

INTRODUCTION TO SQL:

Exercise 1

localhost » medical » tblappointment

Browse Structure SQL Search Insert Export Import Operations Triggers

Showing rows 0 - 85 (86 total, Query took 0.0008 sec)

SELECT *
FROM tblappointment

Profiling [Inline] [Edit] [Explain SQL] [Create PHP Code] [Refresh]

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

	AppointmentID	PatientID	DoctorID	ReceptionistID	TimeAndDatetaken	AppointmentDate	AppointmentTime	AppointmentKept
<input type="checkbox"/>	1	1	1	2	2013-06-23 12:05:37	2013-07-11	09:30:00	0
<input type="checkbox"/>	2	3	2	1	2013-06-23 12:20:39	2013-07-09	09:45:00	0
<input type="checkbox"/>	3	2	1	2	2013-06-23 12:21:15	2013-07-03	10:00:00	1
<input type="checkbox"/>	4	3	2	2	2013-06-23 14:58:38	2013-07-02	10:30:00	1
<input type="checkbox"/>	6	1	1	2	2013-06-23 14:59:32	2013-07-02	10:45:00	0
<input type="checkbox"/>	7	5	2	2	2013-06-23 15:02:29	2013-07-02	09:45:00	1
<input type="checkbox"/>	8	5	1	2	2013-06-23 15:18:13	2013-07-10	10:30:00	0
<input type="checkbox"/>	9	3	2	1	2013-06-23 16:19:47	2013-06-30	11:30:00	1
<input type="checkbox"/>	10	5	1	1	2013-06-24 10:10:35	2013-07-06	12:30:00	0
<input type="checkbox"/>	11	4	4	1	2013-06-24 11:21:13	2013-07-04	10:30:00	0
<input type="checkbox"/>	12	5	2	1	2013-06-24 11:26:23	2013-06-30	11:00:00	0

localhost » medical » tblappointment

Browse Structure SQL Search Insert Export Import Operations Triggers

	AppointmentID	PatientID	DoctorID	ReceptionistID	TimeAndDatetaken	AppointmentDate	AppointmentTime	AppointmentKept
<input type="checkbox"/>	13	2	2	1	2013-06-24 11:29:51	2013-06-30	11:15:00	0
<input type="checkbox"/>	14	4	1	4	2013-06-24 11:32:37	2013-07-03	10:30:00	1
<input type="checkbox"/>	15	1	1	1	2013-06-24 11:34:06	2013-07-03	08:15:00	1
<input type="checkbox"/>	16	5	1	2	2013-06-24 11:34:53	2013-07-03	09:30:00	0
<input type="checkbox"/>	17	3	1	2	2013-06-24 11:36:13	2013-07-03	10:15:00	1
<input type="checkbox"/>	18	1	1	2	2013-06-24 11:36:53	2013-07-10	10:15:00	0
<input type="checkbox"/>	19	4	2	2	2013-06-24 11:37:57	2013-07-01	11:45:00	1
<input type="checkbox"/>	20	3	2	1	2013-06-24 11:38:37	2013-07-10	10:30:00	0
<input type="checkbox"/>	21	3	2	1	2013-06-24 11:39:18	2013-07-04	10:00:00	0
<input type="checkbox"/>	22	2	2	1	2013-06-24 11:40:10	2013-07-04	09:45:00	0
<input type="checkbox"/>	23	4	2	2	2013-06-24 11:44:20	2013-07-03	09:30:00	1
<input type="checkbox"/>	24	1	2	2	2013-06-24 11:45:51	2013-07-04	09:00:00	0
<input type="checkbox"/>	25	5	2	2	2013-06-24 11:48:12	2013-07-04	16:15:00	0
<input type="checkbox"/>	26	2	2	1	2013-06-24 14:24:16	2013-07-10	10:15:00	0
<input type="checkbox"/>	27	1	2	5	2013-06-25 08:53:05	2013-07-01	10:45:00	1
<input type="checkbox"/>	28	5	2	1	2013-06-28 11:37:21	2013-07-11	09:45:00	0
<input type="checkbox"/>	29	3	1	2	2013-06-28 11:38:35	2013-07-07	10:00:00	0
<input type="checkbox"/>	30	1	2	2	2013-06-28 11:39:09	2013-07-07	09:30:00	0
<input type="checkbox"/>	31	2	2	1	2013-06-28 14:35:44	2013-07-07	10:00:00	0
<input type="checkbox"/>	32	4	2	1	2013-06-28 14:36:14	2013-07-08	09:15:00	0
<input type="checkbox"/>	33	6	1	1	2013-06-28 16:27:23	2013-07-07	18:00:00	0

	Browse	Structure	SQL	Search	Insert	Export	Import	Operations	Triggers	
<input type="checkbox"/>	Edit	Copy	Delete	34	5	2	1	2013-07-02 11:39:18	2013-07-10 09:30:00	0
<input type="checkbox"/>	Edit	Copy	Delete	35	2	1	1	2013-07-02 11:59:18	2013-07-10 09:45:00	0
<input type="checkbox"/>	Edit	Copy	Delete	37	3	2	1	2013-07-02 18:33:05	2013-07-10 09:45:00	0
<input type="checkbox"/>	Edit	Copy	Delete	38	4	1	1	2013-07-02 11:03:05	2013-07-07 09:45:00	0
<input type="checkbox"/>	Edit	Copy	Delete	40	1	2	1	2013-07-02 08:33:45	2013-07-08 10:00:00	0
<input type="checkbox"/>	Edit	Copy	Delete	41	2	3	3	2013-07-02 16:31:05	2013-07-05 14:30:00	0
<input type="checkbox"/>	Edit	Copy	Delete	42	7	3	3	2013-07-02 18:33:39	2013-07-04 09:15:00	0
<input type="checkbox"/>	Edit	Copy	Delete	43	7	3	1	2013-07-02 17:55:05	2013-07-09 11:30:00	0
<input type="checkbox"/>	Edit	Copy	Delete	44	7	3	1	2013-07-02 08:53:05	2013-07-10 11:45:00	0
<input type="checkbox"/>	Edit	Copy	Delete	45	1	1	2	2013-07-02 18:33:27	2013-07-10 10:00:00	0
<input type="checkbox"/>	Edit	Copy	Delete	46	6	3	2	2013-07-02 14:03:05	2013-07-09 11:00:00	0
<input type="checkbox"/>	Edit	Copy	Delete	47	1	3	2	2013-06-29 08:53:05	2013-06-30 09:00:00	1
<input type="checkbox"/>	Edit	Copy	Delete	48	11	2	1	2013-07-02 18:01:05	2013-07-07 10:15:00	0
<input type="checkbox"/>	Edit	Copy	Delete	49	7	3	3	2013-07-02 18:12:05	2013-07-10 11:30:00	0
<input type="checkbox"/>	Edit	Copy	Delete	50	5	3	4	2013-07-02 14:00:05	2013-07-07 09:30:00	0
<input type="checkbox"/>	Edit	Copy	Delete	51	15	2	1	2013-07-02 13:53:05	2013-07-07 11:30:00	0
<input type="checkbox"/>	Edit	Copy	Delete	52	12	1	3	2013-07-02 08:30:05	2013-07-07 10:30:00	0
<input type="checkbox"/>	Edit	Copy	Delete	53	16	3	1	2013-07-02 17:23:05	2013-07-07 09:45:00	0
<input type="checkbox"/>	Edit	Copy	Delete	54	1	3	3	2013-07-02 11:53:05	2013-07-08 09:30:00	0
<input type="checkbox"/>	Edit	Copy	Delete	55	16	2	3	2013-07-02 18:33:05	2013-07-09 09:30:00	0
<input type="checkbox"/>	Edit	Copy	Delete	56	6	2	2	2013-07-02 12:21:15	2013-07-09 10:00:00	0

