DATABASE PROJECT- GROUP 2

Task 11: Use SQL DISTINCT operator on one column

Use SQL DISTINCT operator to select the salary data from the salary column of the employees table and sort them from high to low:

SELECT DISTINCT salary FROM hrdatabase.employee ORDER BY salary DESC;

salary
24000
17000
14000
13500
13000
12000
11000
10000
9000
8600
8400
8300
8200
8000
7900
7800
7700
7000
6900
6500
6200
6000
4800
4400
4200
4000
3900
3100
2900
2800
2700
2600
2500

Task 12: Use SQL DISTINCT operator on multiple columns

I. **Use SQL DISTINCT operator to select the job id and salary from the employees table:**

SELECT DISTINCT job_id, salary FROM hrdatabase.employee;

II. **Use SQL DISTINCT operator to remove the duplicate values in job id and salary:**

SELECT DISTINCT job_id, salary FROM hrdatabase.employee;

job_id	salary
4	24000
5	17000
9	9000
9	6000
9	4800
9	4200
7	12000
6	9000
6	8200
6	7700
6	7800
6	6900
14	11000
13	3100
13	2900
13	2800
13	2600
13	2500
19	8000
19	8200
19	7900
19	6500
18	2700
15	14000
15	13500
16	8600
16	8400
16	7000
16	6200
17	4000
17	3900
3	4400
10	13000
11	6000
8	6500
12	10000
2	12000
1	8300

Task 13: Use SQL DISTINCT and NULL

Use SQL DISTINCT operator to return the distinct phone numbers of employees:

SELECT DISTINCT phone_number FROM hrdatabase.employee;

Task 14: Use SQL WHERE clause with numeric comparison

I. Use SQL WHERE clause to find employees who have salaries greater than 14,000 and sorts the result set based on the salary in descending order.

*SELECT * FROM hrdatabase.employee WHERE salary > 14000 ORDER BY salary DESC;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
100	Steven	King	steven.king@sqltutorial.org	123	17/06/1987	24000	NULL	4	9
101	Neena	Kochhar	neena.kochhar@sqltutorial.org	123	21/09/1989	17000	100	5	9
102	Lex	De Haan	lex.de haan@sqltutorial.org	123	13/01/1993	17000	100	5	9

II. Use SQL WHERE clause to find all employees who work in the department id 5.

*SELECT * FROM hrdatabase.employee WHERE department_id = 5;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
120	Matthew	Weiss	matthew.weiss@sqltutorial.org	123	18/07/1996	8000	100	19	5
121	Adam	Fripp	adam.fripp@sqltutorial.org	123	10/04/1997	8200	100	19	5
122	Payam	Kaufling	payam.kaufling@sqltutorial.org	123	01/05/1995	7900	100	19	5
123	Shanta	Vollman	shanta.vollman@sqltutorial.org	123	10/10/1997	6500	100	19	5
126	Irene	Mikkilineni	irene.mikkilineni@sqltutorial.org	124	28/09/1998	2700	120	18	5
192	Sarah	Bell	sarah.bell@sqltutorial.org	501	04/02/1996	4000	123	17	5
193	Britney	Everett	britney.everett@sqltutorial.org	501	03/03/1997	3900	123	17	5

Task 15: Use SQL WHERE clause with characters

Use SQL WHERE clause to find the employee whose last name is Chen

*SELECT * FROM hrdatabase.employee WHERE last_name = 'Chen';*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
110	John	Chen	john.chen@sqltutorial.org	124	28/09/1997	8200	108	6	10

Task 16: Use SQL WHERE clause with dates

I. Use SQL WHERE clause to get all employees who joined the company after January 1st, 1999:

*SELECT * FROM hrdatabase.employee WHERE hire_date > '1999-01-01';*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
107	Diana	Lorentz	diana.lorentz@sqltutorial.org	424	07/02/1999	4200	103	9	6
113	Luis	Popp	luis.popp@sqltutorial.org	124	07/12/1999	6900	108	6	10
119	Karen	Colmenares	karen.colmenares@sqltutorial.org	127	10/08/1999	2500	114	13	3
178	Kimberely	Grant	kimberely.grant@sqltutorial.org	NULL	24/05/1999	7000	100	16	8
179	Charles	Johnson	charles.johnson@sqltutorial.org	NULL	04/01/2000	6200	100	16	8

II. Use SQL WHERE clause to find the employees who joined the company in 1999:

*SELECT * FROM hrdatabase.employee WHERE hire_date LIKE '1999%';*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
107	Diana	Lorentz	diana.lorentz@sqltutorial.org	424	07/02/1999	4200	103	9	6
113	Luis	Popp	luis.popp@sqltutorial.org	124	07/12/1999	6900	108	6	10
119	Karen	Colmenares	karen.colmenares@sqltutorial.org	127	10/08/1999	2500	114	13	3
178	Kimberely	Grant	kimberely.grant@sqltutorial.org	NULL	24/05/1999	7000	100	16	8

Task 17: Use Equal to operator(=)

I. Use Equal to operator to find the employee whose last name is Himuro:

*SELECT * FROM hrdatabase.employee WHERE last_name = 'Himuro';*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
118	Guy	Himuro	guy.himuro@sqltutorial.org	127	15/11/1998	2600	114	13	3

II. Use Equal to operator find all employees who do not have phone numbers:

*SELECT * FROM hrdatabase.employee WHERE phone_number IS NULL;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
145	John	Russell	john.russell@sqltutorial.org	NULL	01/10/1996	14000	100	15	8
146	Karen	Partners	karen.partners@sqltutorial.org	NULL	05/01/1997	13500	100	15	8
176	Jonathon	Taylor	jonathon.taylor@sqltutorial.org	NULL	24/03/1998	8600	100	16	8
177	Jack	Livingston	jack.livingston@sqltutorial.org	NULL	23/04/1998	8400	100	16	8
178	Kimberely	Grant	kimberely.grant@sqltutorial.org	NULL	24/05/1999	7000	100	16	8
179	Charles	Johnson	charles.johnson@sqltutorial.org	NULL	04/01/2000	6200	100	16	8

Task 18: Use Not equal to operator (<>)

I. Use Not equal to operator to return all employees whose department id is not 8

*SELECT * FROM hrdatabase.employee WHERE department_id != 8;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
100	Steven	King	steven.king@sqltutorial.org	123	17/06/1987	24000	NULL	4	9
101	Neena	Kochhar	neena.kochhar@sqltutorial.org	123	21/09/1989	17000	100	5	9
102	Lex	De Haan	lex.de haan@sqltutorial.org	123	13/01/1993	17000	100	5	9
103	Alexander	Hunold	alexander.hunold@sqltutorial.org	423	03/01/1990	9000	102	9	6
104	Bruce	Ernst	bruce.ernst@sqltutorial.org	423	21/05/1991	6000	103	9	6
105	David	Austin	david.austin@sqltutorial.org	423	25/06/1997	4800	103	9	6
106	Valli	Pataballa	valli.pataballa@sqltutorial.org	423	05/02/1998	4800	103	9	6
107	Diana	Lorentz	diana.lorentz@sqltutorial.org	424	07/02/1999	4200	103	9	6
108	Nancy	Greenberg	nancy.greenberg@sqltutorial.org	124	17/08/1994	12000	101	7	10
109	Daniel	Faviet	daniel.faviet@sqltutorial.org	124	16/08/1994	9000	108	6	10
110	John	Chen	john.chen@sqltutorial.org	124	28/09/1997	8200	108	6	10
111	Ismael	Sciarra	ismael.sciarra@sqltutorial.org	124	30/09/1997	7700	108	6	10
112	Jose Manuel	Urman	jose manuel.urman@sqltutorial.org	124	07/03/1998	7800	108	6	10
113	Luis	Popp	luis.popp@sqltutorial.org	124	07/12/1999	6900	108	6	10
114	Den	Raphaely	den.raphaely@sqltutorial.org	127	07/12/1994	11000	100	14	3
115	Alexander	Khoo	alexander.khoo@sqltutorial.org	127	18/05/1995	3100	114	13	3
116	Shelli	Baida	shelli.baida@sqltutorial.org	127	24/12/1997	2900	114	13	3
117	Sigal	Tobias	sigal.tobias@sqltutorial.org	127	24/07/1997	2800	114	13	3
118	Guy	Himuro	guy.himuro@sqltutorial.org	127	15/11/1998	2600	114	13	3
119	Karen	Colmenares	karen.colmenares@sqltutorial.org	127	10/08/1999	2500	114	13	3
120	Matthew	Weiss	matthew.weiss@sqltutorial.org	123	18/07/1996	8000	100	19	5
121	Adam	Fripp	adam.fripp@sqltutorial.org	123	10/04/1997	8200	100	19	5
122	Payam	Kaufling	payam.kaufling@sqltutorial.org	123	01/05/1995	7900	100	19	5
123	Shanta	Vollman	shanta.vollman@sqltutorial.org	123	10/10/1997	6500	100	19	5
126	Irene	Mikkilineni	irene.mikkilineni@sqltutorial.org	124	28/09/1998	2700	120	18	5
192	Sarah	Bell	sarah.bell@sqltutorial.org	501	04/02/1996	4000	123	17	5
193	Britney	Everett	britney.everett@sqltutorial.org	501	03/03/1997	3900	123	17	5
200	Jennifer	Whalen	jennifer.whalen@sqltutorial.org	123	17/09/1987	4400	101	3	1
201	Michael	Hartstein	michael.hartstein@sqltutorial.org	124	17/02/1996	13000	100	10	2
202	Pat	Fay	pat.fay@sqltutorial.org	124	17/08/1997	6000	201	11	2
203	Susan	Mavris	susan.mavris@sqltutorial.org	124	07/06/1994	6500	101	8	4
204	Hermann	Baer	hermann.baer@sqltutorial.org	124	07/06/1994	10000	101	12	7
205	Shelley	Higgins	shelley.higgins@sqltutorial.org	124	07/06/1994	12000	101	2	11
206	William	Gietz	william.gietz@sqltutorial.org	124	07/06/1994	8300	205	1	11

