

COS 30020 – Lab 07

Task 1: Creating a table and entering data

-- Using your existing database 's103488117_db', create a new table cars for a used car dealership.

-- Include the following fields in the cars table:

-- car_id (AUTO_INCREMENT PRIMARY KEY),

-- make,

-- model,

-- price, and

-- yom (year of manufacture).

```
CREATE TABLE `s103488117_db`.`cars` (  
  `car_id` INT(10) NOT NULL AUTO_INCREMENT,  
  `make` VARCHAR(255) NOT NULL,  
  `model` VARCHAR(255) NOT NULL,  
  `price` DECIMAL(10, 2) NOT NULL,  
  `yom` INT(10) NOT NULL,  
  PRIMARY KEY (`car_id`)  
) ENGINE = InnoDB;
```

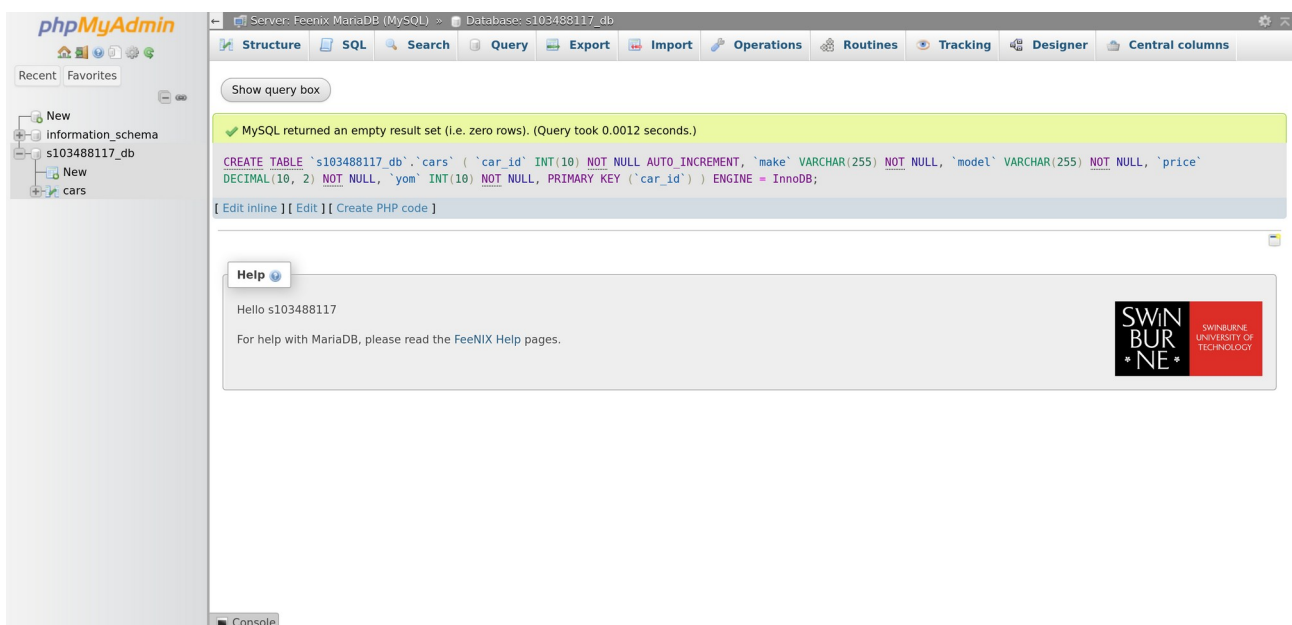


Figure 1: Create table

-- Enter at least 10 records into the table.

```
INSERT INTO cars (make, model, price, yom)
VALUES ('Holden', 'Astra', 14000.00, 2005),
       ('BMW', 'X3', 35000.00, 2004),
       ('Ford', 'Falcon', 39000.00, 2011),
       ('Toyota', 'Corolla', 20000.00, 2012),
       ('Holden', 'Commodore', 13500.00, 2005),
       ('Holden', 'Astra', 8000.00, 2001),
       ('Holden', 'Commodore', 28000.00, 2009),
       ('Ford', 'Falcon', 14000.00, 2007),
       ('Ford', 'Falcon', 7000.00, 2003),
       ('Ford', 'Laser', 10000.00, 2010),
       ('Mazda', 'RX-7', 26000.00, 2000),
       ('Toyota', 'Corolla', 12000.00, 2001),
       ('Mazda', '3', 14500.00, 2009);
```