	Browse	Structure	SQL	Search	Insert	Export	Import	Operations	Triggers	
<input type="checkbox"/>	Edit	Copy	Delete	57	13	2	1	2013-07-02 14:13:35	2013-07-11 09:30:00	0
<input type="checkbox"/>	Edit	Copy	Delete	58	7	4	4	2013-07-02 10:13:05	2013-07-09 09:45:00	0
<input type="checkbox"/>	Edit	Copy	Delete	59	4	4	3	2013-07-02 18:33:05	2013-07-11 10:00:00	0
<input type="checkbox"/>	Edit	Copy	Delete	60	1	3	4	2013-07-02 12:33:05	2013-07-11 10:00:00	0
<input type="checkbox"/>	Edit	Copy	Delete	61	18	3	1	2013-07-02 12:21:15	2013-07-10 12:00:00	0
<input type="checkbox"/>	Edit	Copy	Delete	62	17	3	1	2013-07-02 19:33:05	2013-07-05 14:00:00	0
<input type="checkbox"/>	Edit	Copy	Delete	63	10	4	1	2013-07-02 08:33:09	2013-07-11 09:30:00	0
<input type="checkbox"/>	Edit	Copy	Delete	64	17	3	2	2013-07-02 18:38:05	2013-07-11 09:30:00	0
<input type="checkbox"/>	Edit	Copy	Delete	65	13	2	1	2013-07-02 18:33:56	2013-07-08 09:30:00	0
<input type="checkbox"/>	Edit	Copy	Delete	66	15	4	3	2013-07-02 12:21:15	2013-07-09 09:30:00	0
<input type="checkbox"/>	Edit	Copy	Delete	67	6	1	3	2013-07-02 18:33:05	2013-07-10 09:30:00	0
<input type="checkbox"/>	Edit	Copy	Delete	68	13	2	1	2013-06-29 12:38:50	2013-06-30 09:30:00	0
<input type="checkbox"/>	Edit	Copy	Delete	69	7	2	4	2013-06-29 12:39:46	2013-06-30 10:30:00	1
<input type="checkbox"/>	Edit	Copy	Delete	70	6	3	4	2013-06-28 14:21:12	2013-06-29 09:30:00	1
<input type="checkbox"/>	Edit	Copy	Delete	71	12	3	4	2013-06-28 14:22:10	2013-06-29 10:30:00	0
<input type="checkbox"/>	Edit	Copy	Delete	72	19	1	3	2013-06-27 14:27:07	2013-06-28 09:30:00	1
<input type="checkbox"/>	Edit	Copy	Delete	73	10	4	3	2013-06-27 14:27:39	2013-06-28 11:30:00	1
<input type="checkbox"/>	Edit	Copy	Delete	74	9	4	1	2013-06-26 11:28:22	2013-06-28 18:30:00	1
<input type="checkbox"/>	Edit	Copy	Delete	75	11	4	2	2013-06-27 14:34:56	2013-06-28 17:30:00	0
<input type="checkbox"/>	Edit	Copy	Delete	76	13	1	1	2013-06-26 14:54:47	2013-06-28 10:00:00	0
<input type="checkbox"/>	Edit	Copy	Delete	77	17	3	3	2013-06-27 16:37:33	2013-06-29 17:30:00	0
<input type="checkbox"/>	Edit	Copy	Delete	78	15	3	4	2013-06-26 12:38:25	2013-06-28 18:00:00	1
<input type="checkbox"/>	Edit	Copy	Delete	79	11	4	1	2013-07-03 08:26:25	2013-07-06 09:30:00	0
<input type="checkbox"/>	Edit	Copy	Delete	80	10	2	1	2013-07-03 08:26:25	2013-07-04 09:30:00	0
<input type="checkbox"/>	Edit	Copy	Delete	86	13	3	4	2013-07-03 08:26:25	2013-07-04 09:45:00	0
<input type="checkbox"/>	Edit	Copy	Delete	87	1	3	3	2013-07-03 08:26:25	2013-07-08 09:45:00	0
<input type="checkbox"/>	Edit	Copy	Delete	88	14	3	1	2013-07-03 08:26:25	2013-07-08 10:00:00	0
<input type="checkbox"/>	Edit	Copy	Delete	89	10	2	1	2013-06-30 10:07:37	2013-06-30 10:00:00	1
<input type="checkbox"/>	Edit	Copy	Delete	97	12	3	1	2013-07-03 08:26:25	2013-07-04 10:30:00	0
<input type="checkbox"/>	Edit	Copy	Delete	98	11	1	4	2013-07-03 08:26:25	2013-07-03 09:45:00	0
<input type="checkbox"/>	Edit	Copy	Delete	99	9	2	2	2013-07-03 08:26:26	2013-07-03 09:45:00	0
<input type="checkbox"/>	Edit	Copy	Delete	100	8	4	3	2013-07-03 08:26:26	2013-07-06 10:00:00	0
<input type="checkbox"/>	Edit	Copy	Delete	101	23	2	4	2013-08-29 09:28:18	2013-08-29 09:30:00	0

Exercise 2

localhost > medical > tbldoctors

Browse Structure SQL Search Insert Export Import Operations Triggers

Show query box

⚠ This table does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 3 (4 total, Query took 0.0005 sec)

```
SELECT firstname, lastname, homephone  
FROM tbldoctors  
LIMIT 0 , 30
```

Profiling [Inline] [Edit] [Explain SQL] [Create PHP Code] [Refresh]

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

firstname	lastname	homephone
Joe	Blowphelt	34432432
Fred	Smith	897872
Sandra	Lockwood	01652 872932
Eilean	Down	01865 624918

localhost > medical > tblpatient

Browse Structure SQL Search Insert Export Import Operations Triggers

Show query box

⚠ This table does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 24 (25 total, Query took 0.0005 sec)

```
SELECT title, gender, dob  
FROM tblpatient  
LIMIT 0 , 30
```

Profiling [Inline] [Edit] [Explain SQL] [Create PHP Code] [Refresh]

