysql> desc customers;
70 # +-----+-----+-----+-----+-----+-----+
71 # | Field                | Type                | Null | Key | Default | Extra |
72 # +-----+-----+-----+-----+-----+-----+
73 # | customerNumber       | int                 | NO   | PRI | NULL    |      |
74 # | customerName         | varchar(50)         | NO   |     | NULL    |      |
75 # | contactLastName      | varchar(50)         | NO   |     | NULL    |      |
76 # | contactFirstName     | varchar(50)         | NO   |     | NULL    |      |
77 # | phone                | varchar(50)         | NO   |     | NULL    |      |
78 # | addressLine1         | varchar(50)         | NO   |     | NULL    |      |
79 # | addressLine2         | varchar(50)         | YES  |     | NULL    |      |
80 # | city                 | varchar(50)         | NO   |     | NULL    |      |
81 # | state                | varchar(50)         | YES  |     | NULL    |      |
82 # | postalCode           | varchar(15)         | YES  |     | NULL    |      |
83 # | country              | varchar(50)         | NO   |     | NULL    |      |
84 # | salesRepEmployeeNumber | int                 | YES  | MUL | NULL    |      |
85 # | creditLimit          | decimal(10,2)       | YES  |     | NULL    |      |
86 # +-----+-----+-----+-----+-----+-----+
87
88 # 12
89 SELECT customerName,country,state FROM customers WHERE country="USA" AND state="CA";
90 # Output contain
91 # 15 rows in set (0.11 sec)
92
93 # 13
94 SELECT customerName,country,state,creditLimit FROM customers WHERE country="USA" AND state="CA"
    AND creditLimit>100000;
95 # Output contain
96 # 3 rows in set (0.11 sec)
97
98 # 14
99 SELECT customerName, country FROM customers WHERE country="USA" OR country="France";
100 # Output contain
101 # 48 rows in set (0.11 sec)
102

```



```

103 # 15
104 SELECT customerName, country, creditLimit FROM customers WHERE (country="USA" OR country="France")
      AND creditLimit>100000;
105 # Output contain
106 # 11 rows in set (0.11 sec)
107
108
109 # desc offices;
110 # +-----+-----+-----+-----+-----+-----+
111 # | Field          | Type          | Null | Key | Default | Extra |
112 # +-----+-----+-----+-----+-----+-----+
113 # | officeCode     | varchar(10)   | NO   | PRI | NULL    |       |
114 # | city           | varchar(50)   | NO   |     | NULL    |       |
115 # | phone          | varchar(50)   | NO   |     | NULL    |       |
116 # | addressLine1   | varchar(50)   | NO   |     | NULL    |       |
117 # | addressLine2   | varchar(50)   | YES  |     | NULL    |       |
118 # | state          | varchar(50)   | YES  |     | NULL    |       |
119 # | country        | varchar(50)   | NO   |     | NULL    |       |
120 # | postalCode     | varchar(15)   | NO   |     | NULL    |       |
121 # | territory      | varchar(10)   | NO   |     | NULL    |       |
122 # +-----+-----+-----+-----+-----+-----+
123
124 # 16
125 SELECT officeCode, city, phone, country FROM offices WHERE country="USA" OR country="France";
126 # Output contain
127 # 4 rows in set (0.11 sec)
128
129 # 17
130 SELECT officeCode, city, phone, country FROM offices WHERE country<>"USA" AND country<>"France";
131 # Output contain
132 # 3 rows in set (0.11 sec)
133
134 # desc orders
135 # +-----+-----+-----+-----+-----+-----+
136 # | Field          | Type          | Null | Key | Default | Extra |
137 # +-----+-----+-----+-----+-----+-----+
138 # | orderNumber    | int           | NO   | PRI | NULL    |       |
139 # | orderDate      | date          | NO   |     | NULL    |       |
140 # | requiredDate   | date          | NO   |     | NULL    |       |
141 # | shippedDate     | date          | YES  |     | NULL    |       |
142 # | status         | varchar(15)   | NO   |     | NULL    |       |
143 # | comments       | text          | YES  |     | NULL    |       |
144 # | customerNumber | int           | NO   | MUL | NULL    |       |
145 # +-----+-----+-----+-----+-----+-----+
146
147
148 # 18
149 SELECT orderNumber, customerNumber, status, shippedDate FROM orders WHERE orderNumber=10165 OR
      orderNumber=10287 OR orderNumber=10310;
150 # Output contain
151 # 3 rows in set (0.11 sec)
152
153 # 19
154 SELECT contactLastName, customerName FROM customers ORDER BY contactLastName;
155 # Output contain
156 # 122 rows in set (0.11 sec)
157
158 # 20
159 SELECT contactLastName, customerName FROM customers ORDER BY contactLastName DESC;
160 # Output contain
161 # 122 rows in set (0.11 sec)
162
163 # 21
164 SELECT contactLastName,customerName FROM customers ORDER BY contactLastName DESC,customerName;
165 # Output contain
166 # 122 rows in set (0.11 sec)
167
168 # 22
169 SELECT customerNumber, customerName, creditLimit FROM customers ORDER BY creditLimit DESC LIMIT 5;
170 # Output contain
171 # 5 rows in set (0.11 sec)

```

```
172
173 # 23
174 SELECT customerNumber, customerName, creditLimit FROM customers WHERE creditLimit<>0 ORDER BY
    creditLimit;
175 # Output contain
176 # 98 rows in set (0.11 sec)
```