Практическое задание по теме “Управление БД”

1. Установите СУБД MySQL. Создайте в домашней директории файл .my.cnf, задав в нем логин и пароль, который указывался при установке.

user@user-pc:~$ cd ~

user@user-pc:~$ mysql

ERROR 1045 (28000): Access denied for user 'user'@'localhost' (using password: NO)

user@user-pc:~$ nano .my.cnf

[mysql]  
user=root  
password=\*\*\*\*

user@user-pc:~$ mysql

Welcome to the MySQL monitor. Commands end with ; or \g.

Your MySQL connection id is 13

Server version: 8.0.21-0ubuntu0.20.04.4 (Ubuntu)

Copyright (c) 2000, 2020, Oracle and/or its affiliates. All rights reserved.

Oracle is a registered trademark of Oracle Corporation and/or its

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> exit

Bye

user@user-pc:~$

1. Создайте базу данных example, разместите в ней таблицу users, состоящую из двух столбцов, числового id и строкового name.

user@user-pc:~$ cd ~

user@user-pc:~$ mysql

Welcome to the MySQL monitor. Commands end with ; or \g.

Your MySQL connection id is 14

Server version: 8.0.21-0ubuntu0.20.04.4 (Ubuntu)

Copyright (c) 2000, 2020, Oracle and/or its affiliates. All rights reserved.

Oracle is a registered trademark of Oracle Corporation and/or its

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> CREATE DATABASE example;

Query OK, 1 row affected (0.21 sec)

mysql> SHOW DATABASES;

+--------------------+

| Database |

+--------------------+

| example |

| information\_schema |

| mysql |

| performance\_schema |

| sys |

+--------------------+

5 rows in set (0.01 sec)

mysql> USE example;

Database changed

mysql> CREATE TABLE users (id INT, name VARCHAR(20));

Query OK, 0 rows affected (1.48 sec)

mysql> DESCRIBE users

-> ;

+-------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------+-------------+------+-----+---------+-------+

| id | int | YES | | NULL | |

| name | varchar(20) | YES | | NULL | |

+-------+-------------+------+-----+---------+-------+

2 rows in set (0.01 sec)

mysql>

1. Создайте дамп базы данных example из предыдущего задания, разверните содержимое дампа в новую базу данных sample.

user@user-pc:~$ mysqldump example > example.sql

mysql> CREATE DATABASE sample;

Query OK, 1 row affected (0.23 sec)

mysql>

user@user-pc:~$ mysql sample < example.sql

mysql> SHOW DATABASES

-> ;

+--------------------+

| Database |

+--------------------+

| example |

| information\_schema |

| mysql |

| performance\_schema |

| sample |

| sys |

+--------------------+

6 rows in set (0.01 sec)

mysql> USE sample;

Reading table information for completion of table and column names

You can turn off this feature to get a quicker startup with -A

Database changed

mysql> SHOW TABLES;

+------------------+

| Tables\_in\_sample |

+------------------+

| users |

+------------------+

1 row in set (0.01 sec)

mysql> DESCRIBE users;

+-------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------+-------------+------+-----+---------+-------+

| id | int | YES | | NULL | |

| name | varchar(20) | YES | | NULL | |

+-------+-------------+------+-----+---------+-------+

2 rows in set (0.00 sec)

mysql>

1. (по желанию) Ознакомьтесь более подробно с документацией утилиты mysqldump. Создайте дамп единственной таблицы help\_keyword базы данных mysql. Причем добейтесь того, чтобы дамп содержал только первые 100 строк таблицы.

user@user-pc:~$ mysqldump --where="true limit 100" mysql help\_keyword > help\_keyword\_100.sql

user@user-pc:~$ ls

Desktop Documents Downloads example.sql help\_keyword\_100.sql Music Pictures Public Templates Videos

user@user-pc:~$ cat help\_keyword\_100.sql

-- MySQL dump 10.13 Distrib 8.0.21, for Linux (x86\_64)

--

-- Host: localhost Database: mysql

-- ------------------------------------------------------

-- Server version 8.0.21-0ubuntu0.20.04.4

/\*!40101 SET @OLD\_CHARACTER\_SET\_CLIENT=@@CHARACTER\_SET\_CLIENT \*/;

/\*!40101 SET @OLD\_CHARACTER\_SET\_RESULTS=@@CHARACTER\_SET\_RESULTS \*/;

/\*!40101 SET @OLD\_COLLATION\_CONNECTION=@@COLLATION\_CONNECTION \*/;

/\*!50503 SET NAMES utf8mb4 \*/;

/\*!40103 SET @OLD\_TIME\_ZONE=@@TIME\_ZONE \*/;

/\*!40103 SET TIME\_ZONE='+00:00' \*/;

/\*!40014 SET @OLD\_UNIQUE\_CHECKS=@@UNIQUE\_CHECKS, UNIQUE\_CHECKS=0 \*/;

/\*!40014 SET @OLD\_FOREIGN\_KEY\_CHECKS=@@FOREIGN\_KEY\_CHECKS, FOREIGN\_KEY\_CHECKS=0 \*/;

/\*!40101 SET @OLD\_SQL\_MODE=@@SQL\_MODE, SQL\_MODE='NO\_AUTO\_VALUE\_ON\_ZERO' \*/;

