

Assignment SQL #1

Data retrieval and DBMS

(เต็ม 50 คะแนน เก็บ 25 คะแนน)

วัตถุประสงค์

1. เข้าใจการค้นหาข้อมูลในฐานข้อมูล
2. เขียนคำสั่ง select ตามเงื่อนไขที่กำหนดให้ได้
3. ใช้ workbench สำหรับสร้างฐานข้อมูล สร้างตาราง เพิ่มข้อมูล และค้นหาข้อมูลได้ รวมถึงการนำเข้าข้อมูล

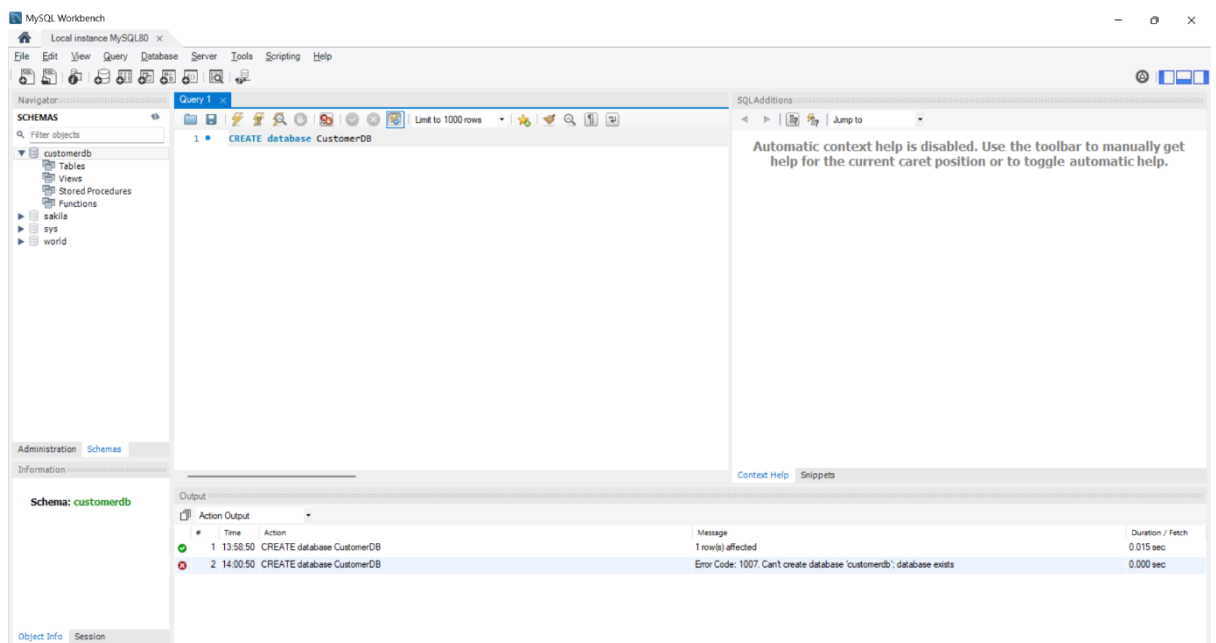
ภาระงานส่ง

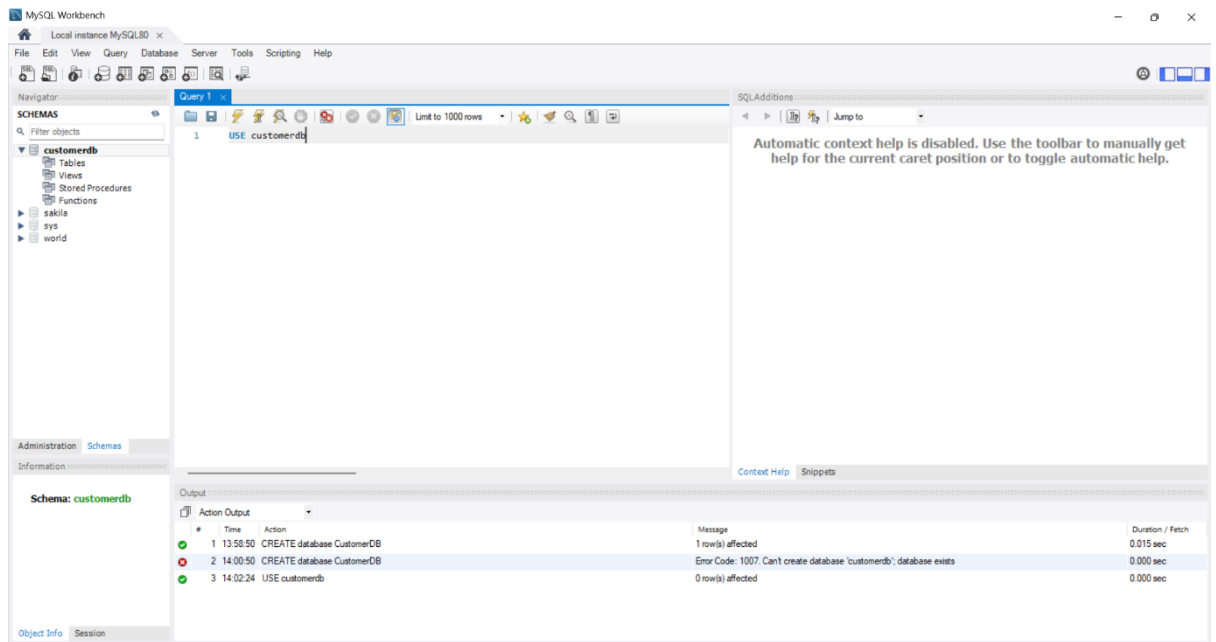
- ตั้งชื่อไฟล์ รหัสนักศึกษา_asgSQL#1.pdf
- ส่งที่ LMS2 ภายในวันที่ 28 ธันวาคม 2568

1. (5 คะแนน) สร้างฐานข้อมูล ตาราง เพิ่มข้อมูลลงในตาราง และแสดงผลการ query

1.1 (1 คะแนน) Create database named “CustomerDB”

