

**NAME: SAMUEL R**

**USN: 22BTRCL126**

**BRANCH/SECTION: AIML/'C'**

For following practice sets, use Online SQL editor provided by W3Schools.

It already has a database with 8 tables. Also, There are sufficient records in each table.

Develop queries for following tasks while executing them on this database itself.

Please keep all the queries saved in a txt file for uploading your assignment purposes.

To complete following tasks, use only your understanding of SQL and JOINS. You can take little help in syntax from internet, but try to avoid using Gen-AI products like ChatGPT to complete the tasks.

**Task 1: List out all the orders with customers.**

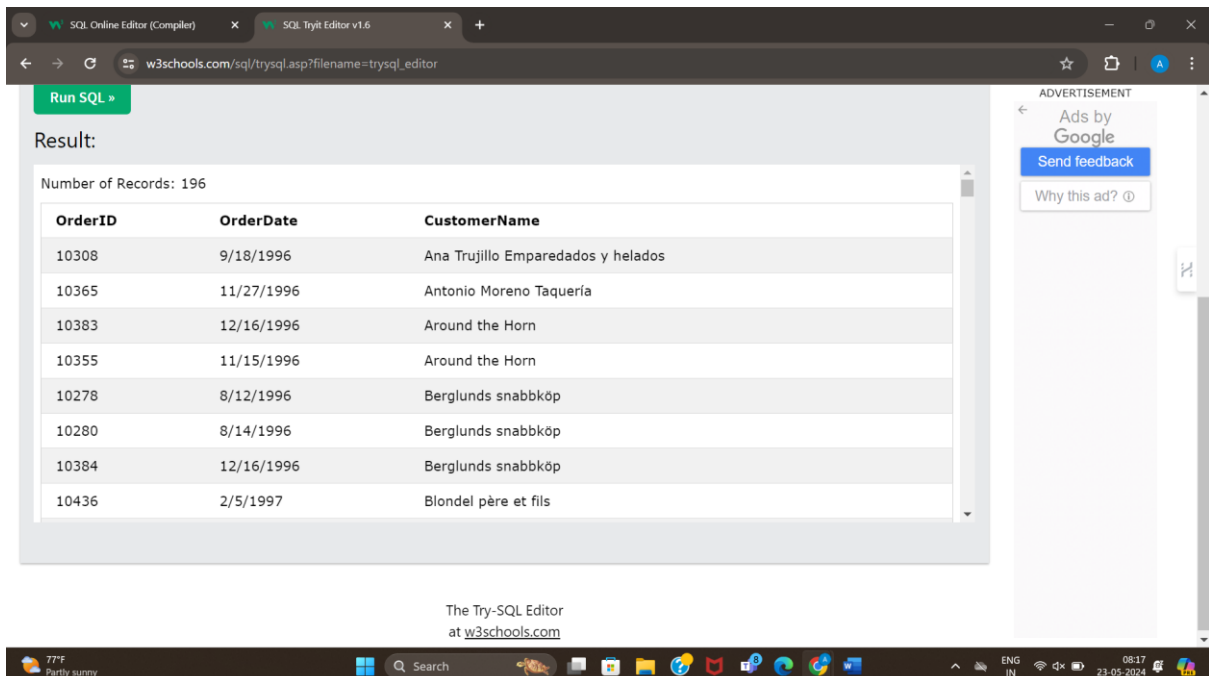
**CODE:**

```
SELECT Orders.OrderID, Orders.OrderDate, Customers.CustomerName
```

```
FROM Orders
```

```
INNER JOIN Customers ON Orders.CustomerID = Customers.CustomerID;
```

**OUTPUT:**



The screenshot shows the W3Schools SQL Online Editor interface. The query has been executed, and the results are displayed in a table. The table has three columns: OrderID, OrderDate, and CustomerName. The results show 196 records. The first 8 rows of the table are visible.

