

ODBC installation for Windows

Step 1: Download ODBC Driver 13.1 to Your Computer

1. Visiting the website: <https://www.microsoft.com/en-us/download/details.aspx?id=53339>
2. Click Download and choose the corresponding version to your computer.
64-bit -> x64\msodbcsql.msi 32-bit -> x86\msodbcsql.msi
3. Install the driver, just following the default settings.
4. If you find the installation is interrupted by something that remind you to update. Just press "Ignore" button and continue. If you installation is stuck in process around 50%, just wait 2 minutes. If it cannot work, please restart you computer and install it again.



Step 2: pip install

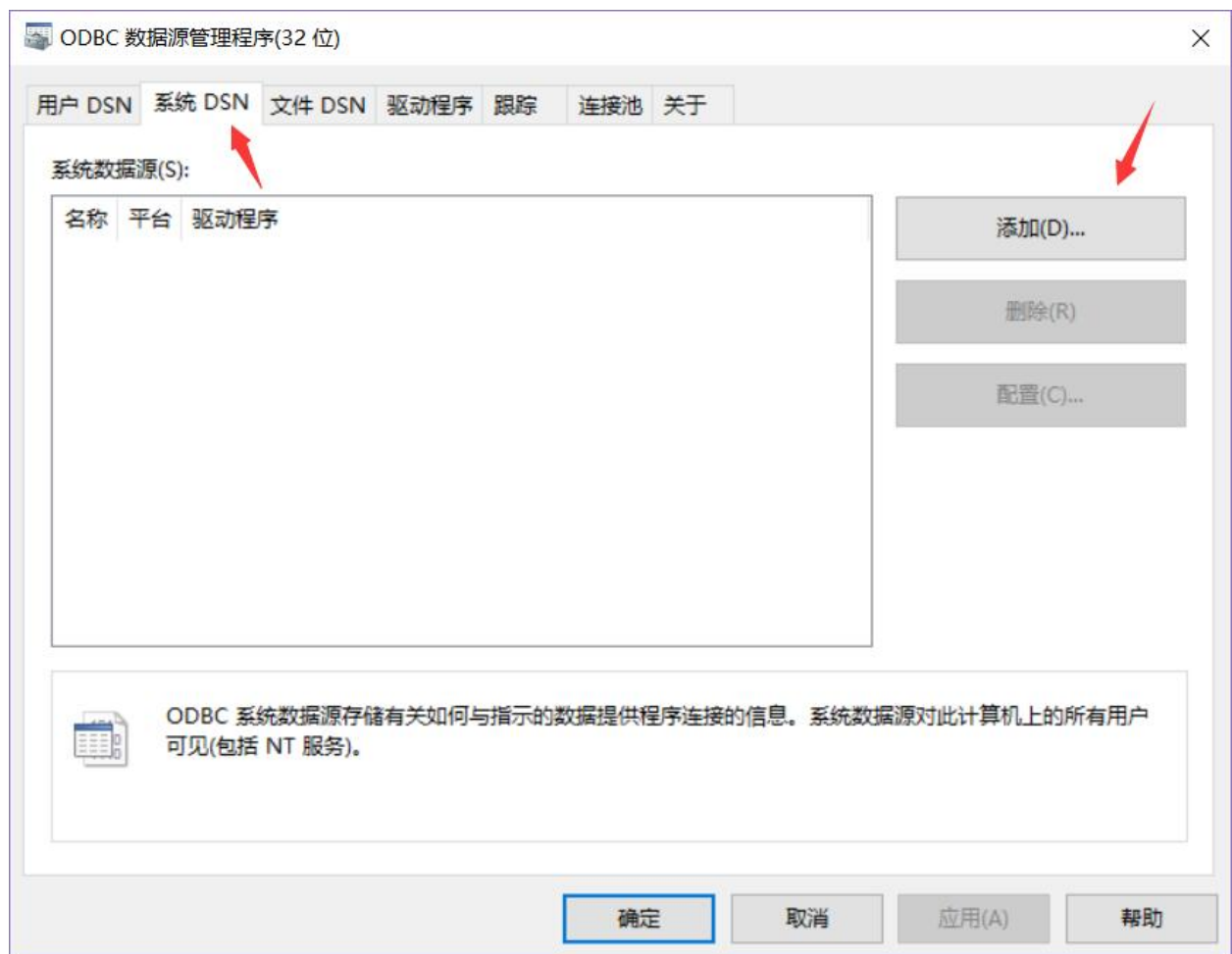
1. Press your Windows key (the key on the right of alt key), type 'cmd' three letters and click the preferred one.
2. If you find your 'pip' command is not work, please type next three line code and ignore the next two steps.

```
python -m ensurepip
python -m pip install pyodbc
python -m pip install bokeh
```

3. type: pip3 install pyodbc (just wait until the package is installed successfully)
4. type: pip3 install bokeh (just wait until the package is installed successfully)

Step 3: ODBC Configuration

1. Press your Windows key, type 'odbc' four letters and click the preferred one.
2. Follow the next 10 images





选择您想为其安装数据源的驱动程序(S)。

名称

Microsoft Excel-Treiber (*.xls)

Microsoft ODBC for Oracle

Microsoft Paradox Driver (*.db)

Microsoft Paradox-Treiber (*.db)

Microsoft Text Driver (*.txt; *.csv)

Microsoft Text-Treiber (*.txt; *.csv)

ODBC Driver 13 for SQL Server

SQL Server

< 上一步(B)

完成

取消

Create a New Data Source to SQL Server



This wizard will help you create an ODBC data source that you can use to connect to SQL Server.

What name do you want to use to refer to the data source?

→ Name:

How do you want to describe the data source?

→ Description:

Which SQL Server do you want to connect to?

→ Server:

完成

下一步(N) >

取消

帮助

Create a New Data Source to SQL Server



How should SQL Server verify the authenticity of the login ID?

☐ With Integrated Windows authentication.

SPN (Optional):

☐ With Active Directory Integrated authentication.

☒ With SQL Server authentication using a login ID and password entered by the user.

☐ With Active Directory Password authentication using a login ID and password entered by the user.

Login ID:

Password:

password: csc1002

< 上一步(B)

下一步(N) >

取消

帮助

Create a New Data Source to SQL Server



☒ Change the default database to:

master
csc1002
master
model
msdb
tempdb

☐ Attach database filename:

☒ Use ANSI quoted identifiers.

☒ Use ANSI nulls, paddings and warnings.

Application intent:

READWRITE

☐ Multi-subnet failover.

☒ Transparent Network IP Resolution.

☐ Column Encryption.

< 上一步(B)

下一步(N) >

取消

帮助

Create a New Data Source to SQL Server



☒ Change the default database to:

csc1002

Mirror server:

SPN for mirror server (Optional):

☐ Attach database filename:

☒ Use ANSI quoted identifiers.

☒ Use ANSI nulls, paddings and warnings.

Application intent:

READWRITE

☐ Multi-subnet failover.

☒ Transparent Network IP Resolution.

☐ Column Encryption.

< 上一步(B)

下一步(N) >

取消

帮助

Create a New Data Source to SQL Server



☐ Change the language of SQL Server system messages to:

(Default)

☐ Use strong encryption for data.

☐ Trust server certificate.

☒ Perform translation for character data.

☐ Use regional settings when outputting currency, numbers, dates and times.

☐ Save long running queries to the log file:

C:\Users\Admin\AppData\Local\Temp\QUERY.LOG

Browse...

Long query time (milliseconds):

30000

☐ Log ODBC driver statistics to the log file:

C:\Users\Admin\AppData\Local\Temp\STATS.LOG

Browse...

