SQL MURDER MYSTERY

Submitted by : Arundhathy P A (2237029)

QUERIES:

STEP 1 :

SELECT *

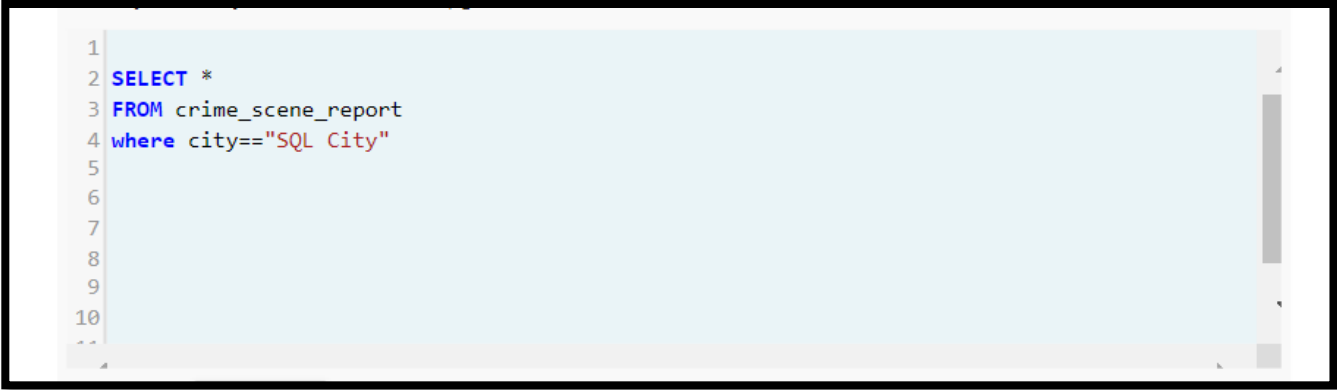**FROM sqlite_master**

type	name	tbl_name	rootpage	sql
table	crime_scene_report	crime_scene_report	2	CREATE TABLE crime_scene_report (date integer, type text, description text, city text)
table	drivers_license	drivers_license	3	CREATE TABLE drivers_license (id integer PRIMARY KEY, age integer, height integer, eye_color text, hair_color text, gender text, plate_number text, car_make text, car_model text)
table	facebook_event_checkin	facebook_event_checkin	5	CREATE TABLE facebook_event_checkin (person_id integer, event_id integer, event_name text, date integer, FOREIGN KEY (person_id) REFERENCES person(id))
table	interview	interview	6	CREATE TABLE interview (person_id integer, transcript text, FOREIGN KEY (person_id) REFERENCES person(id))
table	get_fit_now_member	get_fit_now_member	7	CREATE TABLE get_fit_now_member (id text PRIMARY KEY, person_id integer, name text, membership_start_date integer, membership_status text, FOREIGN KEY (person_id) REFERENCES person(id))
index	sqlite_autoindex_get_fit_now_member_1	get_fit_now_member	8	null
table	get_fit_now_check_in	get_fit_now_check_in	9	CREATE TABLE get_fit_now_check_in (membership_id text, check_in_date integer, check_in_time integer, check_out_time integer, FOREIGN KEY (membership_id) REFERENCES get_fit_now_member(id))
table	solution	solution	11	CREATE TABLE solution (user integer, value text)
trigger	check_solution	solution	0	CREATE TRIGGER check_solution AFTER INSERT ON solution WHEN new.user==1 BEGIN DELETE FROM solution; INSERT INTO solution VALUES (0, CASE WHEN hex(new.value)=='4A6572656D7920426F77657273' THEN "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." WHEN hex(new.value)=='4D6972616E6461205072696573746C79' THEN "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!" ELSE "That's not the right person. Try again!" END); END
table	income	income	10	CREATE TABLE income (ssn CHAR PRIMARY KEY, annual_income integer)
index	sqlite_autoindex_income_1	income	683	null
table	person	person	4	CREATE TABLE person (id integer PRIMARY KEY, name text, license_id integer, address_number integer, address_street_name text, ssn CHAR REFERENCES income (ssn), FOREIGN KEY (license_id) REFERENCES drivers_license (id))

STEP 2 :

SELECT *

FROM crime_scene_report

where city=="SQL City"

```
1
2  SELECT *
3  FROM crime_scene_report
4  where city="SQL City"
5
6
7
8
9
10
```

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

STEP : 3

SELECT *

FROM crime_scene_report

where city=="SQL City" and date=="20180115"

```
1  SELECT *
2  FROM crime_scene_report
3  where city=="SQL City" and date=="20180115"
4
5
6
7
8
9
10
```

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

STEP : 4

SELECT *

FROM person

where address_street_name=="Northwestern Dr"

order by address_number desc

```
1  SELECT *
2  FROM person
3  where address_street_name=="Northwestern Dr"
4  order by address_number desc
5
6
7
8
9
10
11
12
```

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
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

id	name	license_id	address_number	address_street_name	ssn
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
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

STEP : 5

SELECT *

FROM person

where name like 'Annabel %'

```
1  SELECT *
2  FROM person
3  where name like 'Annabel %'
4
5
6
7
8
9
10
11
```

Run ?