ตอบ

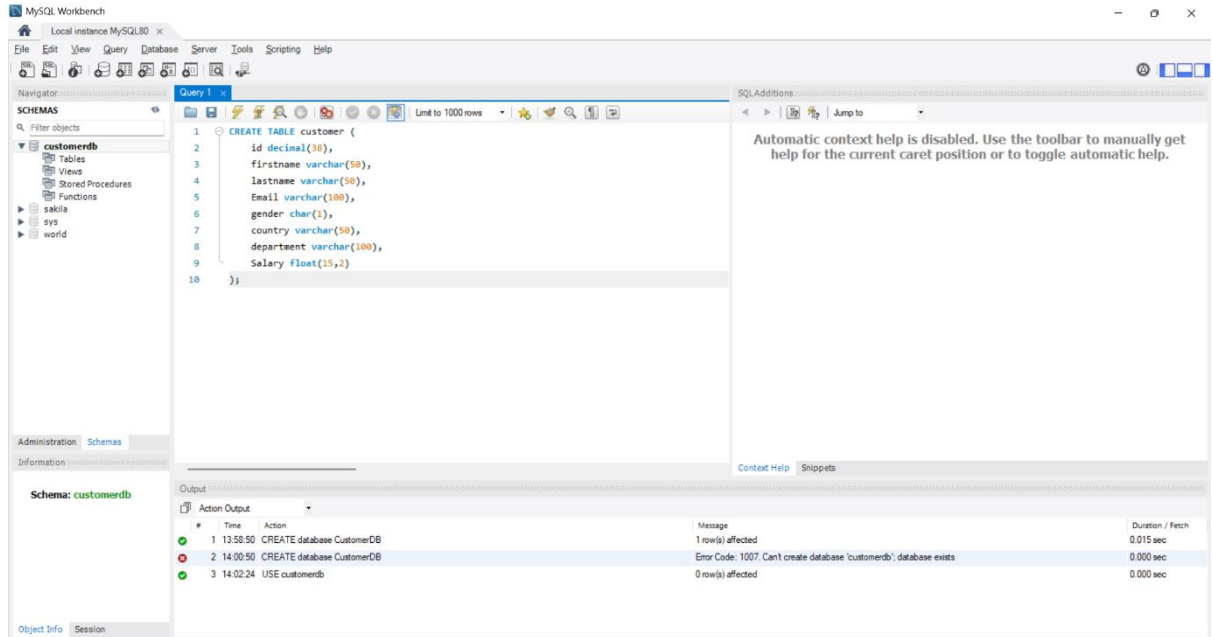




1.2 (1 คะแนน) Create table called “customer”

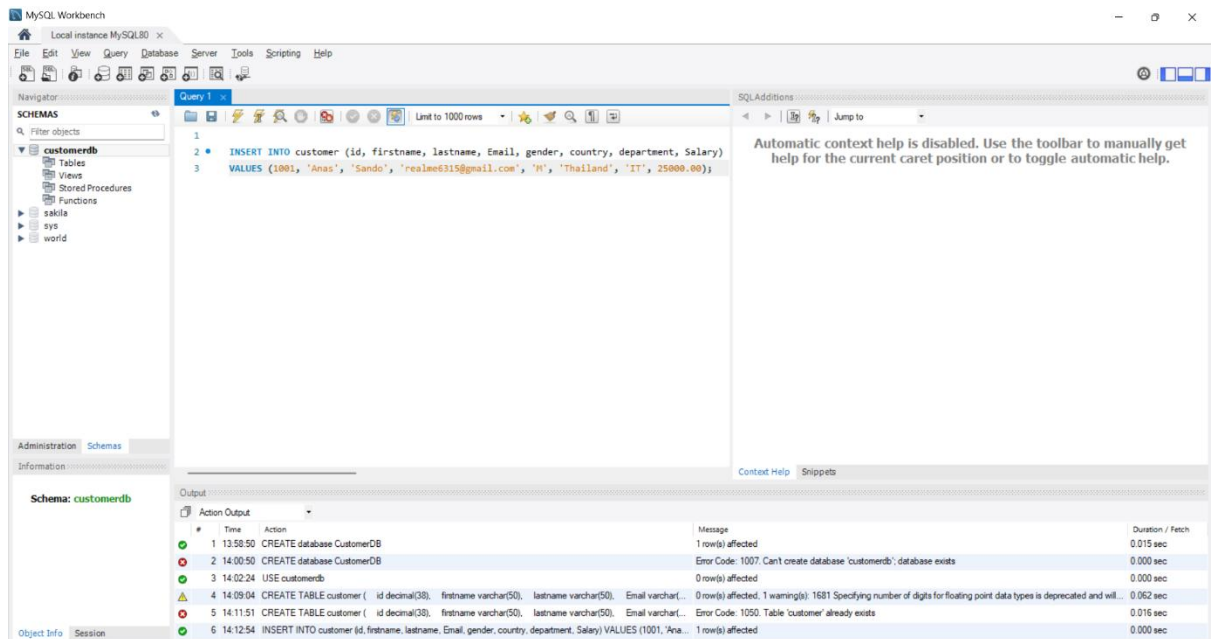
Attribute Name	Data Type
<u>id</u>	decimal(38)
firstname	varchar(50)
lastname	varchar(50)
Email	varchar(100)
gender	char(1)
country	varchar(50)
department	varchar(100)
Salary	float(15,2)