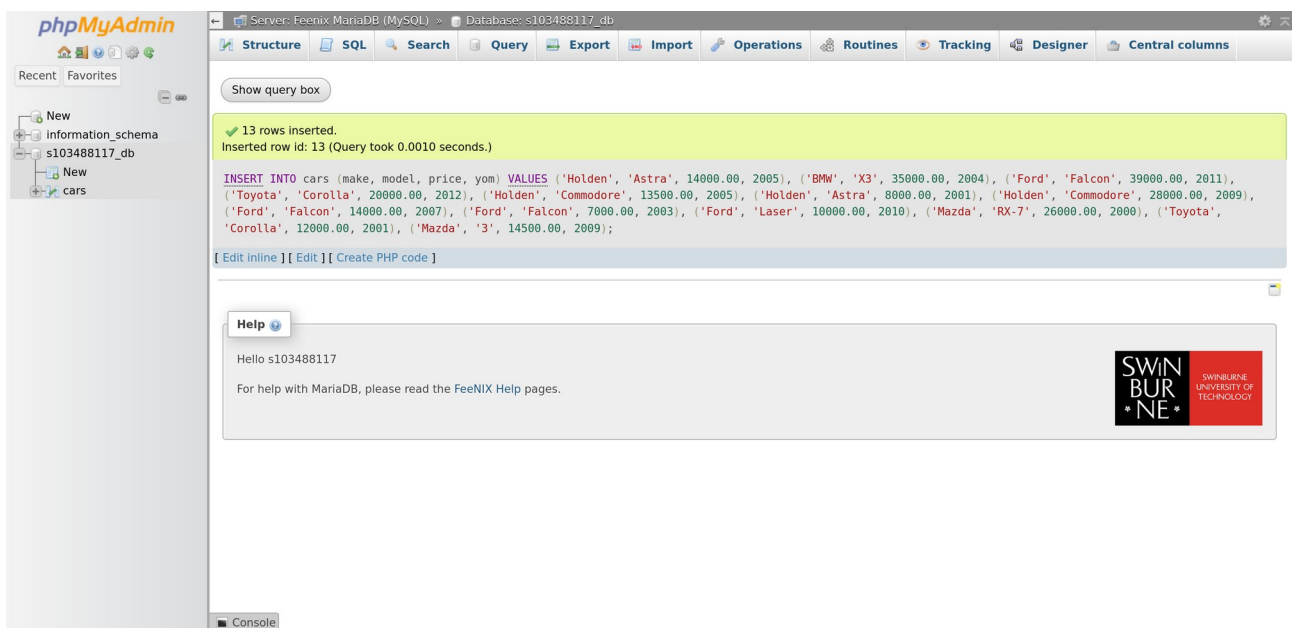


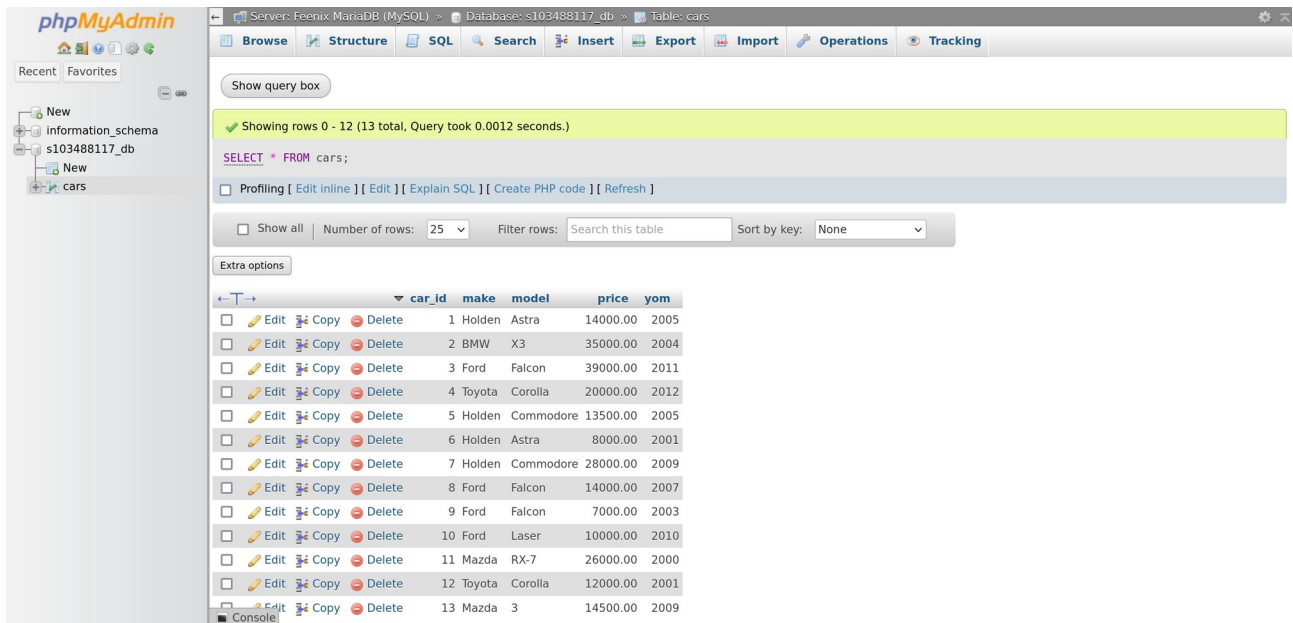
Figure 2: Insert records

Task 2: Querying the table

-- Write queries that return the following:

-- 1. All records