Connect retry count:

1

Connect retry interval (seconds):

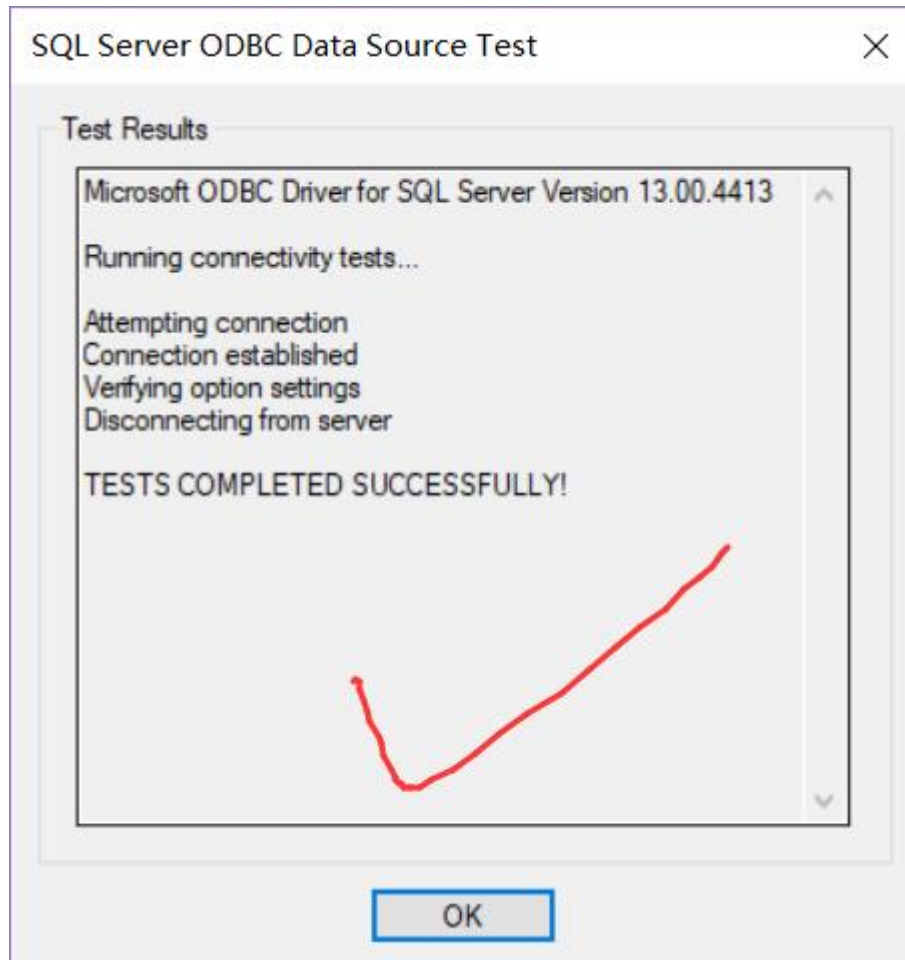
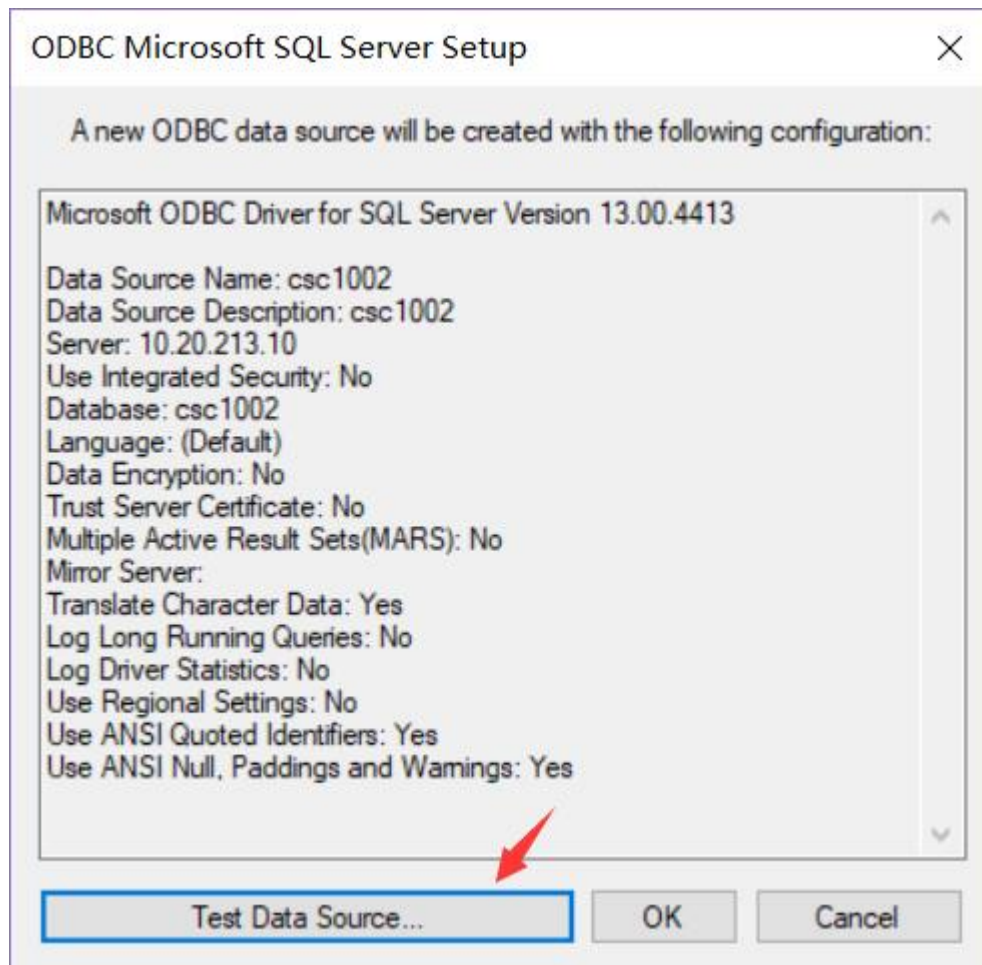
10

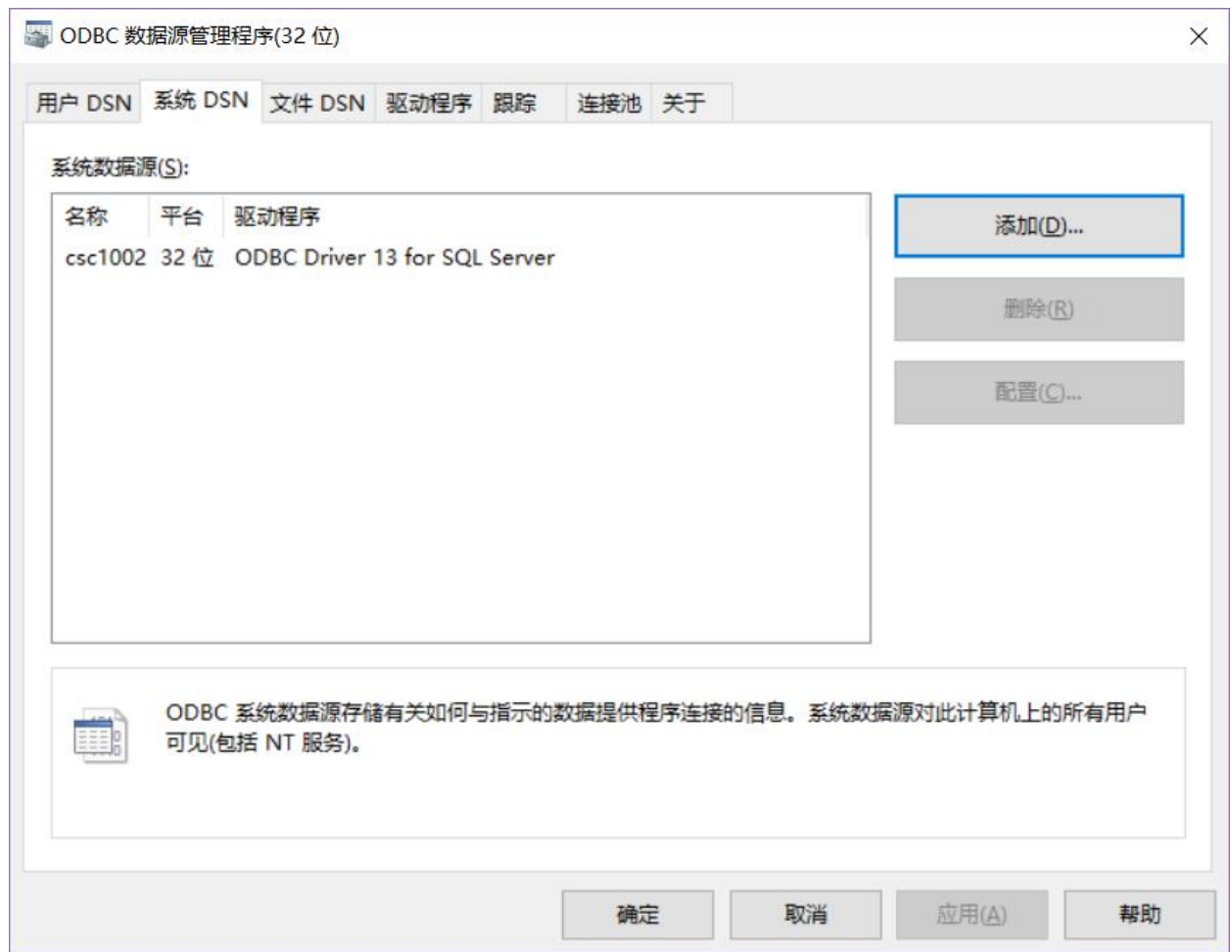
< 上一步(B)

