Exercises – SQL 2

members

memid	integer
surname	character varying(200)
firstname	character varying(200)
address	character varying(300)
zipcode	integer
telephone	character varying(20)
recommendedby	integer
joindate	timestamp

bookings

facid	integer
memid	integer
starttime	timestamp
slots	integer

facilities

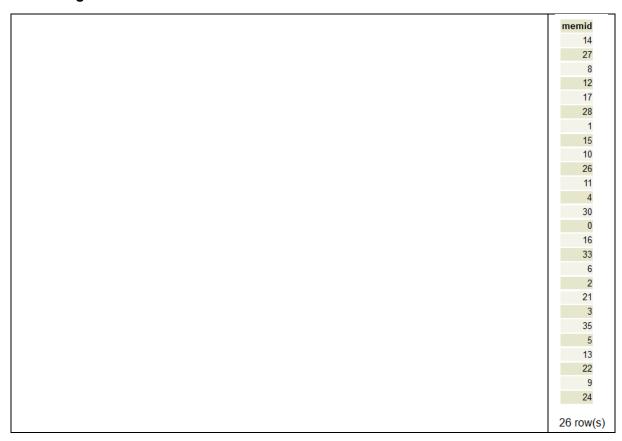| facid	integer
name	character varying(100)
membercost	numeric
guestcost	numeric
initialoutlay	numeric
monthlymaintenance	numeric

1. **Find surnames of all members who have made at least one booking.**

surname
Worthington-Smyth
Joplette
Stibbons
Pinker
Dare
Rumney
Bader
Mackenzie
Sarwin
Boothe
Crumpet
Farrell
Tracy
Hunt
Owen
Tupperware
Smith
Butters
Rownam
Baker
GUEST
Genting
Jones
Purview
Coplin

2. **Find surnames of all members, who have made more than 100 bookings.**

surname
Joplette
Stibbons
Dare
Bader
Mackenzie
Boothe
Farrell
Tracy
Owen
Smith
Butters
Rownam
Baker
GUEST
Jones

15 row(s)

3. **Find memid of all members, who have booked either "Squash Court" or "Pool Table".**

memid
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
20
21
22
24
26
27
28
29
30
33
35

29 row(s)

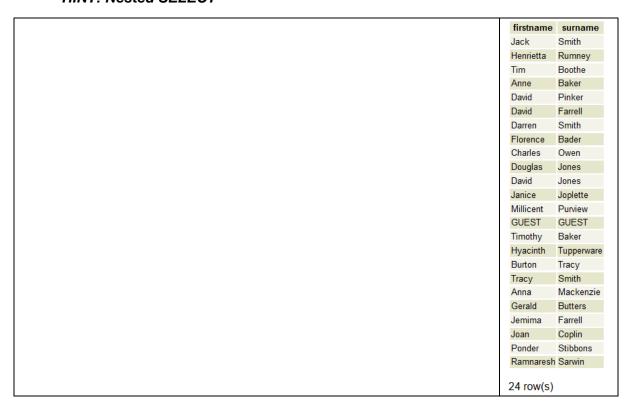**4. Find memid of all members, who have booked "Squash Court" or their surname begins with the letter 'R'.**

memid
14
27
8
12
17
28
1
15
10
26
11
4
30
0
16
33
6
2
21
3
35
5
13
22
9
24

26 row(s)

5. Find memid of all members, who have booked "Squash Court" and "Pool Table".

memid
14
27
8
12
17
28
1
15
10
26
11
4
30
0
16
33
6
2
21
5
13
22
9
24

24 row(s)

6. **Upgrade the solution of the previous task (Task 5) by displaying the names and surnames of all members, who have booked "Squash Court" and "Pool Table".**
HINT: Nested SELECT

firstname	surname
Jack	Smith
Henrietta	Rumney
Tim	Boothe
Anne	Baker
David	Pinker
David	Farrell
Darren	Smith
Florence	Bader
Charles	Owen
Douglas	Jones
David	Jones
Janice	Joplette
Millicent	Purview
GUEST	GUEST
Timothy	Baker
Hyacinth	Tupperware
Burton	Tracy
Tracy	Smith
Anna	Mackenzie
Gerald	Butters
Jemima	Farrell
Joan	Coplin
Ponder	Stibbons
Ramnaresh	Sarwin