ตอบ



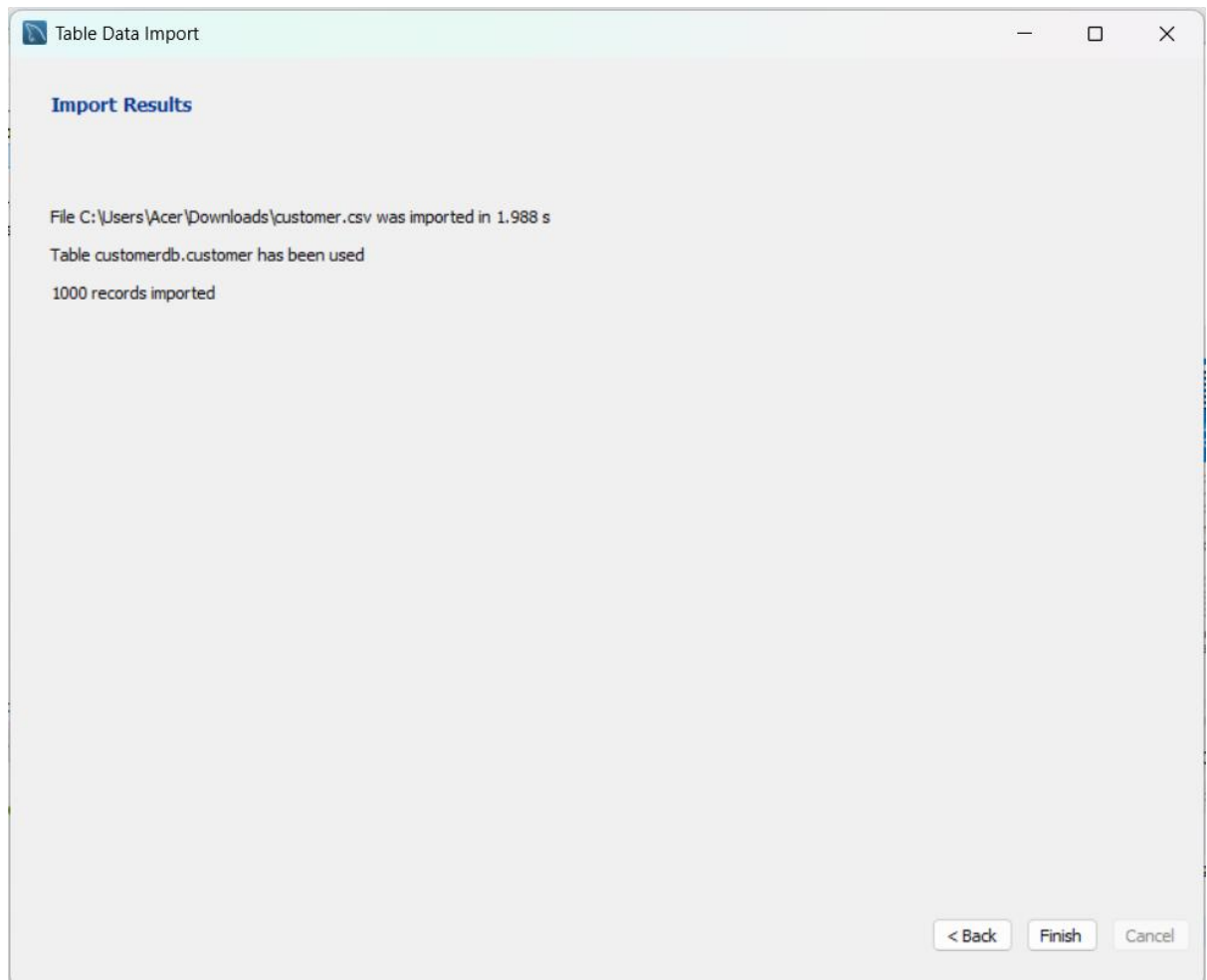
1.3 (1 คะแนน) Insert your information to the table (เพิ่มข้อมูลส่วนตัวของนักศึกษาลงในตาราง)
กำหนดรหัสเป็น 1001 สำหรับข้อมูลอื่นเป็นข้อมูลของนักศึกษาเอง

ตอบ



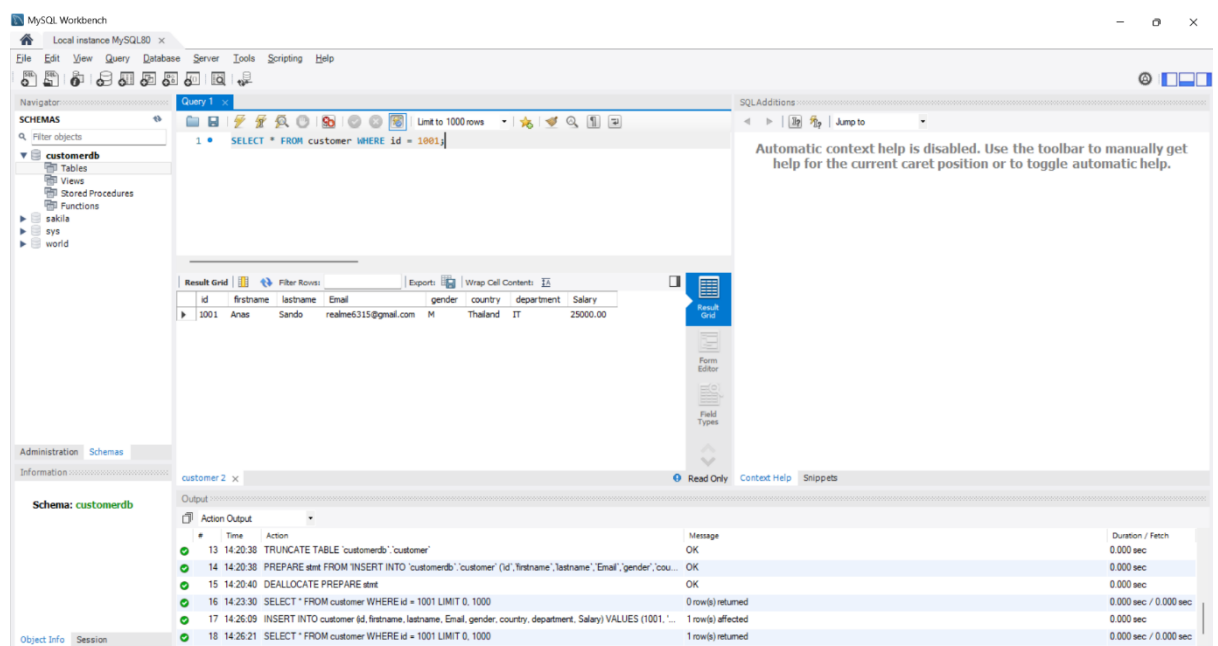
1.4 (1 คะแนน) เพิ่มข้อมูลในไฟล์ customer.csv ลงในตาราง customer