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

STEP : 6

SELECT *

FROM person P

left join interview I

on P.id=I.person_id

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

```
2  FROM person P
3  left join interview I
4  on P.id=I.person_id
5  where id=="14887" or id=="16371"
6
7
8
9
10
11
12
13
14
15
```

Run ?

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

id	name	license_id	address_number	address_street_name	ssn	person_id	transcript
							"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	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.

STEP : 6

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'

```
1  SELECT *
2   FROM get_fit_now_member M
3   left join get_fit_now_check_in C
4   on M.id=C.membership_id
5   where C.check_in_date=="20180109" and C.membership_id like '48Z%' and M.membership_status:
6
7
8
9
10
```

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

STEP : 7

 select *

 from person P

 left join drivers_license D

 on P.license_id= D.id

 where plate_number like '%H42W%'

```
1  SELECT *
2  FROM get_fit_now_member M
3  left join get_fit_now_check_in C
4  on M.id=C.membership_id
5  where C.check_in_date=="20180109" and C.membership_id like '48Z%' and M.membership_status=
6
7
8
9
10
```

id	name	license_id	address_number	address_street_name	ssn	id	age	height	eye_color	hair_co
51739	Tushar Chandra	664760	312	Phi St	137882671	664760	21	71	black	black
67318	Jeremy Bowers	423327	530	Washington Pl, Apt 3A	871539279	423327	30	70	brown	brown
78193	Maxine Whitely	183779	110	Fisk Rd	137882671	183779	21	65	blue	blonde

STEP : 8

Check your solution

Did you find the killer?

```
1  INSERT INTO solution VALUES (1, 'Jeremy Bowers');
2
```

RUN ⇩   RESET

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.

```
1  select *
2  from interview
3  where person_id=='67318'
4
5
6
7
8
9
```

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.

person_id event_id event_name date id name license_id address_number address_street_name ssn id age height eye_color hair_color gender plate_number car_make car_model

99716 1143 SQL Symphony Concert 20171206 99716 Miranda Priestly 202298 1883 Golden Ave 987756388 202298 68 66 green red female 500123 Tesla Model S

99716 1143 SQL Symphony Concert 20171212 99716 Miranda Priestly 202298 1883 Golden Ave 987756388 202298 68 66 green red female 500123 Tesla Model S

99716 1143 SQL Symphony Concert 20171229 99716 Miranda Priestly 202298 1883 Golden Ave 987756388 202298 68 66 green red female 500123 Tesla Model S

person_id	event_id	event_name	date	id	name	license_id	address_number	address
99716	1143	SQL Symphony Concert	20171206	99716	Miranda Priestly	202298	1883	Golden
99716	1143	SQL Symphony Concert	20171212	99716	Miranda Priestly	202298	1883	Golden
99716	1143	SQL Symphony Concert	20171229	99716	Miranda Priestly	202298	1883	Golden

address_number	address_street_name	ssn	id	age	height	eye_color	hair_color	ger
1883	Golden Ave	987756388	202298	68	66	green	red	fe
1883	Golden Ave	987756388	202298	68	66	green	red	fe
1883	Golden Ave	987756388	202298	68	66	green	red	fe

n	id	age	height	eye_color	hair_color	gender	plate_number	car_make	car_model
?87756388	202298	68	66	green	red	female	500123	Tesla	Model S
?87756388	202298	68	66	green	red	female	500123	Tesla	Model S
?87756388	202298	68	66	green	red	female	500123	Tesla	Model S

◀ ▶

STEP : 9

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"

```
1  SELECT*
2  FROM person P
3  INNER join drivers_license as L
4  ON L. id= P.license_id
5  INNER JOIN income as I
6  ON I.ssn = P.ssn
7  WHERE L.gender  =  "female"
8  AND L.car_make =  "Tesla"
9  AND L.car_model = "Model S"
10 AND L.height > 65
11 AND L.height < 67
12 AND  L.hair_color = "red"
13
```

id   name   license_id address_number   address_street_name ssn   id   age   height
          eye_color hair_color gender   plate_number   car_make car_model ssn   annual_income

99716   Miranda Priestly   202298   1883 Golden Ave   987756388   202298   68   66   green   red   female   500123   Tesla Model S   987756388   310000

STEP: 10

Check your solution

Did you find the killer?

```
1  INSERT INTO solution VALUES (1, 'Miranda Priestly');
2
```

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!