/\*!40111 SET @OLD\_SQL\_NOTES=@@SQL\_NOTES, SQL\_NOTES=0 \*/;

--

-- Table structure for table `help\_keyword`

--

DROP TABLE IF EXISTS `help\_keyword`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!50503 SET character\_set\_client = utf8mb4 \*/;

CREATE TABLE `help\_keyword` (

`help\_keyword\_id` int unsigned NOT NULL,

`name` char(64) NOT NULL,

PRIMARY KEY (`help\_keyword\_id`),

UNIQUE KEY `name` (`name`)

) /\*!50100 TABLESPACE `mysql` \*/ ENGINE=InnoDB DEFAULT CHARSET=utf8 STATS\_PERSISTENT=0 ROW\_FORMAT=DYNAMIC COMMENT='help keywords';

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `help\_keyword`

--

-- WHERE: true limit 100

LOCK TABLES `help\_keyword` WRITE;

/\*!40000 ALTER TABLE `help\_keyword` DISABLE KEYS \*/;

INSERT INTO `help\_keyword` VALUES (226,'(JSON'),(227,'->'),(229,'->>'),(46,'<>'),(637,'ACCOUNT'),(439,'ACTION'),(40,'ADD'),(663,'ADMIN'),(108,'AES\_DECRYPT'),(109,'AES\_ENCRYPT'),(358,'AFTER'),(95,'AGAINST'),(684,'AGGREGATE'),(359,'ALGORITHM'),(502,'ALL'),(41,'ALTER'),(360,'ANALYZE'),(47,'AND'),(313,'ANY\_VALUE'),(440,'ARCHIVE'),(102,'ARRAY'),(503,'AS'),(261,'ASC'),(421,'AT'),(638,'ATTRIBUTE'),(526,'AUTOCOMMIT'),(462,'AUTOEXTEND\_SIZE'),(361,'AUTO\_INCREMENT'),(362,'AVG\_ROW\_LENGTH'),(538,'BACKUP'),(552,'BEFORE'),(527,'BEGIN'),(48,'BETWEEN'),(59,'BIGINT'),(104,'BINARY'),(342,'BINLOG'),(314,'BIN\_TO\_UUID'),(8,'BOOL'),(9,'BOOLEAN'),(85,'BOTH'),(425,'BTREE'),(262,'BY'),(33,'BYTE'),(720,'CACHE'),(470,'CALL'),(285,'CAN\_ACCESS\_COLUMN'),(286,'CAN\_ACCESS\_DATABASE'),(287,'CAN\_ACCESS\_TABLE'),(288,'CAN\_ACCESS\_VIEW'),(441,'CASCADE'),(53,'CASE'),(617,'CATALOG\_NAME'),(62,'CEIL'),(63,'CEILING'),(528,'CHAIN'),(363,'CHANGE'),(343,'CHANNEL'),(34,'CHAR'),(30,'CHARACTER'),(696,'CHARSET'),(364,'CHECK'),(365,'CHECKSUM'),(639,'CIPHER'),(618,'CLASS\_ORIGIN'),(664,'CLIENT'),(692,'CLONE'),(476,'CLOSE'),(366,'COALESCE'),(715,'CODE'),(321,'COLLATE'),(698,'COLLATION'),(367,'COLUMN'),(368,'COLUMNS'),(619,'COLUMN\_NAME'),(328,'COMMENT'),(529,'COMMIT'),(541,'COMMITTED'),(442,'COMPACT'),(329,'COMPLETION'),(688,'COMPONENT'),(443,'COMPRESSED'),(369,'COMPRESSION'),(489,'CONCURRENT'),(614,'CONDITION'),(370,'CONNECTION'),(530,'CONSISTENT'),(371,'CONSTRAINT'),(620,'CONSTRAINT\_CATALOG'),(621,'CONSTRAINT\_NAME'),(622,'CONSTRAINT\_SCHEMA'),(615,'CONTINUE'),(103,'CONVERT'),(260,'COUNT'),(42,'CREATE'),(258,'CREATE\_DH\_PARAMETERS'),(519,'CROSS'),(444,'CSV'),(270,'CUME\_DIST'),(640,'CURRENT'),(116,'CURRENT\_ROLE');

/\*!40000 ALTER TABLE `help\_keyword` ENABLE KEYS \*/;

UNLOCK TABLES;

/\*!40103 SET TIME\_ZONE=@OLD\_TIME\_ZONE \*/;

/\*!40101 SET SQL\_MODE=@OLD\_SQL\_MODE \*/;

/\*!40014 SET FOREIGN\_KEY\_CHECKS=@OLD\_FOREIGN\_KEY\_CHECKS \*/;

/\*!40014 SET UNIQUE\_CHECKS=@OLD\_UNIQUE\_CHECKS \*/;

/\*!40101 SET CHARACTER\_SET\_CLIENT=@OLD\_CHARACTER\_SET\_CLIENT \*/;

/\*!40101 SET CHARACTER\_SET\_RESULTS=@OLD\_CHARACTER\_SET\_RESULTS \*/;

/\*!40101 SET COLLATION\_CONNECTION=@OLD\_COLLATION\_CONNECTION \*/;

/\*!40111 SET SQL\_NOTES=@OLD\_SQL\_NOTES \*/;

-- Dump completed on 2020-08-13 17:18:38

user@user-pc:~$