OrderID	OrderDate	CustomerName
10308	9/18/1996	Ana Trujillo Emparedados y helados
10365	11/27/1996	Antonio Moreno Taquería
10383	12/16/1996	Around the Horn
10355	11/15/1996	Around the Horn
10278	8/12/1996	Berglunds snabbköp
10280	8/14/1996	Berglunds snabbköp
10384	12/16/1996	Berglunds snabbköp
10436	2/5/1997	Blondel père et fils

## Task 2: List out all the orders with customers and employees.

### CODE:

```
SELECT Orders.OrderID, Orders.OrderDate, Customers.CustomerName
```

```
FROM Orders
```

```
INNER JOIN Customers ON Orders.CustomerID = Customers.CustomerID; (Joining orders and customers table)
```

The screenshot shows a web browser with two tabs: 'SQL Online Editor (Compiler)' and 'SQL Tryit Editor v1.6'. The 'SQL Tryit Editor v1.6' tab is active, displaying a search bar and a 'Run SQL' button. Below the button, the text 'Result:' is followed by 'Number of Records: 196'. A table with three columns is displayed: 'OrderID', 'OrderDate', and 'CustomerName'. The table contains 8 rows of data. To the right of the table, there is an advertisement for 'Ads by Google' with a 'Send feedback' button and a link 'Why this ad?'. The bottom of the browser shows a Windows taskbar with various icons and the system clock.

OrderID	OrderDate	CustomerName
10308	9/18/1996	Ana Trujillo Emparedados y helados
10365	11/27/1996	Antonio Moreno Taquería
10383	12/16/1996	Around the Horn
10355	11/15/1996	Around the Horn
10278	8/12/1996	Berglunds snabbköp
10280	8/14/1996	Berglunds snabbköp
10384	12/16/1996	Berglunds snabbköp
10436	2/5/1997	Blondel père et fils

```
SELECT Orders.OrderID, Orders.OrderDate, Employees.FirstName, Employees.LastName
```

```
FROM Orders
```

```
INNER JOIN Employees ON Orders.EmployeeID = Employees.EmployeeID; (joining orders and employees table)
```

The screenshot shows a web browser with two tabs: 'SQL Online Editor (Compiler)' and 'SQL Tryit Editor v1.6'. The 'SQL Tryit Editor v1.6' tab is active, displaying a search bar and a 'Run SQL' button. Below the button, the text 'Result:' is followed by 'Number of Records: 196'. A table with four columns is displayed: 'OrderID', 'OrderDate', 'FirstName', and 'LastName'. The table contains 8 rows of data. To the right of the table, there is an advertisement for 'Ads by Google' with a 'Send feedback' button and a link 'Why this ad?'. The bottom of the browser shows a Windows taskbar with various icons and the system clock.

