

LAB 07

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103809048

COS30020 Advanced web development

Task 1: Creating a table and entering data

1. Query to create table : `CREATE TABLE cars (car_id INT NOT NULL PRIMARY KEY AUTO_INCREMENT, make varchar(30) NOT NULL, model varchar(30) NOT NULL, price INT NOT NULL, yom INT NOT NULL);`

The screenshot shows the phpMyAdmin web interface. The browser address bar displays the URL: `https://feenix-mariadb-web.swin.edu.au/index.php?route=/database/sql&db=s103809048_db`. The interface includes a sidebar with a database tree showing 'information_schema' and 's103809048_db'. The main panel shows the 'SQL' tab with the following query: `CREATE TABLE cars (car_id INT NOT NULL PRIMARY KEY AUTO_INCREMENT, make varchar(30) NOT NULL, model varchar(30) NOT NULL, price INT NOT NULL, yom INT NOT NULL);`. A green message box indicates that the query was successful: 'MySQL trả về kết quả là trống rỗng (vd. không có hàng nào). (Truy vấn cần 0.0011 giây.)'. Below the query, there are links for '[Sửa chung dòng]', '[Sửa]', and '[Tạo mã PHP]'. At the bottom, a 'Help' section displays the user's name 'Hello s103809048' and a message: 'For help with MariaDB, please read the FeeNIX Help pages.' The Swinburne University of Technology logo is also visible in the bottom right corner.

2. Entering data

The screenshot shows the phpMyAdmin interface for the 's103809048_db' database. The left sidebar shows the database structure with 'cars', 'managers', and 'orders' tables. The main area displays an SQL query to insert 13 records into the 'cars' table.

```
1 INSERT INTO cars (make, model, price, yom)
2 VALUES
3 ('Holden', 'Astra', 14000, 2005),
4 ('BMW', 'X3', 35000, 2004),
5 ('Ford', 'Falcon', 39000, 2011),
6 ('Toyota', 'Corolla', 20000, 2012),
7 ('Holden', 'Commodore', 13500, 2005),
8 ('Holden', 'Astra', 8000, 2001),
9 ('Holden', 'Commodore', 28000, 2009),
10 ('Ford', 'Falcon', 14000, 2007),
11 ('Ford', 'Falcon', 7000, 2003),
12 ('Ford', 'Laser', 10000, 2010),
13 ('Mazda', 'RX-7', 26000, 2000),
14 ('Toyota', 'Corolla', 12000, 2001),
15 ('Mazda', '3', 14500, 2009);
```