ตอบ



1.5 (1 คะแนน) แสดงคำสั่ง sql และผลลัพธ์ ของข้อมูลนักศึกษา แสดงหน้าจอ

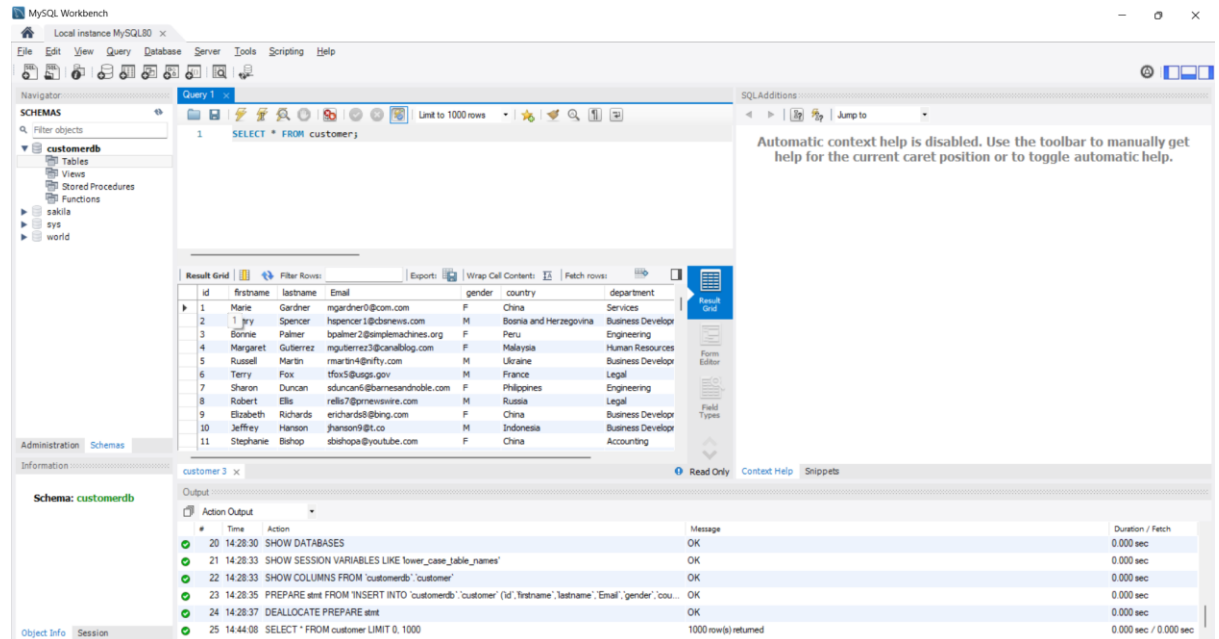
ตอบ



2. (45 คะแนน) เขียนคำสั่ง SQL สำหรับค้นหาข้อมูลในแต่ละข้อต่อไปนี้ให้ตอบด้วยรูปภาพหน้าจอ Workbench ที่เห็นคำสั่ง sql และ ตารางผลลัพธ์ หากข้อไหนข้อมูลในตารางมีหลายแถว แสดงเพียงบางแถวได้

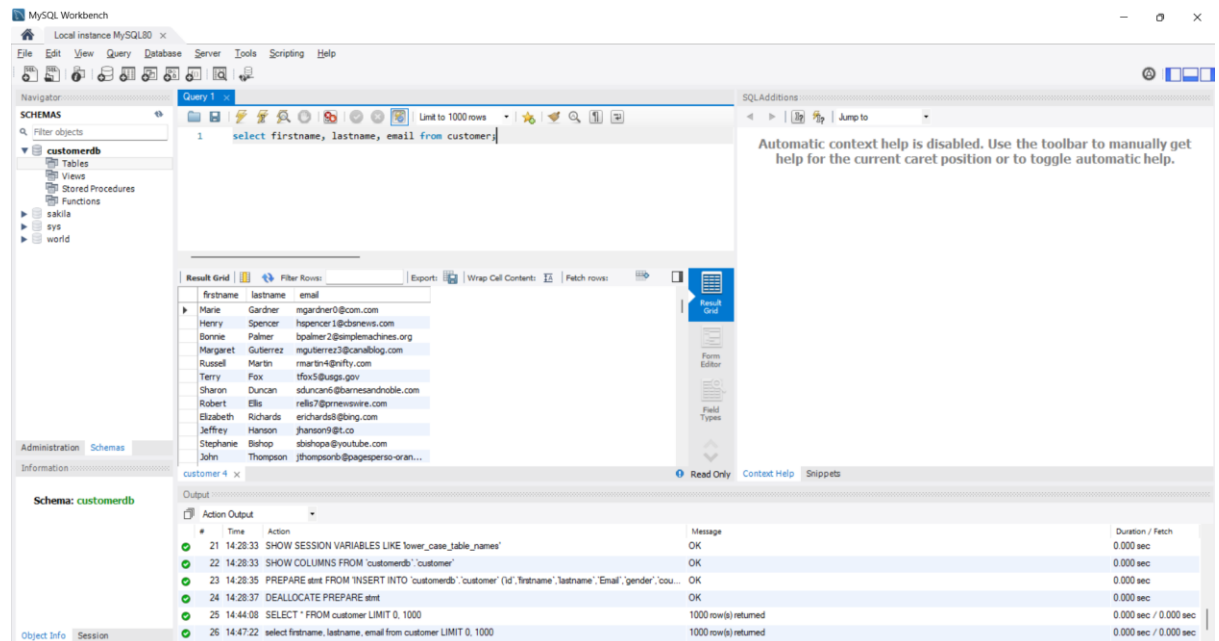
2.1 (2 คะแนน) แสดงข้อมูลลูกค้าทุกคนทุกคอลัมน์

ตอบ



2.2 (2 คะแนน) แสดงเฉพาะ first_name, last_name และ email

ตอบ



2.3 (3 คะแนน) แสดงข้อมูลลูกค้าที่เป็นเพศหญิง

ตอบ

The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL statement:

```
1 select * from customer where gender = 'F';
```

The result grid displays the following data:

#	id	first_name	last_name	Email	gender	country	department
1	Marie	Gardner	mgardner0@com.com	F	China	Services	
3	Bonnie	Palmer	bpalmer2@simplemachines.org	F	Peru	Engineering	
4	Margaret	Gutierrez	mgutierrez3@canalblog.com	F	Malaysia	Human Resources	
7	Sharon	Duncan	sduncan6@barnesandnoble.com	F	Philippines	Engineering	
9	Elizabeth	Richards	erichards8@img.com	F	China	Business Development	
11	Stephanie	Bishop	sbishop@youtuber.com	F	China	Accounting	
15	Theresa	Mills	tmills@bloggermedia.org	F	Indonesia	Engineering	
17	Nicole	Russell	nrussell@pinterest.com	F	Indonesia	Engineering	
19	Christine	Martin	cmartin@imageshack.us	F	United States	Human Resources	
23	Mary	James	mjames@stumbleupon.com	F	Indonesia	Engineering	
24	Phyllis	Washington	pwashington@google.com.br	F	Philippines	Support	

The output pane shows the execution log for the query.

2.4 (3 คะแนน) แสดง first_name, last_name, salary ของลูกค้าที่มีเงินเดือนมากกว่า 200,000

ตอบ

The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL statement:

```
1 select first_name, last_name, salary from customer where salary > 200000;
```

The result grid displays the following data:

#	first_name	last_name	salary
1	Marie	Gardner	139661.36
2	Henry	Spencer	87484.77
3	Bonnie	Palmer	497253.94
4	Margaret	Gutierrez	239320.17
5	Russell	Martin	209984.39
6	Terry	Fox	168362.23
7	Sharon	Duncan	269272.62
8	Robert	Ellie	27620.55
9	Elizabeth	Richards	62365.19
10	Jeffrey	Hanson	322628.41
11	Stephanie	Bishop	390916.31
12	John	Thompson	177041.94

The output pane shows the execution log for the query.

2.5 (3 คะแนน) แสดงข้อมูลลูกค้าที่อยู่ประเทศ France

ตอบ

The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL query:

```
1 select * from customer where country = 'france';
```

The Results grid displays the following data:

id	firstname	lastname	Email	gender	country	department	Salary
6	Terry	Fox	tfox5@usgs.gov	M	France	Legal	168382
40	Mark	Scott	mScott13@latimes.com	M	France	Product Management	471895
62	Patrick	Dunn	pdunn1p@mysid.com	M	France	Services	68319.1
69	Jeremy	Ortiz	jortiz1w@3.org	M	France	Product Management	82017.1
119	Ronald	Sullivan	rsullivan3a@wisc.edu	M	France	Sales	316865
145	Christine	Rice	crice40@dedecms.com	F	France	Research and Development	217903
204	Steven	Willis	swillis3n@wisc.edu	M	France	Marketing	486862
220	Matthew	Ellis	mellis63@google.com.au	M	France	Product Management	52226.1
254	Catherine	Kelley	ckelley71@amazonaws.com	F	France	Product Management	317947
299	Wayne	Nichols	wnichols8a@iglobe.ne.jp	M	France	Services	147349
310	Randy	Gordon	rgordon8@icq.com	M	France	Support	473092

The Output pane shows the execution log with the following messages:

#	Time	Action	Message	Duration / Fetch
27	14:49:11	select * from customer where gender = 'F' LIMIT 0, 1000	1000 row(s) returned	0.015 sec / 0.000 sec
28	14:50:51	select firstname, lastname from customer where salary = 20000 LIMIT 0, 1000	0 row(s) returned	0.000 sec / 0.000 sec
29	14:51:38	select firstname, lastname, salary from customer where salary > 20000 LIMIT 0, 1000	0 row(s) returned	0.000 sec / 0.000 sec
30	14:52:05	select firstname, lastname, salary from customer where salary > 20000 LIMIT 0, 1000	1000 row(s) returned	0.000 sec / 0.000 sec
31	14:53:40	select * from customer where country = 'france' LIMIT 0, 1000	Error Code: 1054. Unknown column 'country' in 'where clause'	0.000 sec
32	14:54:03	select * from customer where country = 'france' LIMIT 0, 1000	54 row(s) returned	0.000 sec / 0.000 sec

2.6 (4 คะแนน) แสดงลูกค้าที่เป็นเพศชายและทำงานในแผนก Legal

ตอบ

The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL query:

```
1 select * from customer where gender = 'M' and department = 'Legal';
```

The Results grid displays the following data:

id	firstname	lastname	Email	gender	country	department	Salary
6	Terry	Fox	tfox5@usgs.gov	M	France	Legal	168382.23
8	Robert	Ellis	rellis7@prnewswire.com	M	Russia	Legal	27820.35
13	Charles	Parker	cparker@aol.com	M	Thailand	Legal	186724.09
16	Roger	Stanley	rstanleyf@pagesperso-orange.fr	M	Poland	Legal	187288.77
35	George	Mendoza	gmendoza@supern.com	M	Czech Republic	Legal	242400.31
83	Alan	Murphy	amurphy2a@stanford.edu	M	China	Legal	484633.31
89	Robert	Webb	rwebb2g@mozilla.com	M	Brazil	Legal	167713.69
97	Anthony	Ruiz	aruiz2b@ameins.com	M	Thailand	Legal	456961.91
108	Anthony	Chavez	achavez2z@rediff.com	M	Russia	Legal	366587.02
164	Ronald	Adams	radamsr8@avastar.com	M	Portugal	Legal	499489.91
189	Thomas	Garrett	tgarrett58@ihg.com	M	Thailand	Legal	211093.58

The Output pane shows the execution log with the following messages:

#	Time	Action	Message	Duration / Fetch
29	14:51:38	select firstname, lastname, salary from customer where salary = 20000 LIMIT 0, 1000	0 row(s) returned	0.000 sec / 0.000 sec
30	14:52:05	select firstname, lastname, salary from customer where salary > 20000 LIMIT 0, 1000	1000 row(s) returned	0.000 sec / 0.000 sec
31	14:53:40	select * from customer where country = 'france' LIMIT 0, 1000	Error Code: 1054. Unknown column 'country' in 'where clause'	0.000 sec
32	14:54:03	select * from customer where country = 'france' LIMIT 0, 1000	54 row(s) returned	0.000 sec / 0.000 sec
33	14:56:21	select * from customer where gender = 'M', department = 'Legal'	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL se...	0.000 sec
34	14:56:45	select * from customer where gender = 'M' and department = 'Legal' LIMIT 0, 1000	84 row(s) returned	0.016 sec / 0.000 sec

