

SQL TASKS 1, 2 & 3

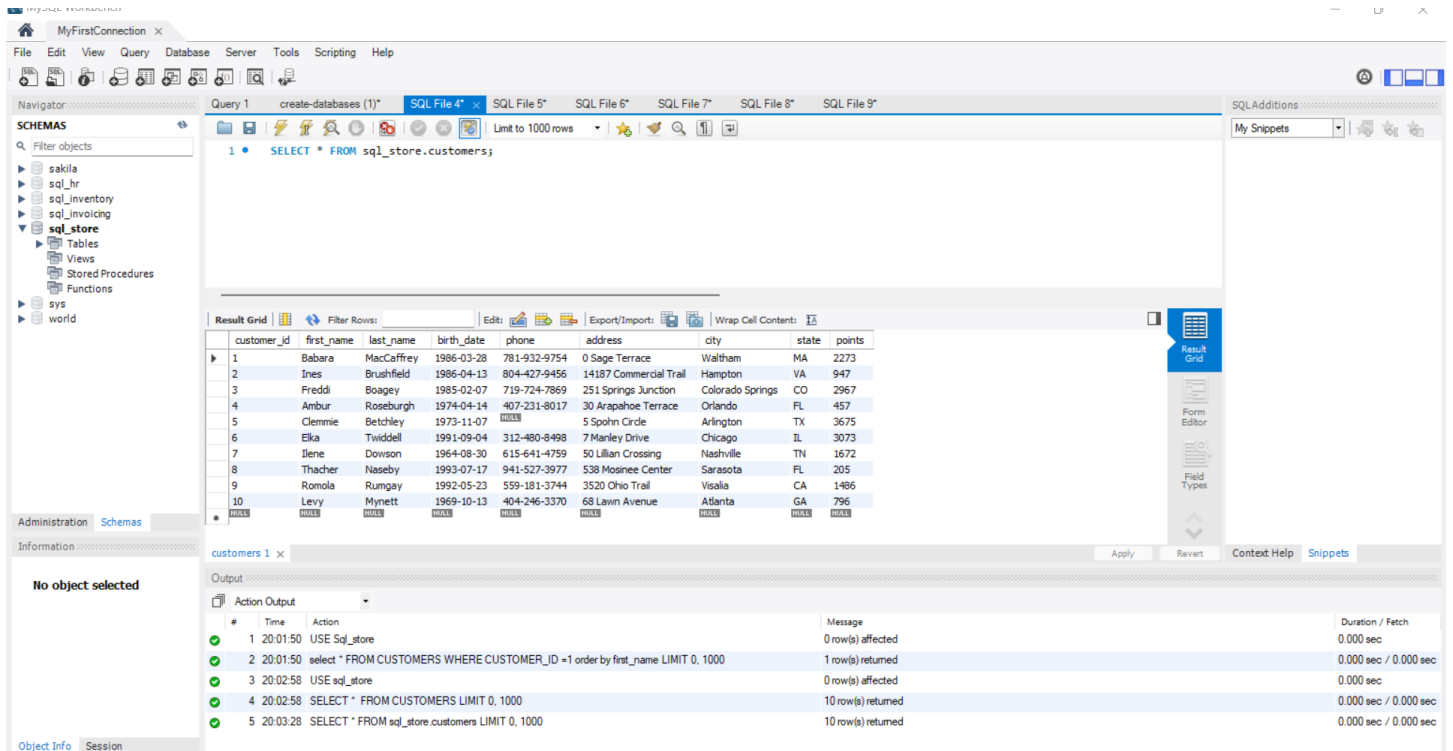
A PRINTOUT OF A EER MODEL

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Selecting all records from the database 'sql_store' and table 'customers'.