完成

取消

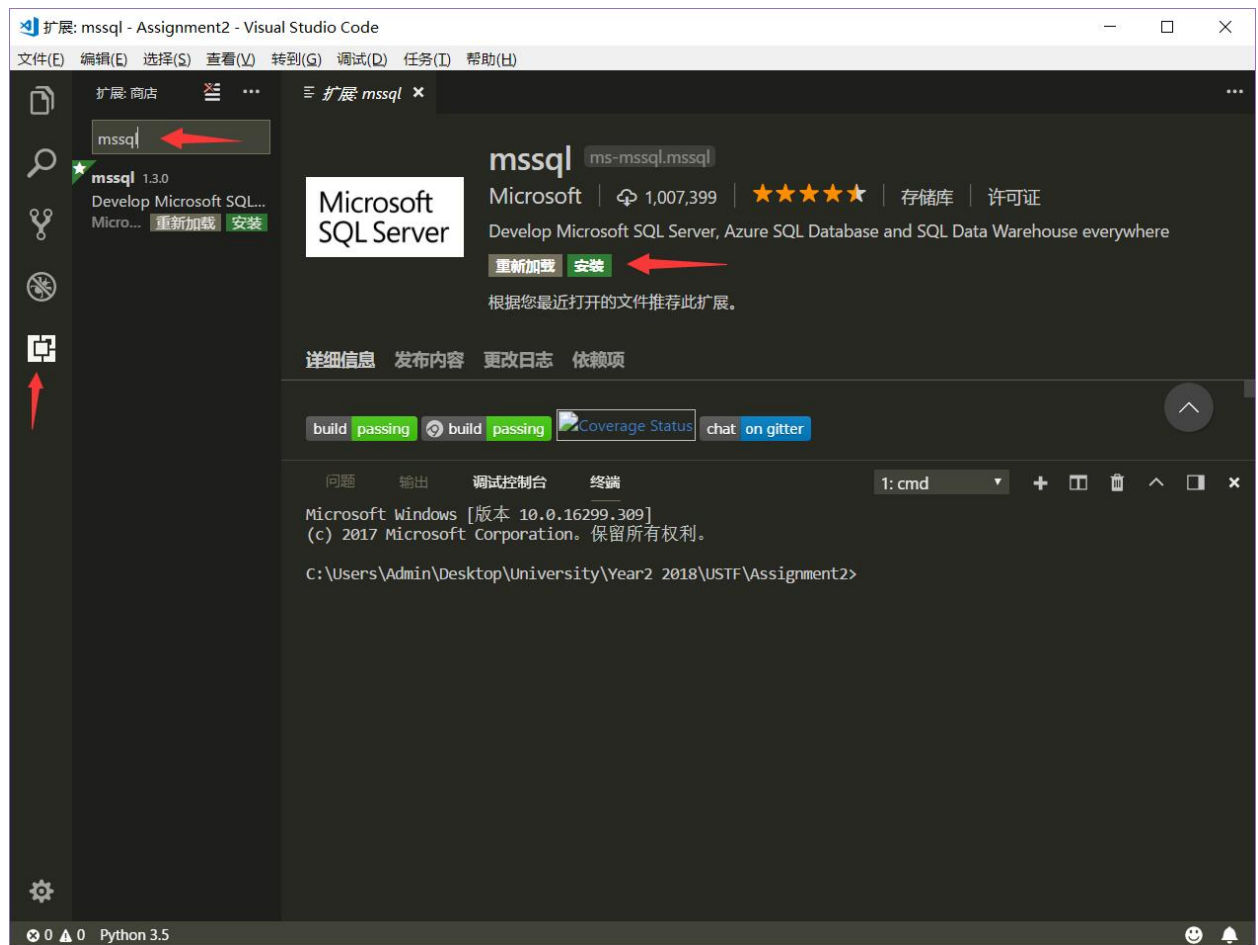
帮助



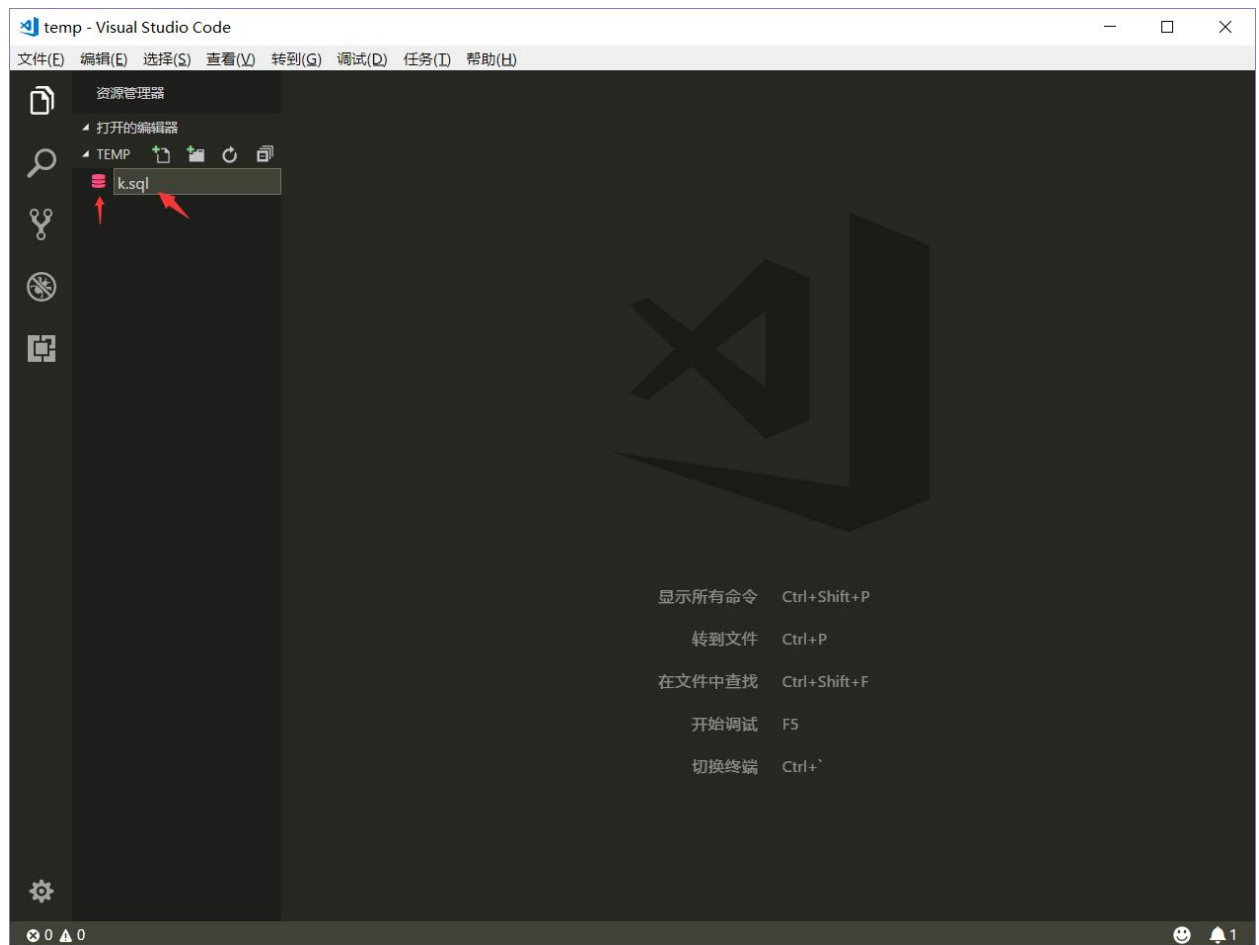


Step 4: Visual Studio Code Extension Install

