SQL Murder Mystery

A fun game for experienced SQL users to solve an intriguing crime.

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```
1  SELECT name
2    FROM sqlite_master
3   where type = 'table'
```

name
crime_scene_report
drivers_license
facebook_event_checkin
interview
get_fit_now_member
get_fit_now_check_in
solution
income
person

Run this query to find the names of the tables in this database.

Schema Diagram

interview
person_id	INTEGER
transcript	TEXT

get_fit_now_check_in
membership_id	TEXT
check_in_date	INTEGER
check_in_time	INTEGER
check_out_time	INTEGER

get_fit_now_member
🔑 id	TEXT
person_id	INTEGER
name	TEXT
membership_start_date	INTEGER
membership_status	TEXT

facebook_event_checkin
person_id	INTEGER
event_id	INTEGER
event_name	TEXT
date	INTEGER

person
🔑 id	INTEGER
name	TEXT
license_id	INTEGER
address_number	INTEGER
address_street_name	TEXT
ssn	CHAR

drivers_license
🔑 id	INTEGER
age	INTEGER
height	INTEGER
eye_color	TEXT
hair_color	TEXT
gender	TEXT
plate_number	TEXT
car_make	TEXT
car_model	TEXT

income
🔑 ssn	CHAR
annual_income	INTEGER

crime_scene_report
date	INTEGER
type	TEXT
description	TEXT
city	TEXT

solution
user	INTEGER
value	TEXT

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```sql
Select * from crime_scene_report
where date = 20180115 and type = 'murder' and city='SQL City'
```

RUN ⇩   RESET

date	type	description	city
20180115	murder	Security footage shows that there were 2 witnesses. The first witness lives at the last house on "Northwestern Dr". The second witness, named Annabel, lives somewhere on "Franklin Ave".	SQL City

```sql
/*Security footage shows that there were 2 witnesses. The first witness lives at the last
house on "Northwestern Dr". The second witness, named Annabel, lives somewhere on
"Franklin Ave".*/
Select * from person
where address_street_name = 'Northwestern Dr'
and address_number = (select max(address_number) from person)
Union
Select * from person
where name like "Annabel %"
and address_street_name = 'Franklin Ave'
```

RUN ⇩   RESET

id	name	license_id	address_number	address_street_name	ssn
14887	Morty Schapiro	118009	4919	Northwestern Dr	111564949
16371	Annabel Miller	490173	103	Franklin Ave	318771143

```
1  select * from Interview
2  where person_id = 16371 or person_id = 14887
3
4
5
6
7
```

RUN ⇩   RESET

person_id	transcript
14887	I heard a gunshot and then saw a man run out. He had a "Get Fit Now Gym" bag. The membership number on the bag started with "48Z". Only gold members have those bags. The man got into a car with a plate that included "H42W".
16371	I saw the murder happen, and I recognized the killer from my gym when I was working out last week on January the 9th.

```sql
1  /*gunshot, Get fit now membership no. = 48Z% , gold member, car - plate_number = %H42W%
2  16371 is Get fit now member, January 9th */
3
4  select get_fit_now_member.id, get_fit_now_member.person_id, get_fit_now_member.name,
5  get_fit_now_check_in.check_in_date, get_fit_now_check_in.check_in_time,
6  get_fit_now_check_in.check_out_time, get_fit_now_member.membership_status
7  from get_fit_now_member join get_fit_now_check_in
8  on get_fit_now_member.id = get_fit_now_check_in.membership_id
9  where get_fit_now_member.id like '48Z%' and get_fit_now_check_in.check_in_date = 20180109
10
11 /*There are two members whose membership_id starts with '48Z', with gold status
12 and check_in_date = 201808109.*/
13
```