MySQL Workbench interface showing a query executed on the 'sql_store' database. The query is:

```
SELECT * FROM sql_store.customers;
```

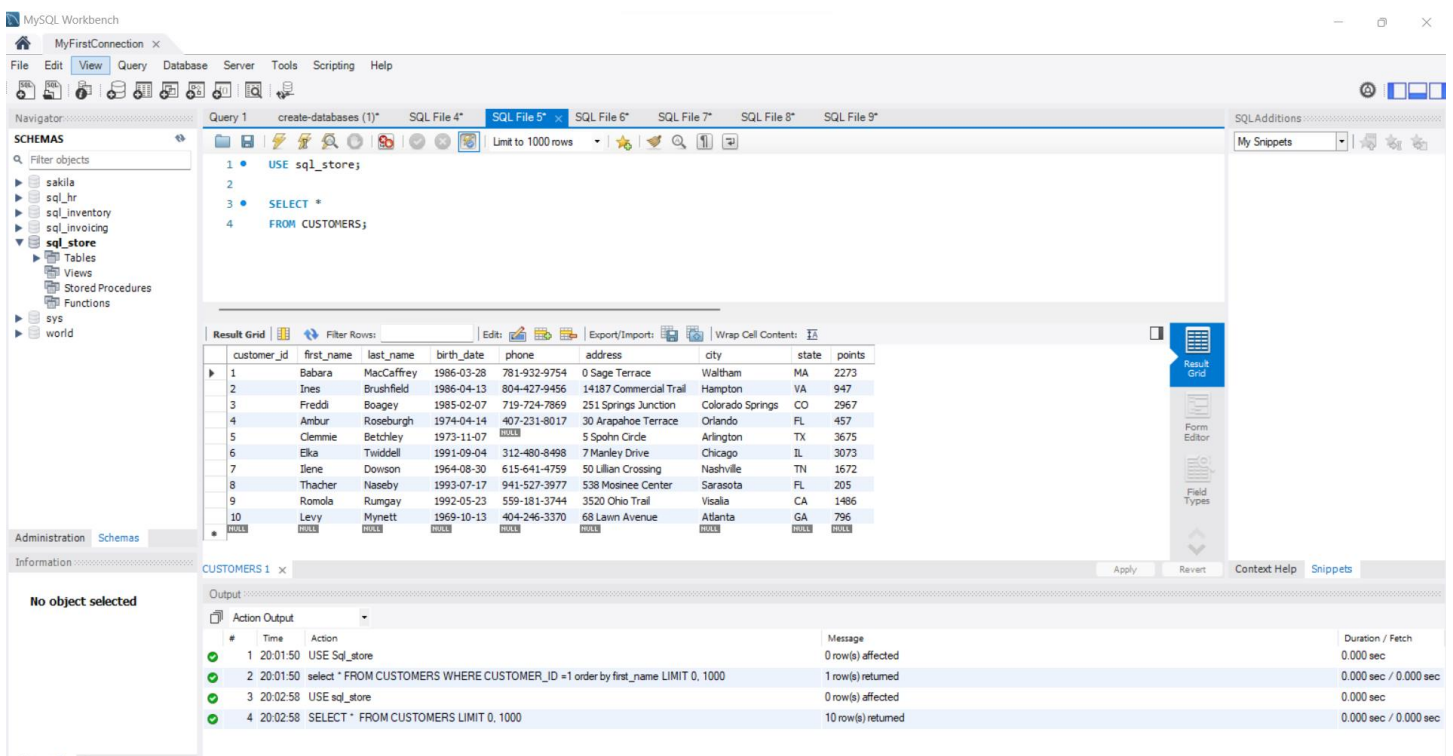
The result grid displays 10 records of customer data:

| customer_id | first_name | last_name | birth_date | phone | address | city | state | points |
|-------------|------------|------------|------------|--------------|------------------------|------------------|-------|--------|
| 1 | Babara | MacCaffrey | 1986-03-28 | 781-932-9754 | 0 Sage Terrace | Waltham | MA | 2273 |
| 2 | Ines | Brushfield | 1986-04-13 | 804-427-9456 | 14187 Commercial Trail | Hampton | VA | 947 |
| 3 | Freddi | Boagey | 1985-02-07 | 719-724-7869 | 251 Springs Junction | Colorado Springs | CO | 2967 |
| 4 | Ambur | Roseburgh | 1974-04-14 | 407-231-8017 | 30 Arapahoe Terrace | Orlando | FL | 457 |
| 5 | Clemmie | Betchley | 1973-11-07 | 530-480-8498 | 5 Spohn Circle | Arlington | TX | 3675 |
| 6 | Elka | Twiddell | 1991-09-04 | 312-480-8498 | 7 Manley Drive | Chicago | IL | 3073 |
| 7 | Ilene | Dowson | 1964-08-30 | 615-641-4759 | 50 Lillian Crossing | Nashville | TN | 1672 |
| 8 | Thacher | Naseby | 1993-07-17 | 941-527-3977 | 538 Mosinee Center | Sarasota | FL | 205 |
| 9 | Romola | Rumgay | 1992-05-23 | 559-181-3744 | 3520 Ohio Trail | Visalia | CA | 1486 |
| 10 | Levy | Mynett | 1969-10-13 | 404-246-3370 | 68 Lavin Avenue | Atlanta | GA | 796 |

The output pane shows the execution log:

| # | Time | Action | Message | Duration / Fetch |
|---|----------|--|--------------------|-----------------------|
| 1 | 20:01:50 | USE sql_store | 0 row(s) affected | 0.000 sec |
| 2 | 20:01:50 | select * FROM CUSTOMERS WHERE CUSTOMER_ID =1 order by first_name LIMIT 0, 1000 | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 3 | 20:02:58 | USE sql_store | 0 row(s) affected | 0.000 sec |
| 4 | 20:02:58 | SELECT * FROM CUSTOMERS LIMIT 0, 1000 | 10 row(s) returned | 0.000 sec / 0.000 sec |
| 5 | 20:03:28 | SELECT * FROM sql_store.customers LIMIT 0, 1000 | 10 row(s) returned | 0.000 sec / 0.000 sec |

Selecting all records from the table 'customers', using the database 'sql_store'.



MySQL Workbench interface showing a query executed on the 'sql_store' database. The query is:

```
SELECT * FROM CUSTOMERS;
```

The result grid displays 10 records of customer data:

| customer_id | first_name | last_name | birth_date | phone | address | city | state | points |
|-------------|------------|------------|------------|--------------|------------------------|------------------|-------|--------|
| 1 | Babara | MacCaffrey | 1986-03-28 | 781-932-9754 | 0 Sage Terrace | Waltham | MA | 2273 |
| 2 | Ines | Brushfield | 1986-04-13 | 804-427-9456 | 14187 Commercial Trail | Hampton | VA | 947 |
| 3 | Freddi | Boagey | 1985-02-07 | 719-724-7869 | 251 Springs Junction | Colorado Springs | CO | 2967 |
| 4 | Ambur | Roseburgh | 1974-04-14 | 407-231-8017 | 30 Arapahoe Terrace | Orlando | FL | 457 |
| 5 | Clemmie | Betchley | 1973-11-07 | 530-480-8498 | 5 Spohn Circle | Arlington | TX | 3675 |
| 6 | Elka | Twiddell | 1991-09-04 | 312-480-8498 | 7 Manley Drive | Chicago | IL | 3073 |
| 7 | Ilene | Dowson | 1964-08-30 | 615-641-4759 | 50 Lillian Crossing | Nashville | TN | 1672 |
| 8 | Thacher | Naseby | 1993-07-17 | 941-527-3977 | 538 Mosinee Center | Sarasota | FL | 205 |
| 9 | Romola | Rumgay | 1992-05-23 | 559-181-3744 | 3520 Ohio Trail | Visalia | CA | 1486 |
| 10 | Levy | Mynett | 1969-10-13 | 404-246-3370 | 68 Lavin Avenue | Atlanta | GA | 796 |

The output pane shows the execution log:

| # | Time | Action | Message | Duration / Fetch |
|---|----------|--|--------------------|-----------------------|
| 1 | 20:01:50 | USE sql_store | 0 row(s) affected | 0.000 sec |
| 2 | 20:01:50 | select * FROM CUSTOMERS WHERE CUSTOMER_ID =1 order by first_name LIMIT 0, 1000 | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 3 | 20:02:58 | USE sql_store | 0 row(s) affected | 0.000 sec |
| 4 | 20:02:58 | SELECT * FROM CUSTOMERS LIMIT 0, 1000 | 10 row(s) returned | 0.000 sec / 0.000 sec |

Selecting customer with customer id 1.