II. Use Not equal to operator to find all employees whose department id is not eight and ten.

*SELECT * FROM hrdatabase.employee WHERE department_id != 8 AND department_id != 10;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
100	Steven	King	steven.king@sqltutorial.org	123	17/06/1987	24000	NULL	4	9
101	Neena	Kochhar	neena.kochhar@sqltutorial.org	123	21/09/1989	17000	100	5	9
102	Lex	De Haan	lex.de haan@sqltutorial.org	123	13/01/1993	17000	100	5	9
103	Alexander	Hunold	alexander.hunold@sqltutorial.org	423	03/01/1990	9000	102	9	6
104	Bruce	Ernst	bruce.ernst@sqltutorial.org	423	21/05/1991	6000	103	9	6
105	David	Austin	david.austin@sqltutorial.org	423	25/06/1997	4800	103	9	6
106	Valli	Pataballa	valli.pataballa@sqltutorial.org	423	05/02/1998	4800	103	9	6
107	Diana	Lorentz	diana.lorentz@sqltutorial.org	424	07/02/1999	4200	103	9	6
114	Den	Raphaely	den.raphaely@sqltutorial.org	127	07/12/1994	11000	100	14	3
115	Alexander	Khoo	alexander.khoo@sqltutorial.org	127	18/05/1995	3100	114	13	3
116	Shelli	Baida	shelli.baida@sqltutorial.org	127	24/12/1997	2900	114	13	3
117	Sigal	Tobias	sigal.tobias@sqltutorial.org	127	24/07/1997	2800	114	13	3
118	Guy	Himuro	guy.himuro@sqltutorial.org	127	15/11/1998	2600	114	13	3
119	Karen	Colmenares	karen.colmenares@sqltutorial.org	127	10/08/1999	2500	114	13	3
120	Matthew	Weiss	matthew.weiss@sqltutorial.org	123	18/07/1996	8000	100	19	5
121	Adam	Fripp	adam.fripp@sqltutorial.org	123	10/04/1997	8200	100	19	5
122	Payam	Kaufling	payam.kaufling@sqltutorial.org	123	01/05/1995	7900	100	19	5
123	Shanta	Vollman	shanta.vollman@sqltutorial.org	123	10/10/1997	6500	100	19	5
126	Irene	Mikkilineni	irene.mikkilineni@sqltutorial.org	124	28/09/1998	2700	120	18	5
192	Sarah	Bell	sarah.bell@sqltutorial.org	501	04/02/1996	4000	123	17	5
193	Britney	Everett	britney.everett@sqltutorial.org	501	03/03/1997	3900	123	17	5
200	Jennifer	Whalen	jennifer.whalen@sqltutorial.org	123	17/09/1987	4400	101	3	1
201	Michael	Hartstein	michael.hartstein@sqltutorial.org	124	17/02/1996	13000	100	10	2
202	Pat	Fay	pat.fay@sqltutorial.org	124	17/08/1997	6000	201	11	2
203	Susan	Mavris	susan.mavris@sqltutorial.org	124	07/06/1994	6500	101	8	4
204	Hermann	Baer	hermann.baer@sqltutorial.org	124	07/06/1994	10000	101	12	7
205	Shelley	Higgins	shelley.higgins@sqltutorial.org	124	07/06/1994	12000	101	2	11
206	William	Gietz	william.gietz@sqltutorial.org	124	07/06/1994	8300	205	1	11

Task 19: Use Greater than operator (>)

I. Use Greater than operator in the WHERE clause to find the employees whose salary is greater than 10,000

*SELECT * FROM hrdatabase.employee WHERE salary > 10000;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_	job_id	department_id
100	Steven	King	steven.king@sqltutorial.org	123	17/06/1987	24000	NULL	4	9
101	Neena	Kochhar	neena.kochhar@sqltutorial.org	123	21/09/1989	17000	100	5	9
102	Lex	De Haan	lex.de haan@sqltutorial.org	123	13/01/1993	17000	100	5	9
108	Nancy	Greenberg	nancy.greenberg@sqltutorial.org	124	17/08/1994	12000	101	7	10
114	Den	Raphaely	den.raphaely@sqltutorial.org	127	07/12/1994	11000	100	14	3
145	John	Russell	john.russell@sqltutorial.org	NULL	01/10/1996	14000	100	15	8
146	Karen	Partners	karen.partners@sqltutorial.org	NULL	05/01/1997	13500	100	15	8
201	Michael	Hartstein	michael.hartstein@sqltutorial.org	124	17/02/1996	13000	100	10	2
205	Shelley	Higgins	shelley.higgins@sqltutorial.org	124	07/06/1994	12000	101	2	11

II. Use Greater than operator to find employees in department 8 and have the salary greater than 10,000:

*SELECT * FROM hrdatabase.employee WHERE department_id = 8 AND salary > 10000;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
145	John	Russell	john.russell@sqltutorial.org	NULL	01/10/1996	14000	100	15	8
146	Karen	Partners	karen.partners@sqltutorial.org	NULL	05/01/1997	13500	100	15	8

Task 20: Use Less than operator (<)

Use Less than operator to return all employees whose salaries are less than 10,000:

*SELECT * FROM hrdatabase.employee WHERE salary < 10000;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
103	Alexander	Hunold	alexander.hunold@sqltutorial.org	423	03/01/1990	9000	102	9	6
104	Bruce	Ernst	bruce.ernst@sqltutorial.org	423	21/05/1991	6000	103	9	6
105	David	Austin	david.austin@sqltutorial.org	423	25/06/1997	4800	103	9	6
106	Valli	Pataballa	valli.pataballa@sqltutorial.org	423	05/02/1998	4800	103	9	6
107	Diana	Lorentz	diana.lorentz@sqltutorial.org	424	07/02/1999	4200	103	9	6
109	Daniel	Faviet	daniel.faviet@sqltutorial.org	124	16/08/1994	9000	108	6	10
110	John	Chen	john.chen@sqltutorial.org	124	28/09/1997	8200	108	6	10
111	Ismael	Sciarra	ismael.sciarra@sqltutorial.org	124	30/09/1997	7700	108	6	10
112	Jose Manuel	Urman	jose manuel.urman@sqltutorial.org	124	07/03/1998	7800	108	6	10
113	Luis	Popp	luis.popp@sqltutorial.org	124	07/12/1999	6900	108	6	10
115	Alexander	Khoo	alexander.khoo@sqltutorial.org	127	18/05/1995	3100	114	13	3
116	Shelli	Baida	shelli.baida@sqltutorial.org	127	24/12/1997	2900	114	13	3
117	Sigal	Tobias	sigal.tobias@sqltutorial.org	127	24/07/1997	2800	114	13	3
118	Guy	Himuro	guy.himuro@sqltutorial.org	127	15/11/1998	2600	114	13	3
119	Karen	Colmenares	karen.colmenares@sqltutorial.org	127	10/08/1999	2500	114	13	3
120	Matthew	Weiss	matthew.weiss@sqltutorial.org	123	18/07/1996	8000	100	19	5
121	Adam	Fripp	adam.fripp@sqltutorial.org	123	10/04/1997	8200	100	19	5
122	Payam	Kaufling	payam.kaufling@sqltutorial.org	123	01/05/1995	7900	100	19	5
123	Shanta	Vollman	shanta.vollman@sqltutorial.org	123	10/10/1997	6500	100	19	5
126	Irene	Mikkilineni	irene.mikkilineni@sqltutorial.org	124	28/09/1998	2700	120	18	5
176	Jonathon	Taylor	jonathon.taylor@sqltutorial.org	NULL	24/03/1998	8600	100	16	8
177	Jack	Livingston	jack.livingston@sqltutorial.org	NULL	23/04/1998	8400	100	16	8
178	Kimberely	Grant	kimberely.grant@sqltutorial.org	NULL	24/05/1999	7000	100	16	8
179	Charles	Johnson	charles.johnson@sqltutorial.org	NULL	04/01/2000	6200	100	16	8
192	Sarah	Bell	sarah.bell@sqltutorial.org	501	04/02/1996	4000	123	17	5
193	Britney	Everett	britney.everett@sqltutorial.org	501	03/03/1997	3900	123	17	5
200	Jennifer	Whalen	jennifer.whalen@sqltutorial.org	123	17/09/1987	4400	101	3	1
202	Pat	Fay	pat.fay@sqltutorial.org	124	17/08/1997	6000	201	11	2
203	Susan	Mavris	susan.mavris@sqltutorial.org	124	07/06/1994	6500	101	8	4
206	William	Gietz	william.gietz@sqltutorial.org	124	07/06/1994	8300	205	1	11

Task 21: Use Greater than or equal operator (>=)

Use Greater than or equal operator to find employees whose salaries are greater than or equal 9,000:

*SELECT * FROM hrdatabase.employee WHERE salary >= 9000;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
100	Steven	King	steven.king@sqltutorial.org	123	17/06/1987	24000	NULL	4	9
101	Neena	Kochhar	neena.kochhar@sqltutorial.org	123	21/09/1989	17000	100	5	9
102	Lex	De Haan	lex.de haan@sqltutorial.org	123	13/01/1993	17000	100	5	9
103	Alexander	Hunold	alexander.hunold@sqltutorial.org	423	03/01/1990	9000	102	9	6
108	Nancy	Greenberg	nancy.greenberg@sqltutorial.org	124	17/08/1994	12000	101	7	10
109	Daniel	Faviet	daniel.faviet@sqltutorial.org	124	16/08/1994	9000	108	6	10
114	Den	Raphaely	den.raphaely@sqltutorial.org	127	07/12/1994	11000	100	14	3
145	John	Russell	john.russell@sqltutorial.org	NULL	01/10/1996	14000	100	15	8
146	Karen	Partners	karen.partners@sqltutorial.org	NULL	05/01/1997	13500	100	15	8
201	Michael	Hartstein	michael.hartstein@sqltutorial.org	124	17/02/1996	13000	100	10	2
204	Hermann	Baer	hermann.baer@sqltutorial.org	124	07/06/1994	10000	101	12	7
205	Shelley	Higgins	shelley.higgins@sqltutorial.org	124	07/06/1994	12000	101	2	11

Task 22: Use Less than or equal to operator(<=)

Less than or equal to operator to find employees whose salaries are less than or equal to 9,000:

*SELECT * FROM hrdatabase.employee WHERE salary <= 9000;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
103	Alexander	Hunold	alexander.hunold@sqltutorial.org	423	03/01/1990	9000	102	9	6
104	Bruce	Ernst	bruce.ernst@sqltutorial.org	423	21/05/1991	6000	103	9	6
105	David	Austin	david.austin@sqltutorial.org	423	25/06/1997	4800	103	9	6
106	Valli	Pataballa	valli.pataballa@sqltutorial.org	423	05/02/1998	4800	103	9	6
107	Diana	Lorentz	diana.lorentz@sqltutorial.org	424	07/02/1999	4200	103	9	6
109	Daniel	Faviet	daniel.faviet@sqltutorial.org	124	16/08/1994	9000	108	6	10
110	John	Chen	john.chen@sqltutorial.org	124	28/09/1997	8200	108	6	10
111	Ismael	Sciarra	ismael.sciarra@sqltutorial.org	124	30/09/1997	7700	108	6	10
112	Jose Manuel	Urman	jose manuel.urman@sqltutorial.org	124	07/03/1998	7800	108	6	10
113	Luis	Popp	luis.popp@sqltutorial.org	124	07/12/1999	6900	108	6	10
115	Alexander	Khoo	alexander.khoo@sqltutorial.org	127	18/05/1995	3100	114	13	3
116	Shelli	Baida	shelli.baida@sqltutorial.org	127	24/12/1997	2900	114	13	3
117	Sigal	Tobias	sigal.tobias@sqltutorial.org	127	24/07/1997	2800	114	13	3
118	Guy	Himuro	guy.himuro@sqltutorial.org	127	15/11/1998	2600	114	13	3
119	Karen	Colmenares	karen.colmenares@sqltutorial.org	127	10/08/1999	2500	114	13	3
120	Matthew	Weiss	matthew.weiss@sqltutorial.org	123	18/07/1996	8000	100	19	5
121	Adam	Fripp	adam.fripp@sqltutorial.org	123	10/04/1997	8200	100	19	5
122	Payam	Kaufling	payam.kaufling@sqltutorial.org	123	01/05/1995	7900	100	19	5
123	Shanta	Vollman	shanta.vollman@sqltutorial.org	123	10/10/1997	6500	100	19	5
126	Irene	Mikkilineni	irene.mikkilineni@sqltutorial.org	124	28/09/1998	2700	120	18	5
176	Jonathon	Taylor	jonathon.taylor@sqltutorial.org	NULL	24/03/1998	8600	100	16	8
177	Jack	Livingston	jack.livingston@sqltutorial.org	NULL	23/04/1998	8400	100	16	8
178	Kimberely	Grant	kimberely.grant@sqltutorial.org	NULL	24/05/1999	7000	100	16	8
179	Charles	Johnson	charles.johnson@sqltutorial.org	NULL	04/01/2000	6200	100	16	8
192	Sarah	Bell	sarah.bell@sqltutorial.org	501	04/02/1996	4000	123	17	5
193	Britney	Everett	britney.everett@sqltutorial.org	501	03/03/1997	3900	123	17	5
200	Jennifer	Whalen	jennifer.whalen@sqltutorial.org	123	17/09/1987	4400	101	3	1
202	Pat	Fay	pat.fay@sqltutorial.org	124	17/08/1997	6000	201	11	2
203	Susan	Mavris	susan.mavris@sqltutorial.org	124	07/06/1994	6500	101	8	4
206	William	Gietz	william.gietz@sqltutorial.org	124	07/06/1994	8300	205	1	11

Task 23: Use AND operator

I. **Use AND operator to find all employees who have both job id 9 and salary greater than 5,000:**

*SELECT * FROM hrdatabase.employee WHERE job_id = 9 AND salary > 5000;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
103	Alexander	Hunold	alexander.hunold@sqltutorial.org	423	03/01/1990	9000	102	9	6
104	Bruce	Ernst	bruce.ernst@sqltutorial.org	423	21/05/1991	6000	103	9	6

