Universidade Estadual da Paraíba
Campus VII
Curso Bacharelado em Ciência da Computação

JOSÉ CARLOS GAMBARRA JÚNIOR

Atividade 04 - The SQL Murder Mystery

Patos
2023

Contextualizando

There's been a Murder in SQL City! The SQL Murder Mystery is designed to be both a self-directed lesson to learn SQL concepts and commands and a fun game for experienced SQL users to solve an intriguing crime.

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.

Encontrando o Assassino

Passo 01

➔ Recuperar o relatório correspondente à cena do crime:
   SELECT * FROM 'crime_scene_report'
   WHERE date = '20180115' AND city = 'SQL City' AND type = 'murder';

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

Passo 02

➔ Procurar pela primeira testemunha, a qual vive na última casa da **Northwestern Dr**:
   SELECT * FROM 'person'
   WHERE address_street_name = 'Northwestern Dr'

ORDER BY address_number DESC
LIMIT 1;

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

Passo 03

→ Entrevistar a primeira testemunha:
SELECT * FROM 'interview'
WHERE person_id = (SELECT id FROM 'person'
WHERE name = "Morty Schapiro");

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".

Passo 04

→ Procurar quem começa com "**48Z**" na ficha de inscrição da academia e é **membro gold**:
SELECT * FROM 'get_fit_now_member'
WHERE id LIKE "48Z%" AND membership_status = "gold";

id	person_id	name	membership_start_date	membership_status
48Z7A	28819	Joe Germuska	20160305	gold
48Z55	67318	Jeremy Bowers	20160101	gold

Passo 05

➔ Procurar pelo carro que possui "**H42W**" na placa:
SELECT * FROM 'drivers_license'
WHERE plate_number **LIKE** "%H42W%" **AND** gender = 'male';

id	age	height	eye_color	hair_color	gender	plate_number	car_make	car_model
423327	30	70	brown	brown	male	0H42W2	Chevrolet	Spark LS
664760	21	71	black	black	male	4H42WR	Nissan	Altima

Passo 06

➔ Procurar pelos donos dos carros que possuem "**H42W**" na placa:
SELECT * FROM 'person'
WHERE license_id **IN** (**SELECT** id **FROM** 'drivers_license'
WHERE plate_number **LIKE** "%H42W%" **AND** gender = 'male');

id	name	license_id	address_number	address_street_name	ssn
51739	Tushar Chandra	664760	312	Phi St	137882671
67318	Jeremy Bowers	423327	530	Washington Pl, Apt 3A	871539279

Passo 07

➔ Prender o principal suspeito:
INSERT INTO solution **VALUES** (1, 'Jeremy Bowers');
SELECT value **FROM** solution;

Encontrando o Mandante do Crime

Passo 08

➔ Interrogar o principal suspeito:
```
SELECT * FROM 'interview'
WHERE person_id IN (SELECT id FROM 'person'
WHERE license_id IN (SELECT id FROM 'drivers_license'
WHERE plate_number LIKE "%H42W%" AND gender =
'male'));
```

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.

Passo 09

➔ Procurar pela **mulher** mandante do crime, através das informações divulgadas pelo assassino:
```
SELECT name FROM 'person'
WHERE license_id IN (SELECT id FROM 'drivers_license'
WHERE gender = "female" AND hair_color = "red" AND
car_make = "Tesla" AND car_model = "Model S")
AND id IN (SELECT person_id FROM facebook_event_checkin
WHERE event_name LIKE "%SQL Symphony%" AND date
LIKE '201712%'
```

GROUP BY person_id
HAVING COUNT(*) **=** 3);

name
Miranda Priestly

Passo 10

➜ Prender a mulher mandante do crime:
INSERT INTO solution VALUES (1, 'Miranda Priestly');
SELECT value **FROM solution**;

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!