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

title	gender	dob
Mr	Male	1967-04-12 00:00:00
Miss	Female	1989-06-30 00:00:00
Miss	Female	1986-04-12 00:00:00
Mr	Male	1961-10-19 00:00:00
Miss	Female	1990-06-03 00:00:00
Mr	Male	1967-08-12 00:00:00
Ms	Female	1991-08-12 00:00:00

localhost > medical > tbldreceptionist

Browse Structure SQL Search Insert Export Import Operations Triggers

Show query box

⚠ This table does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 4 (5 total, Query took 0.0006 sec)

```
SELECT address1, postcode, salary  
FROM tbldreceptionist  
LIMIT 0 , 30
```

Profiling [Inline] [Edit] [Explain SQL] [Create PHP Code] [Refresh]

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

address1	postcode	salary
5, Friar Close	OX2 6TF	12500.0000
76, Myers Road	OX4 5RZ	9400.0000
32, Smalder Close	OX7 4FG	11375.0000
86, Hill Crescent	OX4 9TY	7956.0000
7 Blackmore Road	OX5 7WE	9875.0000

Exercise 3

The screenshot shows the phpMyAdmin interface for the 'medical' database. The current table is 'tblpatient'. The SQL query executed is:

```
SELECT DISTINCT county
FROM tblpatient
LIMIT 0 , 30
```

The results pane displays the following data:

county
Oxfordshire
Oxon

Exercise 4

The screenshot shows the phpMyAdmin interface for the 'medical' database. The current table is 'tblpatient'. The SQL query executed is:

```
SELECT DISTINCT title
FROM tblpatient
LIMIT 0 , 30
```

The results pane displays the following data:

title
Mr
Miss
Ms
Mrs

Querying Data AND Sorting Data:

Exercise 1

The screenshot shows the phpMyAdmin interface for the 'hr sample database' on the 'locations' table. The SQL query executed is:

```
SELECT *
FROM `locations`
LIMIT 0 , 30
```

The results pane displays the following data:

location_id	street_address	postal_code	city	state_province	country_id
1400	2014 Jabberwocky Rd	26192	Southlake	Texas	US
1500	2011 Interiors Blvd	99236	South San Francisco	California	US
1700	2004 Charade Rd	98199	Seattle	Washington	US
1800	147 Spadina Ave	M5V 2L7	Toronto	Ontario	CA
2400	8204 Arthur St	NULL	London	NULL	UK
2500	Magdalen Centre, The Oxford Science Park	OX9 9ZB	Oxford	Oxford	UK
2700	Schwanthalerstr. 7031	80925	Munich	Bavaria	DE

localhost » hr sample database » locations

Browse Structure SQL Search Insert Export Import

Show query box

Showing rows 0 - 6 (7 total, Query took 0.0005 sec)

```
SELECT l.location_id, city, country_id
FROM locations AS l
LIMIT 0 , 30
```

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

	location_id	city	country_id
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	1400	Southlake	US
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	1500	South San Francisco	US
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	1700	Seattle	US
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	1800	Toronto	CA
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	2400	London	UK
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	2500	Oxford	UK
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	2700	Munich	DE

Exercise 2

localhost » hr sample database » jobs

Browse Structure SQL Search Insert Export Import Operations Triggers

Show query box

Showing rows 0 - 29 (40 total, Query took 0.0026 sec)

```
SELECT employee_id, last_name, salary AS 'Monthly Salary'  
FROM employees  
LIMIT 0 , 30
```

1 Show all > >> | Show : Start row: 30 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

	employee_id	last_name	Monthly Salary
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	100	King	24000.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	101	Kochhar	17000.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	102	De Haan	17000.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	103	Hunold	9000.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	104	Ernst	6000.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	105	Austin	4800.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	106	Pataballa	4800.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	107	Lorentz	4200.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	108	Greenberg	12000.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	109	Faviet	9000.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	110	Chen	8200.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	111	Sciarra	7700.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	112	Urman	7800.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	113	Popp	6900.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	114	Raphaely	11000.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	115	Khoo	3100.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	116	Baida	2900.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	117	Tobias	2800.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	118	Himuro	2600.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	119	Colmenares	2500.00

localhost » hr sample database » jobs

Browse Structure SQL Search Insert Export Import Operations Trigge

Show query box

Showing rows 0 - 29 (40 total, Query took 0.0029 sec)

```
SELECT employee_id, last_name, salary *12 AS 'Yearly Salary'  
FROM employees  
LIMIT 0 , 30
```

1 Show all > >> | Show : Start row: 30 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

employee_id	last_name	Yearly Salary
100	King	288000.00
101	Kochhar	204000.00
102	De Haan	204000.00
103	Hunold	108000.00
104	Ernst	72000.00
105	Austin	57600.00
106	Pataballa	57600.00
107	Lorentz	50400.00
108	Greenberg	144000.00
109	Faviet	108000.00
110	Chen	98400.00
111	Sciarra	92400.00
112	Urman	93600.00
113	Popp	82800.00
114	Raphaely	132000.00
115	Khoo	37200.00
116	Baida	34800.00
117	Tobias	33600.00
118	Himuro	31200.00
119	Colmenares	30000.00
120	Weiss	96000.00
121	Fripp	98400.00
122	Kaufling	94800.00
123	Millgate	70800.00



```
SELECT employee_id, last_name, ROUND(DATEDIFF(NOW(), hire_date)/365, 0) AS 'Years of Service'  
FROM employees  
LIMIT 0 , 30
```

1 Show all > >> | Show : Start row: 30 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

employee_id	last_name	Years of Service
100	King	35
101	Kochhar	33
102	De Haan	30
103	Hunold	33
104	Ernst	31
105	Austin	25
106	Pataballa	25
107	Lorentz	24
108	Greenberg	28
109	Faviet	28
110	Chen	25
111	Sciarra	25
112	Urman	25
113	Popp	23
114	Raphaely	28
115	Khoo	27
116	Baida	25
117	Tobias	25
118	Himuro	24
119	Colmenares	23
120	Weiss	26
121	Fripp	26
122	Kaufling	28

Exercise 3

localhost » hr sample database » jobs

Browse Structure SQL Search Insert Export Import Operations Trigg

Show query box

⚠ This table does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 29 (40 total, Query took 0.0027 sec)

```
SELECT CONCAT(first_name, ' ', last_name) AS 'Full Name'  
FROM employees  
LIMIT 0 , 30
```

1 Show all > >> | Show : Start row: 30 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

Full Name
Steven King
Neena Kochhar
Lex De Haan
Alexander Hunold
Bruce Ernst
David Austin
Valli Pataballa
Diana Lorentz
Nancy Greenberg
Daniel Faviet
John Chen
Ismael Sciarra
Jose Manuel Urman
Luis Popp
Den Raphaely
Alexander Khoo
Shelli Baida
Sigal Tobias
Guy Himuro
Karen Colmenares
Matthew Weiss

localhost » hr sample database » countries

Browse Structure SQL Search Insert Export Import Options

Show query box

Showing rows 0 - 24 (25 total, Query took 0.0005 sec) [country_name: ZIMBABWE - ARGENTINA]

```
SELECT *
FROM countries
ORDER BY country_name DESC
LIMIT 0 , 30
```