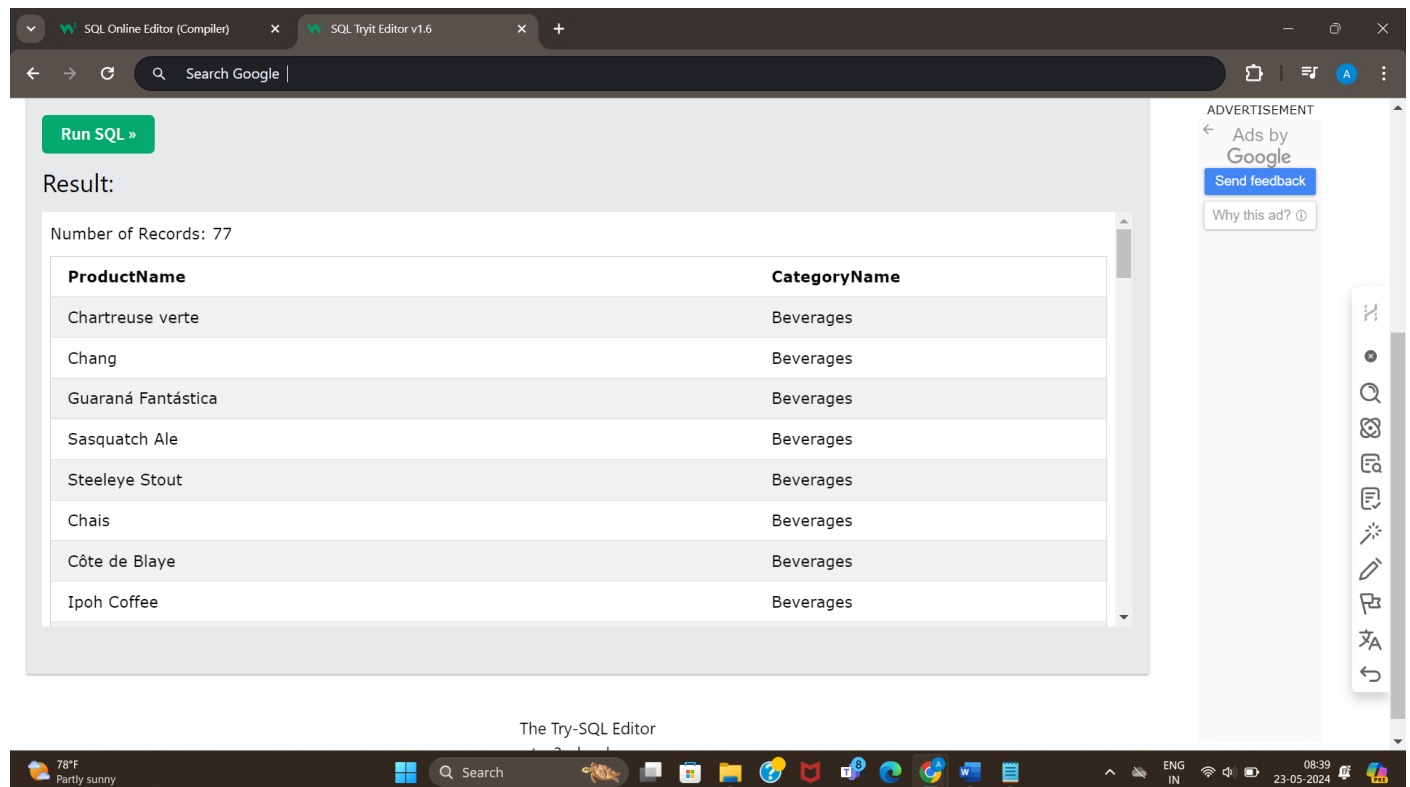
OrderID	OrderDate	FirstName	LastName
10357	11/19/1996	Nancy	Davolio
10340	10/29/1996	Nancy	Davolio
10325	10/9/1996	Nancy	Davolio
10405	1/6/1997	Nancy	Davolio
10316	9/27/1996	Nancy	Davolio
10393	12/25/1996	Nancy	Davolio
10351	11/11/1996	Nancy	Davolio
10364	11/26/1996	Nancy	Davolio

### Task 3: List out all the products with their categories.

#### CODE:

```
SELECT Products.ProductName, Categories.CategoryName  
FROM Products  
INNER JOIN Categories ON Products.CategoryID = Categories.CategoryID;
```

#### OUTPUT:



The screenshot shows a web browser window with the SQL TryIt Editor. The editor has two tabs: "SQL Online Editor (Compiler)" and "SQL TryIt Editor v1.6". The "SQL TryIt Editor v1.6" tab is active, showing a green "Run SQL »" button and a "Result:" section. The result section displays "Number of Records: 77" and a table with two columns: "ProductName" and "CategoryName". The table contains 7 rows of data, all from the "Beverages" category. The browser's address bar shows "Search Google". The Windows taskbar at the bottom shows the date and time as "23-05-2024 08:39".