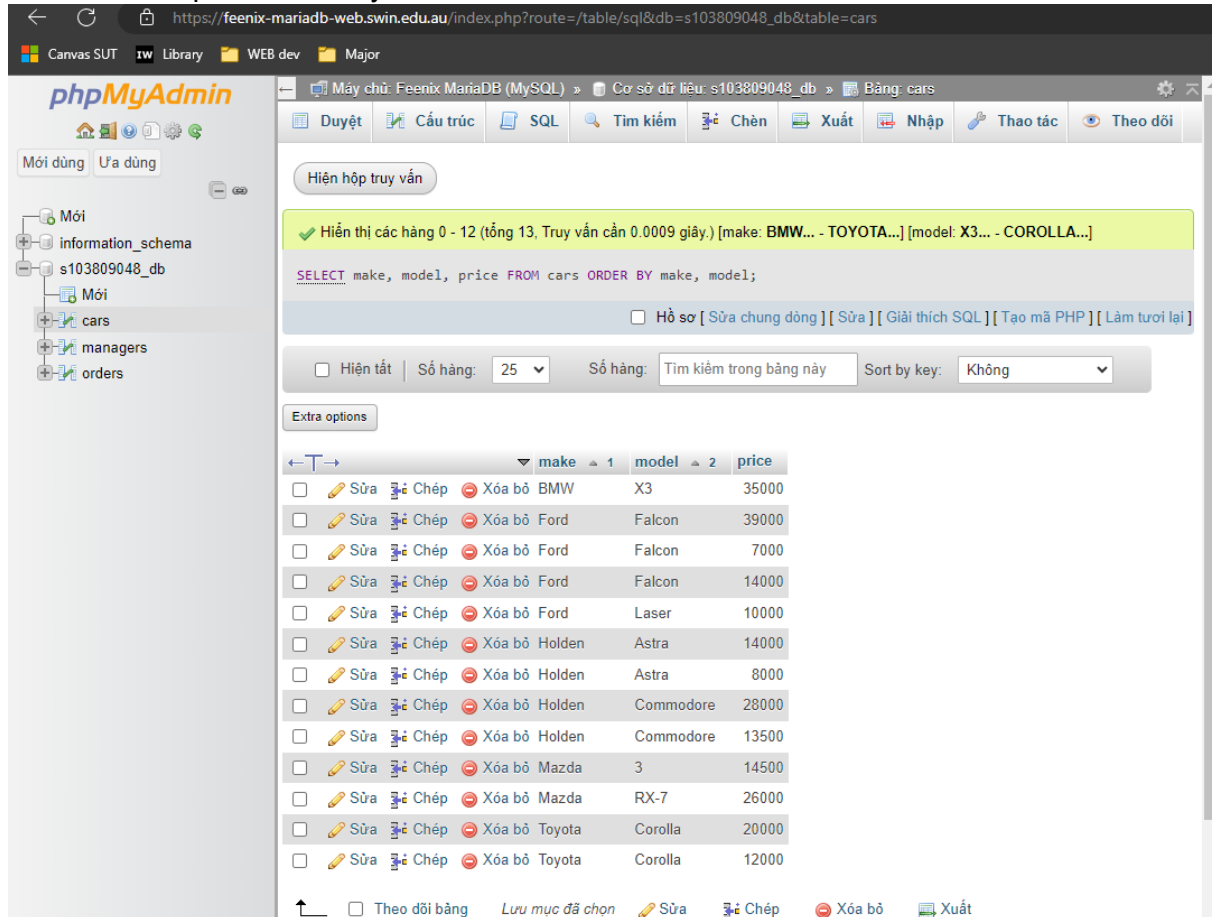
Task 2: Querying the table

1. All records query.

The screenshot shows the phpMyAdmin interface for the 's103809048_db' database, specifically the 'cars' table. The table is displayed with 13 records. The interface includes a search bar, a 'Show rows' dropdown set to 25, and a 'Sort by key' dropdown set to 'Không'. The table columns are 'car_id', 'make', 'model', 'price', and 'yom'.

car_id	make	model	price	yom
1	Holden	Astra	14000	2005
2	BMW	X3	35000	2004
3	Ford	Falcon	39000	2011
4	Toyota	Corolla	20000	2012
5	Holden	Commodore	13500	2005
6	Holden	Astra	8000	2001
7	Holden	Commodore	28000	2009
8	Ford	Falcon	14000	2007
9	Ford	Falcon	7000	2003
10	Ford	Laser	10000	2010
11	Mazda	RX-7	26000	2000
12	Toyota	Corolla	12000	2001
13	Mazda	3	14500	2009

