Laporan Praktikum SQL Join
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1. Masuk pada database classicmodels

```
USE classicmodels;
```

2. Menggunakan JOIN statement
    a. Menampilkan data lengkap Customer dan payment amount yang amount-nya di atas 20000

    ```
    SELECT customers.*, payments.amount
    FROM customers JOIN payments
    ON customers.customerNumber = payments.customerNumber WHERE
    payments.amount > 20000;
    ```

    Kode di atas pertama-tama menggabungkan tabel customers dan payments berdasarkan kolom customerNumber, lalu memfilter payment amount, kemudian statement SELECT memilih semua data di tabel customers dan kolom amount di tabel payments untuk dipanggil sebagai output.

    Output:

    …

    b. Menampilkan customerName, city, dan checkNumber dengan syarat amount di antara 20000 – 50000

    ```
    SELECT customers.customerName, customers.city, payments.checkNumber
    FROM customers JOIN payments
    ON customers.customerNumber = payments.customerNumber
    WHERE payments.amount BETWEEN 20000 AND 50000;
    ```

    Kode di atas pertama-tama menggabungkan tabel customers dan payments berdasarkan kolom customerNumber, lalu memfilter payment amount antara

20000 hingga 50000, lalu statement SELECT memilih kolom customerName, city, dan checkNumber untuk dipanggil sebagai output.

Output:

```
+--------------------------------+------------------+--------------+
| customerName                   | city             | checkNumber  |
+--------------------------------+------------------+--------------+
| Signal Gift Stores             | Las Vegas        | HQ55022      |
| Signal Gift Stores             | Las Vegas        | ND748579     |
| Australian Collectors, Co.     | Melbourne        | GG31455      |
| Australian Collectors, Co.     | Melbourne        | NR27552      |
| La Rochelle Gifts              | Nantes           | LN373447     |
```

…

```
| Motor Mint Distributors Inc.   | Philadelphia     | JB117768     |
| Signal Collectibles Ltd.       | Brisbane         | AH612904     |
| Double Decker Gift Stores, Ltd | London           | OC773849     |
| Kelly's Gift Shop              | Auckland         | EU531600     |
| Kelly's Gift Shop              | Auckland         | MB342426     |
+--------------------------------+------------------+--------------+
153 rows in set (0.001 sec)
```

c. Menampilkan seluruh nama employee dan customer_name masing-masing yang ditangani

```
SELECT employees.firstName, employees.lastName, customers.customerName
FROM employees JOIN customers
ON employees.employeeNumber = customers.salesRepEmployeeNumber;
```

Kode di atas pertama-tama menggabungkan tabel employees dan customers berdasarkan employeeNumber, lalu statement SELECT memilih kolom firstName, lastName, dan customerName untuk dipanggil sebagai output.

Output:

```
+-----------+-----------+----------------------------------------+
| firstName | lastName  | customerName                           |
+-----------+-----------+----------------------------------------+
| Leslie    | Jennings  | Mini Gifts Distributors Ltd.           |
| Leslie    | Jennings  | Mini Wheels Co.                        |
| Leslie    | Jennings  | Technics Stores Inc.                   |
| Leslie    | Jennings  | Corporate Gift Ideas Co.               |
| Leslie    | Jennings  | The Sharp Gifts Warehouse              |
```

…

```
| Martin    | Gerard    | Vida Sport, Ltd                |
| Martin    | Gerard    | CAF Imports                    |
| Martin    | Gerard    | Precious Collectables          |
| Martin    | Gerard    | Corrida Auto Replicas, Ltd     |
| Martin    | Gerard    | Iberia Gift Imports, Corp.     |
+-----------+-----------+--------------------------------+
100 rows in set (0.004 sec)
```

d. Menampilkan data produk berupa productName, buyPrice, dan orderNumber dalam histori pemesanan customer

```
SELECT products.productName, products.buyPrice,
orderdetails.orderNumber
FROM products JOIN orderdetails
ON products.productCode = orderdetails.productCode;
```

Kode di atas pertama-tama menggabungkan tabel products dan orderdetails berdasarkan productCode, lalu statement SELECT memilih kolom productName, buyPrice, dan orderNumber untuk dipanggil sebagai output.

