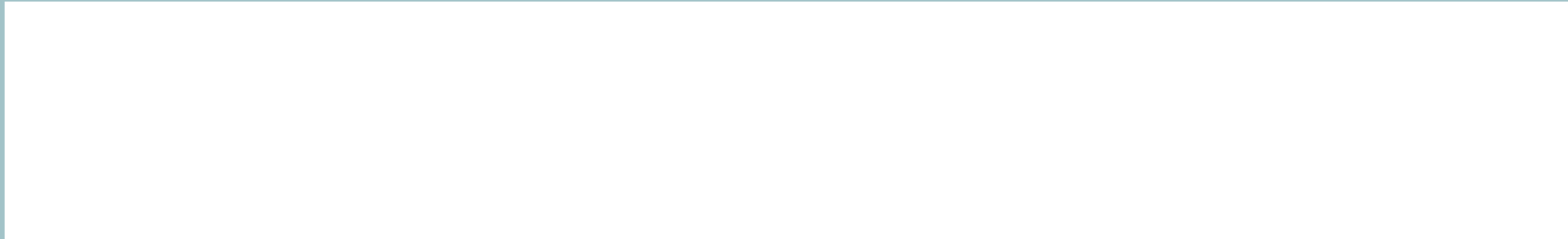
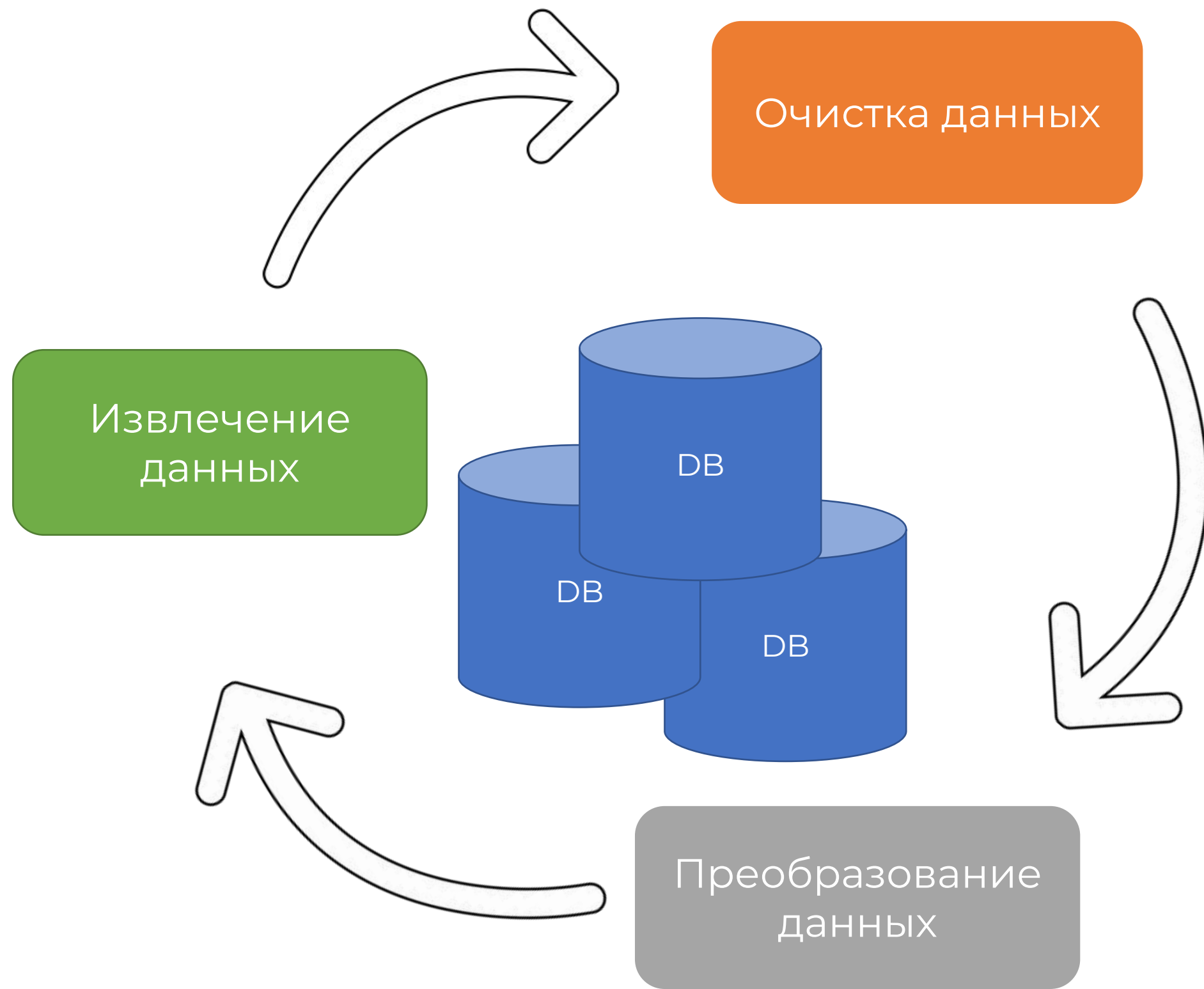