24 row(s)

7. **Find surnames of all members, who have joined after a member whose surname is "Owen".**

surname	joindate
Tupperware	2012-09-18 19:32:05
Purview	2012-09-18 19:04:01
Hunt	2012-09-19 11:32:45
Jones	2012-09-02 18:43:05
Baker	2012-08-10 14:23:22
Bader	2012-08-10 17:52:03
Mackenzie	2012-08-26 09:32:05
Crumpet	2012-09-22 08:36:38
Jones	2012-08-06 16:32:55
Farrell	2012-08-10 14:28:01
Sarwin	2012-09-01 08:44:42
Farrell	2012-09-15 08:22:05
Rumney	2012-09-05 08:42:35
Pinker	2012-08-16 11:32:47
Smith	2012-08-10 16:22:05
Baker	2012-08-15 10:34:25
Genting	2012-08-19 14:55:55
Coplin	2012-08-29 08:32:41
Worthington-Smyth	2012-09-17 12:27:15
Smith	2012-09-26 18:08:45

20 row(s)

8. **Find names and surnames of all members, who have booked one of the tennis courts (»Tennis Court 1«, »Tennis Court 2« …).**

firstname	surname	name
Ramnaresh	Sarwin	Tennis Court 2
Charles	Owen	Tennis Court 1
John	Hunt	Tennis Court 1
Florence	Bader	Tennis Court 2
Jemima	Farrell	Tennis Court 1
Ponder	Stibbons	Tennis Court 2
Tim	Boothe	Tennis Court 1
Burton	Tracy	Tennis Court 2
David	Farrell	Tennis Court 1
Erica	Crumpet	Tennis Court 1
Tim	Rownam	Tennis Court 2
Douglas	Jones	Tennis Court 1
GUEST	GUEST	Tennis Court 2
Janice	Joplette	Tennis Court 2
Charles	Owen	Tennis Court 2
Ramnaresh	Sarwin	Tennis Court 1
Nancy	Dare	Tennis Court 2
Timothy	Baker	Tennis Court 2
Ponder	Stibbons	Tennis Court 1
Matthew	Genting	Tennis Court 1
Jemima	Farrell	Tennis Court 2
Florence	Bader	Tennis Court 1
Jack	Smith	Tennis Court 2
John	Hunt	Tennis Court 2
Gerald	Butters	Tennis Court 2
Burton	Tracy	Tennis Court 1
Tim	Boothe	Tennis Court 2
Henrietta	Rumney	Tennis Court 2
David	Farrell	Tennis Court 2
Darren	Smith	Tennis Court 2
Joan	Coplin	Tennis Court 1
David	Jones	Tennis Court 2
Anne	Baker	Tennis Court 2
David	Pinker	Tennis Court 1
Tracy	Smith	Tennis Court 1
GUEST	GUEST	Tennis Court 1
Janice	Joplette	Tennis Court 1
Tim	Rownam	Tennis Court 1
Nancy	Dare	Tennis Court 1
Timothy	Baker	Tennis Court 1
Jack	Smith	Tennis Court 1
Millicent	Purview	Tennis Court 2
Gerald	Butters	Tennis Court 1
Anne	Baker	Tennis Court 1
David	Jones	Tennis Court 1
Tracy	Smith	Tennis Court 2

46 row(s)

9. **List the facility numbers (facid) that have the highest monthly maintenance**

facid	monthlymaintenance
4	3000
5	3000

2 row(s)

10. **List the facility numbers (facid) that have the second highest monthly maintenance**

facid	monthlymaintenance
0	200
1	200

2 row(s)