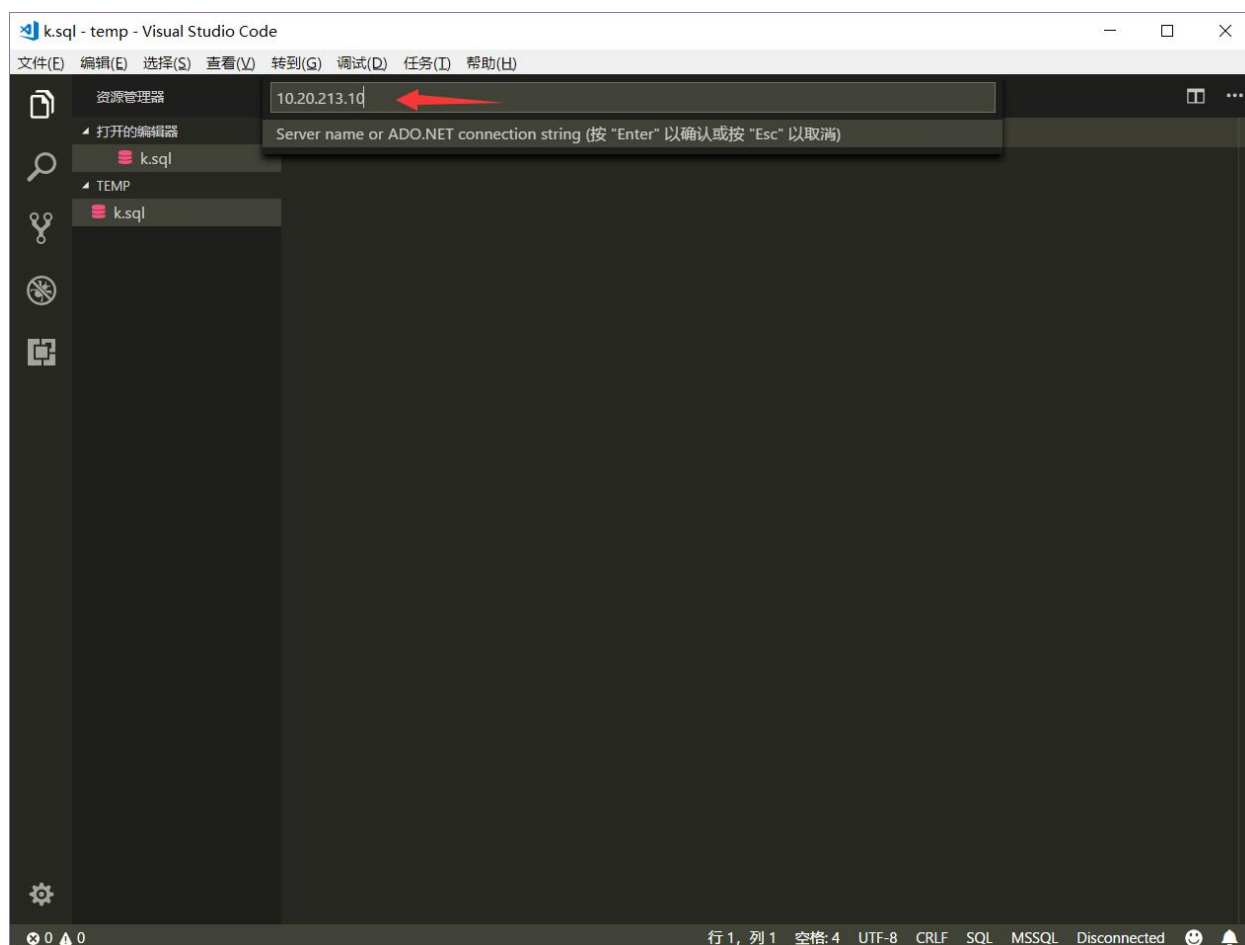
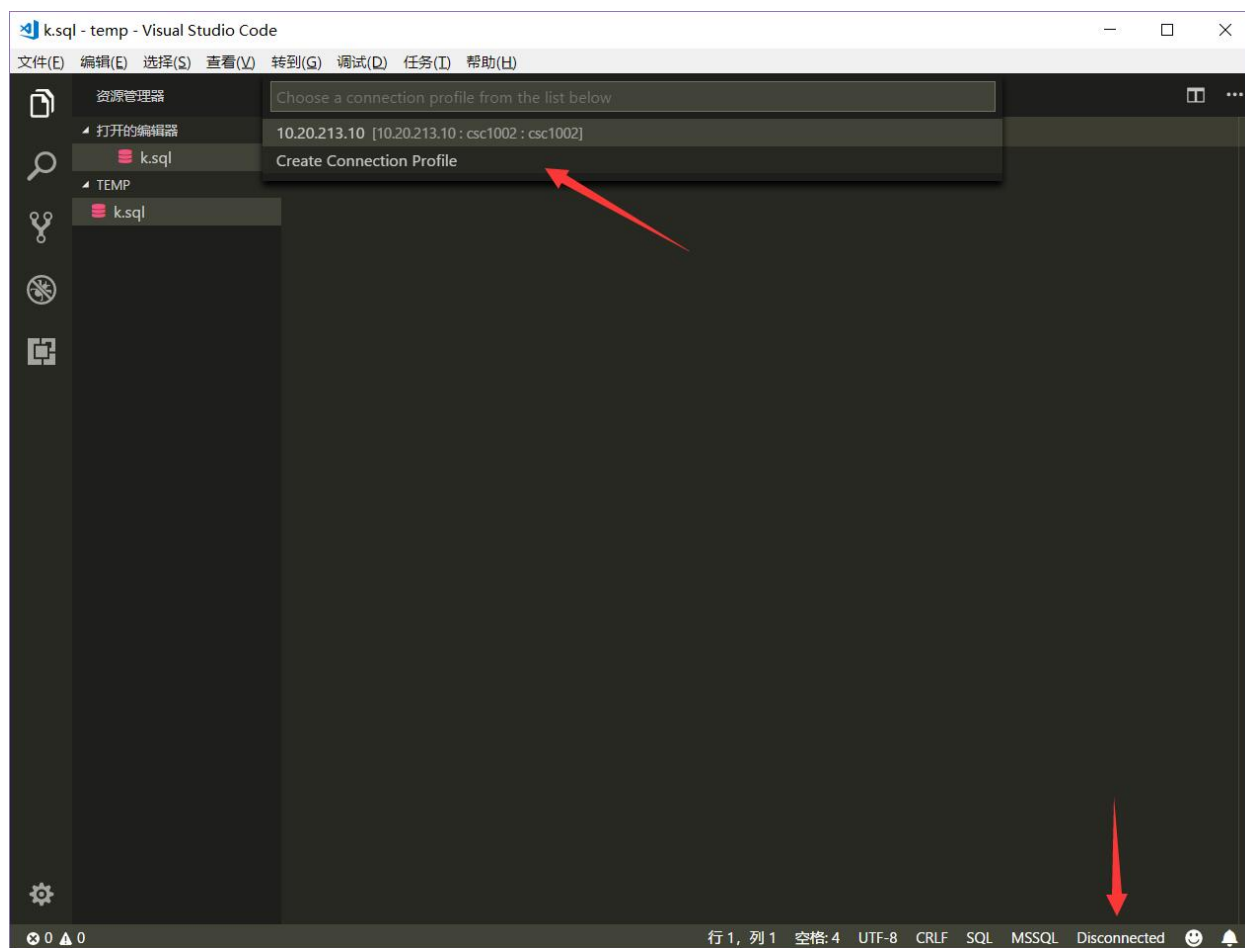
1. Open your vscode, click extension button and type 'mssql' five letters, and then install it.