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

	country_id	country_name	region_id
<input type="checkbox"/> Edit Copy Delete	ZW	Zimbabwe	4
<input type="checkbox"/> Edit Copy Delete	ZM	Zambia	4
<input type="checkbox"/> Edit Copy Delete	US	United States of America	2
<input type="checkbox"/> Edit Copy Delete	UK	United Kingdom	1
<input type="checkbox"/> Edit Copy Delete	CH	Switzerland	1
<input type="checkbox"/> Edit Copy Delete	SG	Singapore	3
<input type="checkbox"/> Edit Copy Delete	NG	Nigeria	4
<input type="checkbox"/> Edit Copy Delete	NL	Netherlands	1
<input type="checkbox"/> Edit Copy Delete	MX	Mexico	2
<input type="checkbox"/> Edit Copy Delete	KW	Kuwait	4
<input type="checkbox"/> Edit Copy Delete	JP	Japan	3
<input type="checkbox"/> Edit Copy Delete	IT	Italy	1
<input type="checkbox"/> Edit Copy Delete	IL	Israel	4
<input type="checkbox"/> Edit Copy Delete	IN	India	3
<input type="checkbox"/> Edit Copy Delete	HK	HongKong	3
<input type="checkbox"/> Edit Copy Delete	DE	Germany	1
<input type="checkbox"/> Edit Copy Delete	FR	France	1
<input type="checkbox"/> Edit Copy Delete	EG	Egypt	4
<input type="checkbox"/> Edit Copy Delete	DK	Denmark	1
<input type="checkbox"/> Edit Copy Delete	CN	China	3

localhost » hr sample database » employees

Browse Structure SQL Search Insert Export Import Operations Triggers

Show query box

⚠ This table does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 29 (30 total, Query took 0.0006 sec)

```
SELECT last_name, first_name, phone_number
FROM employees
ORDER BY last_name, first_name
LIMIT 0 , 30
```

Sort by key:

+ Options

last_name	first_name	phone_number
Austin	David	590.423.4569
Baer	Hermann	515.123.8888
Baida	Shelli	515.127.4563
Bell	Sarah	650.501.1876
Chen	John	515.124.4269
Colmenares	Karen	515.127.4566
De Haan	Lex	515.123.4569
Ernst	Bruce	590.423.4568
Everett	Britney	650.501.2876
Faviet	Daniel	515.124.4169
Fay	Pat	603.123.6666
Fripp	Adam	650.123.2234
Gietz	William	515.123.8181
Grant	Kimberely	NULL
Greenberg	Nancy	515.124.4569
Hartstein	Michael	515.123.5555
Higgins	Shelley	515.123.8080
Himuro	Guy	515.127.4565
Hunold	Alexander	590.423.4567
Johnson	Charles	NULL
Kaufling	Payam	650.123.3234

Exercise 4

localhost » hr sample database » employees

Browse Structure SQL Search Insert Export Import Operations Triggers

Show query box

⚠ This table does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

✓ Showing rows 0 - 29 (40 total, Query took 0.0007 sec)

```
SELECT last_name, email, salary
FROM employees
ORDER BY salary DESC , last_name ASC
LIMIT 0 , 30
```

1 Show all > >> | Show : Start row: 30 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

last_name	email	salary
King	steven.king@sqltutorial.org	24000.00
De Haan	lex.de haan@sqltutorial.org	17000.00
Kochhar	neena.kochhar@sqltutorial.org	17000.00
Russell	john.russell@sqltutorial.org	14000.00
Partners	karen.partners@sqltutorial.org	13500.00
Hartstein	michael.hartstein@sqltutorial.org	13000.00
Greenberg	nancy.greenberg@sqltutorial.org	12000.00
Higgins	shelley.higgins@sqltutorial.org	12000.00
Raphaely	den.raphaely@sqltutorial.org	11000.00
Baer	hermann.baer@sqltutorial.org	10000.00
Faviet	daniel.faviet@sqltutorial.org	9000.00
Hunold	alexander.hunold@sqltutorial.org	9000.00
Taylor	jonathon.taylor@sqltutorial.org	8600.00
Livingston	jack.livingston@sqltutorial.org	8400.00
Gietz	william.gietz@sqltutorial.org	8300.00
Chen	john.chen@sqltutorial.org	8200.00
Fripp	adam.fripp@sqltutorial.org	8200.00
Weiss	matthew.weiss@sqltutorial.org	8000.00
Kaufling	payam.kaufling@sqltutorial.org	7900.00
Urman	jose manuel.urman@sqltutorial.org	7800.00

FILTERING DATA PART 01

Exercise 1

localhost » hr sample database » employees

Browse Structure SQL Search Insert Export Import

Show query box

⚠ This table does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features

Showing rows 0 - 10 (11 total, Query took 0.0234 sec)

```
SELECT DISTINCT department_id  
FROM employees  
LIMIT 0 , 30
```

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

department_id
1
2
3
4
5
6
7
8
9
10
11

Exercise 2

The screenshot shows the MySQL Workbench interface with the following details:

- Top navigation bar: localhost » hr sample database » employees
- Toolbar buttons: Browse, Structure, SQL, Search, Insert, Export, Import, Operations, Triggers.
- Text area: "Show query box" and a green message: "Showing rows 0 - 0 (1 total, Query took 0.0005 sec)".
- Query results:

```
SELECT employee_id, first_name, last_name, job_id
FROM employees
ORDER BY salary DESC
LIMIT 1
```
- Table results:

employee_id	first_name	last_name	job_id
100	Steven	King	4

With buttons: + Options, ← →, ▾, Edit, Copy, Delete.

Exercise 3

localhost » hr sample database » departments

Browse Structure SQL Search Insert Export Import Operations Triggers

Show query box

Showing rows 4 - 9 (6 total, Query took 0.0005 sec)

```
SELECT department_id, department_name
FROM departments
LIMIT 4 , 6
```

Sort by key: None

+ Options

	department_id	department_name
<input type="checkbox"/>	5	Shipping
<input type="checkbox"/>	6	IT
<input type="checkbox"/>	7	Public Relations
<input type="checkbox"/>	8	Sales
<input type="checkbox"/>	9	Executive
<input type="checkbox"/>	10	Finance

Exercise 4

localhost » hr sample database » departments

Browse Structure SQL Search Insert Export Import

Show query box

This table does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are disabled.

Showing rows 0 - 6 (7 total, Query took 0.0005 sec)

```
SELECT DISTINCT location_id
FROM departments
LIMIT 0 , 30
```

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

location_id
1400
1500
1700
1800
2400
2500
2700

Exercise 5

localhost » hr sample database » employees

Browse Structure SQL Search Insert Export Imp

Show query box

⚠ This table does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are disabled.

