SQL MURDER MYSTERY

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1. **Find all crime scene reports from SQL City**

Select *

from crime_scene_report

where city=="SQL City"

OUTPUT:

date	type	description	city
20180215	murder	REDACTED REDACTED REDACTED	SQL City
20180215	murder	Someone killed the guard! He took an arrow to the knee!	SQL City
20170712	theft	A lone hunter stalks the night, firing arrows into the Darkness. There is no hiding, no escape. In the distance, the beast falters, tethered to the void. The killing blow comes without hesitation, without mercy.	SQL City
20170820	arson	Wield the Hammer of Sol with honor, Titan, it is a thing of legend, both past and future.	SQL City
20171110	robbery	The Gjallarhorn shoulder-mounted rocket system was forged from the armor of Guardians who fell at the Twilight Gap. Gifted to the survivors of that terrible battle, the Gjallarhorn is seen as a symbol of honor and survival.	SQL City
20180103	bribery	Apparently, Cayde thought it necessary to expose this extremely rare vegetable to a Hive summoning ritual.	SQL 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

2. Sort reports by date

Select *

from crime_scene_report

where City=="SQL City" AND date=="20180115"

OUTPUT:

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

3. Find address

Select *

from person

where address_street_name=="Northwestern Dr"

order by address_number desc

OUTPUT:

id	name	license_id	address_number	address_street_name	ssn
14887	Morty Schapiro	118009	4919	Northwestern Dr	111564949
17729	Lasonya Wildey	439686	3824	Northwestern Dr	917817122
53890	Sophie Tiberio	957671	3755	Northwestern Dr	442830147
73368	Torie Thalmann	773862	3697	Northwestern Dr	341559436
96595	Coretta Cubie	303645	3631	Northwestern Dr	378403829
19420	Cody Schiel	890431	3524	Northwestern Dr	947110049
93509	Emmitt Aceuedo	916706	3491	Northwestern Dr	979073160
87456	Leonora Wolfsberger	215868	3483	Northwestern Dr	565203106
36378	Freddie Ellzey	267882	3449	Northwestern Dr	474117596
53076	Boris Bijou	664914	3327	Northwestern Dr	401191868
28360	Rashad Cascone	924517	3212	Northwestern Dr	838907424
23044	Val Portlock	924989	3143	Northwestern Dr	100593316
51114	Christena Saffell	814284	3055	Northwestern Dr	247657547
68690	Yer Modest	852404	3046	Northwestern Dr	419238039
44004	Alison Eska	327797	2951	Northwestern Dr	306417867
98593	Jonah Toner	578982	2947	Northwestern Dr	745853548

id	name	license_id	address_number	address_street_name	ssn
59307	Cyril Yongue	753524	2903	Northwestern Dr	866057839
34155	Allyson Lazenson	814209	2840	Northwestern Dr	991150469
90397	Dionna Kranwinkle	797260	2678	Northwestern Dr	278964807
54564	Sammie Sengun	217286	2590	Northwestern Dr	848854310
53699	Christian Pagano	628433	2585	Northwestern Dr	644772304
34352	Vincenza Burkhardt	436470	2512	Northwestern Dr	197913046
80921	Donovan Yackley	222395	2386	Northwestern Dr	515049359
96178	Galina Khuu	450248	2183	Northwestern Dr	398518185
81885	Kurtis Masuda	934201	2108	Northwestern Dr	201272595
88423	Teri Ehrich	510876	1879	Northwestern Dr	248637345
51552	Bonita Knie	764124	1726	Northwestern Dr	597137908
72076	Courtney Bordeaux	324614	1707	Northwestern Dr	347966356
81052	Calvin Czelusniak	471483	1516	Northwestern Dr	657531837
71924	Laurie Scronce	774116	1418	Northwestern Dr	254883636
23960	Kristopher Lagerberg	658777	1392	Northwestern Dr	492912529
70485	Andera Kostelecky	354822	1252	Northwestern Dr	787423012
22239	Dusty Sigafus	710517	1125	Northwestern Dr	724386723
18376	Josh Shi	653712	1091	Northwestern Dr	193899001
29608	Willetta Lurvey	800568	1028	Northwestern Dr	843751378
33415	Homer Simpson	108392	981	Northwestern Dr	871392019
55130	Shiloh Huntoon	472118	951	Northwestern Dr	826647644
44542	Ivory Mcgrevey	873842	897	Northwestern Dr	988557407
99826	Ivy Kazarian	994470	892	Northwestern Dr	208359813
25615	Olevia Morena	388477	812	Northwestern Dr	962831331