Output:

```
+--------------------------------------------+----------+-------------+
| productName                                | buyPrice | orderNumber |
+--------------------------------------------+----------+-------------+
| 1969 Harley Davidson Ultimate Chopper      |    48.81 |       10107 |
| 1969 Harley Davidson Ultimate Chopper      |    48.81 |       10121 |
| 1969 Harley Davidson Ultimate Chopper      |    48.81 |       10134 |
| 1969 Harley Davidson Ultimate Chopper      |    48.81 |       10145 |
| 1969 Harley Davidson Ultimate Chopper      |    48.81 |       10159 |
```

…

```
| Pont Yacht                                 |    33.30 |       10360 |
| Pont Yacht                                 |    33.30 |       10373 |
| Pont Yacht                                 |    33.30 |       10386 |
| Pont Yacht                                 |    33.30 |       10397 |
| Pont Yacht                                 |    33.30 |       10414 |
+--------------------------------------------+----------+-------------+
2996 rows in set (0.015 sec)
```
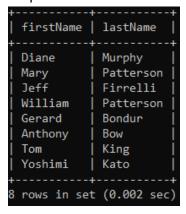
e. Menampilkan nama employee yang belum menangani customer satu pun

```
SELECT employees.firstName, employees.lastName
FROM employees LEFT JOIN customers
ON employees.employeeNumber = customers.salesRepEmployeeNumber
WHERE customers.customerNumber IS NULL;
```

Kode di atas pertama-tama menggabungkan tabel employees dan customers dengan LEFT JOIN berdasarkan kolom employeeNumber, lalu difilter dengan

mengambil data yang nilai di kolom customerNumber-nya adalah NULL, kemudian statement SELECT memilih kolom nama untuk dipanggil sebagai output.

Output:

```
+-----------+-----------+
| firstName | lastName  |
+-----------+-----------+
| Diane     | Murphy    |
| Mary      | Patterson |
| Jeff      | Firrelli  |
| William   | Patterson |
| Gerard    | Bondur    |
| Anthony   | Bow       |
| Tom       | King      |
| Yoshimi   | Kato      |
+-----------+-----------+
8 rows in set (0.002 sec)
```

f. Menampilkan nama customer beserta nama product yang dipesan

```
SELECT customers.customerName, products.productName
FROM customers
JOIN orders ON customers.customerNumber = orders.customerNumber
JOIN orderdetails ON orders.orderNumber = orderdetails.orderNumber
JOIN products ON orderdetails.productCode = products.productCode;
```

Kode di atas menggabungkan empat tabel dengan statement JOIN, lalu dipilih kolom customerName dan productName untuk ditampilkan sebagai output.

Output:

```
+----------------------------------+------------------------------------------------+
| customerName                     | productName                                    |
+----------------------------------+------------------------------------------------+
| Atelier graphique                | 1965 Aston Martin DB5                           |
| Atelier graphique                | 1999 Indy 500 Monte Carlo SS                    |
| Atelier graphique                | 1948 Porsche Type 356 Roadster                  |
| Atelier graphique                | 1966 Shelby Cobra 427 S/C                       |
| Atelier graphique                | 1996 Moto Guzzi 1100i                           |
```

…

```
| Kelly's Gift Shop                | 2002 Suzuki XREO                                |
| Kelly's Gift Shop                | 1936 Harley Davidson El Knucklehead             |
| Kelly's Gift Shop                | 1997 BMW R 1100 S                               |
| Kelly's Gift Shop                | 1960 BSA Gold Star DBD34                         |
| Kelly's Gift Shop                | 1997 BMW F650 ST                                |
+----------------------------------+------------------------------------------------+
2996 rows in set (0.007 sec)
```

g. Menampilkan seluruh data order ditambah dengan data nama customer yang melakukan order tersebut

```
SELECT orders.*, customers.customerName
FROM orders JOIN customers
ON orders.customerNumber = customers.customerNumber;
```

Kode di atas pertama-tama menggabungkan tabel orders dan customers berdasarkan kolom customerNumber, kemudian statement SELECT memilih semua data di tabel orders dan kolom customerName di tabel customers untuk dipanggil sebagai output.