Showing rows 0 - 11 (12 total, Query took 0.0006 sec) [salary: 4800.00 - 2500.00]

```
SELECT first_name, last_name, salary, phone_number
FROM employees
WHERE salary <=5000
ORDER BY salary DESC
LIMIT 0 , 30
```

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

first_name	last_name	salary	phone_number
David	Austin	4800.00	590.423.4569
Valli	Pataballa	4800.00	590.423.4560
Jennifer	Whalen	4400.00	515.123.4444
Diana	Lorentz	4200.00	590.423.5567
Sarah	Bell	4000.00	650.501.1876
Britney	Everett	3900.00	650.501.2876
Alexander	Khoo	3100.00	515.127.4562
Shelli	Baida	2900.00	515.127.4563
Sigal	Tobias	2800.00	515.127.4564
Irene	Mikkilineni	2700.00	650.124.1224
Guy	Himuro	2600.00	515.127.4565
Karen	Colmenares	2500.00	515.127.4566

Exercise 6

localhost » hr sample database » employees

Browse Structure SQL Search Insert Export Imp

Show query box

Showing rows 0 - 4 (5 total, Query took 0.0006 sec) [hire_date: 1999-02-07 - 2000-01-04]

```
SELECT employee_id, first_name, last_name, hire_date
FROM employees
WHERE YEAR( hire_date ) >=1999
ORDER BY hire_date
LIMIT 0 , 30
```

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

employee_id	first_name	last_name	hire_date
107	Diana	Lorentz	1999-02-07
178	Kimberely	Grant	1999-05-24
119	Karen	Colmenares	1999-08-10
113	Luis	Popp	1999-12-07
179	Charles	Johnson	2000-01-04

FILTERING DATA PART 02

Exercise 1

localhost » hr sample database » dependents

Browse Structure SQL Search Insert Export Import

Show query box

⚠ This table does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

✓ Showing rows 0 - 1 (2 total, Query took 0.0005 sec)

```
SELECT first_name, last_name, salary
FROM employees
WHERE first_name LIKE 'P%'
AND salary < 8000
LIMIT 0 , 30
```

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

first_name	last_name	salary
Payam	Kaufling	7900.00
Pat	Fay	6000.00

Exercise 2

localhost » hr sample database » dependents

Browse Structure SQL Search Insert Export Import

Show query box

⚠ This table does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

✓ Showing rows 0 - 3 (4 total, Query took 0.0025 sec)

```
SELECT first_name, last_name, hire_date, department_id
FROM employees
WHERE hire_date
BETWEEN '1997-01-01'
AND '1998-12-31'
AND department_id = 5
LIMIT 0 , 30
```

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

first_name	last_name	hire_date	department_id
Adam	Fripp	1997-04-10	5
Shanta	Vollman	1997-10-10	5
Irene	Mikkilineni	1998-09-28	5
Britney	Everett	1997-03-03	5

Exercise 3

localhost » hr sample database » employees

Browse Structure SQL Search Insert Export Import

Show query box

⚠ This table does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are disabled.

✓ Showing rows 0 - 10 (11 total, Query took 0.0006 sec) [last_name: URMAN - COLMENARES]

```
SELECT first_name, last_name, salary, email, hire_date AS 'Year of Hire'  
FROM employees  
WHERE YEAR(hire_date )  
IN ( 1998, 1999, 2000 )  
ORDER BY last_name DESC  
LIMIT 0 , 30
```

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

first_name	last_name	salary	email	Year of Hire
Jose Manuel	Urman	7800.00	jose.manuel.urman@sqltutorial.org	1998-03-07
Jonathon	Taylor	8600.00	jonathon.taylor@sqltutorial.org	1998-03-24
Luis	Popp	6900.00	luis.popp@sqltutorial.org	1999-12-07
Valli	Pataballa	4800.00	valli.pataballa@sqltutorial.org	1998-02-05
Irene	Mikkilineni	2700.00	irene.mikkilineni@sqltutorial.org	1998-09-28
Diana	Lorentz	4200.00	diana.lorentz@sqltutorial.org	1999-02-07
Jack	Livingston	8400.00	jack.livingston@sqltutorial.org	1998-04-23
Charles	Johnson	6200.00	charles.johnson@sqltutorial.org	2000-01-04
Guy	Himuro	2600.00	guy.himuro@sqltutorial.org	1998-11-15
Kimberely	Grant	7000.00	kimberely.grant@sqltutorial.org	1999-05-24
Karen	Colmenares	2500.00	karen.colmenares@sqltutorial.org	1999-08-10

Exercise 4

localhost » hr sample database » employees

Show query box

Showing rows 0 - 18 (19 total, Query took 0.0005 sec) [salary: 10000.00 - 6000.00]

```
SELECT *
FROM employees
WHERE salary >=5000
AND salary <=10000
ORDER BY salary DESC
LIMIT 0 , 30
```

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

	Edit	Copy	Delete	employee_id	first_name	last_name	email	phone_number	hire_date	job_id	salary	manager_id	department_id
0				204	Hermann	Baer	hermann.baer@sqltutorial.org	515.123.8888	1994-06-07	12	10000.00	101	7
1				103	Alexander	Hunold	alexander.hunold@sqltutorial.org	590.423.4567	1990-01-03	9	9000.00	102	6
2				109	Daniel	Faviet	daniel.faviet@sqltutorial.org	515.124.4169	1994-08-16	6	9000.00	108	10
3				176	Jonathon	Taylor	jonathon.taylor@sqltutorial.org	NULL	1998-03-24	16	8600.00	100	8
4				177	Jack	Livingston	jack.livingston@sqltutorial.org	NULL	1998-04-23	16	8400.00	100	8
5				206	William	Gietz	william.gietz@sqltutorial.org	515.123.8181	1994-06-07	1	8300.00	205	11
6				110	John	Chen	john.chen@sqltutorial.org	515.124.4269	1997-09-28	6	8200.00	108	10
7				121	Adam	Fripp	adam.fripp@sqltutorial.org	650.123.2234	1997-04-10	19	8200.00	100	5
8				120	Matthew	Weiss	matthew.weiss@sqltutorial.org	650.123.1234	1996-07-18	19	8000.00	100	5
9				122	Payam	Kaufling	payam.kaufling@sqltutorial.org	650.123.3234	1995-05-01	19	7900.00	100	5
10				112	Jose Manuel	Urman	jose manuel.urman@sqltutorial.org	515.124.4469	1998-03-07	6	7800.00	108	10
11				111	Ismael	Sciarra	ismael.sciarra@sqltutorial.org	515.124.4369	1997-09-30	6	7700.00	108	10
12				178	Kimberely	Grant	kimberely.grant@sqltutorial.org	NULL	1999-05-24	16	7000.00	100	8
13				113	Luis	Popp	luis.popp@sqltutorial.org	515.124.4567	1999-12-07	6	6900.00	108	10
14				123	Shanta	Vollman	shanta.vollman@sqltutorial.org	650.123.4234	1997-10-10	19	6500.00	100	5
15				203	Susan	Mavris	susan.mavris@sqltutorial.org	515.123.7777	1994-06-07	8	6500.00	101	4
16				179	Charles	Johnson	charles.johnson@sqltutorial.org	NULL	2000-01-04	16	6200.00	100	8
17				202	Pat	Fay	pat.fay@sqltutorial.org	603.123.6666	1997-08-17	11	6000.00	201	2