II. **Use AND operator To find all the employees who joined the company between 1997 and 1998 :**

*SELECT * FROM hrdatabase.employee WHERE YEAR(hire_date) BETWEEN 1997 AND 1998;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
105	David	Austin	david.austin@sqltutorial.org	423	25/06/1997	4800	103	9	6
106	Valli	Pataballa	valli.pataballa@sqltutorial.org	423	05/02/1998	4800	103	9	6
110	John	Chen	john.chen@sqltutorial.org	124	28/09/1997	8200	108	6	10
111	Ismael	Sciarra	ismael.sciarra@sqltutorial.org	124	30/09/1997	7700	108	6	10
112	Jose Manuel	Urman	jose manuel.urman@sqltutorial.org	124	07/03/1998	7800	108	6	10
116	Shelli	Baida	shelli.baida@sqltutorial.org	127	24/12/1997	2900	114	13	3
117	Sigal	Tobias	sigal.tobias@sqltutorial.org	127	24/07/1997	2800	114	13	3
118	Guy	Himuro	guy.himuro@sqltutorial.org	127	15/11/1998	2600	114	13	3
121	Adam	Fripp	adam.fripp@sqltutorial.org	123	10/04/1997	8200	100	19	5
123	Shanta	Vollman	shanta.vollman@sqltutorial.org	123	10/10/1997	6500	100	19	5
126	Irene	Mikkilineni	irene.mikkilineni@sqltutorial.org	124	28/09/1998	2700	120	18	5
146	Karen	Partners	karen.partners@sqltutorial.org	NULL	05/01/1997	13500	100	15	8
176	Jonathon	Taylor	jonathon.taylor@sqltutorial.org	NULL	24/03/1998	8600	100	16	8
177	Jack	Livingston	jack.livingston@sqltutorial.org	NULL	23/04/1998	8400	100	16	8
193	Britney	Everett	britney.everett@sqltutorial.org	501	03/03/1997	3900	123	17	5
202	Pat	Fay	pat.fay@sqltutorial.org	124	17/08/1997	6000	201	11	2

Task 24: Use OR operator

I. Use OR operator to find all employees who joined the company in 1997 or 1998.

*SELECT * FROM hrdatabase.employee WHERE YEAR(hire_date) = 1997 OR YEAR(hire_date) = 1998;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
105	David	Austin	david.austin@sqltutorial.org	423	25/06/1997	4800	103	9	6
106	Valli	Pataballa	valli.pataballa@sqltutorial.org	423	05/02/1998	4800	103	9	6
110	John	Chen	john.chen@sqltutorial.org	124	28/09/1997	8200	108	6	10
111	Ismael	Sciarra	ismael.sciarra@sqltutorial.org	124	30/09/1997	7700	108	6	10
112	Jose Manuel	Urman	jose manuel.urman@sqltutorial.org	124	07/03/1998	7800	108	6	10
116	Shelli	Baida	shelli.baida@sqltutorial.org	127	24/12/1997	2900	114	13	3
117	Sigal	Tobias	sigal.tobias@sqltutorial.org	127	24/07/1997	2800	114	13	3
118	Guy	Himuro	guy.himuro@sqltutorial.org	127	15/11/1998	2600	114	13	3
121	Adam	Fripp	adam.fripp@sqltutorial.org	123	10/04/1997	8200	100	19	5
123	Shanta	Vollman	shanta.vollman@sqltutorial.org	123	10/10/1997	6500	100	19	5
126	Irene	Mikkilineni	irene.mikkilineni@sqltutorial.org	124	28/09/1998	2700	120	18	5
146	Karen	Partners	karen.partners@sqltutorial.org	NULL	05/01/1997	13500	100	15	8
176	Jonathon	Taylor	jonathon.taylor@sqltutorial.org	NULL	24/03/1998	8600	100	16	8
177	Jack	Livingston	jack.livingston@sqltutorial.org	NULL	23/04/1998	8400	100	16	8
193	Britney	Everett	britney.everett@sqltutorial.org	501	03/03/1997	3900	123	17	5
202	Pat	Fay	pat.fay@sqltutorial.org	124	17/08/1997	6000	201	11	2

II. Use both OR and AND operator to find all employees who joined the company in 1997 or 1997 and worked in the department id 3:

*SELECT * FROM hrdatabase.employee WHERE YEAR(hire_date) = 1997 AND department_id = 3;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
116	Shelli	Baida	shelli.baida@sqltutorial.org	127	24/12/1997	2900	114	13	3
117	Sigal	Tobias	sigal.tobias@sqltutorial.org	127	24/07/1997	2800	114	13	3

III. Use OR operator to find all employees who joined the company in 1990 or 1999 or 2000.

*SELECT * FROM hrdatabase.employee WHERE YEAR(hire_date) = 1990 OR YEAR(hire_date) = 1999 OR YEAR(hire_date) = 2000;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
103	Alexander	Hunold	alexander.hunold@sqltutorial.org	423	03/01/1990	9000	102	9	6
107	Diana	Lorentz	diana.lorentz@sqltutorial.org	424	07/02/1999	4200	103	9	6
113	Luis	Popp	luis.popp@sqltutorial.org	124	07/12/1999	6900	108	6	10
119	Karen	Colmenares	karen.colmenares@sqltutorial.org	127	10/08/1999	2500	114	13	3
178	Kimberely	Grant	kimberely.grant@sqltutorial.org	NULL	24/05/1999	7000	100	16	8
179	Charles	Johnson	charles.johnson@sqltutorial.org	NULL	04/01/2000	6200	100	16	8

Task 25: Use BETWEEN Operator

Use BETWEEN Operator to find all employees whose salaries are between 2,500 and 2,900:

*SELECT * FROM hrdatabase.employee WHERE salary BETWEEN 2500 AND 2900;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
116	Shelli	Baida	shelli.baida@sqltutorial.org	127	24/12/1997	2900	114	13	3
117	Sigal	Tobias	sigal.tobias@sqltutorial.org	127	24/07/1997	2800	114	13	3
118	Guy	Himuro	guy.himuro@sqltutorial.org	127	15/11/1998	2600	114	13	3
119	Karen	Colmenares	karen.colmenares@sqltutorial.org	127	10/08/1999	2500	114	13	3
126	Irene	Mikkilineni	irene.mikkilineni@sqltutorial.org	124	28/09/1998	2700	120	18	5

Task 26: Use NOT BETWEEN operator

Use NOT BETWEEN operator to find all employees whose salaries are not in the range of 2,500 and 2,900:

*SELECT * FROM hrdatabase.employee WHERE salary NOT BETWEEN 2500 AND 2900;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
100	Steven	King	steven.king@sqltutorial.org	123	17/06/1987	24000	NULL	4	9
101	Neena	Kochhar	neena.kochhar@sqltutorial.org	123	21/09/1989	17000	100	5	9
102	Lex	De Haan	lex.de haan@sqltutorial.org	123	13/01/1993	17000	100	5	9
103	Alexander	Hunold	alexander.hunold@sqltutorial.org	423	03/01/1990	9000	102	9	6
104	Bruce	Ernst	bruce.ernst@sqltutorial.org	423	21/05/1991	6000	103	9	6
105	David	Austin	david.austin@sqltutorial.org	423	25/06/1997	4800	103	9	6
106	Valli	Pataballa	valli.pataballa@sqltutorial.org	423	05/02/1998	4800	103	9	6
107	Diana	Lorentz	diana.lorentz@sqltutorial.org	424	07/02/1999	4200	103	9	6
108	Nancy	Greenberg	nancy.greenberg@sqltutorial.org	124	17/08/1994	12000	101	7	10
109	Daniel	Faviet	daniel.faviet@sqltutorial.org	124	16/08/1994	9000	108	6	10
110	John	Chen	john.chen@sqltutorial.org	124	28/09/1997	8200	108	6	10
111	Ismael	Sciarra	ismael.sciarra@sqltutorial.org	124	30/09/1997	7700	108	6	10
112	Jose Manuel	Urman	jose manuel.urman@sqltutorial.org	124	07/03/1998	7800	108	6	10
113	Luis	Popp	luis.popp@sqltutorial.org	124	07/12/1999	6900	108	6	10
114	Den	Raphaely	den.raphaely@sqltutorial.org	127	07/12/1994	11000	100	14	3
115	Alexander	Khoo	alexander.khoo@sqltutorial.org	127	18/05/1995	3100	114	13	3
120	Matthew	Weiss	matthew.weiss@sqltutorial.org	123	18/07/1996	8000	100	19	5
121	Adam	Fripp	adam.fripp@sqltutorial.org	123	10/04/1997	8200	100	19	5
122	Payam	Kaufling	payam.kaufling@sqltutorial.org	123	01/05/1995	7900	100	19	5
123	Shanta	Vollman	shanta.vollman@sqltutorial.org	123	10/10/1997	6500	100	19	5
145	John	Russell	john.russell@sqltutorial.org	NULL	01/10/1996	14000	100	15	8
146	Karen	Partners	karen.partners@sqltutorial.org	NULL	05/01/1997	13500	100	15	8
176	Jonathon	Taylor	jonathon.taylor@sqltutorial.org	NULL	24/03/1998	8600	100	16	8
177	Jack	Livingston	jack.livingston@sqltutorial.org	NULL	23/04/1998	8400	100	16	8
178	Kimberely	Grant	kimberely.grant@sqltutorial.org	NULL	24/05/1999	7000	100	16	8
179	Charles	Johnson	charles.johnson@sqltutorial.org	NULL	04/01/2000	6200	100	16	8
192	Sarah	Bell	sarah.bell@sqltutorial.org	501	04/02/1996	4000	123	17	5
193	Britney	Everett	britney.everett@sqltutorial.org	501	03/03/1997	3900	123	17	5
200	Jennifer	Whalen	jennifer.whalen@sqltutorial.org	123	17/09/1987	4400	101	3	1
201	Michael	Hartstein	michael.hartstein@sqltutorial.org	124	17/02/1996	13000	100	10	2
202	Pat	Fay	pat.fay@sqltutorial.org	124	17/08/1997	6000	201	11	2
203	Susan	Mavris	susan.mavris@sqltutorial.org	124	07/06/1994	6500	101	8	4
204	Hermann	Baer	hermann.baer@sqltutorial.org	124	07/06/1994	10000	101	12	7
205	Shelley	Higgins	shelley.higgins@sqltutorial.org	124	07/06/1994	12000	101	2	11
206	William	Gietz	william.gietz@sqltutorial.org	124	07/06/1994	8300	205	1	11

Task 27: Using SQL BETWEEN operator with a date ranges

I. Using SQL BETWEEN to find all employees who joined the company between January 1, 1999, and December 31, 2000:

*SELECT * FROM hrdatabase.employee WHERE YEAR(hire_date) BETWEEN 1999 AND 2000;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
107	Diana	Lorentz	diana.lorentz@sqltutorial.org	424	07/02/1999	4200	103	9	6
113	Luis	Popp	luis.popp@sqltutorial.org	124	07/12/1999	6900	108	6	10
119	Karen	Colmenares	karen.colmenares@sqltutorial.org	127	10/08/1999	2500	114	13	3
178	Kimberely	Grant	kimberely.grant@sqltutorial.org	NULL	24/05/1999	7000	100	16	8
179	Charles	Johnson	charles.johnson@sqltutorial.org	NULL	04/01/2000	6200	100	16	8

II. Use the NOT BETWEEN operator to find employees who have not joined the company from January 1, 1989 to December 31, 1999:

*SELECT * FROM hrdatabase.employee WHERE YEAR(hire_date) NOT BETWEEN 1989 AND 1999;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
100	Steven	King	steven.king@sqltutorial.org	123	17/06/1987	24000	NULL	4	9
179	Charles	Johnson	charles.johnson@sqltutorial.org	NULL	04/01/2000	6200	100	16	8
200	Jennifer	Whalen	jennifer.whalen@sqltutorial.org	123	17/09/1987	4400	101	3	1

Task 28: Using SQL BETWEEN operator with a function

Use the BETWEEN operator with the YEAR function to find employees who joined the company between 1990 and 1993:

*SELECT * FROM hrdatabase.employee WHERE YEAR(hire_date) BETWEEN 1990 AND 1993;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
102	Lex	De Haan	lex.de haan@sqltutorial.org	123	13/01/1993	17000	100	5	9
103	Alexander	Hunold	alexander.hunold@sqltutorial.org	423	03/01/1990	9000	102	9	6
104	Bruce	Ernst	bruce.ernst@sqltutorial.org	423	21/05/1991	6000	103	9	6

Task 29: Use IN operator

I. Use IN operator to find employees with the job id is 8, 9, or 10

*SELECT * FROM hrdatabase.employee WHERE job_id IN(8,9,10);*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
103	Alexander	Hunold	alexander.hunold@sqltutorial.org	423	03/01/1990	9000	102	9	6
104	Bruce	Ernst	bruce.ernst@sqltutorial.org	423	21/05/1991	6000	103	9	6
105	David	Austin	david.austin@sqltutorial.org	423	25/06/1997	4800	103	9	6
106	Valli	Pataballa	valli.pataballa@sqltutorial.org	423	05/02/1998	4800	103	9	6
107	Diana	Lorentz	diana.lorentz@sqltutorial.org	424	07/02/1999	4200	103	9	6
201	Michael	Hartstein	michael.hartstein@sqltutorial.org	124	17/02/1996	13000	100	10	2
203	Susan	Mavris	susan.mavris@sqltutorial.org	124	07/06/1994	6500	101	8	4

II. Use the NOT IN operator to find employees whose job's id is neither 7, 8, nor 9:

*SELECT * FROM hrdatabase.employee WHERE job_id NOT IN(7,8,9);*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
100	Steven	King	steven.king@sqltutorial.org	123	17/06/1987	24000	NULL	4	9
101	Neena	Kochhar	neena.kochhar@sqltutorial.org	123	21/09/1989	17000	100	5	9
102	Lex	De Haan	lex.de haan@sqltutorial.org	123	13/01/1993	17000	100	5	9
109	Daniel	Faviet	daniel.faviet@sqltutorial.org	124	16/08/1994	9000	108	6	10
110	John	Chen	john.chen@sqltutorial.org	124	28/09/1997	8200	108	6	10
111	Ismael	Sciarra	ismael.sciarra@sqltutorial.org	124	30/09/1997	7700	108	6	10
112	Jose Manuel	Urman	jose manuel.urman@sqltutorial.org	124	07/03/1998	7800	108	6	10
113	Luis	Popp	luis.popp@sqltutorial.org	124	07/12/1999	6900	108	6	10
114	Den	Raphaely	den.raphaely@sqltutorial.org	127	07/12/1994	11000	100	14	3
115	Alexander	Khoo	alexander.khoo@sqltutorial.org	127	18/05/1995	3100	114	13	3
116	Shelli	Baida	shelli.baida@sqltutorial.org	127	24/12/1997	2900	114	13	3
117	Sigal	Tobias	sigal.tobias@sqltutorial.org	127	24/07/1997	2800	114	13	3
118	Guy	Himuro	guy.himuro@sqltutorial.org	127	15/11/1998	2600	114	13	3
119	Karen	Colmenares	karen.colmenares@sqltutorial.org	127	10/08/1999	2500	114	13	3
120	Matthew	Weiss	matthew.weiss@sqltutorial.org	123	18/07/1996	8000	100	19	5
121	Adam	Fripp	adam.fripp@sqltutorial.org	123	10/04/1997	8200	100	19	5
122	Payam	Kaufling	payam.kaufling@sqltutorial.org	123	01/05/1995	7900	100	19	5
123	Shanta	Vollman	shanta.vollman@sqltutorial.org	123	10/10/1997	6500	100	19	5
126	Irene	Mikkilineni	irene.mikkilineni@sqltutorial.org	124	28/09/1998	2700	120	18	5
145	John	Russell	john.russell@sqltutorial.org	NULL	01/10/1996	14000	100	15	8
146	Karen	Partners	karen.partners@sqltutorial.org	NULL	05/01/1997	13500	100	15	8
176	Jonathon	Taylor	jonathon.taylor@sqltutorial.org	NULL	24/03/1998	8600	100	16	8
177	Jack	Livingston	jack.livingston@sqltutorial.org	NULL	23/04/1998	8400	100	16	8
178	Kimberely	Grant	kimberely.grant@sqltutorial.org	NULL	24/05/1999	7000	100	16	8
179	Charles	Johnson	charles.johnson@sqltutorial.org	NULL	04/01/2000	6200	100	16	8
192	Sarah	Bell	sarah.bell@sqltutorial.org	501	04/02/1996	4000	123	17	5
193	Britney	Everett	britney.everett@sqltutorial.org	501	03/03/1997	3900	123	17	5
200	Jennifer	Whalen	jennifer.whalen@sqltutorial.org	123	17/09/1987	4400	101	3	1
201	Michael	Hartstein	michael.hartstein@sqltutorial.org	124	17/02/1996	13000	100	10	2
202	Pat	Fay	pat.fay@sqltutorial.org	124	17/08/1997	6000	201	11	2
204	Hermann	Baer	hermann.baer@sqltutorial.org	124	07/06/1994	10000	101	12	7
205	Shelley	Higgins	shelley.higgins@sqltutorial.org	124	07/06/1994	12000	101	2	11
206	William	Gietz	william.gietz@sqltutorial.org	124	07/06/1994	8300	205	1	11