SELECT * FROM cars;



Showing rows 0 - 12 (13 total, Query took 0.0012 seconds.)

```
SELECT * FROM cars;
```

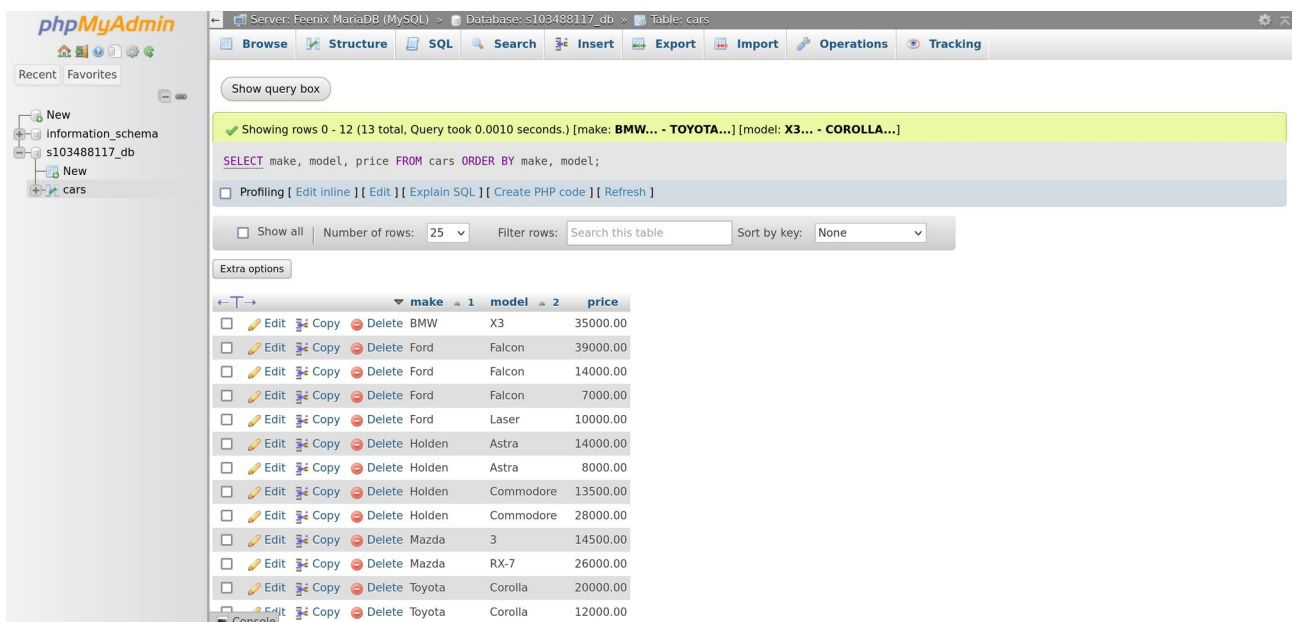
Number of rows: 25 Filter rows: Search this table Sort by key: None