Exercise 5

localhost » hr sample database » employees

Show query box

This table does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete

Showing rows 0 - 26 (27 total, Query took 0.0045 sec) [first_name: ADAM - WILLIAM]

```
SELECT first_name, last_name, salary
FROM employees
WHERE salary
BETWEEN 4000
AND 12000
ORDER BY first_name ASC
LIMIT 0 , 30
```

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

first_name	last_name	salary
Adam	Fripp	8200.00
Alexander	Hunold	9000.00
Bruce	Ernst	6000.00

Exercise 6

localhost » hr sample database » employees

Browse Structure SQL Search Insert Export Import Operations Triggers

Show query box

Showing rows 0 - 25 (26 total, Query took 0.0012 sec) [salary: 24000.00 - 2500.00]

```
SELECT *
FROM employees
WHERE department_id NOT
IN ( 1, 4, 8, 10 )
ORDER BY salary DESC
LIMIT 0 , 30
```

Profiling [Inline] [Edit] [Explain SQL] [Create PHP Code] [Refresh]

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

	employee_id	first_name	last_name	email	phone_number	hire_date	job_id	salary	manager_id
<input type="checkbox"/>	100	Steven	King	steven.king@sqltutorial.org	515.123.4567	1987-06-17	4	24000.00	NULL
<input type="checkbox"/>	101	Neena	Kochhar	neena.kochhar@sqltutorial.org	515.123.4568	1989-09-21	5	17000.00	100
<input type="checkbox"/>	102	Lex	De Haan	lex.de.haan@sqltutorial.org	515.123.4569	1993-01-13	5	17000.00	100
<input type="checkbox"/>	201	Michael	Hartstein	michael.hartstein@sqltutorial.org	515.123.5555	1996-02-17	10	13000.00	100

Exercise 7

localhost » hr sample database » employees

Browse Structure SQL Search Insert Export Import

Show query box

This table does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are disabled.

Showing rows 0 - 1 (2 total, Query took 0.0016 sec) [first_name: CHARLES - LUIS]

```
SELECT first_name, last_name
FROM employees
WHERE first_name LIKE '%s'
ORDER BY first_name ASC
LIMIT 0 , 30
```

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

first_name	last_name
Charles	Johnson
Luis	Popp

Exercise 8

localhost » hr sample database » employees

Browse Structure SQL Search Insert Export Import

Show query box

Showing rows 0 - 0 (1 total, Query took 0.0010 sec)

```
SELECT employee_id, first_name, last_name
FROM employees
WHERE last_name LIKE '__g'
LIMIT 0 , 30
```

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

+ Options

	employee_id	first_name	last_name
<input type="checkbox"/>	100	Steven	King

JOINS

Exercise 1

localhost » hr sample database » employees

Browse Structure SQL Search Insert Export Import

Show query box

⚠ This table does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are disabled.

Showing rows 0 - 29 (40 total, Query took 0.0008 sec)

```
SELECT first_name, last_name, manager_id, e.department_id, l.location_id
FROM employees e, departments d, locations l
WHERE e.department_id = d.department_id
AND l.location_id = d.location_id
LIMIT 0 , 30
```

1 Show all > >> | Show : Start row: 30 Number of rows: 30 Help

+ Options

first_name	last_name	manager_id	department_id	location_id
Michael	Hartstein	100	2	1800
Pat	Fay	201	2	1800
Hermann	Baer	101	7	2700
Susan	Mavris	101	4	2400
John	Russell	100	8	2500

localhost » hr sample database » employees

Browse Structure SQL Search Insert Export Import

Show query box

⚠ This table does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are disabled.

Showing rows 0 - 29 (40 total, Query took 0.0031 sec)

```
SELECT first_name, last_name, manager_id, e.department_id, d.location_id
FROM employees AS e
INNER JOIN departments AS d ON e.department_id = d.department_id
INNER JOIN locations AS l ON l.location_id = d.location_id
LIMIT 0 , 30
```

1 Show all > >> | Show : Start row: 30 Number of rows: 30 Help

+ Options

first_name	last_name	manager_id	department_id	location_id
Michael	Hartstein	100	2	1800
Pat	Fay	201	2	1800
Hermann	Baer	101	7	2700
Susan	Mavris	101	4	2400
John	Russell	100	8	2500

Exercise 2

localhost » hr sample database » employees

Browse Structure SQL Search Insert E

Show query box

Showing rows 0 - 6 (7 total, Query took 0.0028 sec)

```
SELECT location_id, postal_code, c.country_id, country_name
FROM locations l
INNER JOIN countries c ON c.country_id = l.country_id
LIMIT 0 , 30
```

Show : Start row: 0 Number of rows: 30 Headers every 100

+ Options

location_id	postal_code	country_id	country_name
1400	26192	US	United States of America
1500	99236	US	United States of America
1700	98199	US	United States of America
1800	M5V 2L7	CA	Canada
2400	NULL	UK	United Kingdom
2500	OX9 9ZB	UK	United Kingdom
2700	80925	DE	Germany

Exercise 3

localhost » hr sample database » employees

Browse Structure SQL Search Insert Export Import Operations

Show query box

Showing rows 0 - 29 (30 total, Query took 0.0009 sec)

```
SELECT e.employee_id, e.first_name, e.last_name, dependent_id, d.first_name, d.last_name
FROM employees e
INNER JOIN dependents d ON e.employee_id = d.employee_id
LIMIT 0 , 30
```

Profiling [Inline] [Edit]

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

+ Options

employee_id	first_name	last_name	dependent_id	first_name	last_name
206	William	Gietz	1	Penelope	Gietz
205	Shelley	Higgins	2	Nick	Higgins
200	Jennifer	Whalen	3	Ed	Whalen
100	Steven	King	4	Jennifer	King
101	Neena	Kochhar	5	Johnny	Kochhar
102	Lex	De Haan	6	Bette	De Haan
109	Daniel	Faviet	7	Grace	Faviet
110	John	Chen	8	Matthew	Chen

AGGREGATE FUNCTIONS

Exercise 1

localhost » hr sample database » employees

Browse Structure SQL Search Insert Export Import Oper

Show query box

⚠ This table does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available

Showing rows 0 - 0 (1 total, Query took 0.0011 sec)

```
SELECT d.department_name 'Department Name', COUNT( e.department_id ) 'Headcount'
FROM employees e, departments d
WHERE e.department_id = 8
AND d.department_id = 8
LIMIT 0 , 30
```

Profiling [Inline]

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

+ Options

Department Name	Headcount
Sales	6

Exercise 2

localhost » hr sample database » employees

Browse Structure SQL Search Insert Export Import Oper

```
SELECT d.department_name 'Department Name', COUNT( e.department_id ) Headcount
FROM employees e
INNER JOIN departments d ON d.department_id = e.department_id
GROUP BY d.department_name
LIMIT 0 , 30
```

