Electric Vehicle Population Data

```
final_project> SELECT ci.make, round(avg(ci.model_year)) as averageYear , ct.car_type FROM car_information ci JOIN
 car_type ct ON ct.id = ci.car_type_id GROUP BY ci.make, ct.car_type, ci.make ORDER BY averageYear LIMIT 1
[2023-11-30 14:58:11] 1 row retrieved starting from 1 in 182 ms (execution: 160 ms, fetching: 22 ms)
```

	make	averageYear	car_type
1	FORD	2014	Plug-in Hybrid Electric Vehicle (PHEV)

Ford had plug-in hybrids in 2014

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https://www.kaggle.com/datasets/utkarshx27/electric-vehicle-population-data?rvi=1

Getting Data Into Database

Challenges

Matching up correct location, car type, and CAFV IDs to each vehicle

Manually input data for all rows

Queried the rest

Trial and error

Improvements

Queried data from one table and transferred it to the primary table for each ID field

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```sql
DELETE from location WHERE id > 1;
UPDATE car_information SET location_id = 1;
DELETE FROM car_type WHERE id > 3;
DELETE FROM car_type WHERE id = 2;
UPDATE car_type SET id = 2 WHERE id = 3;
UPDATE car_information SET car_type_id = 1 WHERE car_type_id IS NULL;
DELETE FROM vehicle_eligibility WHERE id > 12;
UPDATE car_information SET cafv_id = 2 WHERE cafv_id IS NULL;
DELETE FROM location WHERE id IS NOT NULL;
DELETE FROM location WHERE id > 15;
```

	id	vin	make	model	model_year	location_id	car_type_id
1	1	5YJ3E1EB4L	TESLA	MODEL 3	2020	1	1
2	2	5YJ3E1EA7K	TESLA	MODEL 3	2019	2	1
3	3	7JRBR0FL9M	VOLVO	S60	2021	1	2
4	4	5YJXCBE21K	TESLA	MODEL X	2019	1	1
5	5	5UXKT0C5XH	BMW	X5	2017	2	2
6	6	1N4AZ0CP4F	NISSAN	LEAF	2015	2	1
7	7	5YJ3E1EBXJ	TESLA	MODEL 3	2018	1	1
8	8	WDC0G5EB0K	MERCEDES-BENZ	GLC-CLASS	2019	1	2
9	9	1N4AZ0CP3D	NISSAN	LEAF	2013	1	1
10	10	KNDCC3LD9K	KIA	NIRO	2019	1	2
11	11	KNDJX3AE8G	KIA	SOUL	2016	2	1
12	12	KNDC3DLCXN	KIA	EV6	2022	2	1
13	13	1G1RB6S59J	CHEVROLET	VOLT	2018	1	2
14	14	5YJSA1CG3D	TESLA	MODEL S	2013	1	1
15	15	1FADP3R48H	FORD	FOCUS	2017	2	1

Favorite Question

How many cars with VIN numbers starting with a 5 are battery electric vehicles within the area code 94014 that are eligible for clean alternative fuel?

```
final_project> SELECT ve.clean_alt_fuel, count(1) FROM car_information ci JOIN vehicle_eligibility ve ON ci.cafv_id =
  ve.id JOIN location l ON l.id = ci.location_id WHERE ci.vin LIKE '5%' AND l.postal_code = 94014 AND ve
 .clean_alt_fuel = "Clean Alternative Fuel Vehicle Eligible" GROUP BY ve.clean_alt_fuel
[2023-11-30 15:52:10] 1 row retrieved starting from 1 in 106 ms (execution: 88 ms, fetching: 18 ms)
```

	clean_alt_fuel	`count(1)`
1	Clean Alternative Fuel Vehicle Eligible	6

If I Had More Time:

Included other fields that I deleted from the original database
Find interesting connections and relationships

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