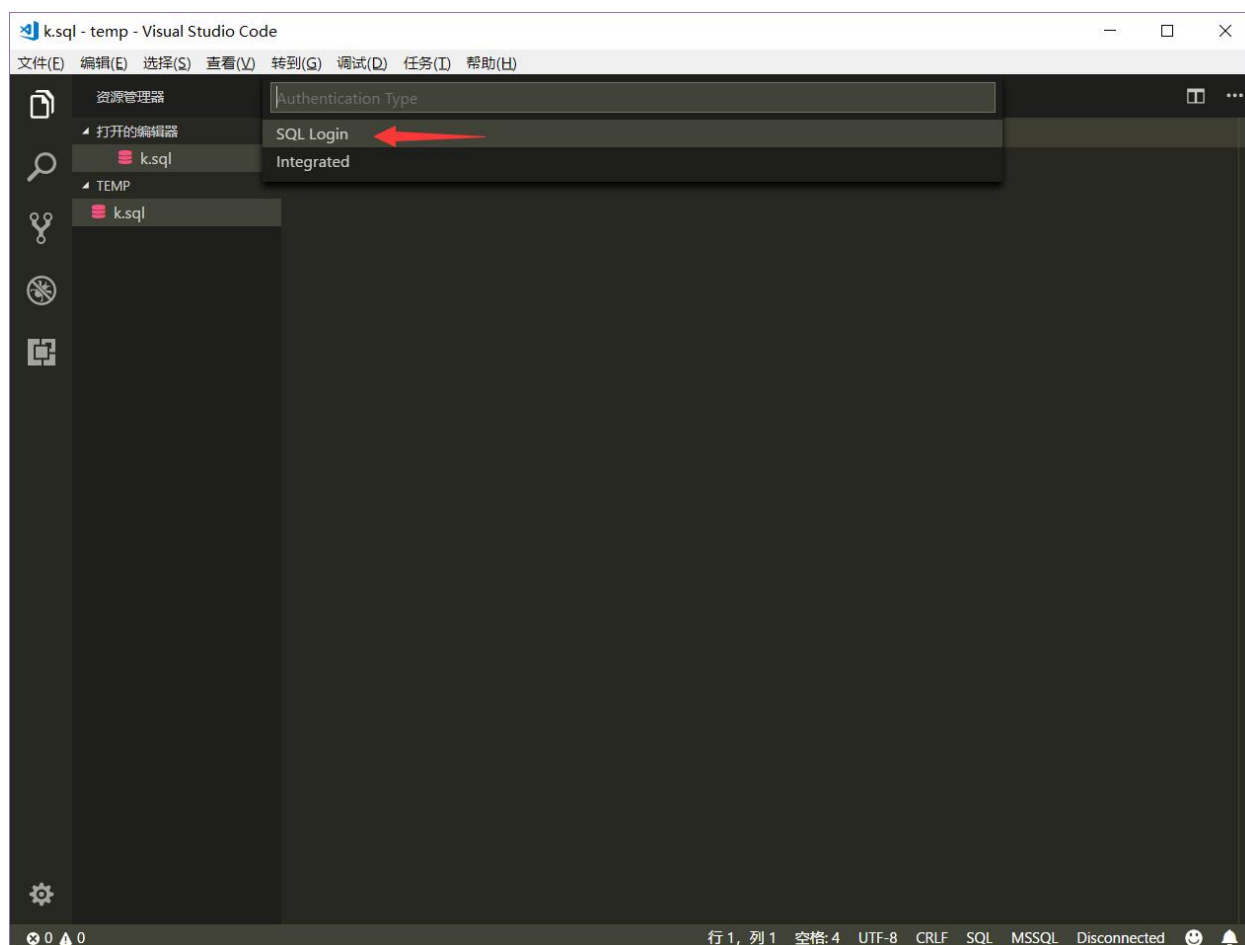
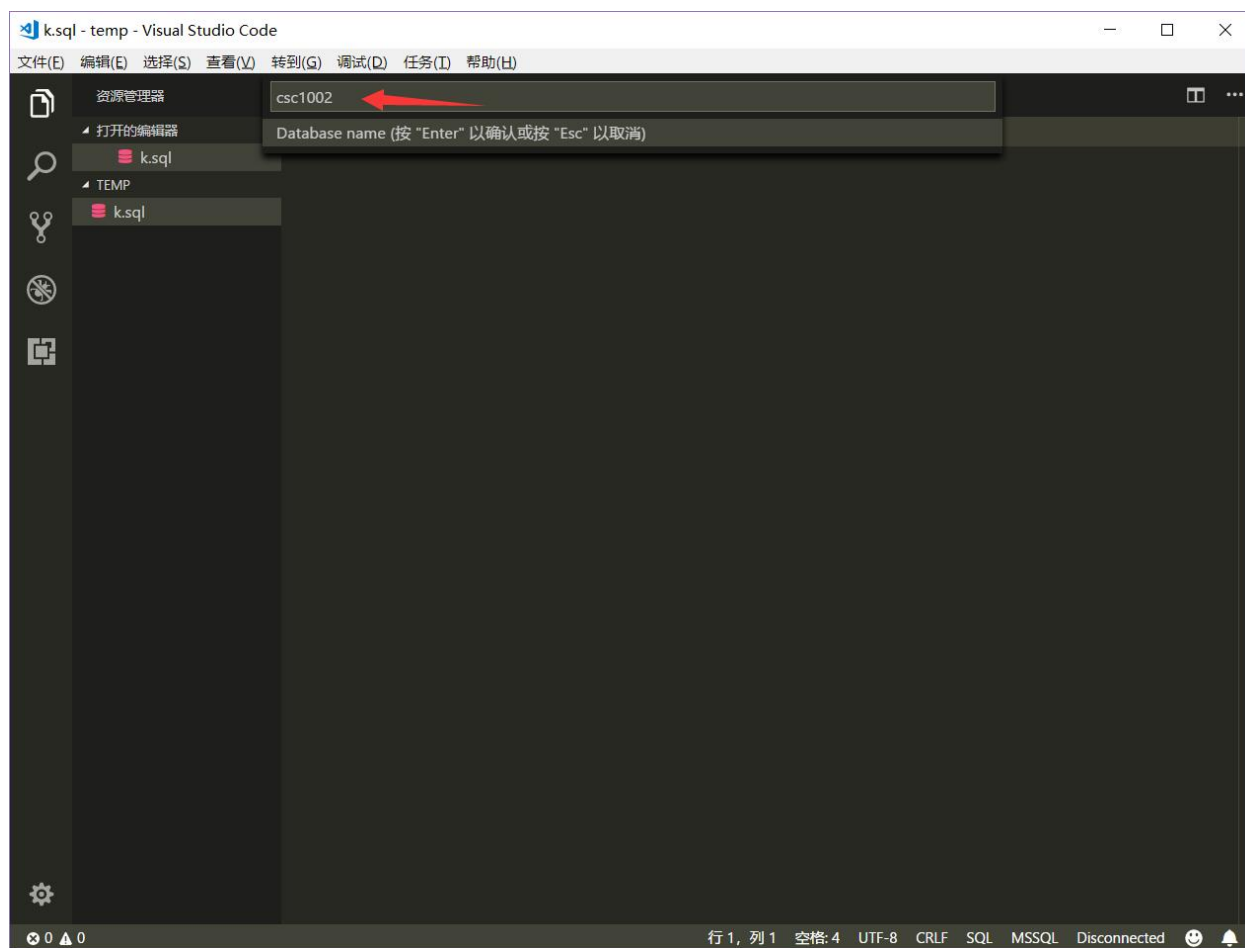