ProductName	CategoryName
Chartreuse verte	Beverages
Chang	Beverages
Guaraná Fantástica	Beverages
Sasquatch Ale	Beverages
Steeleye Stout	Beverages
Chais	Beverages
Côte de Blaye	Beverages
Ipoh Coffee	Beverages

### Task 4: List out all the orders with shipping details.

#### CODE:

```
SELECT Orders.OrderID, Orders.OrderDate, Shippers.ShipperName  
FROM Orders  
INNER JOIN Shippers ON Orders.ShipperID = Shippers.ShipperID
```

#### OUTPUT:

SQL Online Editor (Compiler) x SQL Tryit Editor v1.6

Search Google

Run SQL »

Result:

Number of Records: 196

OrderID	OrderDate	ShipperName
10290	8/27/1996	Speedy Express
10284	8/19/1996	Speedy Express
10388	12/19/1996	Speedy Express
10390	12/23/1996	Speedy Express
10296	9/3/1996	Speedy Express
10349	11/8/1996	Speedy Express
10309	9/19/1996	Speedy Express
10401	1/1/1997	Speedy Express

ADVERTISEMENT  
← Ads by Google  
Send feedback  
Why this ad? ⓘ

The Try-SQL Editor  
at [w3schools.com](http://w3schools.com)

78°F Partly sunny Search 08:40 23-05-2024

```
SELECT Orders.OrderID, Orders.OrderDate, Customers.CustomerName
FROM Orders
INNER JOIN Customers ON Orders.CustomerID = Customers.CustomerID;
```

## OUTPUT:

SQL Online Editor (Compiler) x SQL Tryit Editor v1.6

Search Google

Run SQL »

Result:

Number of Records: 196

OrderID	OrderDate	CustomerName
10308	9/18/1996	Ana Trujillo Emparedados y helados
10365	11/27/1996	Antonio Moreno Taquería
10383	12/16/1996	Around the Horn
10355	11/15/1996	Around the Horn
10278	8/12/1996	Berglunds snabbköp
10280	8/14/1996	Berglunds snabbköp
10384	12/16/1996	Berglunds snabbköp
10436	2/5/1997	Blondel père et fils

ADVERTISEMENT  
← Ads by Google  
Send feedback  
Why this ad? ⓘ

The Try-SQL Editor  
at [w3schools.com](http://w3schools.com)

78°F Partly sunny Search 08:42 23-05-2024

## Task 5: List out all the employees who have not placed any orders.

### CODE:

```
SELECT Employees.EmployeeID, Employees.FirstName, Employees.LastName  
  
FROM Employees  
  
LEFT JOIN Orders ON Employees.EmployeeID = Orders.EmployeeID  
  
WHERE Orders.OrderID IS NULL;
```

### OUTPUT:

The screenshot shows a web browser with two tabs: 'SQL Online Editor (Compiler)' and 'SQL Tiyit Editor v1.6'. The active tab displays the SQL statement for Task 5. Below the editor, there is a 'Run SQL' button. The result section shows 'Number of Records: 1' and a table with one row: EmployeeID 10, FirstName Adam, LastName West. On the right side, there is a 'Your Database' panel listing tables and their record counts: Customers (91), Categories (8), Employees (10), OrderDetails (518), Orders (196), Products (77), Shippers (3), and Suppliers (29). An advertisement for Google is also visible.

SQL Statement:

```
SELECT Employees.EmployeeID, Employees.FirstName, Employees.LastName  
FROM Employees  
LEFT JOIN Orders ON Employees.EmployeeID = Orders.EmployeeID  
WHERE Orders.OrderID IS NULL;
```

Run SQL »

Result:

Number of Records: 1

EmployeeID	FirstName	LastName
10	Adam	West

TableNames | Records

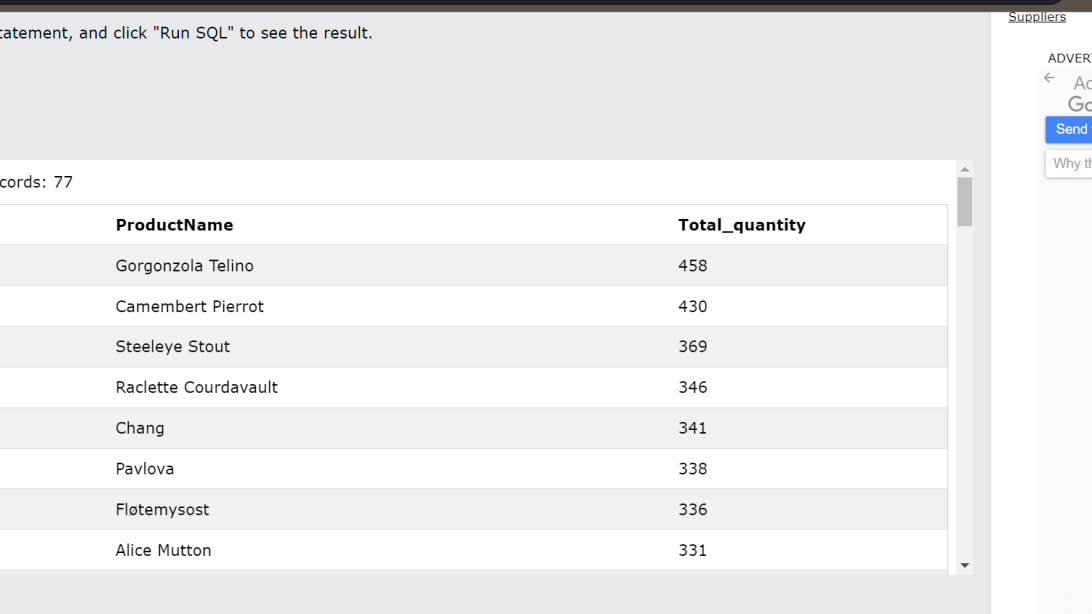
TableNames	Records
Customers	91
Categories	8
Employees	10
OrderDetails	518
Orders	196
Products	77
Shippers	3
Suppliers	29

## Task 6: List out top 5 products by order quantity.

### CODE:

```
SELECT Products.ProductId, ProductName, sum(OrderDetails.Quantity) as Total_quantity  
  
FROM Products  
  
INNER Join OrderDetails on Products.ProductID = OrderDetails.ProductID  
  
group by Products.ProductId, Products.ProductName  
  
order by sum(OrderDetails.Quantity) desc
```

### OUTPUT:



SQL ORDER BY

SQL Tryit Editor v1.6

Search Google

Edit the SQL Statement, and click "Run SQL" to see the result.

Run SQL »

Result:

Number of Records: 77

ProductId	ProductName	Total_quantity
31	Gorgonzola Telino	458
60	Camembert Pierrot	430
35	Steeleye Stout	369
59	Raclette Courdavault	346
2	Chang	341
16	Pavlova	338
71	Flotemysost	336
17	Alice Mutton	331

Suppliers 29

ADVERTISEMENT

← Ads by Google

Send feedback

Why this ad? ⓘ

DAL - MIN  
Video highlight

Search

11:02  
23-05-2024

**Task 7: List out customers and their orders in 2023 only.**

**CODE:**

```
SELECT Customers.CustomerName, Orders.OrderID, Orders.OrderDate
```

FROM Orders

INNER JOIN Customers ON Orders.CustomerID = Customers.CustomerID

WHERE YEAR(Orders.OrderDate) = 2023;

**OUTPUT:**

SQL ORDER BY

SQL Tryit Editor v1.6

Search Google

SQL Statement:

Get your own SQL server

```
SELECT Customers.CustomerName, Orders.OrderID, Orders.OrderDate
FROM Orders
INNER JOIN Customers ON Orders.CustomerID = Customers.CustomerID
WHERE YEAR(Orders.OrderDate) = 2023;
```

Edit the SQL Statement, and click "Run SQL" to see the result.