id	name	license_id	address_number	address_street_name	ssn
40760	Renata Faver	976650	745	Northwestern Dr	547572040
10010	Muoi Cary	385336	741	Northwestern Dr	828638512
39688	Abe Roeker	537445	689	Northwestern Dr	438969447
26758	Angelena Billman	942074	629	Northwestern Dr	341854756
75484	Del Tacderen	447887	607	Northwestern Dr	243821337
12711	Norman Apolito	667757	599	Northwestern Dr	778264744
85280	Donn Duin	569122	540	Northwestern Dr	613873810
40336	Fredia Billeter	251082	404	Northwestern Dr	108056488
15171	Weldon Penso	336999	311	Northwestern Dr	131379495
89906	Kinsey Erickson	510019	309	Northwestern Dr	635287661

4. Find address of Annabel

Select *

from person

where address_street_name=="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

5. Join id with interview of both Morty Shapiro and Annabel Miller

Select *

from person P

left join interview I

on P.id=I.person_id

where id=="14887" or id=="16371"

OUTPUT:

id	name	license_id	address_number	address_street_name	ssn	person_id	transcript
14887	Morty Schapiro	118009	4919	Northwestern Dr	111564949	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".

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

6. **Join the member list of the gym with the date of check-in, membership id and membership status**

Select *
from get_fit_now_member M
left join get_fit_now_check_in C
on M.id=C.membership_id
where C.check_in_date=="20180109" and C.membership_id like '48Z%' and
M.membership_status=='gold'

OUTPUT:

id	person_id	name	membership_start_date	membership_status	membership_id	check_in_date	check_in_time	check_out_time
48Z7A	28819	Joe Germuska	20160305	gold	48Z7A	20180109	1600	1730
48Z55	67318	Jeremy Bowers	20160101	gold	48Z55	20180109	1530	1700

7. Join drivers license with license id and plate number

Select *
from person P
left join drivers_license D
on P.license_id= D.id
where plate_number like '%H42W%'

OUTPUT:

id	name	license_id	address_no.	address_street_name	ssn	id	age	height	eye_color	hair_color	gender	plate_number	car_make	car_model
51739	Tushar Chandra	664760	312	Phi St	137882671	664760	21	71	black	black	male	4H42WR	Nissan	Altima
67318	Jeremy Bowers	423327	530	Washington Pl, Apt 3A	871539279	423327	30	70	brown	brown	male	0H42W2	Chevrolet	Spark LS
78193	Maxine Whitely	183779	110	Fisk Rd	137882671	183779	21	65	blue	blonde	female	H42W0X	Toyota	Prius

8. Confirm the killers identity

INSERT INTO solution VALUES (1, 'Jeremy Bowers');

SELECT value FROM solution;

OUTPUT:

value

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.

9. Find transcript of interview of Jeremy Bowers

Select *

from interview

where person_id=='67318'

Output:

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.

10. Find the woman using the description

```
Select*
from person P
inner join drivers_license as L
on L. id= P.license_id
inner join income as I
on I.ssn = P.ssn
where L.gender = "female"
and L.car_make = "Tesla"
and L.car_model = "Model S"
and L.height > 65
and L.height < 67
and L.hair_color = "red"
```

OUTPUT:

id	name	license_id	address_number	address_street_name	ssn	id	age	height	eye_color	hair_color
99716	Miranda Priestly	202298	1883	Golden Ave	987756388	202298	68	66	green	red

gender	plate_number	car_make	car_model	ssn	annual_income
female	500123	Tesla	Model S	987756388	310000

11. Confirm the real villain

INSERT INTO solution VALUES (1, 'Miranda Priestly')

SELECT value FROM solution;

OUTPUT:

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!