11. List the firstnames of all members who have reserved 6 slots.

firstname
Henry
Ramnaresh
Charles
David
Timothy
Anne
Darren
Gerald
Tracy
Anna
Ponder
Tim
GUEST
Jack

14 row(s)

12. List the name and surname of all visitors who have booked Badminton court more times than every single person named "Timothy".

firstname	surname	count
Jack	Smith	12
Tim	Boothe	12
Anne	Baker	10
Darren	Smith	132
Florence	Bader	9
David	Jones	8
GUEST	GUEST	39
Tracy	Smith	32
Anna	Mackenzie	30
Gerald	Butters	20
Ponder	Stibbons	16
Nancy	Dare	10

12 row(s)

13. List the name and surname of all visitors who have booked Badminton court more times than any person named "Timothy"). Try to solve in alternative way (use "INNER JOIN" or do it in the following way "R1.id = R2.id")

firstname	surname	count
Jack	Smith	12
Tim	Boothe	12
Anne	Baker	10
Darren	Smith	132
Florence	Bader	9
David	Jones	8
GUEST	GUEST	39
Tracy	Smith	32
Anna	Mackenzie	30
Gerald	Butters	20
Ponder	Stibbons	16
Nancy	Dare	10

12 row(s)

14. List the names of the facilities that charge the highest price to guests.

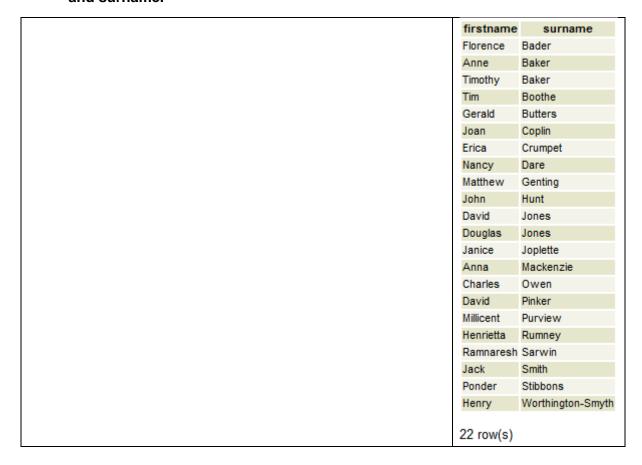| name	guestcost
Massage Room 1	80
Massage Room 2	80

2 row(s)

15. List start times of all bookings made by 'David Farrell' (Use INNER JOIN)

starttime
2012-09-18 09:00:00
2012-09-18 17:30:00
2012-09-18 13:30:00
2012-09-18 20:00:00
2012-09-19 09:30:00
2012-09-19 15:00:00
2012-09-19 12:00:00
2012-09-20 15:30:00
2012-09-20 11:30:00
2012-09-20 14:00:00
2012-09-21 10:30:00
2012-09-21 14:00:00
2012-09-22 08:30:00
2012-09-22 17:00:00
2012-09-23 08:30:00
2012-09-23 17:30:00
2012-09-23 19:00:00
2012-09-24 08:00:00
2012-09-24 16:30:00
2012-09-24 12:30:00
2012-09-25 15:30:00
2012-09-25 17:00:00
2012-09-26 13:00:00
2012-09-26 17:00:00
2012-09-27 08:00:00
2012-09-28 11:30:00
2012-09-28 09:30:00
2012-09-28 13:00:00
2012-09-29 16:00:00
2012-09-29 10:30:00
2012-09-29 13:30:00
2012-09-29 14:30:00
2012-09-29 17:30:00
2012-09-30 14:30:00

34 row(s)

16. List start times ("starttime") of all bookings for facilities with IDs 0 and 1, for a date '2012-09-21'? Return a list of start times (starttime and object names). The list should be ordered by "starttime".