Соединение с БД





CSV

```
0,2019-07-08,Mobile phones,Android,office B,79
1,2019-07-08,Cameras,camera,office A,86
2,2019-07-09,Cameras,webCam,office C,57
3,2019-07-09,Computers,notebook,office B,18
4,2019-07-09,Mobile phones,iPhone,office B,30
5,2019-07-09,Computers,server,office C,83
6,2019-07-09,Mobile phones,Android,office A,41
7,2019-07-09,Mobile phones,Android,office B,37
8,2019-07-09,Computers,server,office C,95
9,2019-07-09,Cameras,camera,office B,14
10,2019-07-09,Cameras,webCam,office C,18
11,2019-07-09,Cameras,camera,office B,20
```



Импорт данных в БД

Проверка и очистка

Предварительный анализ

Аналитические выводы

Оптимизация хранения

Тестовая среда

select * from skill_continents

 db<>fiddle

SQL Server 2019

run

[clear](#)

[markdown](#)

[compare](#)

[help](#)

By using db<>fiddle, you agree to license everything you submit by [Creative Commons CC0](#). 938902 fiddles created (12086 in the last week).

 1 hidden

1

select * from skill_continents

continent_id	continent_name
1	Africa
2	Asia
3	Europe
4	North America
5	South America
6	Australia

6 rows

Базы данных

Локально на собственном
компьютере



Сервера БД



Облачные
решения



Amazon
HP Cloud
Google Cloud
Microsoft Windows
...

