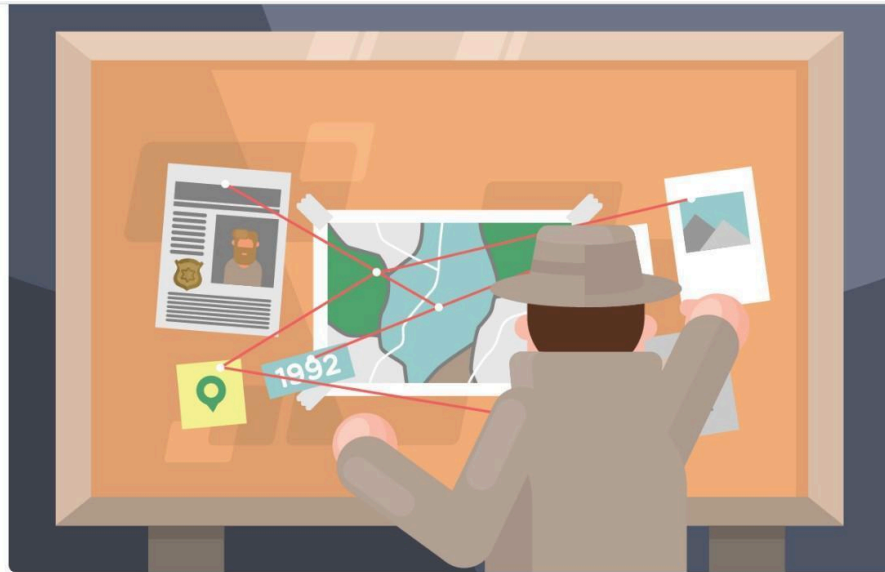
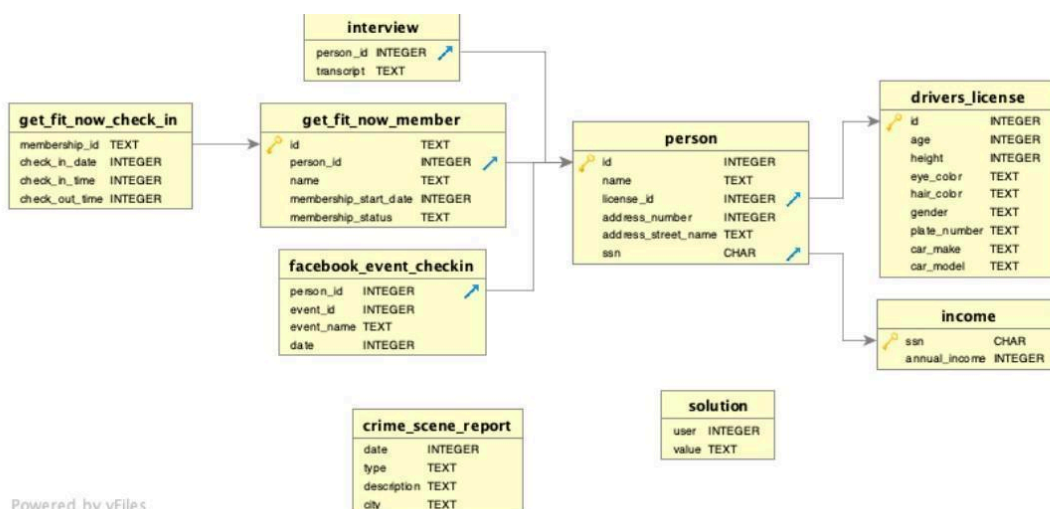


SQL Murder Mystery



A crime has taken place and the detective needs your help. The detective gave you the crime scene report, but you somehow lost it. You vaguely remember that the crime was a **murder** that occurred sometime on **Jan.15, 2018**, and that it took place in **SQL City**. Start by retrieving the corresponding crime scene report from the police department's database.

Schema Diagram:



Objective:

Retrieve the crime scene report for a murder that occurred on January 15, 2018, in SQL City.

SQL Query:

```
SELECT * FROM crime_scene_report
```

```
WHERE date = 20180115 AND city = 'SQL City';
```

date	type	description	city
20180115	assault	Hamilton: Lee, do you yield? Burr: You shot him in the side! Yes he yields!	SQL City
20180115	assault	Report Not Found	SQL 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

Output:

Security footage shows that there were 2 witnesses. The first witness lives at the last house on "Northwestern Dr". The second witness, Annabel, lives somewhere on "Franklin Ave".