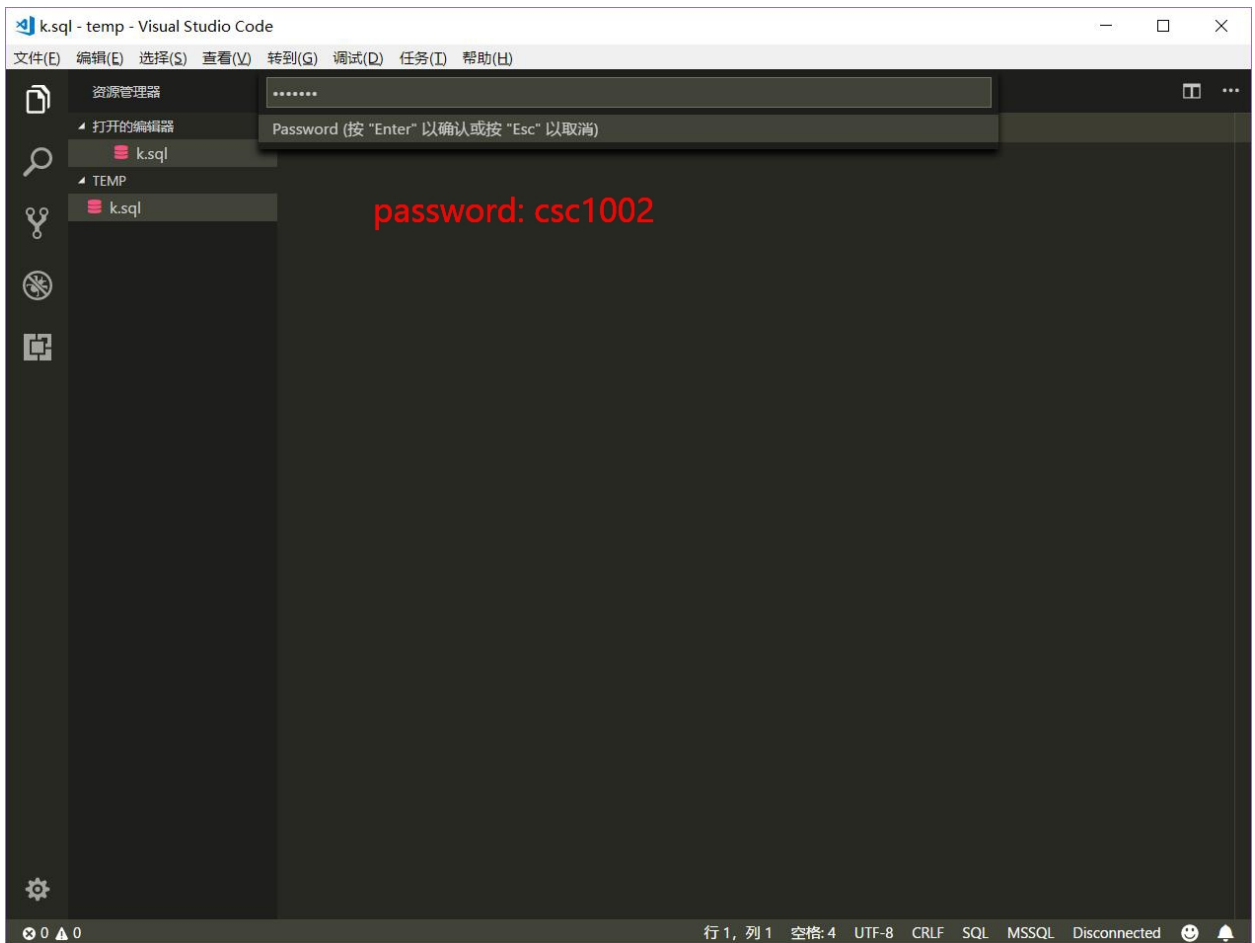
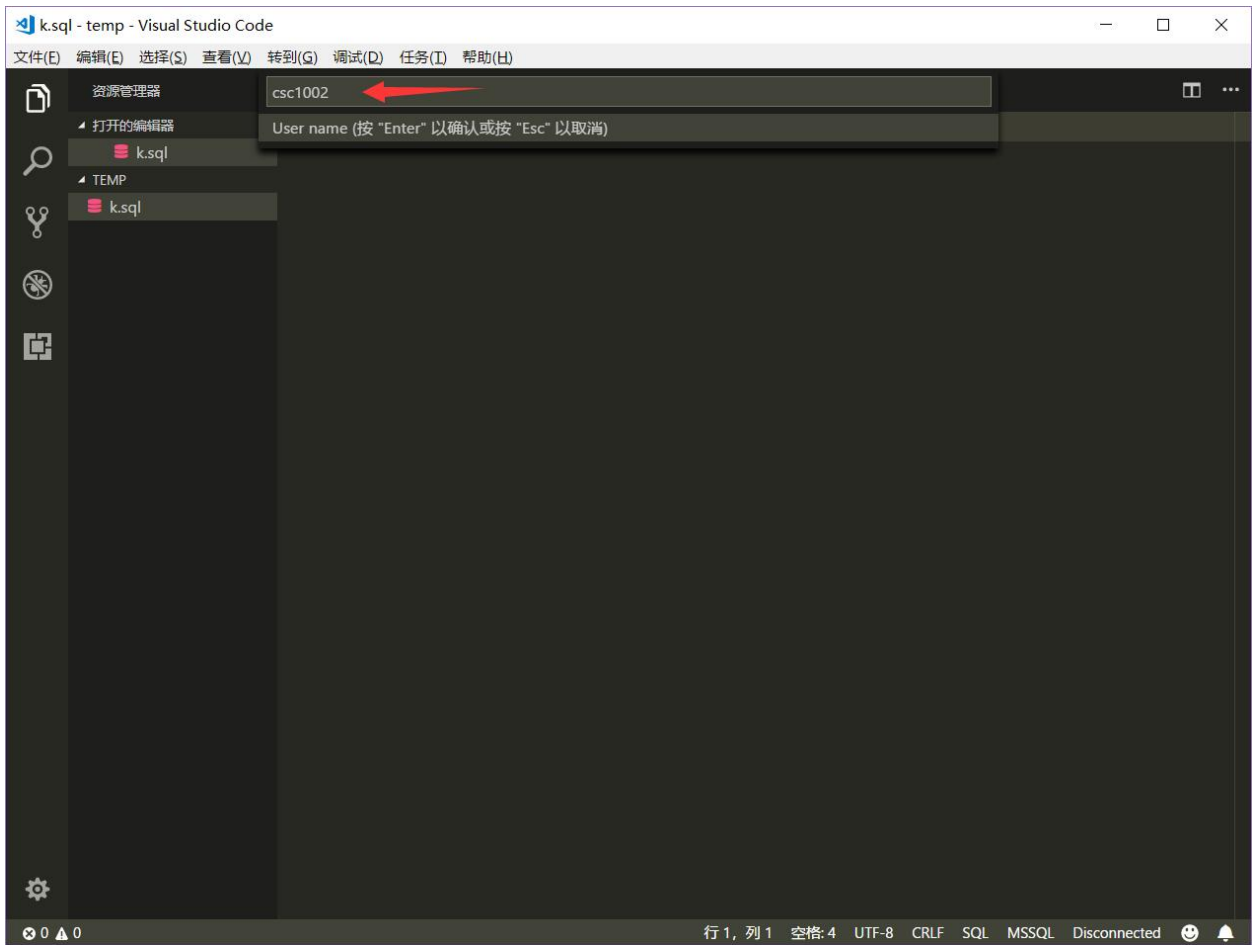
2. Click "重新加载" button after your successful installation.
3. Create a file with suffix '.sql' in a new folder. Wait an automatic download which will last a minute or two.

