



Queries on Cash Database

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Exercise 47 All Person Members Living in a City with a Location Which Has Limousines

```
SELECT DISTINCT firstname, lastname, (pm.address).city
FROM cash.personmember pm INNER JOIN cash.location l ON (pm.address).city = (l.address).city
WHERE EXISTS (SELECT * FROM cash.limousine li WHERE l.id=li.home);
```

	firstname character varying (25)	lastname character varying (25)	city character varying (25)
1	Freddie	Freeloader	Greifensee
2	Pig	Ben	Zuerich
3	Al	Capone	Uster
4	Daniel	Roth	Moenchaltorf
5	Sharon	McCone	Zuerich
6	Sam	Spade	Zuerich
7	Butch	Cassidy	Zuerich
8	Wyatt	Earp	Zuerich
9	Kat	Colorado	Zuerich
10	Bjoern	Malmstroem	Zuerich
11	Martin	Beck	Zuerich



Exercise 58 The Maximum Kilometer Value

SELECT MAX(kilometers) **FROM** cash.vehicle

Data Output		Messages	Notifications
max			
numeric			
1	77984.000		



Exercise 59

Question: the vehicle with the highest odometer value

```
select *  
from cash.vehicle  
where kilometers = (select max(kilometers) from cash.vehicle)
```

Result:

id	type	licenseplate	make	model	motornumber	kilometers	isoperational	operationstart	lastservice	gasconsumption	insurance	home	avggas
1036	Sedan	ZH-8201	Mercury	Sable	32977785	77984.000	TRUE	2005-01-01	2028-01-01	6733.63	(1001,1200.00)	1005	8.61



Exercise 62 The number of limousines per location

```
SELECT l.shortname, COUNT(v.id) FROM cash.location l  
LEFT OUTER JOIN cash.limousine v  
ON l.id = v.home  
GROUP BY l.shortname
```

	shortname character	count bigint
1	ust	1
2	lei	0
3	irc	0
4	wip	0
5	swb	0
6	moe	1
7	oer	1
8	zrh	2
9	grs	1
10	see	1



Exercise 63

Question: the highest number of limousines per location

```
select max(cnt) maxnum_lim
from (
  select loc.id, count(lim.id) cnt
  from cash.location loc left join cash.limousine lim on loc.id=lim.home
  group by loc.id
) t
```

Result:

	maxnum_lim	
1	bigint	🔒
		2



Exercise 64 The location with the highest number of limousines

```
WITH count_limousine AS (SELECT l.shortname,COUNT(v.id) AS limCount
    FROM cash.location l
    RIGHT OUTER JOIN cash.limousine v
    ON l.id = v.home
    GROUP BY l.shortname)
```

	shortname character	limcount bigint
1	zrh	2

```
SELECT shortname,limCount
FROM count_limousine
WHERE limCount = (SELECT max(limCount) FROM count_limousine)
```




Exercise 94 All Members Who Have Reserved a Vehicle at a Location Other Than Their Home Location

```
SELECT DISTINCT membernr  
FROM cash.member mb INNER JOIN cash.reservation r ON mb.id = r.member INNER JOIN cash.vehicle v ON r.vehicle = v.id  
WHERE mb.homelocation <> v.home;
```

Data Output		Messages	Notifications
	membernr integer		
1	1000		
2	1001		
3	1004		
4	1007		
5	1008		
6	1010		
7	1011		
8	1012		
9	1013		
10	1021		
11	1023		
12	1024		
13	1026		
14	1029		
15	1030		



Exercise 95

All members who have reserved a vehicle at a location other than their home location even though the vehicle type exists at their home location.

Query Query History

```
1 SELECT m.memberNr, r.resNumber
2 FROM cash.reservation AS r LEFT JOIN cash.member AS m ON r.member = m.id
3 LEFT JOIN cash.vehicle AS v on r.vehicle = v.id
4 WHERE m.homelocation <> v.home
5     AND (SELECT COUNT(*)
6         FROM cash.vehicle c
7         WHERE c.home = m.homelocation
8         And c.type = v.type) > 0;
```

Data Output Messages Notifications

	membernr integer	resnumber integer
1	1024	2019
2	1024	2017
3	1024	6
4	1024	4
5	1024	1836
6	1024	1834
7	1024	1653
8	1024	1651
9	1024	1470

ACCREDITED



Thank you!