Run SQL »

Result:

Number of Records: 0

CustomerName	OrderID	OrderDate
--------------	---------	-----------

Your Database:

Tablenames	Records
Customers	91
Categories	8
Employees	10
OrderDetails	518
Orders	196
Products	77
Shippers	3
Suppliers	29

ADVERTISEMENT

← Ads by Google

Send feedback

Why this ad? ⓘ

78°F Partly sunny

Search

ENG IN

09:07 23-05-2024

## Task 8: List out all the suppliers with their products.

### CODE:

```
SELECT Suppliers.SupplierName, Products.ProductName
FROM Suppliers
INNER JOIN Products ON Suppliers.SupplierID = Products.SupplierID;
```

### OUTPUT:

SQL ORDER BY

SQL Tryit Editor v1.6

Search Google

Edit the SQL Statement, and click "Run SQL" to see the result.

Run SQL »

Result:

Number of Records: 77

SupplierName	ProductName
Exotic Liquid	Chang
Exotic Liquid	Chais
Exotic Liquid	Aniseed Syrup
New Orleans Cajun Delights	Chef Anton's Gumbo Mix
New Orleans Cajun Delights	Louisiana Fiery Hot Pepper Sauce
New Orleans Cajun Delights	Louisiana Hot Spiced Okra
New Orleans Cajun Delights	Chef Anton's Cajun Seasoning
Grandma Kelly's Homestead	Northwoods Cranberry Sauce

ADVERTISEMENT

← Ads by Google

Send feedback

Why this ad? ⓘ

78°F Partly sunny

Search

ENG IN

09:11 23-05-2024

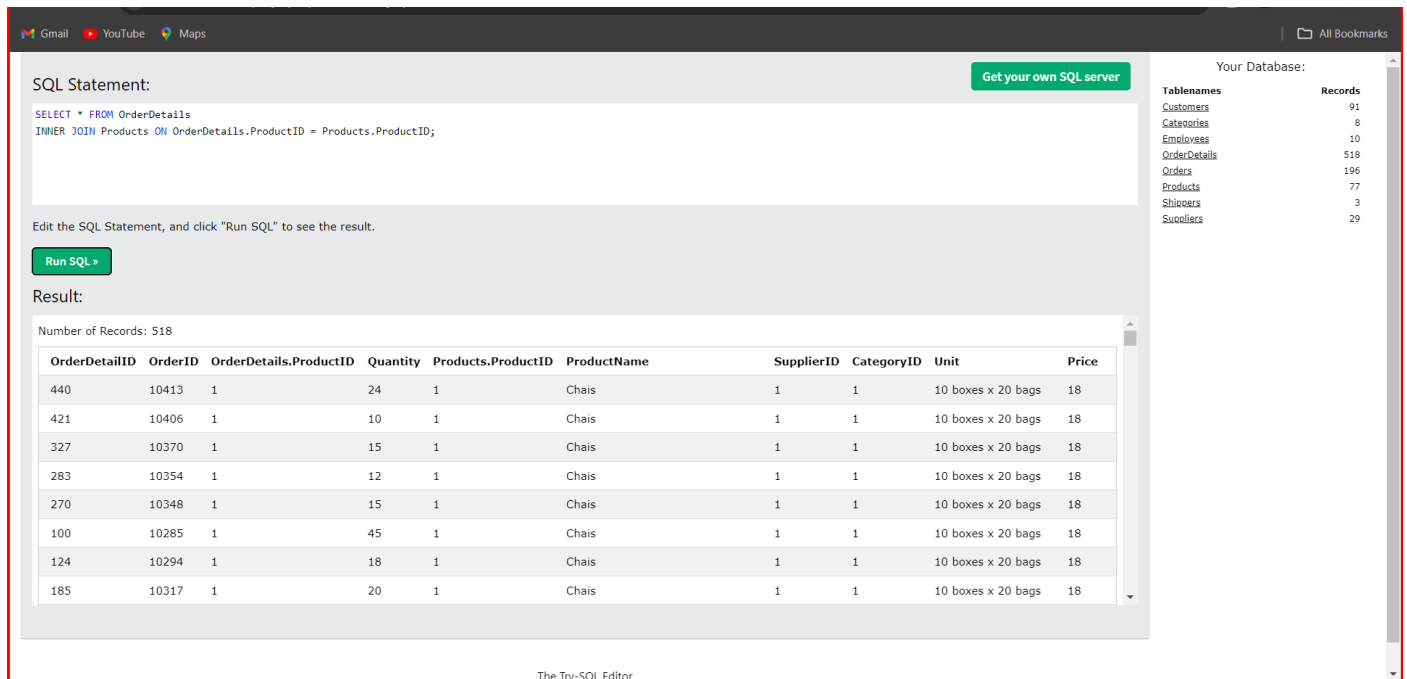
## Task 9: List out all the orders with their detailed product information.