RUN ⇩   RESET

d	person_id	name	check_in_date	check_in_time	check_out_time	membership_status
48Z7A	28819	Joe Germuska	20180109	1600	1730	gold
48Z55	67318	Jeremy Bowers	20180109	1530	1700	gold

```
1  /*gunshot, Get fit now membership no. = 48Z% , gold member, car - plate_number = %H42W%
2  16371 is Get fit now member, January 9th */
3
4  /*There are two members whose membership_id starts with '48Z', with gold status
5  and check_in_date = 201808109.*/
6
7  select drivers_license.id, drivers_license.plate_number, person.name, person.id as person_id
8  from drivers_license join person
9  on drivers_license.id = person.license_id
10 where plate_number like '%H42W%'
11
```

RUN ⇓   RESET

id	plate_number	name	person_id	ssn
664760	4H42WR	Tushar Chandra	51739	137882671
423327	0H42W2	Jeremy Bowers	67318	871539279
183779	H42W0X	Maxine Whitely	78193	137882671

```sql
/*gunshot, Get fit now membership no. = 48Z% , gold member, car - plate_number = %H42W%
16371 is Get fit now member, January 9th */

/*There are two members with person_id in (28819, 67318) whose membership_id starts with '48
and check_in_date = 201808109.*/

select drivers_license.id, drivers_license.plate_number, person.name, person.id as person_id,
from drivers_license join person
on drivers_license.id = person.license_id
where plate_number like '%H42W%' and person.id in (28819, 67318)

/*Therefore, we got the killer, check the Interview table to know what he told to police
```

RUN ⇩   RESET

id	plate_number	name	person_id	ssn
423327	0H42W2	Jeremy Bowers	67318	871539279

```
1 /*Therefore, we got the killer, check the Interview table to know what he told to police*/
2 select * from interview
3 where person_id = 67318
```

RUN ⇩   RESET

person_id	transcript
67318	I was hired by a woman with a lot of money. I don't know her name but I know she's around 5'5" (65") or 5'7" (67"). She has red hair and she drives a Tesla Model S. I know that she attended the SQL Symphony Concert 3 times in December 2017.

```sql
/*He was hired by a women - female, 5'5"(65") or 5'7"(67"), red hair, drives Tesla Model S,
attended SQL Symphony Concert 3 times in Dec 2017*/
select * from person
join drivers_license
on drivers_license.id = person.license_id
join income
on person.ssn = income.ssn
where hair_color = 'red' and gender = 'female' and car_make= 'Tesla' and car_model='Model S'
/* There are two women with this Details*/
```

RUN ⇩   RESET

id	name	license_id	address_number	address_street_name	ssn	id	age	hei
78881	Red Korb	918773	107	Camerata Dr	961388910	918773	48	65
99716	Miranda Priestly	202298	1883	Golden Ave	987756388	202298	68	66

```sql
/*He was hired by a women - female, 5'5"(65") or 5'7"(67"), red hair, drives Tesla Model S,
attended SQL Symphony Concert 3 times in Dec 2017*/
select person.id as person_id, person.name, income.annual_income, drivers_license.hair_color,
drivers_license.car_make, drivers_license.car_model, facebook_event_checkin.event_name,
facebook_event_checkin.date
from person
join drivers_license
on drivers_license.id = person.license_id
join income
on person.ssn = income.ssn
/*As killer said, she attended SQl Symphony Consert 3 times in December 2017*/
join facebook_event_checkin
on facebook_event_checkin.person_id = person.id
where hair_color = 'red' and gender = 'female' and car_make= 'Tesla' and car_model='Model S'
```

RUN ⇓   RESET

person_id	name	annual_income	hair_color	car_make	car_model	event_name	date
99716	Miranda Priestly	310000	red	Tesla	Model S	SQL Symphony Concert	20171206
99716	Miranda Priestly	310000	red	Tesla	Model S	SQL Symphony Concert	20171212
99716	Miranda Priestly	310000	red	Tesla	Model S	SQL Symphony Concert	20171229

Check your solution

Did you find the killer?

```sql
1  INSERT INTO solution VALUES (1, 'Miranda Priestly');
2
3          SELECT value FROM solution;
```

RUN ⇩   RESET

value
Congrats, you found the brains behind the murder! Everyone in SQL City hails you as the greatest SQL detective of all time. Time to break out the champagne!