start	name
2012-09-21 08:00:00	Tennis Court 1
2012-09-21 08:00:00	Tennis Court 2
2012-09-21 09:30:00	Tennis Court 1
2012-09-21 10:00:00	Tennis Court 2
2012-09-21 11:30:00	Tennis Court 2
2012-09-21 12:00:00	Tennis Court 1
2012-09-21 13:30:00	Tennis Court 1
2012-09-21 14:00:00	Tennis Court 2
2012-09-21 15:30:00	Tennis Court 1
2012-09-21 16:00:00	Tennis Court 2
2012-09-21 17:00:00	Tennis Court 1
2012-09-21 18:00:00	Tennis Court 2

12 row(s)

17. List all members who have recommended another member at any time? (recommendedby). Get rid of all duplicates, the list should be sorted by name and surname.

firstname	surname
Florence	Bader
Anne	Baker
Timothy	Baker
Tim	Boothe
Gerald	Butters
Joan	Coplin
Erica	Crumpet
Nancy	Dare
Matthew	Genting
John	Hunt
David	Jones
Douglas	Jones
Janice	Joplette
Anna	Mackenzie
Charles	Owen
David	Pinker
Millicent	Purview
Henrietta	Rumney
Ramnaresh	Sarwin
Jack	Smith
Ponder	Stibbons
Henry	Worthington-Smyth

22 row(s)

18. Print a list of all members, including the members they have recommended (If none were recommended, return NULL). The list should be arranged by name and surname.

firstname	surname	recfirstname	recsurname
Anna	Mackenzie	Darren	Smith
Anne	Baker	Ponder	Stibbons
Burton	Tracy	NULL	NULL
Charles	Owen	Darren	Smith
Darren	Smith	NULL	NULL
Darren	Smith	NULL	NULL
David	Farrell	NULL	NULL
David	Jones	Janice	Joplette
David	Pinker	Jemima	Farrell
Douglas	Jones	David	Jones
Erica	Crumpet	Tracy	Smith
Florence	Bader	Ponder	Stibbons
Gerald	Butters	Darren	Smith
GUEST	GUEST	NULL	NULL
Henrietta	Rumney	Matthew	Genting
Henry	Worthington-Smyth	Tracy	Smith
Hyacinth	Tupperware	NULL	NULL
Jack	Smith	Darren	Smith
Janice	Joplette	Darren	Smith
Jemima	Farrell	NULL	NULL
Joan	Coplin	Timothy	Baker
John	Hunt	Millicent	Purview
Matthew	Genting	Gerald	Butters
Millicent	Purview	Tracy	Smith
Nancy	Dare	Janice	Joplette
Ponder	Stibbons	Burton	Tracy
Ramnaresh	Sarwin	Florence	Bader
Tim	Boothe	Tim	Rownam
Tim	Rownam	NULL	NULL
Timothy	Baker	Jemima	Farrell
Tracy	Smith	NULL	NULL

31 row(s)

19. Print a list of all members so that their last names and first names are displayed in the following format <'Surname, Firstname'> (Apply function CONCAT ())

name
GUEST, GUEST
Smith, Darren
Smith, Tracy
Rownam, Tim
Joplette, Janice
Butters, Gerald
Tracy, Burton
Dare, Nancy
Boothe, Tim
Stibbons, Ponder
Owen, Charles
Jones, David
Baker, Anne
Farrell, Jemima
Smith, Jack
Bader, Florence
Baker, Timothy
Pinker, David
Genting, Matthew
Mackenzie, Anna
Coplin, Joan
Sarwin, Ramnaresh
Jones, Douglas
Rumney, Henrietta
Farrell, David
Worthington-Smyth, Henry
Purview, Millicent
Tupperware, Hyacinth
Hunt, John
Crumpet, Erica
Smith, Darren

31 row(s)

20. Print the initials of all members (assume that each member has only one first name and one last name).

name
G.G.
S.D.
S.T.
R.T.
J.J.
B.G.
T.B.
D.N.
B.T.
S.P.
O.C.
J.D.
B.A.
F.J.
S.J.
B.F.
B.T.
P.D.
G.M.
M.A.
C.J.
S.R.
J.D.
R.H.
F.D.
W.H.
P.M.
T.H.
H.J.
C.E.
S.D.

31 row(s)