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
1 USE sql_store;
2 select *
3 FROM CUSTOMERS
4 WHERE CUSTOMER_ID =1
5 order by first_name
```

The Result Grid displays the following data:

| customer_id | first_name | last_name | birth_date | phone | address | city | state | points |
|-------------|------------|------------|------------|--------------|----------------|---------|-------|--------|
| 1 | Babara | MacCaffrey | 1986-03-28 | 781-932-9754 | 0 Sage Terrace | Waltham | MA | 2273 |

The Output tab shows the execution results:

| # | Time | Action | Message | Duration / Fetch |
|---|----------|--|-------------------|-----------------------|
| 1 | 20:01:50 | USE sql_store | 0 row(s) affected | 0.000 sec |
| 2 | 20:01:50 | select * FROM CUSTOMERS WHERE CUSTOMER_ID =1 order by first_name LIMIT 0, 1000 | 1 row(s) returned | 0.000 sec / 0.000 sec |

Selecting customer id number 1, ordered first name in alphabetical order.

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
1 USE sql_store;
2 select *
3 FROM CUSTOMERS
4 WHERE CUSTOMER_ID=1
5 order by first_name
```

The Result Grid displays the following data:

| customer_id | first_name | last_name | birth_date | phone | address | city | state | points |
|-------------|------------|------------|------------|--------------|----------------|---------|-------|--------|
| 1 | Babara | MacCaffrey | 1986-03-28 | 781-932-9754 | 0 Sage Terrace | Waltham | MA | 2273 |

The Output tab shows the execution results:

| # | Time | Action | Message | Duration / Fetch |
|---|----------|--|--------------------|-----------------------|
| 4 | 20:02:58 | SELECT * FROM CUSTOMERS LIMIT 0, 1000 | 10 row(s) returned | 0.000 sec / 0.000 sec |
| 5 | 20:03:28 | SELECT * FROM sql_store.customers LIMIT 0, 1000 | 10 row(s) returned | 0.000 sec / 0.000 sec |
| 6 | 20:06:45 | USE sql_store | 0 row(s) affected | 0.000 sec |
| 7 | 20:06:45 | select * FROM CUSTOMERS WHERE CUSTOMER_ID between 1 AND 10 order by first_name LIMIT 0, 1000 | 10 row(s) returned | 0.000 sec / 0.000 sec |
| 8 | 20:07:11 | USE sql_store | 0 row(s) affected | 0.000 sec |
| 9 | 20:07:11 | select * FROM CUSTOMERS WHERE CUSTOMER_ID=1 order by first_name LIMIT 0, 1000 | 1 row(s) returned | 0.000 sec / 0.000 sec |

Select last name before first name with points and points plus 10.

The screenshot shows the MySQL Workbench interface. The 'Query' tab is active, displaying the following SQL query:

```
1 USE sql_store;
2
3 select last_name, first_name, points, points+ 10
4 FROM CUSTOMERS
5
```

The 'Result Grid' shows the following data:

| last_name | first_name | points | points+ 10 |
|------------|------------|--------|------------|
| MacCaffrey | Babara | 2273 | 2283 |
| Brushfield | Ines | 947 | 957 |
| Boagey | Freddi | 2967 | 2977 |
| Roseburgh | Ambur | 457 | 467 |
| Betchley | Clemmie | 3675 | 3685 |
| Twiddell | Elka | 3073 | 3083 |
| Dowson | Ilene | 1672 | 1682 |
| Naseby | Thacher | 205 | 215 |
| Rumgay | Romola | 1486 | 1496 |
| Mynett | Levy | 796 | 806 |

