

```
In [1]: %%!  
pip install --trusted-host pypi.org ipython-sql
```

```
Out[1]: ['Collecting ipython-sql',  
         '  Downloading ipython_sql-0.5.0-py3-none-any.whl (20 kB)',  
         'Collecting prettytable',  
         '  Downloading prettytable-3.6.0-py3-none-any.whl (27 kB)',  
         'Collecting sqlparse',  
         '  Downloading sqlparse-0.4.3-py3-none-any.whl (42 kB)',  
         '----- 42.8/42.8 kB 2.0 MB/s eta 0:00:00',  
         'Requirement already satisfied: ipython in c:\\users\\karaev\\anaconda3\\lib\\site-packages (from ipython-sql) (7.19.0)',  
         'Collecting sqlalchemy>=2.0',  
         '  Downloading SQLAlchemy-2.0.7-cp38-cp38-win_amd64.whl (2.0 MB)',  
         '----- 2.0/2.0 MB 1.6 MB/s eta 0:00:00',  
         'Requirement already satisfied: ipython-genutils in c:\\users\\karaev\\anaconda3\\lib\\site-packages (from ipython-sql) (0.2.0)',  
         'Requirement already satisfied: six in c:\\users\\karaev\\anaconda3\\lib\\site-packages (from ipython-sql) (1.15.0)',  
         'Collecting greenlet!=0.4.17',  
         '  Downloading greenlet-2.0.2-cp38-cp38-win_amd64.whl (192 kB)',  
         '----- 192.1/192.1 kB 1.7 MB/s eta 0:00:00',  
         'Collecting typing-extensions>=4.2.0',  
         '  Downloading typing_extensions-4.5.0-py3-none-any.whl (27 kB)',  
         'Requirement already satisfied: colorama in c:\\users\\karaev\\anaconda3\\lib\\site-packages (from ipython->ipython-sql) (0.4.4)',  
         'Requirement already satisfied: traitlets>=4.2 in c:\\users\\karaev\\anaconda3\\lib\\site-packages (from ipython->ipython-sql) (5.0.5)',  
         'Requirement already satisfied: pygments in c:\\users\\karaev\\anaconda3\\lib\\site-packages (from ipython->ipython-sql) (2.7.2)',  
         'Requirement already satisfied: pickleshare in c:\\users\\karaev\\anaconda3\\lib\\site-packages (from ipython->ipython-sql) (0.7.5)',  
         'Requirement already satisfied: jedi>=0.10 in c:\\users\\karaev\\anaconda3\\lib\\site-packages (from ipython->ipython-sql) (0.17.1)',  
         'Requirement already satisfied: setuptools>=18.5 in c:\\users\\karaev\\anaconda3\\lib\\site-packages (from ipython->ipython-sql) (50.3.1.post20201107)',  
         'Requirement already satisfied: decorator in c:\\users\\karaev\\anaconda3\\lib\\site-packages (from ipython->ipython-sql) (4.4.2)',  
         'Requirement already satisfied: prompt-toolkit!=3.0.0,!<3.0.1,<3.1.0,>=2.0.0 in c:\\users\\karaev\\anaconda3\\lib\\site-packages (from ipython->ipython-sql) (3.0.8)',  
         'Requirement already satisfied: backcall in c:\\users\\karaev\\anaconda3\\lib\\site-packages (from ipython->ipython-sql) (0.2.0)',  
         'Requirement already satisfied: wcwidth in c:\\users\\karaev\\anaconda3\\lib\\site-packages (from prettytable->ipython-sql) (0.2.5)',  
         'Requirement already satisfied: parso<0.8.0,>=0.7.0 in c:\\users\\karaev\\anaconda3\\lib\\site-packages (from jedi>=0.10->ipython->ipython-sql) (0.7.0)',  
         'Installing collected packages: typing-extensions, sqlparse, prettytable, greenlet, sqlalchemy, ipython-sql',  
         '  Attempting uninstall: typing-extensions',  
         '    Found existing installation: typing-extensions 3.7.4.3',
```

```
' Uninstalling typing-extensions-3.7.4.3:',  
' Successfully uninstalled typing-extensions-3.7.4.3',  
' Attempting uninstall: greenlet',  
' Found existing installation: greenlet 0.4.17',  
' Uninstalling greenlet-0.4.17:',  
' Successfully uninstalled greenlet-0.4.17',  
' Attempting uninstall: sqlalchemy',  
' Found existing installation: SQLAlchemy 1.3.20',  
' Uninstalling SQLAlchemy-1.3.20:',  
' Successfully uninstalled SQLAlchemy-1.3.20',  
'Successfully installed greenlet-2.0.2 ipython-sql-0.5.0 prettytable-3.6.0 sqlalchemy-2.0.7 sqlparse-0.4.3 typing-extensions-4.5.0']
```