2.7 (4 คะแนน) แสดงลูกค้าที่อยู่ประเทศ China หรือ Peru

ตอบ

The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL query:

```
select * from customer where country in ('China','Peru');
```

The query results are displayed in a table with the following columns: id, firstname, lastname, Email, gender, country, department, and Salary. The results show 14 rows of data for customers from China and Peru.

id	firstname	lastname	Email	gender	country	department	Salary
1	Marie	Gardner	mgardner0@com.com	F	China	Services	1391
3	Bonnie	Palmer	bpalmer2@simplemachines.org	F	Peru	Engineering	497.
9	Elizabeth	Richards	erichards8@bing.com	F	China	Business Development	6239
11	Stephanie	Bishop	sbishopa@youtube.com	F	China	Accounting	3900
14	Frank	Banks	fbanksd@huffingtonpost.com	M	China	Training	296.
28	Doris	Hamilton	dhamilton@zimbio.com	F	China	Human Resources	381.
34	Anna	Reynolds	areynolds@quantcast.com	F	China	Accounting	124.
39	Nicole	Hudson	nhudson12@noaa.gov	F	China	Research and Development	1801
44	Anna	Elliott	aelliott17@ustream.tv	F	China	Accounting	474.
50	Peter	Oliver	polver10@telegraph.co.uk	M	China	Product Management	292.
54	Maria	Nichols	mnichols1h@multiply.com	F	China	Services	487.

2.8 (4 คะแนน) แสดงลูกค้าที่ email ลงท้ายด้วย .com

ตอบ

The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL query:

```
select * from customer where email like ('%.com');
```

The query results are displayed in a table with the following columns: id, firstname, lastname, Email, gender, country, department, and Salary. The results show 17 rows of data for customers whose email address ends with '.com'.

id	firstname	lastname	Email	gender	country	department	Salary
1	Marie	Gardner	mgardner0@com.com	F	China	Services	1391
2	Henry	Spencer	hspencer1@cdnews.com	M	Bosnia and Herzegovina	Business Development	1000
4	Margaret	Gutierrez	mgutierrez3@canalblog.com	F	Malaysia	Human Resources	1000
5	Russell	Martin	rmartin4@nifty.com	M	Ukraine	Business Development	1000
7	Sharon	Duncan	sduncan6@barnesandnoble.com	F	Philippines	Engineering	1000
9	Robert	Ellis	rellis7@newswire.com	M	Russia	Legal	1000
9	Elizabeth	Richards	erichards8@bing.com	F	China	Business Development	6239
11	Stephanie	Bishop	sbishopa@youtube.com	F	China	Accounting	3900
13	Charles	Parker	cparker@eol.com	M	Thailand	Legal	1000
14	Frank	Banks	fbanksd@huffingtonpost.com	M	China	Training	296.
17	Nicole	Russell	nrussell@pinterest.com	F	Indonesia	Engineering	1000

2.9 (4 คะแนน) แสดงลูกค้าที่ last_name มีตัวอักษรคำว่า er

ตอบ

The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL query:

```
1 select * from customer where lastname like 'er';
```

The result grid displays the following data:

id	firstname	lastname	Email	gender	country	department
1	Marie	Gardner	mgardner0@com.com	F	China	Services
2	Henry	Spencer	hspencer1@dsnews.com	M	Bosnia and Herzegovina	Business Developer
3	Bonnie	Palmer	bpalmer2@complemachines.org	F	Peru	Engineering
13	Charles	Parker	cparker@esul.com	M	Thailand	Legal
38	Roy	Snyder	rsnyder11@examiner.com	M	Indonesia	Human Resources
45	Donald	Spencer	dspencer18@yelp.com	M	Greece	Product Management
49	Jane	Carpenter	jcarpenter1c@disqus.com	F	Brazil	Support
50	Peter	Oliver	poliver1d@telegraph.co.uk	M	China	Product Management
85	Beverly	Spencer	bspencer2c@mitelban.gov.cn	F	Brazil	Research and Dev
88	Alice	Spencer	aspencer2f@npr.org	F	China	Product Management
90	Antonio	Meyer	ameyer2h@ftc.gov	M	China	Engineering

The output pane shows the following action output:

#	Time	Action	Message	Duration / Fetch
35	14:57:54	select * from customer where country = 'China' or 'Peru' LIMIT 0, 1000	350 row(s) returned	0.000 sec / 0.000 sec
36	14:58:45	select * from customer where country in ('China','Peru') LIMIT 0, 1000	390 row(s) returned	0.000 sec / 0.000 sec
37	15:01:25	select * from customer where email like '%.com' LIMIT 0, 1000	1000 row(s) returned	0.000 sec / 0.016 sec
38	15:02:25	select * from customer where lastname like 'Ter%' LIMIT 0, 1000	370 row(s) returned	0.015 sec / 0.000 sec
39	15:02:58	select * from customer where lastname like 'Ter%' LIMIT 0, 1000	370 row(s) returned	0.016 sec / 0.000 sec
40	15:03:08	select * from customer where lastname like 'Ter' LIMIT 0, 1000	218 row(s) returned	0.016 sec / 0.000 sec

2.10 (3 คะแนน) แสดงรายชื่อลูกค้าทั้งหมด เรียงตามเงินเดือนจากมากไปน้อย

ตอบ

The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL query:

```
1 select * from customer order by salary desc;
```