The 'Output' tab shows the execution log with the following messages:

| # | Time | Action | Message | Duration / Fetch |
|----|----------|--|--------------------|-----------------------|
| 6 | 20:06:45 | USE sql_store | 0 row(s) affected | 0.000 sec |
| 7 | 20:06:45 | select * FROM CUSTOMERS WHERE CUSTOMER_ID between 1 AND 10 order by first_name LIMIT 0, 1000 | 10 row(s) returned | 0.000 sec / 0.000 sec |
| 8 | 20:07:11 | USE sql_store | 0 row(s) affected | 0.000 sec |
| 9 | 20:07:11 | select * FROM CUSTOMERS WHERE CUSTOMER_ID=1 order by first_name LIMIT 0, 1000 | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 10 | 20:08:41 | USE sql_store | 0 row(s) affected | 0.000 sec |
| 11 | 20:08:41 | select last_name, first_name, points, points+ 10 FROM CUSTOMERS LIMIT 0, 1000 | 10 row(s) returned | 0.016 sec / 0.000 sec |

Select last name, first name, points and points multiplies with 10 and plus 100 and rename the column as 'discount_factor'.

The screenshot shows the MySQL Workbench interface. The 'Query' tab is active, displaying the following SQL query:

```
1 USE sql_store;
2 select last_name, first_name, points, (points * 10 ) + 100 As 'discount_factor'
3 FROM customers

```

The 'Result Grid' shows the following data:

| last_name | first_name | points | discount_factor |
|------------|------------|--------|-----------------|
| MacCaffrey | Babara | 2273 | 22830 |
| Brushfield | Ines | 947 | 9570 |
| Boagey | Freddi | 2967 | 29770 |
| Roseburgh | Ambur | 457 | 4670 |
| Betchley | Clemmie | 3675 | 36850 |
| Twiddell | Elka | 3073 | 30830 |
| Dowson | Ilene | 1672 | 16820 |
| Naseby | Thacher | 205 | 2150 |
| Rumgay | Romola | 1486 | 14960 |
| Mynett | Levy | 796 | 8060 |

The 'Output' tab shows the execution log with the following messages:

| # | Time | Action | Message | Duration / Fetch |
|----|----------|--|--------------------|-----------------------|
| 8 | 20:07:11 | USE sql_store | 0 row(s) affected | 0.000 sec |
| 9 | 20:07:11 | select * FROM CUSTOMERS WHERE CUSTOMER_ID=1 order by first_name LIMIT 0, 1000 | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 10 | 20:08:41 | USE sql_store | 0 row(s) affected | 0.000 sec |
| 11 | 20:08:41 | select last_name, first_name, points, points+ 10 FROM CUSTOMERS LIMIT 0, 1000 | 10 row(s) returned | 0.016 sec / 0.000 sec |
| 12 | 20:10:01 | USE sql_store | 0 row(s) affected | 0.000 sec |
| 13 | 20:10:01 | select last_name, first_name, points, (points * 10) + 100 As 'discount_factor' FROM customers LIMIT 0, 1000 | 10 row(s) returned | 0.000 sec / 0.000 sec |

Select last name, first name, points, points plus 10 and multiplied with 100 as 'discount_factor'.

The screenshot shows MySQL Workbench with a query executed in the 'Query' tab. The query is as follows:

```
1 USE sql_store;
2 select last_name, first_name, points, (points * 10) + 100 As 'discount_factor'
3 FROM customers
```

The 'Result Grid' displays the following data:

| last_name | first_name | points | discount_factor |
|------------|------------|--------|-----------------|
| MacCaffrey | Babara | 2273 | 22830 |
| Brushfield | Ines | 947 | 9570 |
| Boagey | Freddi | 2967 | 29770 |
| Roseburgh | Amibur | 457 | 4670 |
| Betchley | Clemmie | 3675 | 36850 |
| Twiddell | Elka | 3073 | 30830 |
| Dowson | Ilene | 1672 | 16820 |
| Naseby | Thacher | 205 | 2150 |
| Rumgay | Romola | 1486 | 14960 |
| Mynett | Levy | 796 | 8060 |