Sql i çağırma

```
In [2]: load_ext sql
```

Veritabanının üzerinde çalışmak için gerekli kod

```
In [3]: %%sql  
sqlite:///ist.db
```

Tablodan kayıt gösterimi(10 tane)

```
In [7]: %%sql  
SELECT * FROM Products LIMIT 10;
```

```
* sqlite:///ist.db  
Done.
```

```
Out[7]:
```

ProductID	ProductName	SupplierID	CategoryID	Unit	Price
1	Chais	1	1	10 boxes x 20 bags	18
2	Chang	1	1	24 - 12 oz bottles	19
3	Aniseed Syrup	1	2	12 - 550 ml bottles	10
4	Chef Anton's Cajun Seasoning	2	2	48 - 6 oz jars	22
5	Chef Anton's Gumbo Mix	2	2	36 boxes	21
6	Grandma's Boysenberry Spread	3	2	12 - 8 oz jars	25
7	Uncle Bob's Organic Dried Pears	3	7	12 - 1 lb pkgs.	30
8	Northwoods Cranberry Sauce	3	2	12 - 12 oz jars	40

ProductID	ProductName	SupplierID	CategoryID	Unit	Price
9	Mishi Kobe Niku	4	6	18 - 500 g pkgs.	97
10	Ikura	4	8	12 - 200 ml jars	31

Manuel tablo oluşturma işlemleri

```
In [8]: %%sql
CREATE TABLE deneme(adsoyad varchar(30),
                    numara integer(11));
```

```
* sqlite:///ist.db
Done.
```

```
Out[8]: []
```

Tabloyu silme

```
In [9]: %%sql
drop table deneme;
```

```
* sqlite:///ist.db
Done.
```

```
Out[9]: []
```

Yeni Kayıt Ekleme

```
In [10]: %%sql
INSERT INTO yeni_tablo values('fatih', '1453');
```

```
* sqlite:///ist.db
1 rows affected.
```

```
Out[10]: []
```

Veritabanındaki tablo isimlerine erişmek

```
In [19]: %%sql
Select name from sqlite_master where type='table';
```

```
* sqlite:///ist.db
Done.
```

Out[19]:

```
name  
-----  
Products  
Categories  
Customers  
Employees  
OrderDetails  
Orders  
Shippers  
Suppliers  
yeni_tablo
```

Bir tablodaki değişken isimlerine erişmek

In [20]:

```
%%sql  
SELECT *FROM Customers Where 1=0;
```

```
* sqlite:///ist.db  
Done.
```

Out[20]:

```
CustomerID CustomerName ContactName Address City PostalCode Country  
-----
```

In [21]:

```
%%sql  
SELECT * FROM Customers LIMIT 3;
```

```
* sqlite:///ist.db  
Done.
```

Out[21]:

```
CustomerID CustomerName ContactName Address City PostalCode Country  
-----  
1 Alfreds Futterkiste Maria Anders Obere Str. 57 Berlin 12209 Germany  
2 Ana Trujillo Emparedados y helados Ana Trujillo Avda. de la Constitución 2222 México D.F. 5021 Mexico  
3 Antonio Moreno Taquería Antonio Moreno Mataderos 2312 México D.F. 5023 Mexico
```

Tabloda bulunan seçili alanlara ait kayıt bilgisinin görüntülenmesi

```
In [22]: %%sql
SELECT CustomerID, City FROM Customers LIMIT 3;
```

```
* sqlite:///ist.db
Done.
```

```
Out[22]:
```

CustomerID	City
1	Berlin
2	México D.F.
3	México D.F.

```
In [24]: %%sql
select * from products limit 3;
```

```
* sqlite:///ist.db
Done.
```

```
Out[24]:
```

ProductID	ProductName	SupplierID	CategoryID	Unit	Price
1	Chais	1	1	10 boxes x 20 bags	18
2	Chang	1	1	24 - 12 oz bottles	19
3	Aniseed Syrup	1	2	12 - 550 ml bottles	10

Price alanının iki katını hesaplayıp ikisini birlikte gösteren kod

```
In [12]: %%sql
select price, price*2 from products limit 5;
```

```
* sqlite:///ist.db
```

```
Done.
```

```
Out[12]:
```

Price	price*2
--------------	----------------

18	36
----	----

19	38
----	----

10	20
----	----

22	44
----	----

21	42
----	----