Task 30: Using SQL IN operator with a subquery

Using SQL IN operator to return the department id of the Marketing and Sales departments:

SELECT department_id FROM department WHERE department_name IN('Marketing','sales');

department_id
2
8

Task 31: Use LIKE operator

I. Use LIKE operator to return the department id of the Marketing and Sales departments:

SELECT department_id FROM department WHERE department_name LIKE 'Marketing' OR department_name LIKE 'sales';

department_id
2
8

II. Use the LIKE operator to find all employees whose first names end with er:

*SELECT * FROM employee WHERE first_name LIKE '%er';*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
103	Alexander	Hunold	alexander.hunold@sqltutorial.org	423	03/01/1990	9000	102	9	6
115	Alexander	Khoo	alexander.khoo@sqltutorial.org	127	18/05/1995	3100	114	13	3
200	Jennifer	Whalen	jennifer.whalen@sqltutorial.org	123	17/09/1987	4400	101	3	1

III. Use LIKE operator to find employees whose last names contain the word an:

*SELECT * FROM employee WHERE last_name LIKE '%an%';*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
102	Lex	De Haan	lex.de haan@sqltutorial.org	123	13/01/1993	17000	100	5	9
112	Jose Manuel	Urman	jose manuel.urman@sqltutorial.org	124	07/03/1998	7800	108	6	10
123	Shanta	Vollman	shanta.vollman@sqltutorial.org	123	10/10/1997	6500	100	19	5
178	Kimberely	Grant	kimberely.grant@sqltutorial.org	NULL	24/05/1999	7000	100	16	8

IV. Use LIKE operator to retrieve employees whose first names start with Jo and are followed by at most 2 characters:

*SELECT * FROM employee WHERE first_name LIKE 'Jo__';*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
110	John	Chen	john.chen@sqltutorial.org	124	28/09/1997	8200	108	6	10
145	John	Russell	john.russell@sqltutorial.org	NULL	01/10/1996	14000	100	15	8

V. Uses the LIKE operator with the % and _ wildcard to find employees whose first names start with any number of characters and are followed by at most one character:

*SELECT * FROM employee WHERE first_name LIKE '%a_';*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
117	Sigal	Tobias	sigal.tobias@sqltutorial.org	127	24/07/1997	2800	114	13	3
121	Adam	Fripp	adam.fripp@sqltutorial.org	123	10/04/1997	8200	100	19	5
122	Payam	Kaufling	payam.kaufling@sqltutorial.org	123	01/05/1995	7900	100	19	5
192	Sarah	Bell	sarah.bell@sqltutorial.org	501	04/02/1996	4000	123	17	5
202	Pat	Fay	pat.fay@sqltutorial.org	124	17/08/1997	6000	201	11	2
203	Susan	Mavris	susan.mavris@sqltutorial.org	124	07/06/1994	6500	101	8	4
206	William	Gietz	william.gietz@sqltutorial.org	124	07/06/1994	8300	205	1	11

VI. Use the NOT LIKE operator to find all employees whose first names start with the letter S but not start with Sh:

*SELECT * FROM employee WHERE first_name LIKE 'S%' AND first_name NOT LIKE 'sh%';*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
100	Steven	King	steven.king@sqltutorial.org	123	17/06/1987	24000	NULL	4	9
117	Sigal	Tobias	sigal.tobias@sqltutorial.org	127	24/07/1997	2800	114	13	3
192	Sarah	Bell	sarah.bell@sqltutorial.org	501	04/02/1996	4000	123	17	5
203	Susan	Mavris	susan.mavris@sqltutorial.org	124	07/06/1994	6500	101	8	4

Task 32: Use IS NULL and IS NOT NULL operators

I. Use the IS NULL operator to find all employees who do not have the phone numbers:

*SELECT * FROM employee WHERE phone_number IS NULL;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
145	John	Russell	john.russell@sqltutorial.org	NULL	01/10/1996	14000	100	15	8
146	Karen	Partners	karen.partners@sqltutorial.org	NULL	05/01/1997	13500	100	15	8
176	Jonathon	Taylor	jonathon.taylor@sqltutorial.org	NULL	24/03/1998	8600	100	16	8
177	Jack	Livingston	jack.livingston@sqltutorial.org	NULL	23/04/1998	8400	100	16	8
178	Kimberely	Grant	kimberely.grant@sqltutorial.org	NULL	24/05/1999	7000	100	16	8
179	Charles	Johnson	charles.johnson@sqltutorial.org	NULL	04/01/2000	6200	100	16	8

II. Use IS NOT NULL To find all employees who have phone numbers:

*SELECT * FROM employee WHERE phone_number IS NOT NULL;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
100	Steven	King	steven.king@sqltutorial.org	123	17/06/1987	24000	NULL	4	9
101	Neena	Kochhar	neena.kochhar@sqltutorial.org	123	21/09/1989	17000	100	5	9
102	Lex	De Haan	lex.de haan@sqltutorial.org	123	13/01/1993	17000	100	5	9
103	Alexander	Hunold	alexander.hunold@sqltutorial.org	423	03/01/1990	9000	102	9	6
104	Bruce	Ernst	bruce.ernst@sqltutorial.org	423	21/05/1991	6000	103	9	6
105	David	Austin	david.austin@sqltutorial.org	423	25/06/1997	4800	103	9	6
106	Valli	Pataballa	valli.pataballa@sqltutorial.org	423	05/02/1998	4800	103	9	6
107	Diana	Lorentz	diana.lorentz@sqltutorial.org	424	07/02/1999	4200	103	9	6
108	Nancy	Greenberg	nancy.greenberg@sqltutorial.org	124	17/08/1994	12000	101	7	10
109	Daniel	Faviet	daniel.faviet@sqltutorial.org	124	16/08/1994	9000	108	6	10
110	John	Chen	john.chen@sqltutorial.org	124	28/09/1997	8200	108	6	10
111	Ismael	Sciarra	ismael.sciarra@sqltutorial.org	124	30/09/1997	7700	108	6	10
112	Jose Manuel	Urman	jose manuel.urman@sqltutorial.org	124	07/03/1998	7800	108	6	10
113	Luis	Popp	luis.popp@sqltutorial.org	124	07/12/1999	6900	108	6	10
114	Den	Raphaely	den.raphaely@sqltutorial.org	127	07/12/1994	11000	100	14	3
115	Alexander	Khoo	alexander.khoo@sqltutorial.org	127	18/05/1995	3100	114	13	3
116	Shelli	Baida	shelli.baida@sqltutorial.org	127	24/12/1997	2900	114	13	3
117	Sigal	Tobias	sigal.tobias@sqltutorial.org	127	24/07/1997	2800	114	13	3
118	Guy	Himuro	guy.himuro@sqltutorial.org	127	15/11/1998	2600	114	13	3
119	Karen	Colmenares	karen.colmenares@sqltutorial.org	127	10/08/1999	2500	114	13	3
120	Matthew	Weiss	matthew.weiss@sqltutorial.org	123	18/07/1996	8000	100	19	5
121	Adam	Fripp	adam.fripp@sqltutorial.org	123	10/04/1997	8200	100	19	5
122	Payam	Kaufling	payam.kaufling@sqltutorial.org	123	01/05/1995	7900	100	19	5
123	Shanta	Vollman	shanta.vollman@sqltutorial.org	123	10/10/1997	6500	100	19	5
126	Irene	Mikkilineni	irene.mikkilineni@sqltutorial.org	124	28/09/1998	2700	120	18	5
192	Sarah	Bell	sarah.bell@sqltutorial.org	501	04/02/1996	4000	123	17	5
193	Britney	Everett	britney.everett@sqltutorial.org	501	03/03/1997	3900	123	17	5
200	Jennifer	Whalen	jennifer.whalen@sqltutorial.org	123	17/09/1987	4400	101	3	1
201	Michael	Hartstein	michael.hartstein@sqltutorial.org	124	17/02/1996	13000	100	10	2
202	Pat	Fay	pat.fay@sqltutorial.org	124	17/08/1997	6000	201	11	2
203	Susan	Mavris	susan.mavris@sqltutorial.org	124	07/06/1994	6500	101	8	4
204	Hermann	Baer	hermann.baer@sqltutorial.org	124	07/06/1994	10000	101	12	7
205	Shelley	Higgins	shelley.higgins@sqltutorial.org	124	07/06/1994	12000	101	2	11
206	William	Gietz	william.gietz@sqltutorial.org	124	07/06/1994	8300	205	1	11