### CODE:

```
SELECT * FROM OrderDetails
```

```
INNER JOIN Products ON OrderDetails.ProductID = Products.ProductID;
```

### OUTPUT:



The screenshot shows a web-based SQL editor interface. At the top, there are links for Gmail, YouTube, and Maps. The main area is divided into two sections: 'SQL Statement' and 'Result'.

**SQL Statement:**

```
SELECT * FROM OrderDetails
INNER JOIN Products ON OrderDetails.ProductID = Products.ProductID;
```

Below the SQL statement, there is a button labeled 'Run SQL' and a note: 'Edit the SQL Statement, and click "Run SQL" to see the result.'

**Result:**

Number of Records: 518

OrderDetailID	OrderID	OrderDetails.ProductID	Quantity	Products.ProductID	ProductName	SupplierID	CategoryID	Unit	Price
440	10413	1	24	1	Chais	1	1	10 boxes x 20 bags	18
421	10406	1	10	1	Chais	1	1	10 boxes x 20 bags	18
327	10370	1	15	1	Chais	1	1	10 boxes x 20 bags	18
283	10354	1	12	1	Chais	1	1	10 boxes x 20 bags	18
270	10348	1	15	1	Chais	1	1	10 boxes x 20 bags	18
100	10285	1	45	1	Chais	1	1	10 boxes x 20 bags	18
124	10294	1	18	1	Chais	1	1	10 boxes x 20 bags	18
185	10317	1	20	1	Chais	1	1	10 boxes x 20 bags	18

On the right side, there is a sidebar titled 'Your Database:' showing a list of tables and their record counts:

Tablenames	Records
Customers	91
Categories	8
Employees	10
OrderDetails	518
Orders	196
Products	77
Shippers	3
Suppliers	29

At the bottom of the editor, it says 'The Try-SQL Editor'.

## Challenge: Find birthdays in same month.

### CODE:

```
SELECT E1.FirstName AS name_1, E2.FirstName AS name_2, MONTH(E1.BirthDate) AS birth_month
```

```
FROM Employees E1, Employees E2
```

```
WHERE E1.EmployeeID < E2.EmployeeID
```

```
AND MONTH(E1.BirthDate)=MONTH(E2.BirthDate)
```

```
ORDER BY MONTH(E1.BirthDate), E1.EmployeeID
```

### OUTPUT:



SQL TryIt Editor v1.6

w3schools.com/sql/trysql.asp?filename=trysql\_editor

SQL Statement:

Get your own SQL server

```
SELECT E1.FirstName AS name_1, E2.FirstName AS name_2, MONTH(E1.BirthDate) AS birth_month
FROM Employees E1, Employees E2
WHERE E1.EmployeeID < E2.EmployeeID
AND MONTH(E1.BirthDate)=MONTH(E2.BirthDate)
ORDER BY MONTH(E1.BirthDate), E1.EmployeeID
```

Edit the SQL Statement, and click "Run SQL" to see the result.

Run SQL »

Result:

Number of Records: 2

name_1	name_2	birth_month
Michael	Anne	7
Margaret	Adam	9

Your Database:

Tablenames	Records
Customers	91
Categories	8
Employees	10
OrderDetails	518
Orders	196
Products	77
Shippers	3
Suppliers	29

ADVERTISEMENT

29°C  
Partly cloudy

Search

ENG  
IN

19:12  
23-05-2024