Базы данных

Локально на собственном
компьютере



Сервера БД

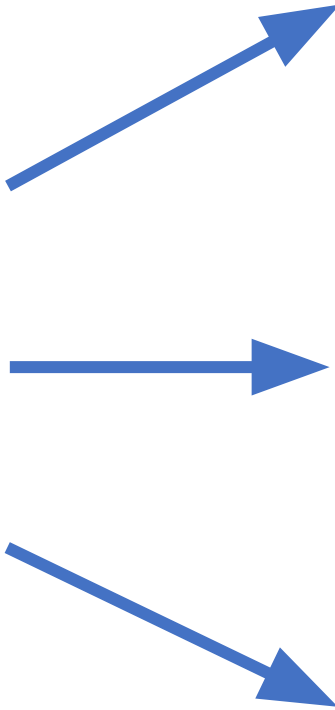
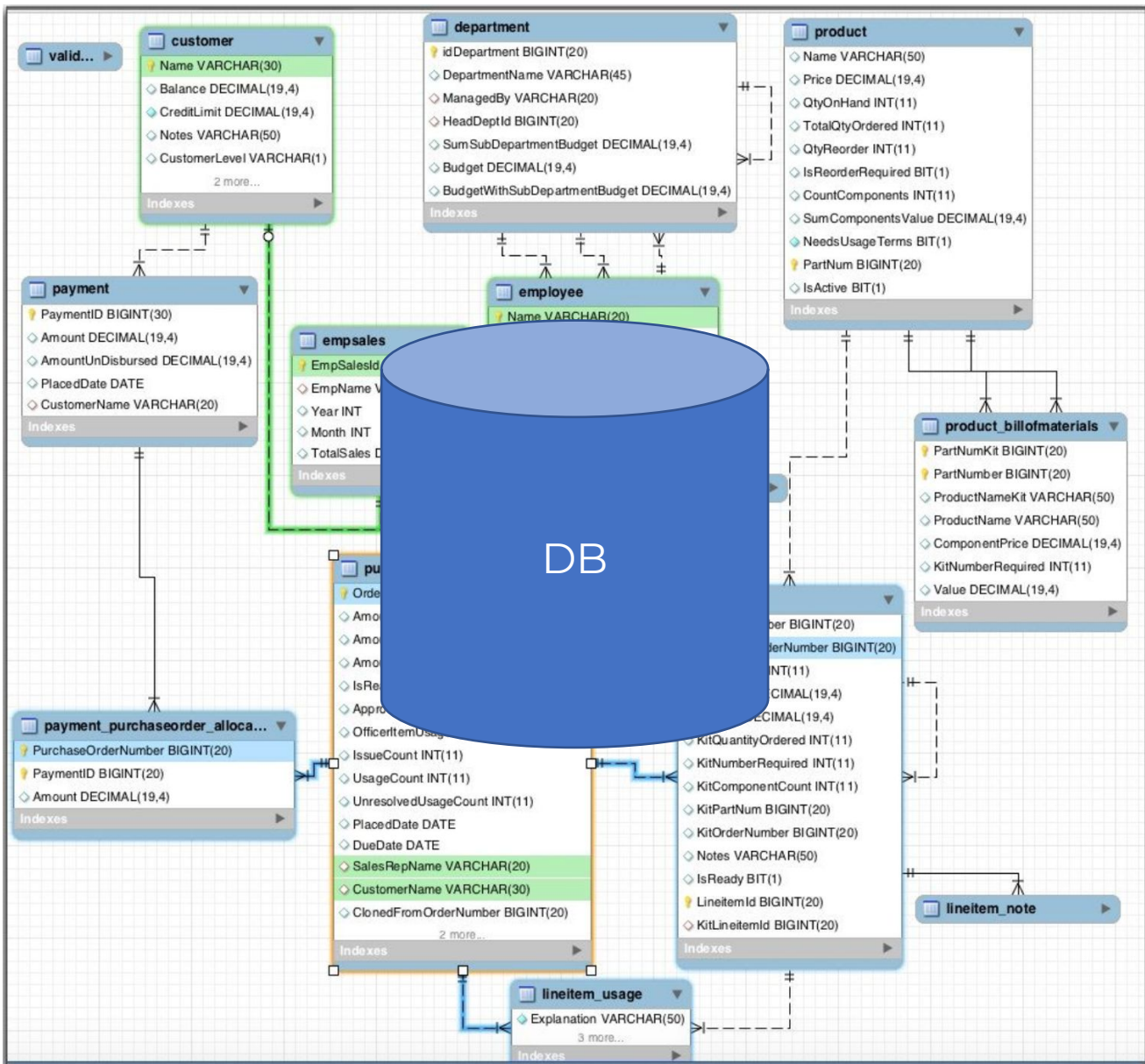


Облачные
решения



Amazon
HP Cloud
Google Cloud
Microsoft Windows
...