	car_id	make	model	price	yom
<input type="checkbox"/>	1	Holden	Astra	14000.00	2005
<input type="checkbox"/>	2	BMW	X3	35000.00	2004
<input type="checkbox"/>	3	Ford	Falcon	39000.00	2011
<input type="checkbox"/>	4	Toyota	Corolla	20000.00	2012
<input type="checkbox"/>	5	Holden	Commodore	13500.00	2005
<input type="checkbox"/>	6	Holden	Astra	8000.00	2001
<input type="checkbox"/>	7	Holden	Commodore	28000.00	2009
<input type="checkbox"/>	8	Ford	Falcon	14000.00	2007
<input type="checkbox"/>	9	Ford	Falcon	7000.00	2003
<input type="checkbox"/>	10	Ford	Laser	10000.00	2010
<input type="checkbox"/>	11	Mazda	RX-7	26000.00	2000
<input type="checkbox"/>	12	Toyota	Corolla	12000.00	2001
<input type="checkbox"/>	13	Mazda	3	14500.00	2009

Figure 3: Query results for all records

-- 2. Make, model, and price, sorted by make and model

SELECT make, model, price FROM cars ORDER BY make, model;



Showing rows 0 - 12 (13 total, Query took 0.0010 seconds.) [make: BMW... - TOYOTA...] [model: X3... - COROLLA...]

```
SELECT make, model, price FROM cars ORDER BY make, model;
```

Number of rows: 25 Filter rows: Search this table Sort by key: None

	make	model	price
<input type="checkbox"/>	BMW	X3	35000.00
<input type="checkbox"/>	Ford	Falcon	39000.00
<input type="checkbox"/>	Ford	Falcon	14000.00
<input type="checkbox"/>	Ford	Falcon	7000.00
<input type="checkbox"/>	Ford	Laser	10000.00
<input type="checkbox"/>	Holden	Astra	14000.00
<input type="checkbox"/>	Holden	Astra	8000.00
<input type="checkbox"/>	Holden	Commodore	13500.00
<input type="checkbox"/>	Holden	Commodore	28000.00
<input type="checkbox"/>	Mazda	3	14500.00
<input type="checkbox"/>	Mazda	RX-7	26000.00
<input type="checkbox"/>	Toyota	Corolla	20000.00
<input type="checkbox"/>	Toyota	Corolla	12000.00

Figure 4: Query results for make, model, and price sorted by make and model

-- 3. The make and model of the cars which cost \$20,000.00 or more.

SELECT make, model FROM cars WHERE price >= 20000.00;