The result grid displays the following data:

id	firstname	lastname	Email	gender	country	department	Salary
577	James	Romero	jromero0@mytimes.com	M	China	Training	499327.97
577	James	Romero	jromero0@mytimes.com	M	China	Training	499327.97
978	Laura	Clark	lclark5@yahoo.com	F	Indonesia	Services	499172.25
978	Laura	Clark	lclark5@yahoo.com	F	Indonesia	Services	499172.25
769	Walter	Wallace	wwallace@youtu.be	M	Peru	Human Resources	499072.50
769	Walter	Wallace	wwallace@youtu.be	M	Peru	Human Resources	499072.50
428	Carl	Hunt	chuntbv@sciencedirect.com	M	Canada	Product Management	498767.66
428	Carl	Hunt	chuntbv@sciencedirect.com	M	Canada	Product Management	498767.66
164	Ronald	Adams	radams4@gravatar.com	M	Portugal	Legal	498489.91
164	Ronald	Adams	radams4@gravatar.com	M	Portugal	Legal	498489.91
967	Carl	Reynolds	creynolds@gnu.org	M	Peru	Research and Devel...	498199.16

The output pane shows the following action output:

#	Time	Action	Message	Duration / Fetch
36	14:58:45	select * from customer where country in ('China','Peru') LIMIT 0, 1000	390 row(s) returned	0.000 sec / 0.000 sec
37	15:01:25	select * from customer where email like '%.com' LIMIT 0, 1000	1000 row(s) returned	0.000 sec / 0.016 sec
38	15:02:25	select * from customer where lastname like 'Ter%' LIMIT 0, 1000	370 row(s) returned	0.015 sec / 0.000 sec
39	15:02:58	select * from customer where lastname like 'Ter%' LIMIT 0, 1000	370 row(s) returned	0.016 sec / 0.000 sec
40	15:03:08	select * from customer where lastname like 'Ter' LIMIT 0, 1000	218 row(s) returned	0.016 sec / 0.000 sec
41	15:07:35	select * from customer order by salary desc LIMIT 0, 1000	1000 row(s) returned	0.016 sec / 0.000 sec

2.11 (2 คะแนน) หาค่าเงินเดือนสูงสุดของลูกค้าทั้งหมด

ตอบ

The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL query:

```
1 select max(salary) from customer ;
```

The result grid shows the output of the query:

max(salary)
499327.97

The output pane shows the execution details of the query:

#	Time	Action	Message	Duration / Fetch
39	15:02:58	select "from customer where lastname like "Ler" LIMIT 0, 1000	370 row(s) returned	0.016 sec / 0.000 sec
40	15:03:08	select "from customer where lastname like "Ler" LIMIT 0, 1000	218 row(s) returned	0.016 sec / 0.000 sec
41	15:07:35	select "from customer order by salary desc LIMIT 0, 1000	1000 row(s) returned	0.016 sec / 0.000 sec
42	15:08:34	select max(salary) from customer LIMIT 0, 1000	1 row(s) returned	0.015 sec / 0.000 sec
43	15:09:06	select "from customer max(salary)	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL se...	0.000 sec
44	15:09:27	select max(salary) from customer LIMIT 0, 1000	1 row(s) returned	0.016 sec / 0.000 sec

2.12 (3 คะแนน) แสดงค่าเฉลี่ยเงินเดือนแยกตามแผนก (department)

ตอบ

The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL query:

```
1 select department , AVG(salary) from customer group by department;
```

The result grid shows the output of the query:

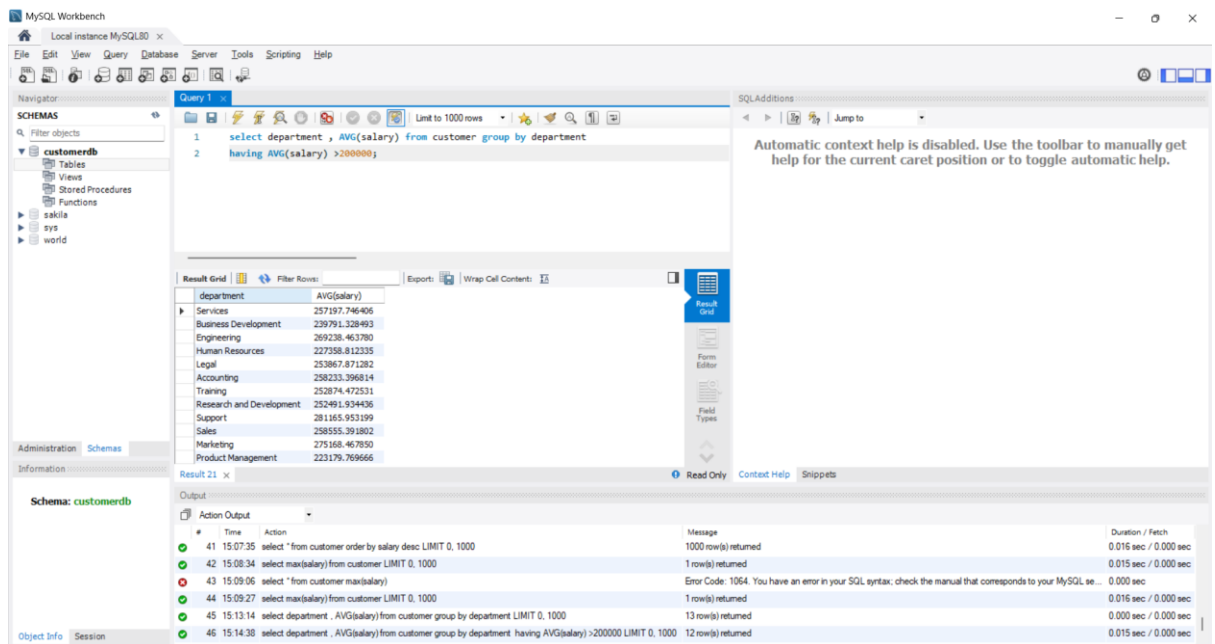
department	AVG(salary)
Services	257197.746406
Business Development	239791.328493
Engineering	269238.463780
Human Resources	227398.812335
Legal	253867.871282
Accounting	258233.396814
Training	252874.472 258233.396814
Research and Development	252491.934436
Support	281165.953199
Sales	258555.391802
Marketing	275168.467850
Product Management	223178.769666

The output pane shows the execution details of the query:

#	Time	Action	Message	Duration / Fetch
40	15:03:08	select "from customer where lastname like "Ler" LIMIT 0, 1000	218 row(s) returned	0.016 sec / 0.000 sec
41	15:07:35	select "from customer order by salary desc LIMIT 0, 1000	1000 row(s) returned	0.016 sec / 0.000 sec
42	15:08:34	select max(salary) from customer LIMIT 0, 1000	1 row(s) returned	0.015 sec / 0.000 sec
43	15:09:06	select "from customer max(salary)	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL se...	0.000 sec
44	15:09:27	select max(salary) from customer LIMIT 0, 1000	1 row(s) returned	0.016 sec / 0.000 sec
45	15:13:14	select department , AVG(salary) from customer group by department LIMIT 0, 1000	13 row(s) returned	0.000 sec / 0.000 sec

2.13 (4 คะแนน) แสดงแผนกที่มีค่าเฉลี่ยเงินเดือนมากกว่า 200,000

ตอบ



The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL query:

```
1 select department , AVG(salary) from customer group by department
2 having AVG(salary) >200000;
```

The Results tab displays the output of the query:

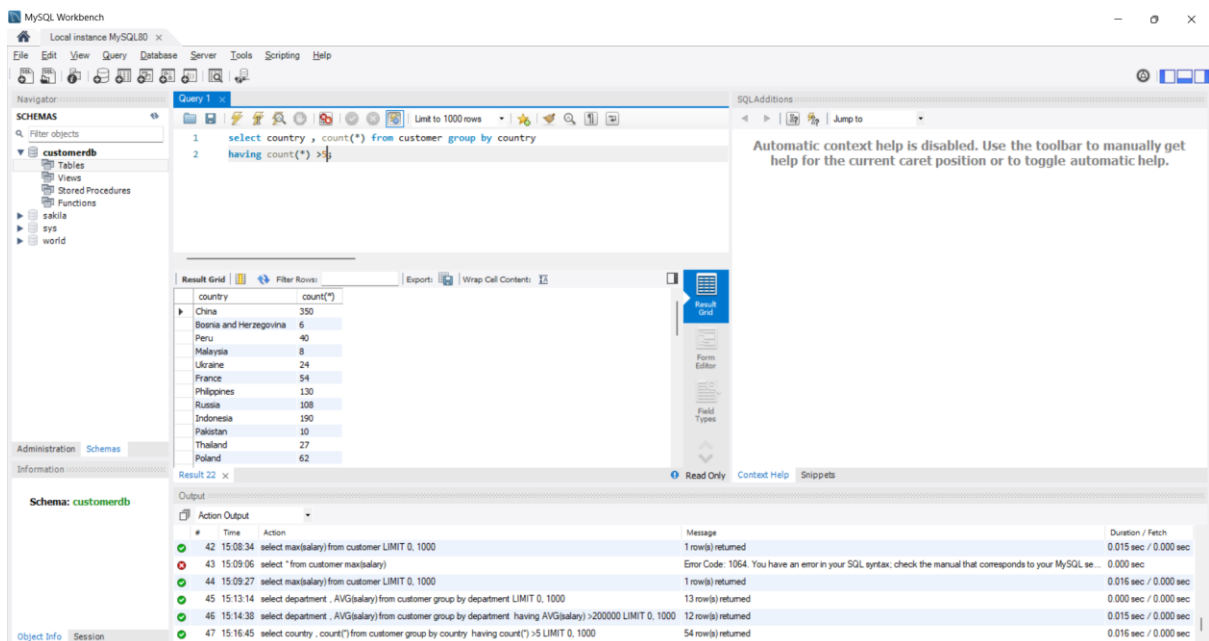
department	AVG(salary)
Services	257197.746406
Business Development	239791.328493
Engineering	269236.463780
Human Resources	227358.812335
Legal	253867.871282
Accounting	258233.396814
Training	252874.472531
Research and Development	252491.934436
Support	281165.953199
Sales	258555.391802
Marketing	275168.467850
Product Management	223178.769666

The bottom pane shows the Action Output log, which includes the following entries:

#	Time	Action	Message	Duration / Fetch
41	15:07:35	select * from customer order by salary desc LIMIT 0, 1000	1000 row(s) returned	0.016 sec / 0.000 sec
42	15:08:34	select max(salary) from customer LIMIT 0, 1000	1 row(s) returned	0.015 sec / 0.000 sec
43	15:09:06	select * from customer max(salary)	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL se...	0.000 sec
44	15:09:27	select max(salary) from customer LIMIT 0, 1000	1 row(s) returned	0.016 sec / 0.000 sec
45	15:13:14	select department , AVG(salary) from customer group by department LIMIT 0, 1000	13 row(s) returned	0.000 sec / 0.000 sec
46	15:14:38	select department , AVG(salary) from customer group by department having AVG(salary) >200000 LIMIT 0, 1000	12 row(s) returned	0.015 sec / 0.000 sec

2.14 (4 คะแนน) แสดงประเทศที่มีจำนวนลูกค้ามากกว่า 5 คน

ตอบ



The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL query:

```
1 select country , count(*) from customer group by country
2 having count(*) >5;
```

The Results tab displays the output of the query:

country	count(*)
China	350
Bosnia and Herzegovina	6
Peru	40
Malaysia	8
Ukraine	24
France	54
Philippines	130
Russia	108
Indonesia	190
Pakistan	10
Thailand	27
Poland	62

The bottom pane shows the Action Output log, which includes the following entries:

#	Time	Action	Message	Duration / Fetch
42	15:08:34	select max(salary) from customer LIMIT 0, 1000	1 row(s) returned	0.015 sec / 0.000 sec
43	15:09:06	select * from customer max(salary)	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL se...	0.000 sec
44	15:09:27	select max(salary) from customer LIMIT 0, 1000	1 row(s) returned	0.016 sec / 0.000 sec
45	15:13:14	select department , AVG(salary) from customer group by department LIMIT 0, 1000	13 row(s) returned	0.000 sec / 0.000 sec
46	15:14:38	select department , AVG(salary) from customer group by department having AVG(salary) >200000 LIMIT 0, 1000	12 row(s) returned	0.015 sec / 0.000 sec
47	15:16:45	select country , count(*) from customer group by country having count(*) >5 LIMIT 0, 1000	54 row(s) returned	0.016 sec / 0.000 sec