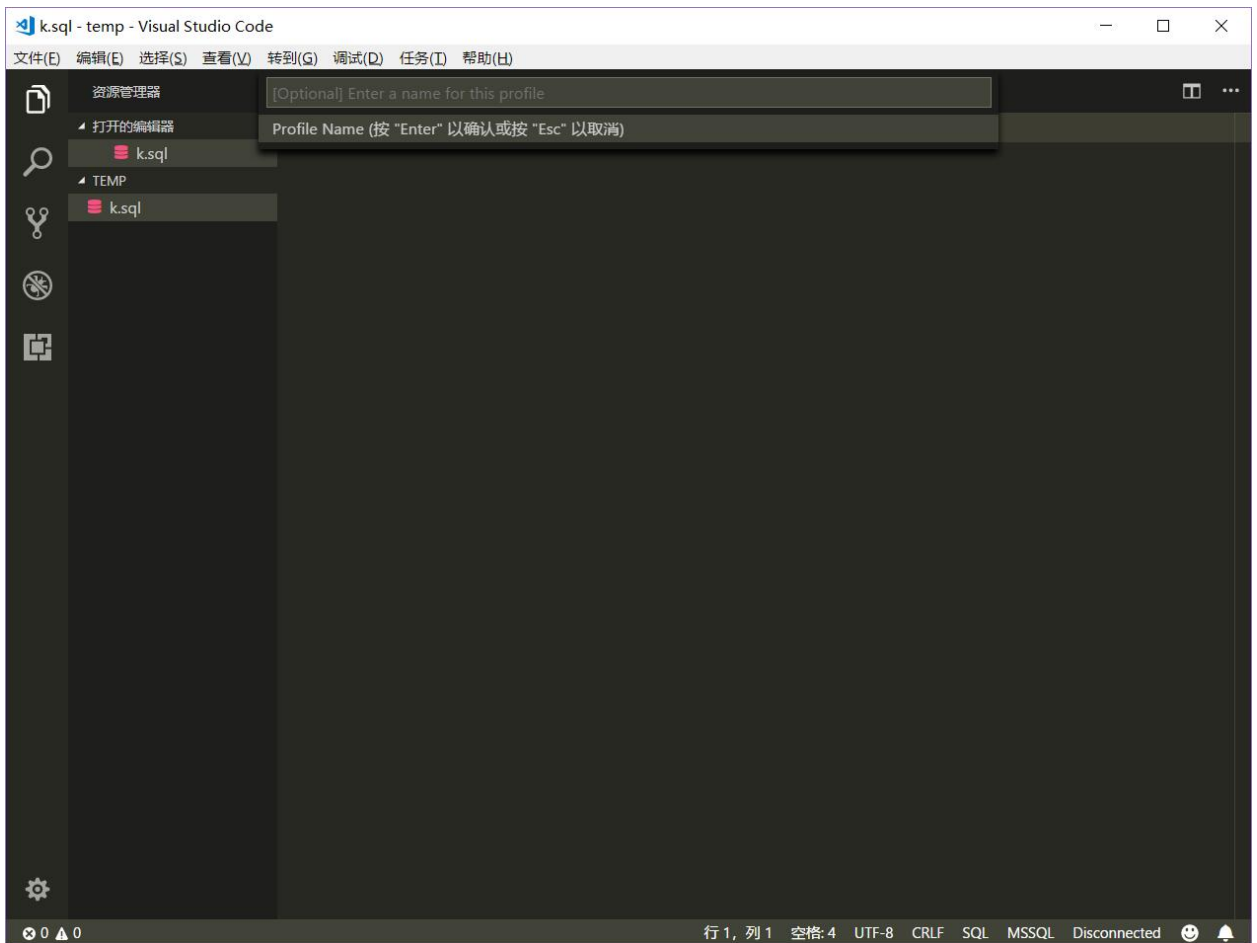
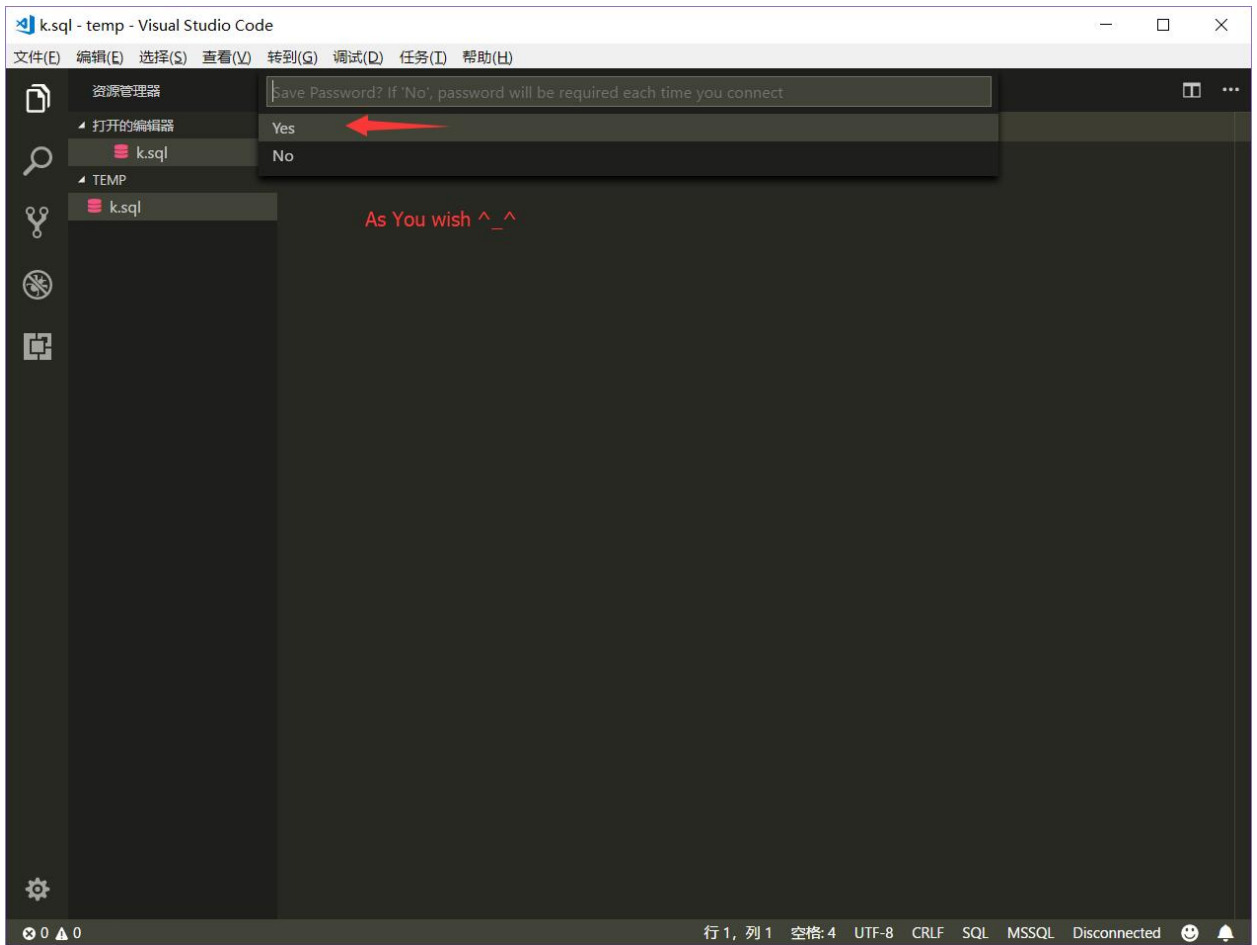