Программы и среды для SQL



```
Last login: Wed Feb 24 18:30:58 on ttys001
+ ~ mysql -u test -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.19 Homebrew

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>
```

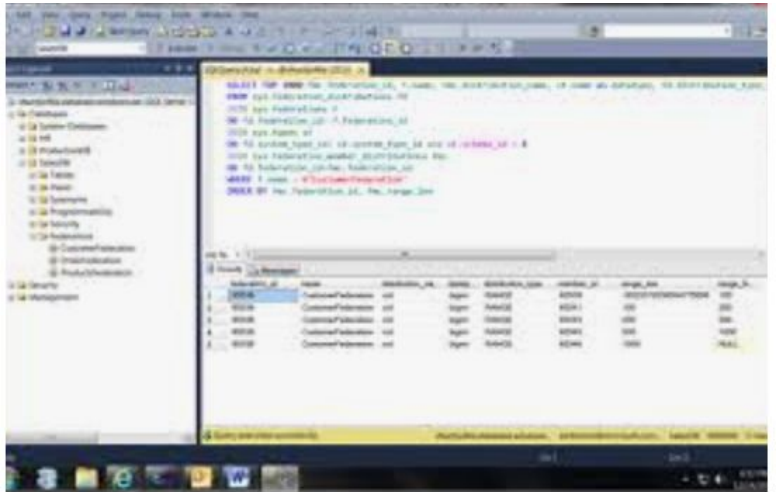
Серверы
Управление серверами и подключениями

Базы данных
Управление локальными базами

Закладки / Bonjour

SQLite / Valentina

- valentina_sakila_using_foreign_key
- valentina-db.com
- valentina_sakila_using_binarylink
- valentina-db.com
- valentina_sakila_using_objectptr
- valentina-db.com



Программы и среды для SQL

«Родные»
клиенты

Консольные
утилиты:
sqlcmd mysql
psql



Универсальное
ПО

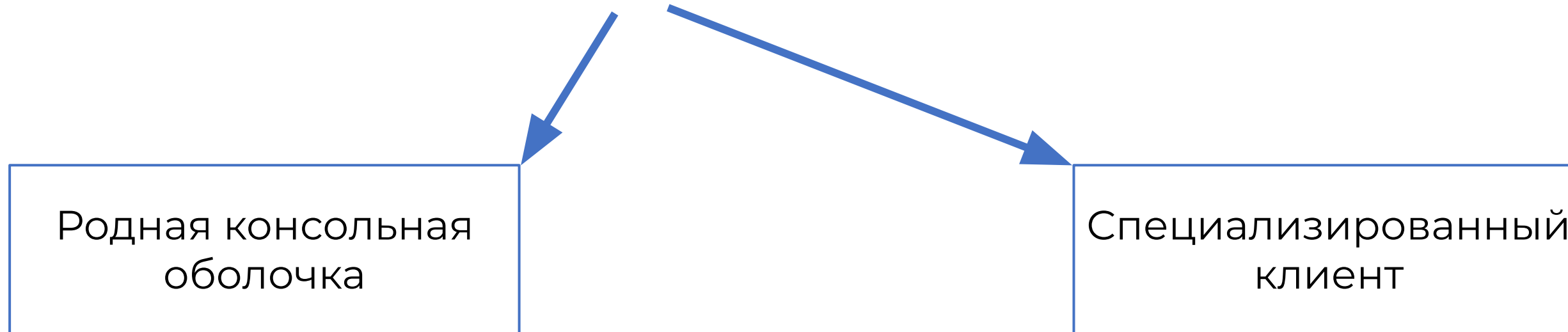
 **DbVisualizer**

dbForge Studio



Библиотеки
и коннекторы
для языков
программирования

Подключение к БД



```
Last login: Wed Feb 24 18:30:58 on ttys001
➔ ~ mysql -u test -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.19 Homebrew

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> █
```