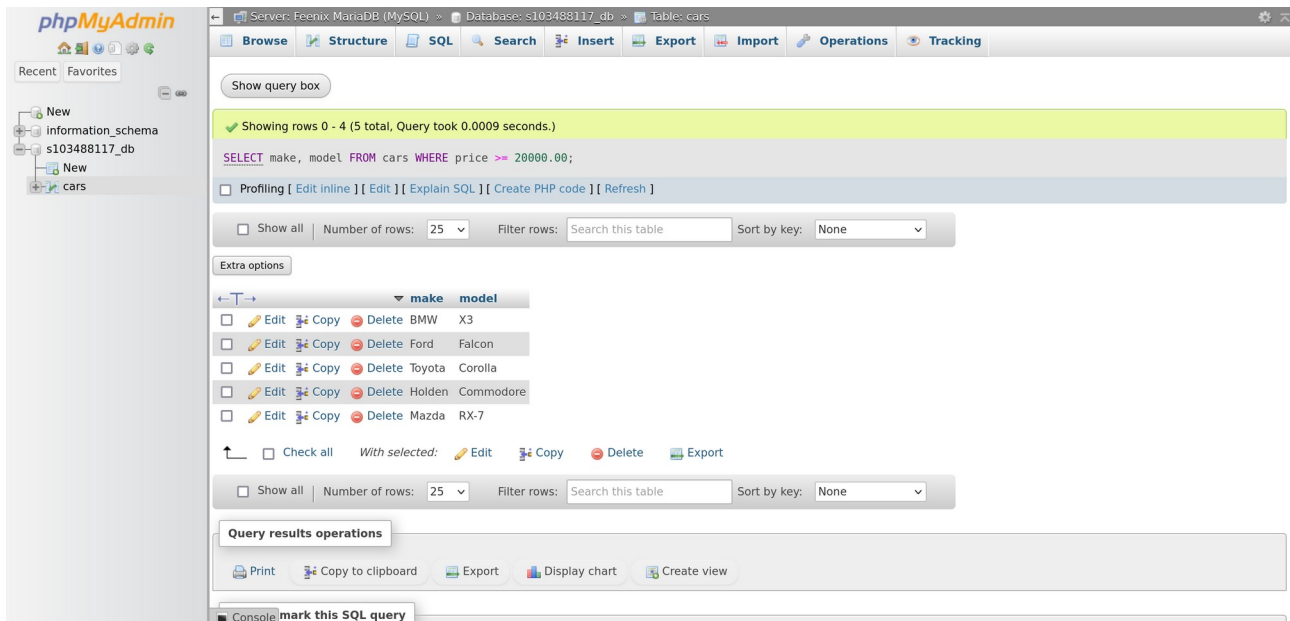


Figure 5: Query results for make and model of the cars which cost \$20,000.00 or more

-- 4. The make and model of the cars which cost below \$15,000.00.

SELECT make, model FROM cars WHERE price < 15000.00;