Output:

…

h. Menampilkan seluruh data employee ditambah dengan data nama customer yang telah ditangani

```
SELECT employees.*, customers.customerName
FROM employees JOIN customers
ON employees.employeeNumber = customers.salesRepEmployeeNumber;
```

Kode di atas pertama-tama menggabungkan tabel employees dan customers berdasarkan kolom employeeNumber, kemudian statement SELECT memilih seluruh data di tabel employees dan kolom customerName di tabel customers untuk dipanggil sebagai output.

Output:

…

i. Menampilkan seluruh data products ditambah dengan data order yang cocok dengan productCode yang ada

```
SELECT products.*, orderdetails.orderNumber
FROM products JOIN orderdetails
ON products.productCode = orderdetails.productCode;
```

Kode di atas pertama-tama menggabungkan tabel products dan orderdetails berdasarkan kolom productCode, kemudian statement SELECT memilih seluruh data di tabel products dengan nilai orderNumber di tabel orderdetails untuk dipanggil sebagai output.

Output:

...

j. Menampilkan seluruh data orders dan orderdetails

```
SELECT orders.*, orderdetails.*
FROM orders JOIN orderdetails
ON orders.orderNumber = orderdetails.orderNumber;
```

Kode di atas pertama-tama menggabungkan tabel orders dan orderdetails berdasarkan kolom orderNumber, kemudian statement SELECT memilih seluruh data di tabel orders dan seluruh data di tabel orderdetails untuk dipanggil sebagai output.

Output:

```
+-------------+------------+--------------+--------------+------------+----------------------+----------------+-------------+-------------+----------------+-----------+
|             |            |              |              |            |                      |                |             |             |                |           |
-------------+
| orderNumber | orderDate  | requiredDate | shippedDate  | status     | comments             | customerNumber | orderNumber | productCode | quantityOrdered | priceEach |
| orderLineNumber |
+-------------+------------+--------------+--------------+------------+----------------------+----------------+-------------+-------------+----------------+-----------+
-------------+
|       10100 | 2003-01-06 | 2003-01-13   | 2003-01-10   | Shipped    | NULL                 |            363 |       10100 | S18_1749    |             30 |    136.00 |
|           3 |
|       10100 | 2003-01-06 | 2003-01-13   | 2003-01-10   | Shipped    | NULL                 |            363 |       10100 | S18_2248    |             50 |     55.09 |
|           2 |
|       10100 | 2003-01-06 | 2003-01-13   | 2003-01-10   | Shipped    | NULL                 |            363 |       10100 | S18_4409    |             22 |     75.46 |
|           4 |
|       10100 | 2003-01-06 | 2003-01-13   | 2003-01-10   | Shipped    | NULL                 |            363 |       10100 | S24_3969    |             49 |     35.29 |
|           1 |
|       10101 | 2003-01-09 | 2003-01-18   | 2003-01-11   | Shipped    | Check on availability. |          128 |       10101 | S18_2325    |             25 |    108.06 |
|           4 |
```

…

```
|       10425 | 2005-05-31 | 2005-06-07   | NULL         | In Process | NULL                 |            119 |       10425 | S24_2300    |             49 |    127.79 |
|           9 |
|       10425 | 2005-05-31 | 2005-06-07   | NULL         | In Process | NULL                 |            119 |       10425 | S24_2840    |             31 |     31.82 |
|           5 |
|       10425 | 2005-05-31 | 2005-06-07   | NULL         | In Process | NULL                 |            119 |       10425 | S32_1268    |             41 |     83.79 |
|          11 |
|       10425 | 2005-05-31 | 2005-06-07   | NULL         | In Process | NULL                 |            119 |       10425 | S32_2509    |             11 |     50.32 |
|           6 |
|       10425 | 2005-05-31 | 2005-06-07   | NULL         | In Process | NULL                 |            119 |       10425 | S50_1392    |             18 |     94.92 |
|           2 |
+-------------+------------+--------------+--------------+------------+----------------------+----------------+-------------+-------------+----------------+-----------+
-------------+
2996 rows in set (0.018 sec)
```