MySQL Server Properties

Basic Properties Admin Properties

Server host name: localhost

Server port number: 3306

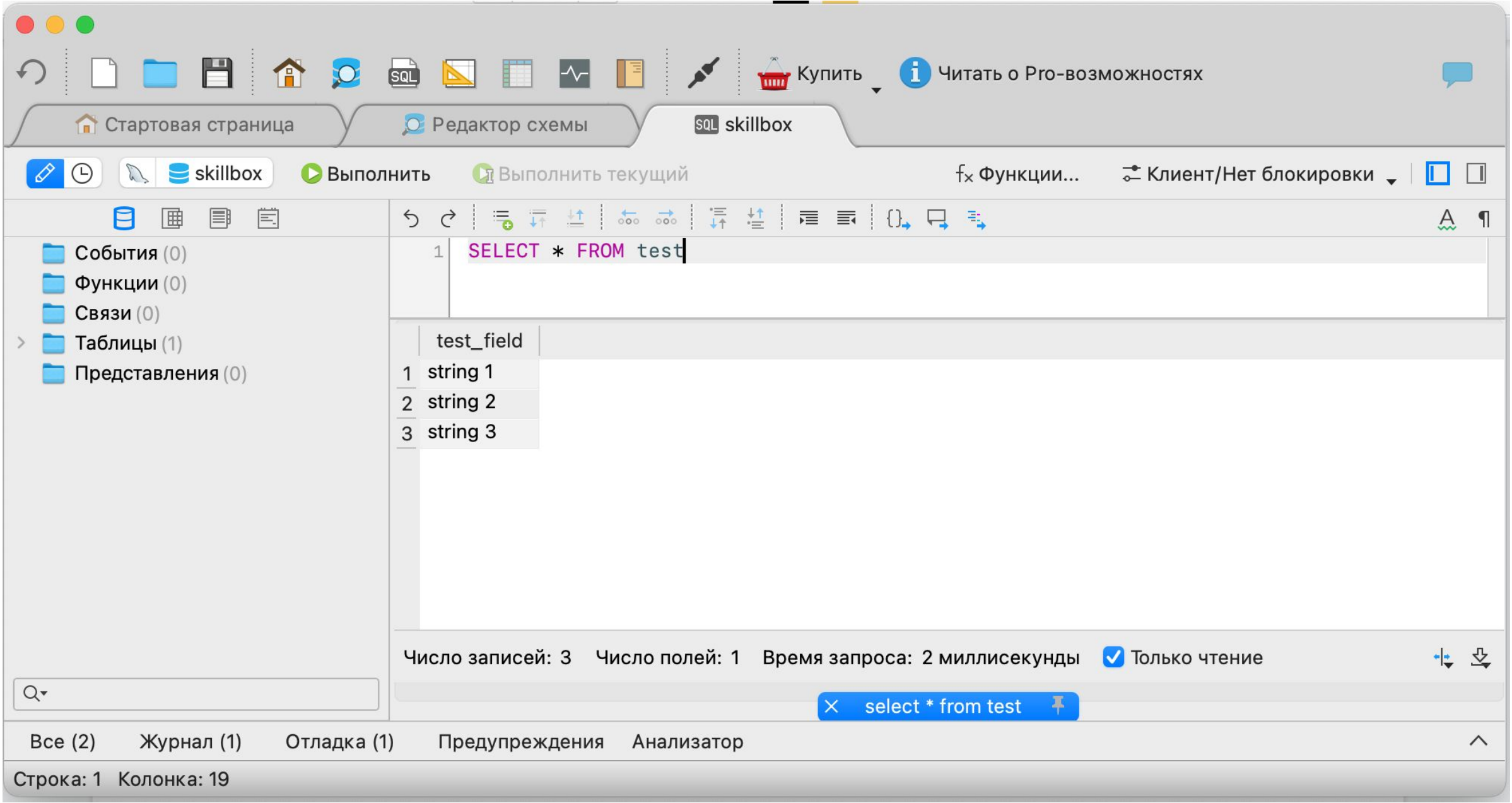