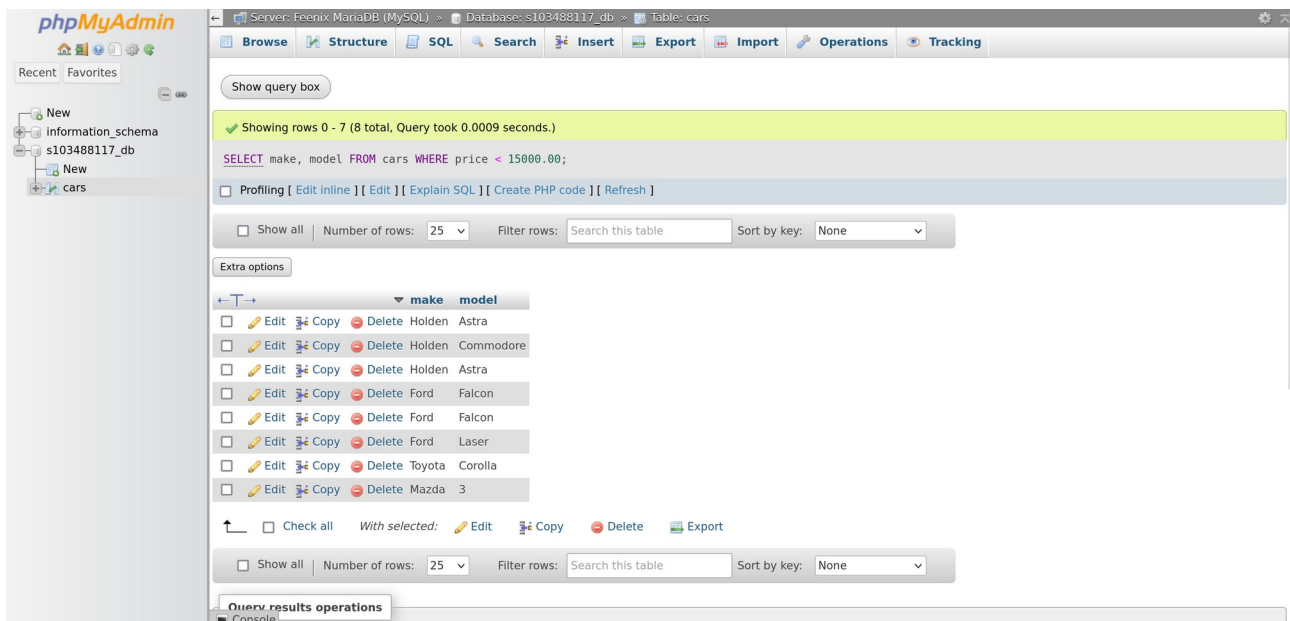
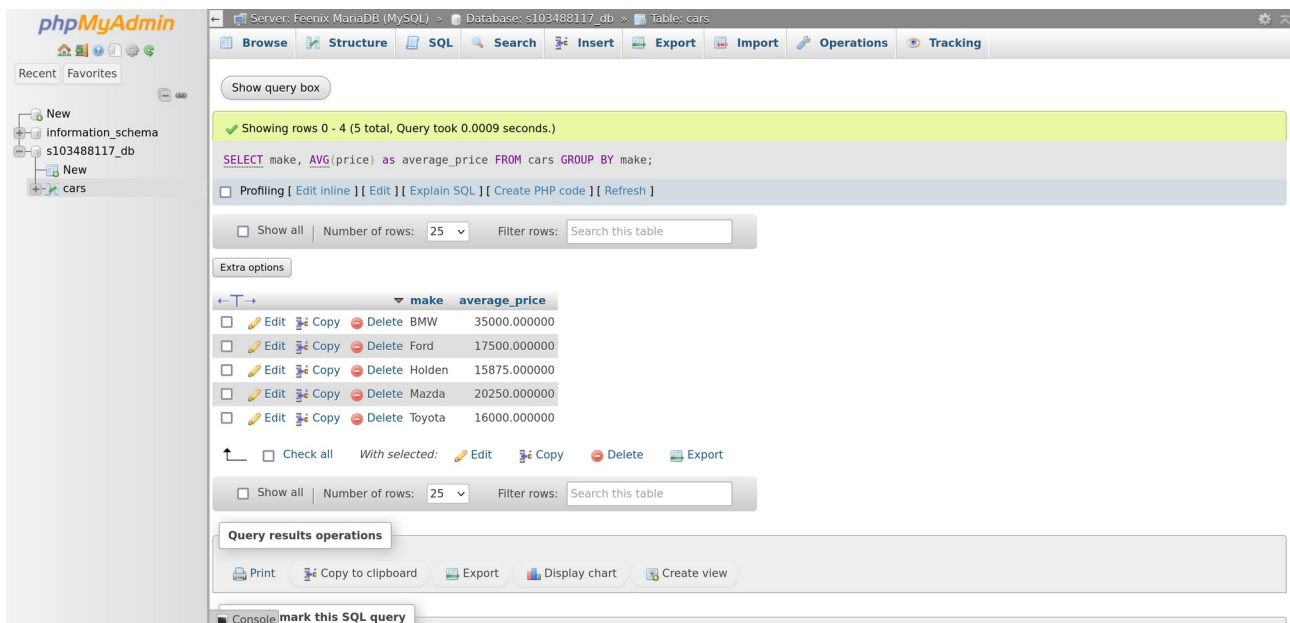


Figure 6: Query results for make and model of the cars which cost below \$15,000.00

-- 5. The average price of cars for similar make.

SELECT make, AVG(price) as average_price FROM cars GROUP BY make;



Server: Feenix MariaDB (MySQL) > Database: s103488117_db > Table: cars

Showing rows 0 - 4 (5 total, Query took 0.0009 seconds.)

SELECT make, AVG(price) as average_price FROM cars GROUP BY make;

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 | Filter rows: Search this table

Extra options

	make	average_price
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	BMW	35000.000000
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	Ford	17500.000000
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	Holden	15875.000000
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	Mazda	20250.000000
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	Toyota	16000.000000

Check all | With selected: Edit Copy Delete Export

Show all | Number of rows: 25 | Filter rows: Search this table

Query results operations

Print Copy to clipboard Export Display chart Create view

Console mark this SQL query

Figure 7: Query results for average price of cars for similar make