The 'Output' tab shows the execution log with the following entries:

| # | Time | Action | Message | Duration / Fetch |
|----|----------|---|--------------------|-----------------------|
| 8 | 20:07:11 | USE Sql_store | 0 row(s) affected | 0.000 sec |
| 9 | 20:07:11 | select * FROM CUSTOMERS WHERE CUSTOMER_ID=1 order by first_name LIMIT 0, 1000 | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 10 | 20:08:41 | USE sql_store | 0 row(s) affected | 0.000 sec |
| 11 | 20:08:41 | select last_name, first_name, points, points+ 10 FROM CUSTOMERS LIMIT 0, 1000 | 10 row(s) returned | 0.016 sec / 0.000 sec |
| 12 | 20:10:01 | USE sql_store | 0 row(s) affected | 0.000 sec |
| 13 | 20:10:01 | select last_name, first_name, points, (points * 10) + 100 As 'discount_factor' FROM customers LIMIT 0, 1000 | 10 row(s) returned | 0.000 sec / 0.000 sec |

Select products' names, unit price and a new unit price from the customer table.

The screenshot shows MySQL Workbench with a query executed in the 'Query' tab. The query is as follows:

```
1 select name, unit_price, unit_price * 1.1 as new_price
2 FROM products
```

The 'Result Grid' displays the following data:

| name | unit_price | new_price |
|------------------------------|------------|-----------|
| Foam Dinner Plate | 1.21 | 1.331 |
| Pork - Bacon,back Peameal | 4.65 | 5.115 |
| Lettuce - Romaine, Heart | 3.35 | 3.685 |
| Brocolinni - Gaylan, Chinese | 4.53 | 4.983 |
| Sauce - Ranch Dressing | 1.63 | 1.793 |
| Pett Baguette | 2.39 | 2.629 |
| Sweet Pea Sprouts | 3.29 | 3.619 |
| Island Oasis - Raspberry | 0.74 | 0.814 |
| Longan | 2.26 | 2.486 |
| Broom - Push | 1.09 | 1.199 |

The 'Output' tab shows the execution log with the following entries:

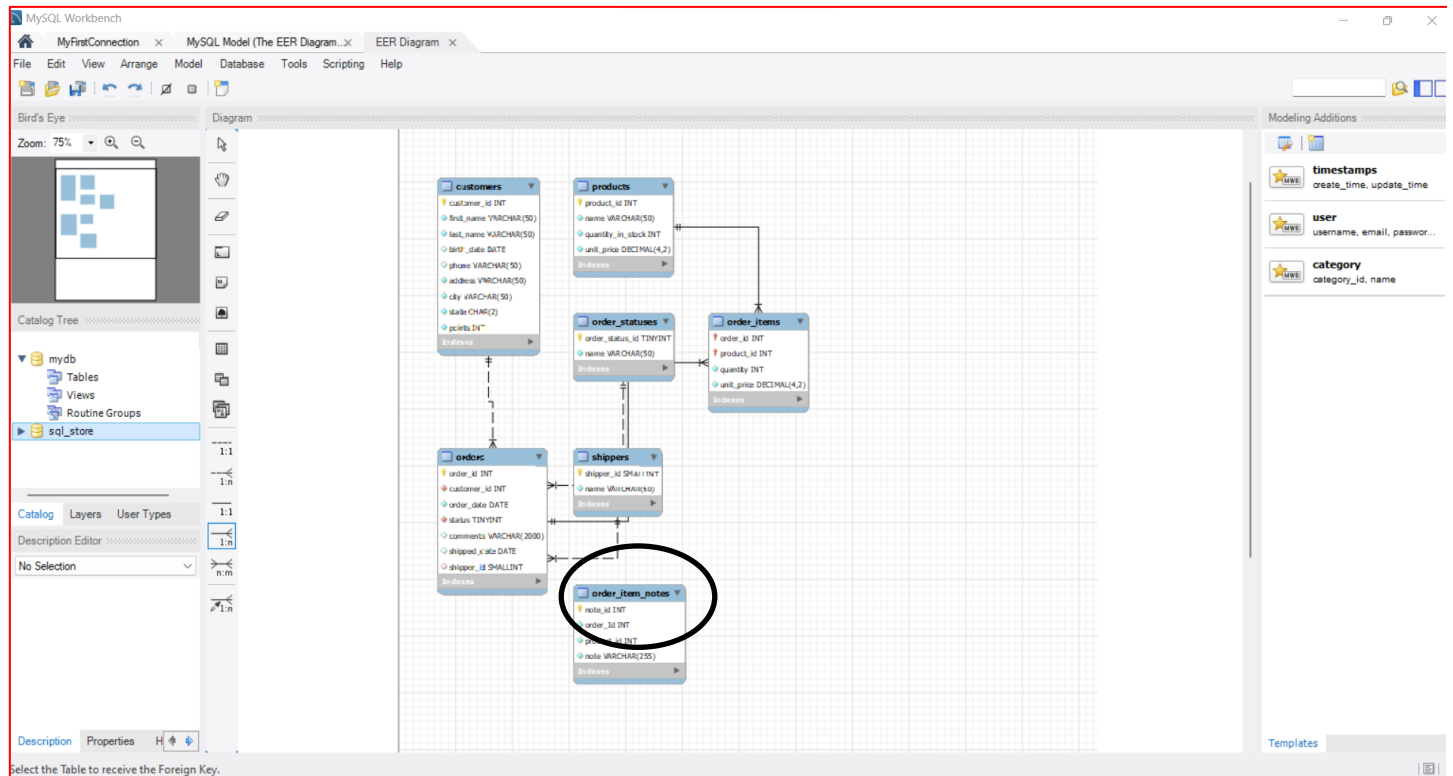
| # | Time | Action | Message | Duration / Fetch |
|----|----------|---|--------------------|-----------------------|
| 9 | 20:07:11 | select * FROM CUSTOMERS WHERE CUSTOMER_ID=1 order by first_name LIMIT 0, 1000 | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 10 | 20:08:41 | USE sql_store | 0 row(s) affected | 0.000 sec |
| 11 | 20:08:41 | select last_name, first_name, points, points+ 10 FROM CUSTOMERS LIMIT 0, 1000 | 10 row(s) returned | 0.016 sec / 0.000 sec |
| 12 | 20:10:01 | USE sql_store | 0 row(s) affected | 0.000 sec |
| 13 | 20:10:01 | select last_name, first_name, points, (points * 10) + 100 As 'discount_factor' FROM customers LIMIT 0, 1000 | 10 row(s) returned | 0.000 sec / 0.000 sec |
| 14 | 20:14:19 | select name, unit_price, unit_price * 1.1 as new_price FROM products LIMIT 0, 1000 | 10 row(s) returned | 0.000 sec / 0.000 sec |

Select all customers born after 01-01-1990.