Profiling [Inline]

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

+ Options

Department Name	Headcount
Accounting	2
Administration	1
Executive	3
Finance	6
Human Resources	1
IT	5
Marketing	2
Public Relations	1
Purchasing	6
Sales	6
Shipping	7

Exercise 3

```

SELECT m.manager_id AS 'Manager ID', CONCAT( e.first_name, ' ', e.last_name ) AS 'Manager Name', COUNT( m.manager_id ) AS
'Number of Employees Managed'
FROM employees m
INNER JOIN employees e ON e.employee_id = m.manager_id
GROUP BY m.manager_id
LIMIT 0 , 30

```

Profiling [[Inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP Code](#)] [[Refresh](#)]

+ Options

Manager ID	Manager Name	Number of Employees Managed
100	Steven King	14
101	Neena Kochhar	5
102	Lex De Haan	1
103	Alexander Hunold	4
108	Nancy Greenberg	5
114	Den Raphaely	5
120	Matthew Weiss	1
123	Shanta Vollman	2
201	Michael Hartstein	1

Exercise 4

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0006 sec)

```

SELECT e.employee_id AS 'Employee ID', CONCAT( e.first_name, ' ', e.last_name ) AS 'Employee Name', COUNT( d.employee_id ) AS
'Number of Dependents'
FROM employees e
INNER JOIN dependents d ON e.employee_id = d.employee_id
GROUP BY d.employee_id
HAVING COUNT( d.employee_id ) = 2

```

Profiling [[Edit](#)] [[Explain SQL](#)] [[Create PHP Code](#)] [[Refresh](#)]

[Show query box](#)

Exercise 5

Showing rows 0 - 10 (11 total, Query took 0.0041 sec)

```

SELECT d.department_id AS 'Department ID', SUM( e.salary ) AS 'Total Salary'
FROM departments d
INNER JOIN employees e ON e.department_id = d.department_id
GROUP BY d.department_id
LIMIT 0 , 30

```

Show : Start row: Number of rows: Headers every rows

+ Options

Department ID	Total Salary
1	4400.00
2	19000.00
3	24900.00
4	6500.00
5	41200.00
6	28800.00
7	10000.00
8	57700.00
9	58000.00

Exercise 6

Showing rows 0 - 18 (19 total, Query took 0.0005 sec)

```
SELECT ROUND( AVG( max_salary ) , 2 ) AS 'Average of the max salary'
FROM jobs
LIMIT 0 , 30
```

Show all Show : Start row: 0 Number of rows: 30 Headers every 100

Sort by key: None

+ Options

Average of the max salary

13210.53

GROUPING DATA

Exercise 1

Showing rows 0 - 18 (19 total, Query took 0.1 sec)

```
SELECT job_id, COUNT(job_id )
FROM employees
GROUP BY job_id
LIMIT 0 , 30
```

Show : Start row: 0 Number of rows:

Sort by key: None

+ Options

job_id	COUNT(job_id)
1	1
2	1
3	1
4	1
5	2
6	5
7	1
8	1
9	5

Exercise 2

Showing rows 0 - 0 (1 total, Query took 0 sec)

Showing rows 0 - 0 (1 total, Query took 0.0 sec)

```
SELECT job_id, COUNT( job_id )
FROM employees
WHERE job_id = 9
LIMIT 0 , 30
```

```
SELECT job_id, COUNT(job_id )
FROM employees
GROUP BY job_id
HAVING job_id = 9
LIMIT 0 , 30
```

Show : Start row: 0 Number of rows:

Show : Start row: 0 Number of rows:

+ Options

job_id	COUNT(job_id)
9	5

job_id	COUNT(job_id)
9	5

Exercise 3

✓ Showing rows 0 - 18 (19 total, Query took 0.0007 sec)

```
SELECT e.job_id 'Job ID', job_title 'Job Title', COUNT( e.job_id ) 'Number of staff'  
FROM employees e  
INNER JOIN jobs j ON e.job_id = j.job_id  
GROUP BY e.job_id  
LIMIT 0 , 30
```

Profili

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

+ Options

Job ID	Job Title	Number of staff
1	Public Accountant	1
2	Accounting Manager	1
3	Administration Assistant	1
4	President	1
5	Administration Vice President	2
6	Accountant	5
7	Finance Manager	1
8	Human Resources Representative	1
9	Programmer	5

SUBQUERY PART 01

Exercise 1

✓ Showing rows 0 - 0 (1 total, Query took 0.0012 sec)

```
SELECT employee_id, first_name, last_name, MIN( salary )  
FROM employees  
WHERE salary = (  
SELECT MIN( salary )  
FROM employees )
```

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

+ Options

employee_id	first_name	last_name	min(salary)
119	Karen	Colmenares	2500.00

Exercise 2

localhost » hr sample database » employees

Browse Structure SQL Search Insert Export Import

Show query box

Showing rows 0 - 16 (17 total, Query took 0.0047 sec)

```
SELECT employee_id, first_name, last_name, salary
FROM employees
WHERE salary > (
    SELECT AVG( salary )
    FROM employees )
```

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

	employee_id	first_name	last_name	salary
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	100	Steven	King	24000.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	101	Neena	Kochhar	17000.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	102	Lex	De Haan	17000.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	103	Alexander	Hunold	9000.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	108	Nancy	Greenberg	12000.00
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	109	Renee	Einstein	0000.00

Exercise 3

localhost » hr sample database » employees

Browse Structure SQL Search Insert Export Import

Show query box

Showing rows 0 - 11 (12 total, Query took 0.0006 sec) [salary: 2500.00 - 4800.00]

```
SELECT employee_id, first_name, last_name, salary, department_id
FROM employees
WHERE salary < (
    SELECT AVG( salary )
    FROM employees
    WHERE department_id = 6 )
ORDER BY salary
```

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Sort by key: None

+ Options

	employee_id	first_name	last_name	salary	department_id
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	119	Karen	Colmenares	2500.00	3
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	118	Guy	Himuro	2600.00	3
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	126	Irene	Mikkilineni	2700.00	5
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	117	Sigal	Tobias	2800.00	3
<input type="checkbox"/> Edit <input type="button" value="Copy"/> <input type="button" value="Delete"/>	116	Shelli	Baida	2900.00	3

Exercise 4

Browser tabs: Browse, Structure, SQL, Search, Insert, Export, Import.

Show query box

Showing rows 0 - 4 (5 total, Query took 0.0046 sec)

```
SELECT employee_id, first_name, last_name, e.department_id, department_name
FROM employees e, departments d
WHERE e.department_id
IN (
    SELECT d.department_id
    FROM departments
)
```

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Options

employee_id	first_name	last_name	department_id	department_name
103	Alexander	Hunold	6	IT
104	Bruce	Ernst	6	IT
105	David	Austin	6	IT
106	Valli	Pataballa	6	IT
107	Diana	Lorentz	6	IT

```
SELECT employee_id, first_name, last_name, e.department_id, department_name
FROM employees e, departments d
WHERE e.department_id
IN (
    SELECT d.department_id
    FROM departments
    WHERE d.department_name = 'IT'
);
```

Exercise 5

Browser tabs: Browse, Structure, SQL, Search, Insert, Export, Import.