Task 33: Use NOT operator

Use NOT operator to get the employees who work in the department id 5 and with a salary not greater than 5000.

*SELECT * FROM employee WHERE department_id = 5 AND NOT salary > 5000;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
126	Irene	Mikkilineni	irene.mikkilineni@sqltutorial.org	124	28/09/1998	2700	120	18	5
192	Sarah	Bell	sarah.bell@sqltutorial.org	501	04/02/1996	4000	123	17	5
193	Britney	Everett	britney.everett@sqltutorial.org	501	03/03/1997	3900	123	17	5

Task 34: Use SQL NOT with IN operator

Use SQL NOT with IN operator to get all the employees who are not working in the departments 1, 2, or 3.

*SELECT * FROM employee WHERE department_id NOT IN(1,2,3);*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
100	Steven	King	steven.king@sqltutorial.org	123	17/06/1987	24000	NULL	4	9
101	Neena	Kochhar	neena.kochhar@sqltutorial.org	123	21/09/1989	17000	100	5	9
102	Lex	De Haan	lex.de haan@sqltutorial.org	123	13/01/1993	17000	100	5	9
103	Alexander	Hunold	alexander.hunold@sqltutorial.org	423	03/01/1990	9000	102	9	6
104	Bruce	Ernst	bruce.ernst@sqltutorial.org	423	21/05/1991	6000	103	9	6
105	David	Austin	david.austin@sqltutorial.org	423	25/06/1997	4800	103	9	6
106	Valli	Pataballa	valli.pataballa@sqltutorial.org	423	05/02/1998	4800	103	9	6
107	Diana	Lorentz	diana.lorentz@sqltutorial.org	424	07/02/1999	4200	103	9	6
108	Nancy	Greenberg	nancy.greenberg@sqltutorial.org	124	17/08/1994	12000	101	7	10
109	Daniel	Faviet	daniel.faviet@sqltutorial.org	124	16/08/1994	9000	108	6	10
110	John	Chen	john.chen@sqltutorial.org	124	28/09/1997	8200	108	6	10
111	Ismael	Sciarra	ismael.sciarra@sqltutorial.org	124	30/09/1997	7700	108	6	10
112	Jose Manuel	Urman	jose manuel.urman@sqltutorial.org	124	07/03/1998	7800	108	6	10
113	Luis	Popp	luis.popp@sqltutorial.org	124	07/12/1999	6900	108	6	10
120	Matthew	Weiss	matthew.weiss@sqltutorial.org	123	18/07/1996	8000	100	19	5
121	Adam	Fripp	adam.fripp@sqltutorial.org	123	10/04/1997	8200	100	19	5
122	Payam	Kaufling	payam.kaufling@sqltutorial.org	123	01/05/1995	7900	100	19	5
123	Shanta	Vollman	shanta.vollman@sqltutorial.org	123	10/10/1997	6500	100	19	5
126	Irene	Mikkilineni	irene.mikkilineni@sqltutorial.org	124	28/09/1998	2700	120	18	5
145	John	Russell	john.russell@sqltutorial.org	NULL	01/10/1996	14000	100	15	8
146	Karen	Partners	karen.partners@sqltutorial.org	NULL	05/01/1997	13500	100	15	8
176	Jonathon	Taylor	jonathon.taylor@sqltutorial.org	NULL	24/03/1998	8600	100	16	8
177	Jack	Livingston	jack.livingston@sqltutorial.org	NULL	23/04/1998	8400	100	16	8
178	Kimberely	Grant	kimberely.grant@sqltutorial.org	NULL	24/05/1999	7000	100	16	8
179	Charles	Johnson	charles.johnson@sqltutorial.org	NULL	04/01/2000	6200	100	16	8
192	Sarah	Bell	sarah.bell@sqltutorial.org	501	04/02/1996	4000	123	17	5
193	Britney	Everett	britney.everett@sqltutorial.org	501	03/03/1997	3900	123	17	5
203	Susan	Mavris	susan.mavris@sqltutorial.org	124	07/06/1994	6500	101	8	4
204	Hermann	Baer	hermann.baer@sqltutorial.org	124	07/06/1994	10000	101	12	7
205	Shelley	Higgins	shelley.higgins@sqltutorial.org	124	07/06/1994	12000	101	2	11
206	William	Gietz	william.gietz@sqltutorial.org	124	07/06/1994	8300	205	1	11

Task 35: Use SQL NOT LIKE operator

SQL NOT LIKE operator to retrieve all the employees whose first names do not start with the letter D.

*SELECT * FROM employee WHERE first_name NOT LIKE 'D%';*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
100	Steven	King	steven.king@sqltutorial.org	123	17/06/1987	24000	NULL	4	9
101	Neena	Kochhar	neena.kochhar@sqltutorial.org	123	21/09/1989	17000	100	5	9
102	Lex	De Haan	lex.de haan@sqltutorial.org	123	13/01/1993	17000	100	5	9
103	Alexander	Hunold	alexander.hunold@sqltutorial.org	423	03/01/1990	9000	102	9	6
104	Bruce	Ernst	bruce.ernst@sqltutorial.org	423	21/05/1991	6000	103	9	6
106	Valli	Pataballa	valli.pataballa@sqltutorial.org	423	05/02/1998	4800	103	9	6
108	Nancy	Greenberg	nancy.greenberg@sqltutorial.org	124	17/08/1994	12000	101	7	10
110	John	Chen	john.chen@sqltutorial.org	124	28/09/1997	8200	108	6	10
111	Ismael	Sciarra	ismael.sciarra@sqltutorial.org	124	30/09/1997	7700	108	6	10
112	Jose Manuel	Urman	jose manuel.urman@sqltutorial.org	124	07/03/1998	7800	108	6	10
113	Luis	Popp	luis.popp@sqltutorial.org	124	07/12/1999	6900	108	6	10
115	Alexander	Khoo	alexander.khoo@sqltutorial.org	127	18/05/1995	3100	114	13	3
116	Shelli	Baida	shelli.baida@sqltutorial.org	127	24/12/1997	2900	114	13	3
117	Sigal	Tobias	sigal.tobias@sqltutorial.org	127	24/07/1997	2800	114	13	3
118	Guy	Himuro	guy.himuro@sqltutorial.org	127	15/11/1998	2600	114	13	3
119	Karen	Colmenares	karen.colmenares@sqltutorial.org	127	10/08/1999	2500	114	13	3
120	Matthew	Weiss	matthew.weiss@sqltutorial.org	123	18/07/1996	8000	100	19	5
121	Adam	Fripp	adam.fripp@sqltutorial.org	123	10/04/1997	8200	100	19	5
122	Payam	Kaufling	payam.kaufling@sqltutorial.org	123	01/05/1995	7900	100	19	5
123	Shanta	Vollman	shanta.vollman@sqltutorial.org	123	10/10/1997	6500	100	19	5
126	Irene	Mikkilineni	irene.mikkilineni@sqltutorial.org	124	28/09/1998	2700	120	18	5
145	John	Russell	john.russell@sqltutorial.org	NULL	01/10/1996	14000	100	15	8
146	Karen	Partners	karen.partners@sqltutorial.org	NULL	05/01/1997	13500	100	15	8
176	Jonathon	Taylor	jonathon.taylor@sqltutorial.org	NULL	24/03/1998	8600	100	16	8
177	Jack	Livingston	jack.livingston@sqltutorial.org	NULL	23/04/1998	8400	100	16	8
178	Kimberely	Grant	kimberely.grant@sqltutorial.org	NULL	24/05/1999	7000	100	16	8
179	Charles	Johnson	charles.johnson@sqltutorial.org	NULL	04/01/2000	6200	100	16	8
192	Sarah	Bell	sarah.bell@sqltutorial.org	501	04/02/1996	4000	123	17	5
193	Britney	Everett	britney.everett@sqltutorial.org	501	03/03/1997	3900	123	17	5
200	Jennifer	Whalen	jennifer.whalen@sqltutorial.org	123	17/09/1987	4400	101	3	1
201	Michael	Hartstein	michael.hartstein@sqltutorial.org	124	17/02/1996	13000	100	10	2
202	Pat	Fay	pat.fay@sqltutorial.org	124	17/08/1997	6000	201	11	2
203	Susan	Mavris	susan.mavris@sqltutorial.org	124	07/06/1994	6500	101	8	4
204	Hermann	Baer	hermann.baer@sqltutorial.org	124	07/06/1994	10000	101	12	7
205	Shelley	Higgins	shelley.higgins@sqltutorial.org	124	07/06/1994	12000	101	2	11
206	William	Gietz	william.gietz@sqltutorial.org	124	07/06/1994	8300	205	1	11