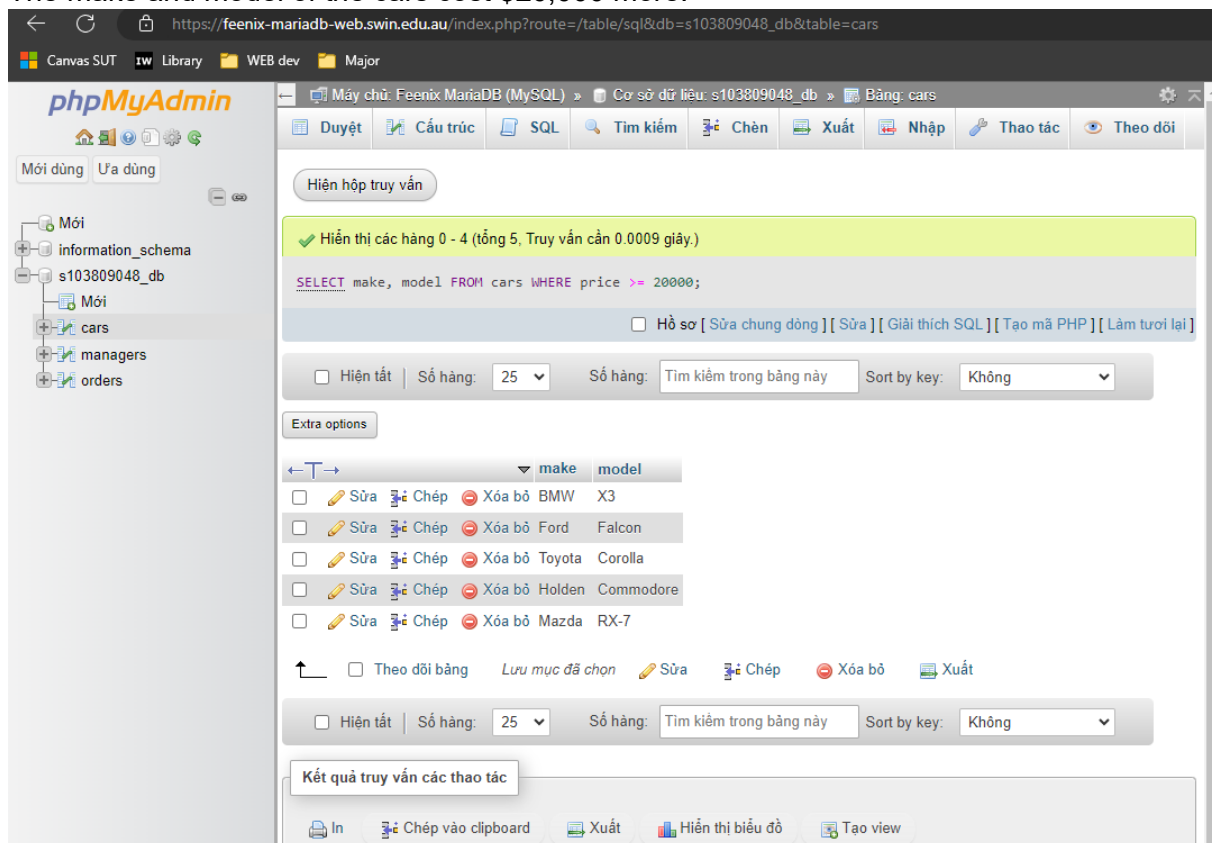
2. Make, model, price sorted by make and model.



The screenshot shows the phpMyAdmin interface with the 'cars' table selected. The SQL query is: `SELECT make, model, price FROM cars ORDER BY make, model;`. The result displays 13 rows of car data, sorted by make and then model.

	make	model	price
<input type="checkbox"/>	BMW	X3	35000
<input type="checkbox"/>	Ford	Falcon	39000
<input type="checkbox"/>	Ford	Falcon	7000
<input type="checkbox"/>	Ford	Falcon	14000
<input type="checkbox"/>	Ford	Laser	10000
<input type="checkbox"/>	Holden	Astra	14000
<input type="checkbox"/>	Holden	Astra	8000
<input type="checkbox"/>	Holden	Commodore	28000
<input type="checkbox"/>	Holden	Commodore	13500
<input type="checkbox"/>	Mazda	3	14500
<input type="checkbox"/>	Mazda	RX-7	26000
<input type="checkbox"/>	Toyota	Corolla	20000
<input type="checkbox"/>	Toyota	Corolla	12000

3. The make and model of the cars cost \$20,000 more.



The screenshot shows the phpMyAdmin interface with the 'cars' table selected. The SQL query is: `SELECT make, model FROM cars WHERE price >= 20000;`. The result displays 5 rows of car data, filtered by price greater than or equal to 20,000.

	make	model
<input type="checkbox"/>	BMW	X3
<input type="checkbox"/>	Ford	Falcon
<input type="checkbox"/>	Toyota	Corolla
<input type="checkbox"/>	Holden	Commodore
<input type="checkbox"/>	Mazda	RX-7

4. The make and model of the car cost below \$15,000.

The screenshot shows the phpMyAdmin interface for the 's103809048_db' database. The 'cars' table is selected. The SQL query entered is: `SELECT make, model FROM cars WHERE price < 15000;`. The results show 8 rows of cars with their make and model.

make	model
Holden	Astra
Holden	Commodore
Holden	Astra
Ford	Falcon
Ford	Falcon
Ford	Laser
Toyota	Corolla
Mazda	3

5. The average price of cars for similar make

The screenshot shows the phpMyAdmin interface for the 's103809048_db' database. The 'cars' table is selected. The SQL query entered is: `SELECT make, AVG(price) FROM cars GROUP BY make;`. The results show 5 rows of cars with their make and average price.

make	AVG(price)
BMW	35000.0000
Ford	17500.0000
Holden	15875.0000
Mazda	20250.0000
Toyota	16000.0000