

# Database System Lab 1

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## 实验目的

- Initially understand the operating environment of a DBMS by installing a database management system.
- Understand the use of DBMS interactive interface, graphical interface and system management tools.
- Set up an experimental platform

## 实验平台：

- MySQL（全平台）

网上教程 <http://www.runoob.com/mysql/mysql-tutorial.html>

## 实验内容

- 1) 下载并安装 MySQL 数据库
- 2) 以 root 用户登录 MySQL
- 3) 在 MySQL 中新建一个数据库，并查询当前所有数据库名称

## 实验步骤

（根据实验说明中的实验步骤，将每个步骤中输入的 sql 语句和输出结果截图）

### 1) MySQL 数据库的下载和安装：

- I downloaded the MySQL installation file corresponding to my operating system on the MySQL official website, and found that the winx86 file package was not available. `exe` file, you need to

implement the installation through the command line.

- After storing the file package in the corresponding path, use `cmd` to open the console, enter the `/ bin` of the corresponding folder, and enter the command: `mysqld -install` to successfully install.
- After displaying `Service successfully installed`, Enter `net start MySQL` could not start the service; then, after consulting the relevant information, you must enter `mysqld --initialize`.
- A data folder will be generated in the root directory of mysql, which contains a file ending with `.err`. The initial password is in this file, which will be used later.

## 2) 登录 **MySQL** 数据库:

- Start the MySQL service: In the bin directory of mysql (at this time in the MySQL bin directory), enter the command `net start mysql`.
- The `fourth step` is to initialize mysql, Type in cmd : `mysql -u root -p`, enter directly

成功登陆的截图:

```
C:\mysql-5.7.29-winx64\bin>mysql -u root -p
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 3
Server version: 5.7.29

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

### 3) 创建并查询数据库:

#### Command:

create database

show databases

-----[Command and output screenshot:](#)

```
mysql> create database No3170100186
-> ;
Query OK, 1 row affected (0.01 sec)

mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| no3170100186 |
| performance_schema |
| sys |
+-----+
5 rows in set (0.01 sec)
```

## 实验感想

1. Many problems were found in the process of using the database:

Database names cannot use pure numbers as file names:

```
mysql> create database 3170100186;
ERROR 1064 (42000): You have an error in your SQL syntax;
```

Without initialization, the database does not work:

```
C:\mysql-5.7.29-winx64\bin>net start MySQL
MySQL 服务正在启动 .
MySQL 服务无法启动。
服务没有报告任何错误。
```

```
C:\mysql-5.7.29-winx64\bin>mysqld --initialize

C:\mysql-5.7.29-winx64\bin>net start mysql
MySQL 服务正在启动 .
MySQL 服务已经启动成功。
```

After changing the password, it cannot be used normally

```
mysql> show databases;
ERROR 1820 (HY000): You must reset your password using ALTER US
```

2. Chinese and English will affect the expression of sentences, and a semicolon must be added to the end of each sentence;

```
ERROR 1064 (42000): You have an error in your SQL syntax; cl
for the right syntax to use near 'mysql> ALTER USER USER()
```