

Database Lab Report 3

Course: Database Management

Lab Number: Lab 3

Date: 2025-01-31

Name: Ryan Munger

1. Objective

To become accustomed to writing SQL queries. To enjoy the beauty and accuracy of the relational model. To earn some still-easy lab points.

2. Lab Setup

A fresh, unmodified CAP database and an AI of your choice.

3. Procedure

Create queries for the following yourself, validate your answer, and then write the same query using AI. Grade the AI's performance.

I am going to try out Google Gemini as I am unaware of its capability. I fed it the CAP script and the questions. It did answer with one-line queries, but I formatted them for readability.

1. List the order number and total dollars of all orders.

```
-- Me
SELECT ordernum, totalusd
FROM Orders;
-- AI
SELECT orderNum, totalUSD
FROM Orders;
```

Grade: 10/10, not much to say about this query.

2. List the last name and home city of people whose prefix is "Ms.".

```
-- Me
SELECT lastname, homecity
FROM People
WHERE prefix = 'Ms.';
-- AI
SELECT lastName, homeCity
FROM People
WHERE prefix = 'Ms.';
```

Grade: 10/10.... I promise I did this one myself lol

3. List the id, name, and quantity on hand of products with quantity more than 1007.

```
-- Me
SELECT prodid, name, qtyonhand
FROM Products
WHERE qtyonhand > 1007;

-- AI
SELECT prodId, name, qtyOnHand
FROM Products
WHERE qtyOnHand > 1007;
```

Grade 10/10... the same again... but how else would you do it?

4. List the first name and home city of people born in the 1940s.

```
-- Me (Between is inclusive)
SELECT firstname, homecity
FROM People
WHERE dob BETWEEN DATE '1940-01-01' AND DATE '1949-12-31';

-- AI
SELECT firstName, homeCity
FROM People
WHERE EXTRACT(DECADE FROM DOB) = 194;
```

Grade: 10/10 - Ummmm that worked??

5. List the prefix and last name of people who are not "Mr.".

```
-- Me
SELECT prefix, lastname
FROM People
WHERE prefix != 'Mr.';

-- AI
SELECT prefix, lastName
FROM People
WHERE prefix != 'Mr.';
```

Grade: 10/10

6. List all fields for products in neither Dallas nor Duluth that cost US\$17 or less.

```
-- Me
SELECT *
FROM Products
WHERE city NOT IN ('Dallas', 'Duluth') AND priceusd <= 17;

-- AI
SELECT *
```

```
FROM Products
WHERE city NOT IN ('Dallas', 'Duluth') AND priceUSD <= 17;
```

Grade: 10/10

7. List all fields for orders in January of any year.

```
-- Me
SELECT *
FROM Orders
WHERE EXTRACT(MONTH FROM dateordered) = 1;
-- AI
SELECT *
FROM Orders
WHERE EXTRACT(MONTH FROM dateOrdered) = 1;
```

Grade: 10/10 this is getting spooky

8. List all fields for orders in February of any year of US\$23,000 or more.

```
-- Me
SELECT *
FROM Orders
WHERE EXTRACT(MONTH FROM dateordered) = 2 AND totalusd >= 23000;
-- AI
SELECT *
FROM Orders
WHERE EXTRACT(MONTH FROM dateOrdered) = 2 AND totalUSD >= 23000;
```

Grade: 10/10!!

9. List all orders from the customer whose id is 010.

```
-- Me
SELECT *
FROM Orders
WHERE custid = 10;
-- AI
SELECT *
FROM Orders
WHERE custId = 010;
```

Grade: 10/10 Leading 0s

10. List all orders from the customer whose id is 005.

```
-- Me
SELECT *
```

```
FROM Orders
WHERE custid = 5;
-- AI
SELECT *
FROM Orders
WHERE custId = 005;
```

Grade: 10/10 Leading 0s

Yeah Gemini did this easily... but it is designed to be easy.