Administrator user name: root

Administrator password: ****

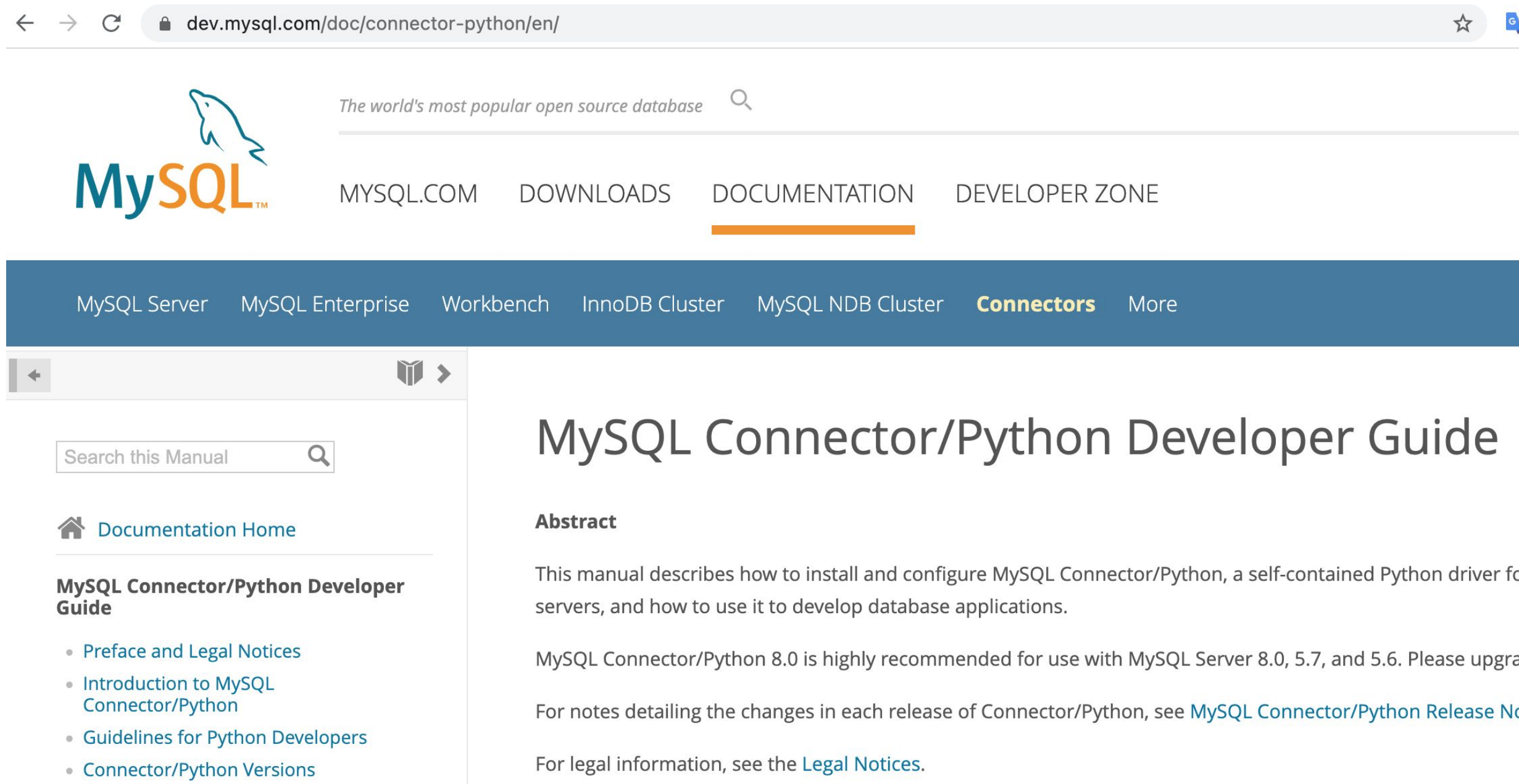
☐ Save password (see Help for security risks)