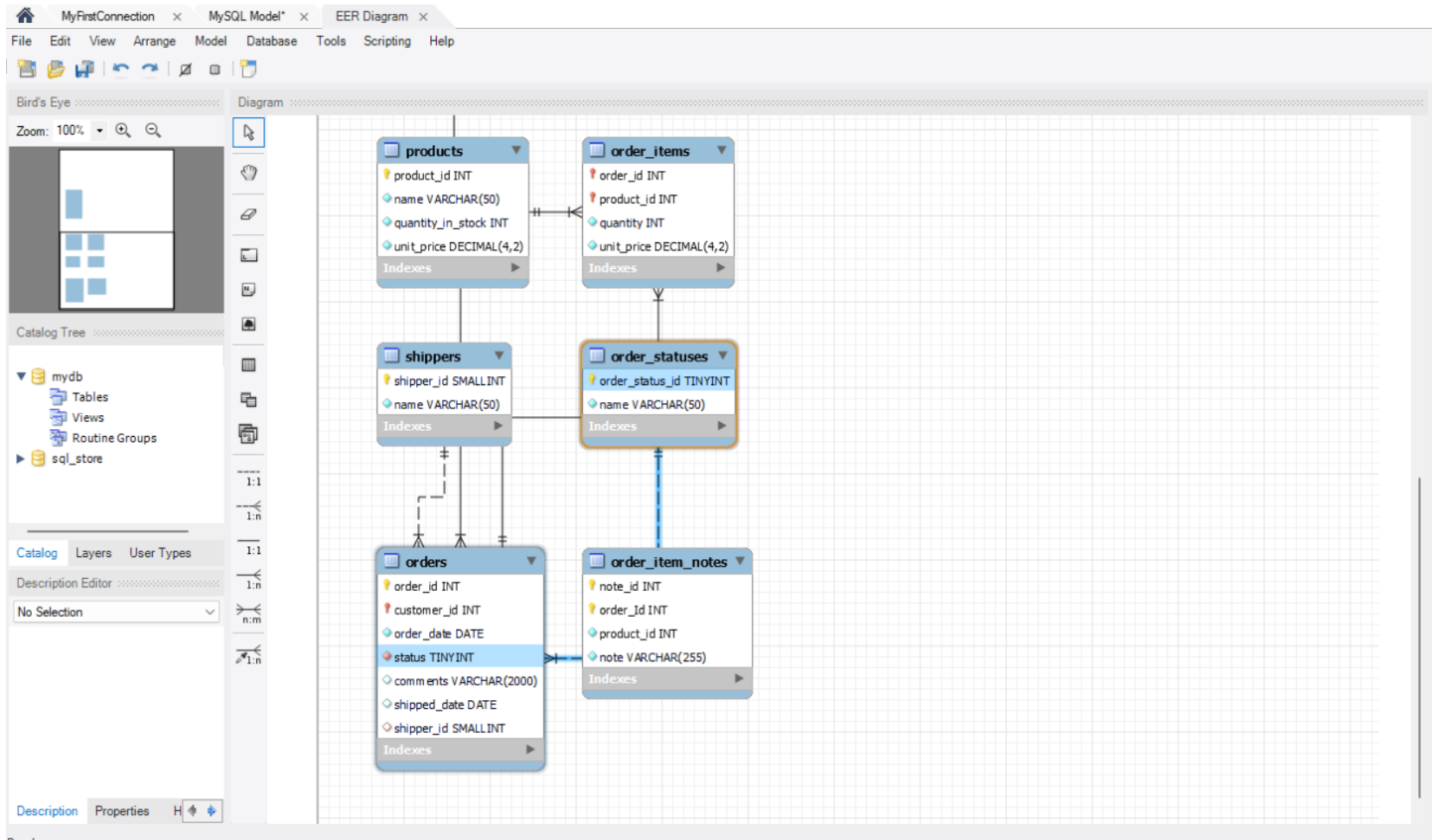
The screenshot shows the MySQL Workbench interface. The 'Query' tab is active, displaying a SQL query: `select * from customers where birth_date > '1990-01-01'`. The 'Output' tab shows the execution results, including a table with columns: #, Time, Action, Message, and Duration / Fetch. The table contains 14 rows of execution details, including the query execution and subsequent actions like 'USE sql_store'.

| # | Time | Action | Message | Duration / Fetch |
|----|----------|---|--------------------|-----------------------|
| 9 | 20:07:11 | select * FROM CUSTOMERS WHERE CUSTOMER_ID=1 order by first_name LIMIT 0, 1000 | 1 row(s) returned | 0.000 sec / 0.000 sec |
| 10 | 20:08:41 | USE sql_store | 0 row(s) affected | 0.000 sec |
| 11 | 20:08:41 | select last_name, first_name, points, points + 10 FROM CUSTOMERS LIMIT 0, 1000 | 10 row(s) returned | 0.016 sec / 0.000 sec |
| 12 | 20:10:01 | USE sql_store | 0 row(s) affected | 0.000 sec |
| 13 | 20:10:01 | select last_name, first_name, points, (points * 10) + 100 As 'discount_factor' FROM customers LIMIT 0, 1000 | 10 row(s) returned | 0.000 sec / 0.000 sec |
| 14 | 20:14:19 | select name, unit_price, unit_price * 1.1 as new_price FROM products LIMIT 0, 1000 | 10 row(s) returned | 0.000 sec / 0.000 sec |

The EER Diagram



The primary key for the order_items_notes table must be set manually using the note_id column.



All tables now have primary keys.