Let's Focus on the First Witness: The first witness lives at the last house on "Northwestern Dr".

Northwestern Dr is a street name and the person table has a street field in it so we just have to sort in descending and look for the last house.

SQL QUERY:

```
SELECT * FROM person
WHERE address_street_name = 'Northwestern Dr'
ORDER BY address_number DESC limit 1;
```

OUTPUT:

id	name	license_id	address_number	address_street_name	ssn
14887	Morty Schapiro	118009	4919	Northwestern Dr	111564949

Let's see the second witness: The second witness, named Annabel, lives somewhere on "Franklin Ave".

SQL QUERY:

```
SELECT * FROM person
WHERE address_street_name LIKE "Franklin Ave%" AND NAME LIKE
'Annabel%';
```

OUTPUT:

id	name	license_id	address_number	address_street_name	ssn
16371	Annabel Miller	490173	103	Franklin Ave	318771143

Now We know the witnesses we can check the Interview table

SQL QUERY FOR WITNESS 1:

```
SELECT * FROM interview
WHERE person_id = 14887;
```

OUTPUT:

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".

SQL QUERY FOR WITNESS 2:

```
SELECT * FROM interview
WHERE person_id = 16371;
```

OUTPUT:

person_id	transcript
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.

We can now check details from the gym let's first check all members starting with the 48Z member ID who checked in on January 9.

.

membership_id	check_in_date	check_in_time	check_out_time
48Z7A	20180109	1600	1730
48Z55	20180109	1530	1700

Now we can get the person ID of both these members from the gym member table and check their car details in the driver license table to see which matches H42W.

```
SELECT * FROM get_fit_now_member WHERE id='48Z7A';
```

id	person_id	name	membership_start_date	membership_status
48Z7A	28819	Joe Germuska	20160305	gold

SELECT * FROM get_fit_now_member WHERE id='48Z55';

id	person_id	name	membership_start_date	membership_status
48Z55	67318	Jeremy Bowers	20160101	gold

We will use these person IDs from person table and check the car number.

SELECT * FROM person where id = 28819;

id	name	license_id	address_number	address_street_name	ssn
28819	Joe Germuska	173289	111	Fisk Rd	138909730

SELECT * FROM person where id = 67318;

id	name	license_id	address_number	address_street_name	ssn
67318	Jeremy Bowers	423327	530	Washington Pl, Apt 3A	871539279

Now let's check the driver license table data for each person.

No data for Suspect 1.

For Suspect 2:

```
SELECT * FROM drivers_license where id = 423327;
```

id	age	height	eye_color	hair_color	gender	plate_number	car_make	car_model
423327	30	70	brown	brown	male	0H42W2	Chevrolet	Spark LS

This matches the number plate hence he is the murderer.

Let's check the solution.

```
INSERT INTO solution VALUES (1, 'Jeremy Bowers');  
SELECT value FROM solution;
```

Congrats, you found the murderer! But wait, there's more... If you think you're up for a challenge, try querying the interview transcript of the murderer to find the real villain behind this crime. If you feel especially confident in your SQL skills, try to complete this final step with no more than 2 queries. Use this same INSERT statement with your new suspect to check your answer.

```
SELECT * FROM interview  
WHERE person_id = 67318;
```

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.

So now we got 3 suspects:

```
SELECT * FROM person  
JOIN drivers_license ON person.license_id = drivers_license.id  
WHERE gender = 'Female' AND hair_color = 'Red' AND height between 65 and 67  
and car_make= 'Tesla' and car_model = 'Model S';
```

id	name	license_id	address_number	address_street_name	ssn	id	age	heli
78881	Red Korb	918773	107	Camerata Dr	961388910	918773	48	65
90700	Regina George	291182	332	Maple Ave	337169072	291182	65	66
99716	Miranda Priestly	202298	1883	Golden Ave	987756388	202298	68	66

SELECT * FROM income

WHERE ssn in (961388910,337169072,987756388);

We can check the Facebook event SQL Symphony Concert that happened in 2017.

SELECT * FROM facebook_event_checkin WHERE event_name='SQL Symphony Concert' AND person_id IN (78881,90700,99716);

person_id	event_id	event_name	date
99716	1143	SQL Symphony Concert	20171206
99716	1143	SQL Symphony Concert	20171212
99716	1143	SQL Symphony Concert	20171229

So only one person attended this concert 3 times hence person_id **99716** is the suspect whose name is **Miranda Priestly**.

- THE MURDER MYSTERY WAS SOLVED BY - GARIMA SHREE