Help Cancel OK

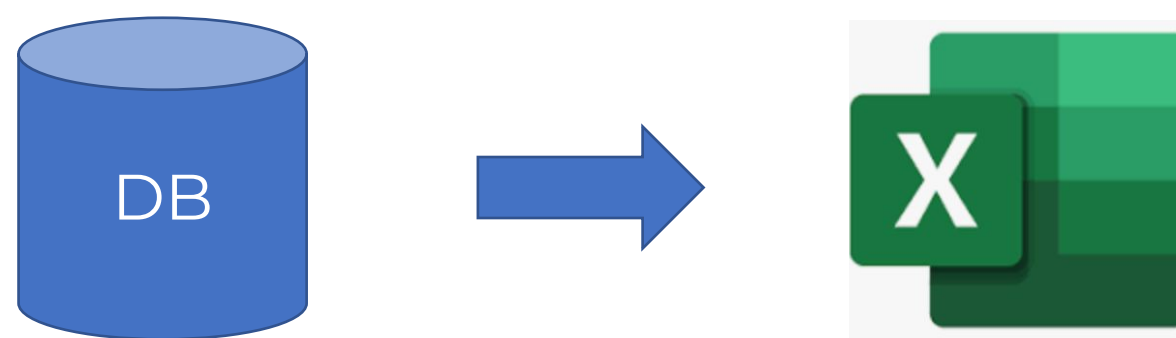
Подключение к БД клиентом с GUI



Подключение к БД Python клиентом



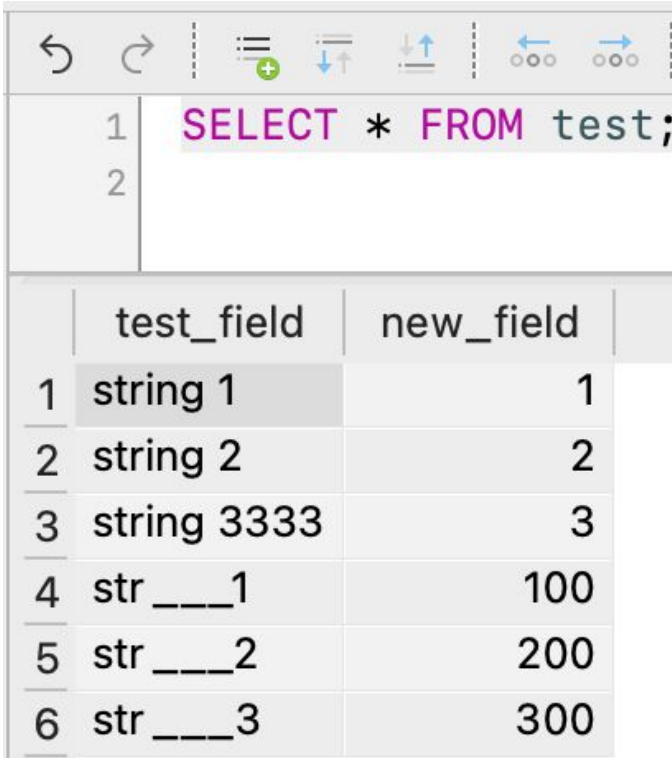
Подключение к БД из MS Excel



order_date ▼	order_time ▼	manager ▼	payment_method ▼	food_name ▼	price_usd ▼	cnt ▼	total ▼
2020-01-10	17:45:00.0000000	Kaiden Wall	cash	Broccoli	3,7	2	7,4
2020-01-11	04:04:00.0000000	Darryl Mathis	credit	Eggs	0,35	72	25,2
2020-01-12	18:45:00.0000000	Ellis Cisneros	cash	Apples	1,2	56	67,2
2020-01-12	08:57:00.0000000	Abbie Peters	cash	Cucumber	1,2	91	109,2
2020-01-13	20:52:00.0000000	Darryl Mathis	debit	Lean beef	3,52	20	70,4
2020-01-14	16:49:00.0000000	Kaiden Wall	cash	Cucumber	1,2	40	48
2020-01-14	20:53:00.0000000	Averie Graham	credit	Chicken breasts	2,55	14	35,606
2020-01-14	10:13:00.0000000	Averie Graham	debit	Chicken breasts	2,55	36	91,8
2020-01-15	16:24:00.0000000	Kaiden Wall	credit	Apples	1,2	29	34,8
2020-01-15	03:14:00.0000000	Kaiden Wall	debit	Shellfish	15,5	69	1069,5
2020-01-16	21:25:00.0000000	Darryl Mathis	credit	Shellfish	15,5	99	1534,5
2020-01-17	15:47:00.0000000	Darryl Mathis	credit	Eggs	0,35	23	8,04

Подключения к БД

Универсальный клиент с GUI



The screenshot shows a GUI MySQL client with a toolbar at the top. The query editor contains the SQL statement `SELECT * FROM test;`. Below the editor, the results are displayed in a table with two columns: `test_field` and `new_field`. The results are as follows:

	test_field	new_field
1	string 1	1
2	string 2	2
3	string 3333	3
4	str ___1	100
5	str ___2	200
6	str ___3	300

Консольная утилита

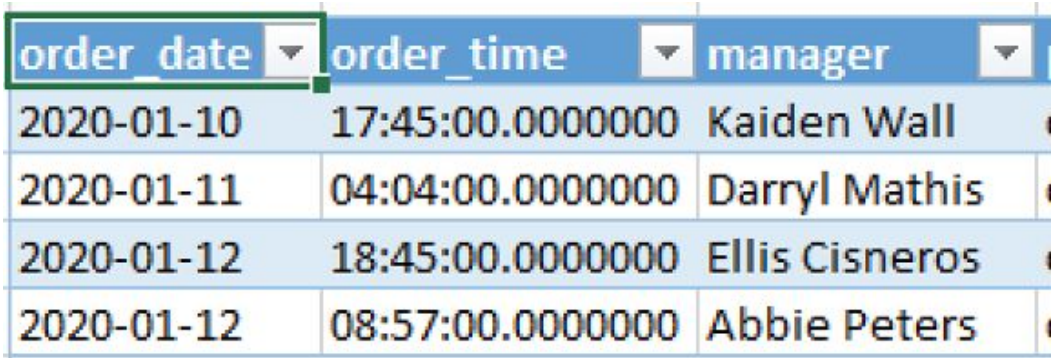
```
Last login: Wed Feb 24 18:30:58 on ttys001
➔ ~ mysql -u test -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.19 Homebrew

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
mysql>
```

Excel



The screenshot shows an Excel spreadsheet with a table containing order data. The columns are `order_date`, `order_time`, and `manager`. The data is as follows:

order_date	order_time	manager
2020-01-10	17:45:00.0000000	Kaiden Wall
2020-01-11	04:04:00.0000000	Darryl Mathis
2020-01-12	18:45:00.0000000	Ellis Cisneros
2020-01-12	08:57:00.0000000	Abbie Peters

Python-скрипт

```
1 # https://dev.mysql.com/doc/connector-python/en/
2 # SQL request through mysql connector
3 import mysql.connector
4 cnx = mysql.connector.connect(user='test', password='test', databa
5 cursor = cnx.cursor()
6 cursor.execute('select * from test')
7 for row in cursor:
8     print(row)
```


Практика к уроку

Ссылка № 1 — тестовая среда MySQL — в описании к модулю.

1. Напишите SQL-запрос, получающий список названий таблиц в текущей базе данных
2. Запросите первые 10 строк каждой таблицы



**Спасибо
за внимание!**