Task 36: Use SQL NOT BETWEEN

Use SQL NOT BETWEEN to get employees whose salaries are not between 5,000 and 1,000.

*SELECT * FROM employee WHERE salary NOT BETWEEN 5000 AND 10000;*

employee_id	first_name	last_name	email	phone_number	hire_date	salary	manager_id	job_id	department_id
100	Steven	King	steven.king@sqltutorial.org	123	17/06/1987	24000	NULL	4	9
101	Neena	Kochhar	neena.kochhar@sqltutorial.org	123	21/09/1989	17000	100	5	9
102	Lex	De Haan	lex.de haan@sqltutorial.org	123	13/01/1993	17000	100	5	9
105	David	Austin	david.austin@sqltutorial.org	423	25/06/1997	4800	103	9	6
106	Valli	Pataballa	valli.pataballa@sqltutorial.org	423	05/02/1998	4800	103	9	6
107	Diana	Lorentz	diana.lorentz@sqltutorial.org	424	07/02/1999	4200	103	9	6
108	Nancy	Greenberg	nancy.greenberg@sqltutorial.org	124	17/08/1994	12000	101	7	10
114	Den	Raphaely	den.raphaely@sqltutorial.org	127	07/12/1994	11000	100	14	3
115	Alexander	Khoo	alexander.khoo@sqltutorial.org	127	18/05/1995	3100	114	13	3
116	Shelli	Baida	shelli.baida@sqltutorial.org	127	24/12/1997	2900	114	13	3
117	Sigal	Tobias	sigal.tobias@sqltutorial.org	127	24/07/1997	2800	114	13	3
118	Guy	Himuro	guy.himuro@sqltutorial.org	127	15/11/1998	2600	114	13	3
119	Karen	Colmenares	karen.colmenares@sqltutorial.org	127	10/08/1999	2500	114	13	3
126	Irene	Mikkilineni	irene.mikkilineni@sqltutorial.org	124	28/09/1998	2700	120	18	5
145	John	Russell	john.russell@sqltutorial.org	NULL	01/10/1996	14000	100	15	8
146	Karen	Partners	karen.partners@sqltutorial.org	NULL	05/01/1997	13500	100	15	8
192	Sarah	Bell	sarah.bell@sqltutorial.org	501	04/02/1996	4000	123	17	5
193	Britney	Everett	britney.everett@sqltutorial.org	501	03/03/1997	3900	123	17	5
200	Jennifer	Whalen	jennifer.whalen@sqltutorial.org	123	17/09/1987	4400	101	3	1
201	Michael	Hartstein	michael.hartstein@sqltutorial.org	124	17/02/1996	13000	100	10	2
205	Shelley	Higgins	shelley.higgins@sqltutorial.org	124	07/06/1994	12000	101	2	11

Task 37: Use SQL NOT EXISTS

Use the NOT EXISTS operator to get the employees who do not have any dependents.

SELECT first_name, employee_id FROM employee e WHERE NOT EXISTS (SELECT employee_id FROM dependent d WHERE e.employee_id = d.employee_id);

first_name	employee_id
Matthew	120
Adam	121
Payam	122
Shanta	123
Irene	126
Jack	177
Kimberely	178
Charles	179
Sarah	192
Britney	193

Task 38: Use SQL INNER JOIN to join two tables

Use SQL INNER JOIN clause to join 2 tables: employees, and departments to get the first name, last name, and department id of employees who work in department id 1, 2, and 3.

SELECT e.first_name, e.last_name, d.department_id FROM employee e INNER JOIN department d ON e.department_id = d.department_id WHERE d.department_id IN(1,2,3);

first_name	last_name	department_id
Jennifer	Whalen	1
Den	Raphaely	3
Alexander	Khoo	3
Shelli	Baida	3
Sigal	Tobias	3
Guy	Himuro	3
Karen	Colmenares	3
Michael	Hartstein	2
Pat	Fay	2

Task 39: Use SQL INNER JOIN to join three tables

Use SQL INNER JOIN clauses to join 3 tables: employees, departments, and jobs to get the first name, last name, job title, and department name of employees who work in department id 1, 2, and 3.

SELECT e.first_name, e.last_name, j.job_title, d.department_name FROM employee e INNER JOIN department d ON e.department_id = d.department_id INNER JOIN job j ON e.job_id = j.job_id WHERE d.department_id IN(1,2,3);

first_name	last_name	job_title	department_name
Jennifer	Whalen	Administration Assistant	Administration
Michael	Hartstein	Marketing Manager	Marketing
Pat	Fay	Marketing Representative	Marketing
Den	Raphaely	Purchasing Manager	Purchasing
Alexander	Khoo	Purchasing Clerk	Purchasing
Shelli	Baida	Purchasing Clerk	Purchasing
Sigal	Tobias	Purchasing Clerk	Purchasing
Guy	Himuro	Purchasing Clerk	Purchasing
Karen	Colmenares	Purchasing Clerk	Purchasing

Task 40: Use SQL LEFT JOIN to join 2 tables

Use SQL LEFT JOIN to find the country that does not have any locations in the locations table

SELECT c.country_id, l.location_id FROM country c LEFT JOIN location l ON c.country_id = l.country_id WHERE l.location_id IS NULL;

country_id
BE
CH
DK
FR
IT
NL
AR
BR
MX
AU
CN
HK
IN
JP
SG
EG
IL
KW
NG
ZM
ZW

Task 41: Use SQL LEFT JOIN to join 3 tables

Use SQL LEFT JOIN to join 3 tables: regions, countries, and locations:

SELECT c.country_name, l.city, r.region_name FROM country c LEFT JOIN location l ON c.country_id = l.country_id LEFT JOIN region r ON c.region_id = r.region_id;

country_name	city	region_name
Argentina	NULL	Americas
Australia	NULL	Asia
Belgium	NULL	Europe
Brazil	NULL	Americas
Canada	Toronto	Americas
Switzerland	NULL	Europe
China	NULL	Asia
Germany	Munich	Europe
Denmark	NULL	Europe
Egypt	NULL	Africa
France	NULL	Europe
HongKong	NULL	Asia
Israel	NULL	Africa
India	NULL	Asia
Italy	NULL	Europe
Japan	NULL	Asia
Kuwait	NULL	Africa
Mexico	NULL	Americas
Nigeria	NULL	Africa
Netherlands	NULL	Europe
Singapore	NULL	Asia
United Kingdom	Oxford	Europe
United Kingdom	London	Europe
United States of America	Seattle	Americas
United States of America	South San Francisco	Americas
United States of America	Southlake	Americas
Zambia	NULL	Africa
Zimbabwe	NULL	Africa