Show query box

Showing rows 3 - 32 (30 total, Query took 0.0006 sec)

```
SELECT dependent_id, CONCAT( d.first_name, " ", d.last_name ) 'Dependent name',
'Employee name', relationship AS 'Dependent relationship to employee'
FROM dependents d
INNER JOIN employees e ON d.employee_id = e.employee_id
ORDER BY dependent_id
LIMIT 3 , 40
```

Pro

Options

dependent_id	Dependent name	Employee name	Dependent relationship to employee
4	Jennifer King	Steven King	Child
5	Johnny Kochhar	Neena Kochhar	Child
6	Bette De Haan	Lex De Haan	Child
7	Grace Faviet	Daniel Faviet	Child
8	Matthew Chen	John Chen	Child
9	Joe Sciarra	Ismael Sciarra	Child
10	Christian Urman	Jose Manuel Urman	Child

SUBQUERY PART 02

Exercise 1

```
SELECT first_name, last_name, salary, department_id  
FROM employees  
WHERE salary <  
ALL (
```

```
SELECT AVG( salary )  
FROM employees  
WHERE department_id = 6  
)  
ORDER BY salary
```

first_name	last_name	salary	department_id
Karen	Colmenares	2500.00	3
Guy	Himuro	2600.00	3
Irene	Mikkilineni	2700.00	5
Sigal	Tobias	2800.00	3
Shelli	Baida	2900.00	3
Alexander	Khoo	3100.00	3
Britney	Everett	3900.00	5
Sarah	Lopez	4000.00	5
Diana	Lorentz	4200.00	6
Jennifer	Whalen	4400.00	1
Valli	Pataballa	4800.00	6
David	Austin	4800.00	6

Exercise 2

```
SELECT first_name, last_name, salary, department_id  
FROM employees  
WHERE salary >  
ALL (
```

```
SELECT MIN( salary )  
FROM employees  
WHERE department_id = 8  
)  
ORDER BY salary
```

first_name	last_name	salary	department_id
Susan	Mavris	6500.00	4
Shanta	Vollman	6500.00	5
Luis	Popp	6900.00	10
Kimberely	Grant	7000.00	8
Ismael	Sciarra	7700.00	10
Jose Manuel	Urman	7800.00	10
Payam	Kaufling	7900.00	5
Matthew	Weiss	8000.00	5
John	Chen	8200.00	10
Adam	Fripp	8200.00	5
William	Gietz	8300.00	11
Jack	Livingston	8400.00	8
Jonathon	Taylor	8600.00	8
Daniel	Faviet	9000.00	10
Alexander	Hunold	9000.00	6
Hermann	Baer	10000.00	7
Den	Raphaely	11000.00	3
Nancy	Greenberg	12000.00	10
Shelley	Higgins	12000.00	11
Michael	Hartstein	13000.00	2

Finding all employees whose salary does not equal to the average salary of each department.

MODIFYING DATA

Exercise 1 & 2

The screenshot shows the MySQL Workbench interface. At the top, there are tabs for Browse, Structure, SQL, Search, Insert, Export, Import, and a help icon. A green status bar indicates "Showing rows 0 - 2 (3 total, Query took 0.0005 sec)".

In the SQL editor, the following query is displayed:

```
SELECT *
FROM `students`
LIMIT 0 , 30
```

Below the editor, there are buttons for Profiling, Show (Start row: 0, Number of rows: 30, Headers every 100 rows), and Sort by key (None). The main area displays a grid of student data:

	studentno	surname	firstname	email	phoneno
<input type="checkbox"/>	EC007	Flintstone	Fred	flintstone@bt.com	1234567
<input type="checkbox"/>	EC008	Flintstone	Wilma	w.flintstone@bt.com	2345678
<input type="checkbox"/>	EC009	Flintstone	Dino	d.flintstone@bt.com	3456789

At the bottom, there are buttons for Check All, With selected: Change, Delete, Export, and another set of Show, Number of rows, and Headers every buttons.

Exercise 3

✓ Showing rows 0 - 0 (1 total, Query took 0.0004 sec)

```
SELECT *
FROM `module`
LIMIT 0 , 30
```

Profiling [Inlin

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

+ Options

<input type="checkbox"/>  Edit	<input type="checkbox"/>  Copy	<input type="checkbox"/>  Delete	moduleno	modulename	moduleunitsize	hoursfordelivery	studentno
<input type="checkbox"/>			DH3J34	SQL: Introduction	1	32	EC007

Exercise 4

✓ Showing rows 0 - 2 (3 total, Query took 0.0005 sec)

```
SELECT *
FROM `students`
LIMIT 0 , 30
```

Profili

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Sort by key: None ▾

+ Options

<input type="checkbox"/>  Edit	<input type="checkbox"/>  Copy	<input type="checkbox"/>  Delete	studentno	surname	firstname	email	phoneno
<input type="checkbox"/>			EC007	Flintstone	Barney	flintstone@bt.com	1234567
<input type="checkbox"/>	 		EC008	Flintstone	Wilma	w.flintstone@bt.com	2345678
<input type="checkbox"/>	 		EC009	Flintstone	Dino	d.flintstone@bt.com	3456789

UPDATE students
SET firstname = 'Fred'
WHERE studentno = 'EC007';

 Showing rows 0 - 2 (3 total, Query took 0.0005 sec)

```
SELECT *
FROM `students`
LIMIT 0 , 30
```

Profiling

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Sort by key: None ▾

Options

	studentno	surname	firstname	email	phoneno		
<input type="checkbox"/>  Edit	 Copy	 Delete	EC007	Flintstone	Fred	flintstone@bt.com	1234567
<input type="checkbox"/>  Edit	 Copy	 Delete	EC008	Flintstone	Wilma	w.flintstone@bt.com	2345678
<input type="checkbox"/>  Edit	 Copy	 Delete	EC009	Flintstone	Dino	d.flintstone@bt.com	3456789

Exercise 5

 Showing rows 0 - 0 (1 total, Query took 0.0038 sec)

```
SELECT surname, firstname, s.studentno, m.modulename
FROM students s, module m
WHERE s.studentno = m.studentno
LIMIT 0 , 30
```

Pr

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Options

surname	firstname	studentno	modulename
Flintstone	Fred	EC007	SQL: Introduction

Show query box

 Showing rows 0 - 0 (1 total, Query took 0.0005 sec)

```
SELECT surname, firstname, s.studentno, modulename  
FROM students s  
INNER JOIN module m ON s.studentno = m.studentno  
LIMIT 0 , 30
```

Profi

Show : Start row: Number of rows: Headers every rows

+ Options

surname	firstname	studentno	modulename
Flintstone	Fred	EC007	SQL: Introduction