4. Follow next 8 images (Please first look through the images carefully and cautiously)



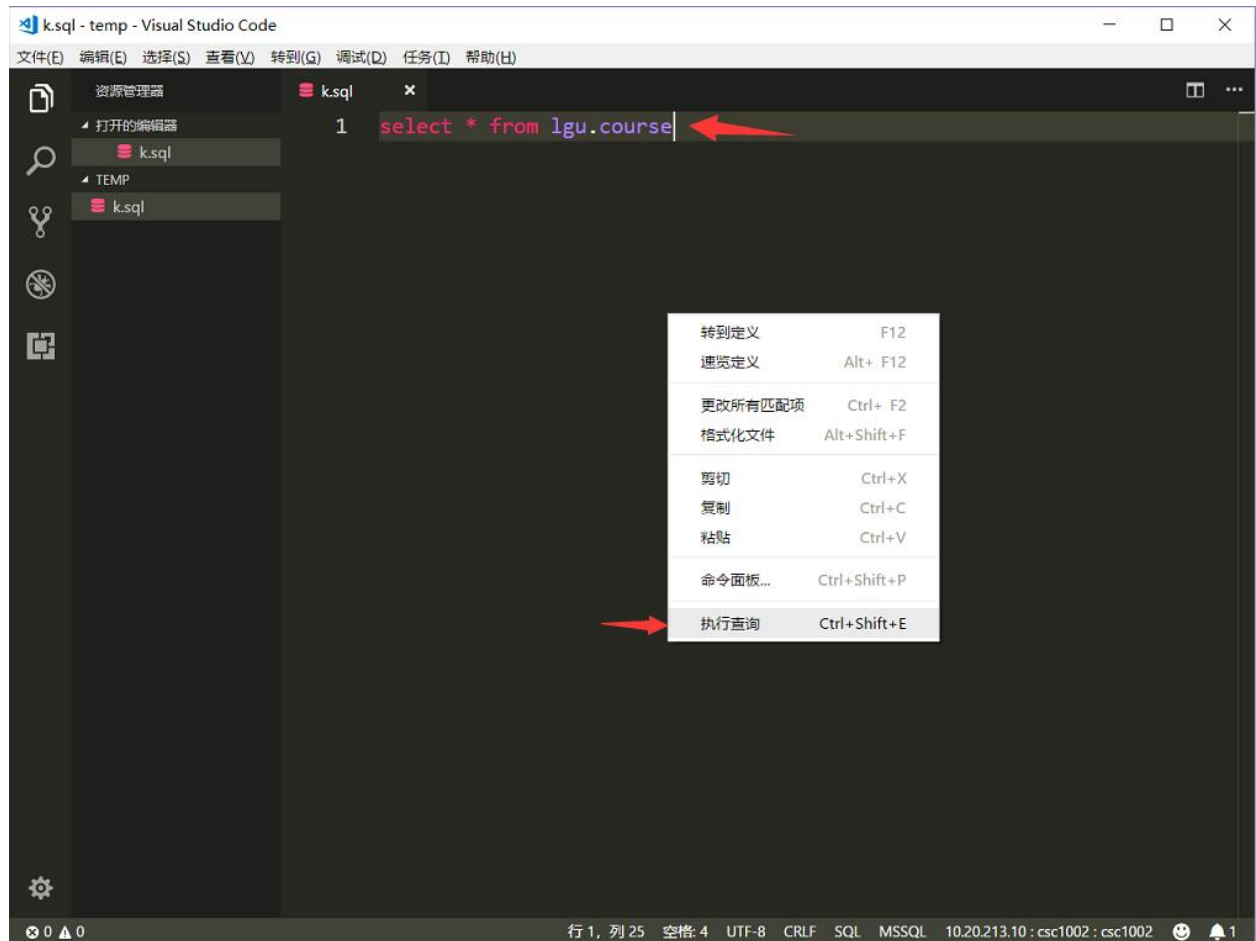






Step 5: Check all your work and get 20% of your assignment

1. Type one line code, and save your document, then right click



2. The result will be shown like this image below:

Visual Studio Code interface showing a SQL query execution. The query is `select * from lgu.course`. The results are displayed in a table with columns: `course_id`, `title`, `dept_name`. The messages section shows the query execution time and the number of rows affected.

	course_id	title	dept_name
1	200	The Music of th...	Accounting
2	843	Environmental L...	Math
3	457	Systems Softwa...	History
4	545	International Pr...	History
5	581	Calculus	Pol. Sci.
6	591	Shakespeare	Pol. Sci.
7	338	Graph Theory	Psychology
8	338	Graph Theory	Psychology
9	352	Compiler Design	Psychology
10	400	Visual BASIC	Psychology
11	400	Visual BASIC	Psychology
12	482	FOCAL Program...	Psychology
13	599	Mechanics	Psychology
14	642	Video Gaming	Psychology
15	663	Geology	Psychology
16	867	The IBM 360 Ar...	History

MESSAGES

[15:54:03] Started executing query at Line 1
(100 rows affected)
Total execution time: 00:00:00.012

3. Download sql.py and ui.py documents from Moodle. Run the sql.py first, the result should be:

Terminal output of the sql.py script:

```

Title: Bioinformatics, Dept: Cybernetics, Instructor: Pimenta
Title: Optics, Dept: Math, Instructor: Sullivan
Title: The Music of the Ramones, Dept: Physics, Instructor: Voronina
Title: Cost Accounting, Dept: Physics, Instructor: Voronina
Title: Journalism, Dept: Physics, Instructor: Voronina
Title: Journalism, Dept: Physics, Instructor: Voronina
Title: Mobile Computing, Dept: Physics, Instructor: Voronina
Title: Bacteriology, Dept: Physics, Instructor: Voronina
Title: Accounting, Dept: Geology, Instructor: Mahmoud
Title: Music of the 50s, Dept: Geology, Instructor: Mahmoud
Title: Marine Mammals, Dept: Geology, Instructor: Mahmoud
Title: Greek Tragedy, Dept: Geology, Instructor: Mahmoud
Title: Greek Tragedy, Dept: Geology, Instructor: Mahmoud
Title: Heat Transfer, Dept: Geology, Instructor: Mahmoud
Title: The Music of the Ramones, Dept: Accounting, Instructor: Ullman
Title: Race Car Driving, Dept: Accounting, Instructor: Ullman
Title: Bankruptcy, Dept: Accounting, Instructor: Ullman
Title: Bankruptcy, Dept: Accounting, Instructor: Ullman
Title: How to Groom your Cat, Dept: Accounting, Instructor: Ullman
Title: Astronautics, Dept: Accounting, Instructor: Ullman
Title: Martian History, Dept: Biology, Instructor: Queiroz
Title: Numerical Methods, Dept: Biology, Instructor: Valtchev
Title: Arabic, Dept: Biology, Instructor: Valtchev
Title: Elastic Structures, Dept: Cybernetics, Instructor: Bietzk
Title: Physical Chemistry, Dept: Math, Instructor: Choll
Title: colloid and Surface Chemistry, Dept: Math, Instructor: Sakurai
Title: Music of the 90s, Dept: Math, Instructor: Sakurai
Title: Fractal Geometry, Dept: Civil Eng., Instructor: Sakurai
Title: Tort Law, Dept: Civil Eng., Instructor: Sakurai
Title: Elastic Structures, Dept: Cybernetics, Instructor: Dale
Title: Surfing, Dept: Cybernetics, Instructor: Dale
Title: Surfing, Dept: Cybernetics, Instructor: Dale
Title: Aquatic Chemistry, Dept: Cybernetics, Instructor: Dale
Title: Finite Element Analysis, Dept: Cybernetics, Instructor: Dale
Title: Tort Law, Dept: Cybernetics, Instructor: Dale
Title: African History, Dept: Cybernetics, Instructor: Dale
Title: Systems Software, Dept: Cybernetics, Instructor: Dale
Title: Differential Geometry, Dept: Cybernetics, Instructor: Dale

```

4. Run the ui.py (There is no output). And type the code: "python -m bokeh serve --show ui.py" in your terminal. Please make sure your ui.py document is at the same folder as which you are opening in Vscode, or you will meet "No such file" error. The result should be like this:

The image shows a side-by-side view of a VS Code terminal window and a web browser window. The terminal window on the left displays the command `python -m bokeh serve --show ui.py` and its output, which includes the Bokeh server version (0.12.14) and the application URL (`http://localhost:5006/ui`). The web browser window on the right shows the application running at `localhost:5006/ui`. The application has a header with 'Course Info' and 'Statistics' tabs. Below the header is a row of buttons labeled A through U. Underneath is a search bar with three input fields: 'begins with...', '...contains...', and '...ends with'. There are also radio buttons for 'option' (selected as 'and') and 'or'. Below these is a 'Title:' section with a 'contains...' input field and a 'Department:' section with a 'contains...' input field. A 'Refresh' button is located at the bottom left of the form area. At the bottom right of the browser window, there is a small language selector showing '英' (English) as the selected option.

Press Ctrl+C in terminal after you show your result to the instructor(s). That's all.