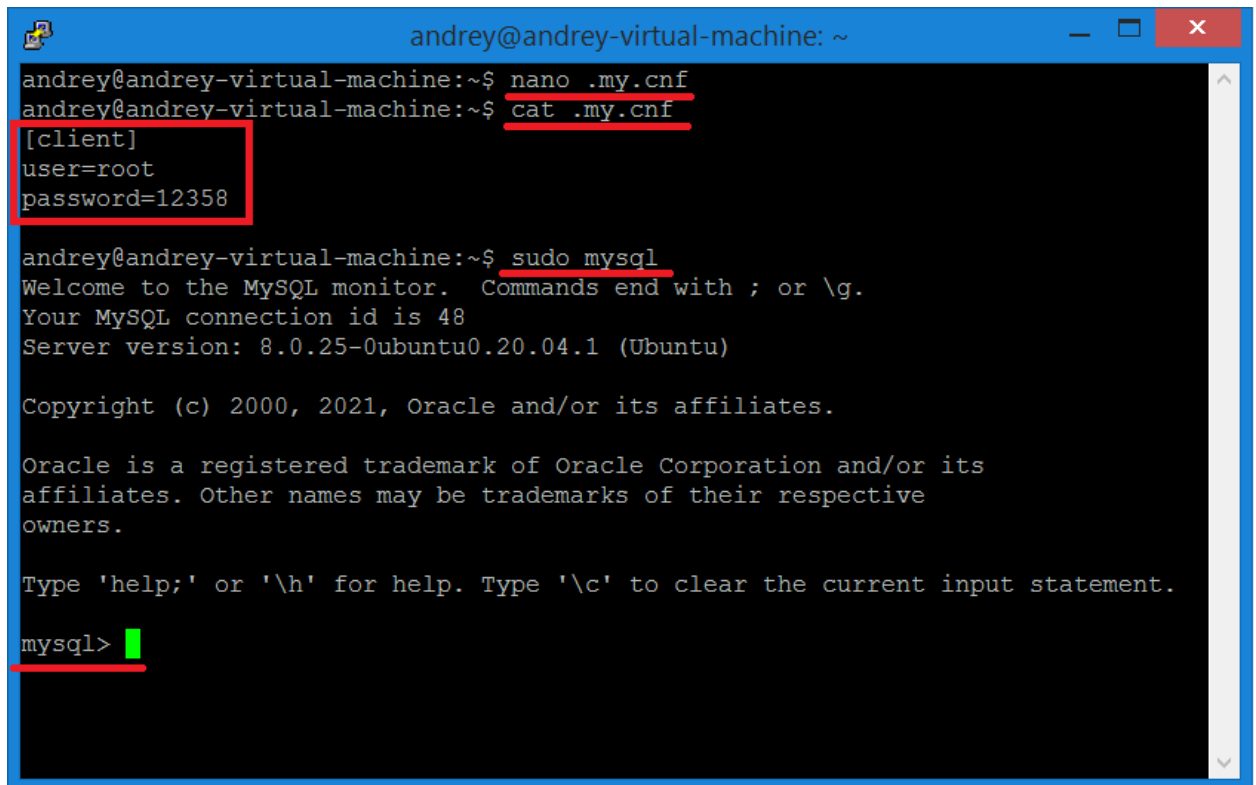


Задание 1. Выполнено. Установил СУБД MySQL. В домашней директории создал файл `.my.cnf`, задал в нем логин и пароль, который указывался при установке. На скриншоте ниже приведены подтверждения выполнения задания.



```
andrey@andrey-virtual-machine: ~  
andrey@andrey-virtual-machine:~$ nano .my.cnf  
andrey@andrey-virtual-machine:~$ cat .my.cnf  
[client]  
user=root  
password=12358  
  
andrey@andrey-virtual-machine:~$ sudo mysql  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 48  
Server version: 8.0.25-0ubuntu0.20.04.1 (Ubuntu)  
  
Copyright (c) 2000, 2021, Oracle and/or its affiliates.  
  
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>
```

Задание 2. Выполнено. Создал базу данных `example`, разместил в ней таблицу `users`, состоящую из двух столбцов (числовой `id` и строковый `name`). У столбца `id` также задал атрибуты типа данных `UNSIGNED` (беззнаковый), `NOT NULL` (не может принимать значение `NULL`), `AUTO_INCREMENT` (автоматически увеличивает значение при создании новой строки), `PRIMARY KEY` (первичный ключ).

Использованные команды для выполнения задания (размещал в отдельный файл и затем выполнял при помощи команды `SOURCE`):

```
CREATE DATABASE IF NOT EXISTS example;  
USE example  
DROP TABLE IF EXISTS users;  
CREATE TABLE users (  
  id BIGINT UNSIGNED NOT NULL AUTO_INCREMENT PRIMARY KEY,  
  name VARCHAR(255)  
);
```

На скриншотах ниже приведены подтверждения выполнения задания.

```
andrey@andrey-virtual-machine: ~/CourseSQLBasics/HW2
andrey@andrey-virtual-machine:~/CourseSQLBasics/HW2$ nano task2.sql
andrey@andrey-virtual-machine:~/CourseSQLBasics/HW2$ cat task2.sql
CREATE DATABASE IF NOT EXISTS example;
USE example
DROP TABLE IF EXISTS users;
CREATE TABLE users (
  id BIGINT UNSIGNED NOT NULL AUTO_INCREMENT PRIMARY KEY,
  name VARCHAR(255)
);
andrey@andrey-virtual-machine:~/CourseSQLBasics/HW2$ sudo mysql
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 9
Server version: 8.0.25-0ubuntu0.20.04.1 (Ubuntu)

Copyright (c) 2000, 2021, Oracle and/or its affiliates.

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> SOURCE task2.sql
Query OK, 1 row affected (0.00 sec)

Database changed
Query OK, 0 rows affected, 1 warning (0.00 sec)

Query OK, 0 rows affected (0.06 sec)
```

```
andrey@andrey-virtual-machine: ~/CourseSQLBasics/HW2
mysql> SHOW DATABASES;
+-----+
| Database |
+-----+
| example |
| information_schema |
| mysql |
| performance_schema |
| sys |
| test_db |
+-----+
6 rows in set (0.00 sec)

mysql> USE example;
Database changed
mysql> SHOW TABLES FROM example;
+-----+
| Tables_in_example |
+-----+
| users |
+-----+
1 row in set (0.00 sec)

mysql> SELECT * FROM example.users
-> ;
Empty set (0.00 sec)

mysql> DESCRIBE users;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id | bigint unsigned | NO | PRI | NULL | auto_increment |
| name | varchar(255) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql>
```

Задание 3. Выполнено. Создал дампы базы данных example из предыдущего задания, создал новую базу данных sample и развернул в неё содержимое дампа.

```
andrey@andrey-virtual-machine: ~/CourseSQLBasics/HW2
andrey@andrey-virtual-machine:~/CourseSQLBasics/HW2$ sudo mysqldump example > example.sql
andrey@andrey-virtual-machine:~/CourseSQLBasics/HW2$ sudo mysqladmin create sample
andrey@andrey-virtual-machine:~/CourseSQLBasics/HW2$ sudo mysql sample < example.sql
andrey@andrey-virtual-machine:~/CourseSQLBasics/HW2$ sudo mysql
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 18
Server version: 8.0.25-0ubuntu0.20.04.1 (Ubuntu)

Copyright (c) 2000, 2021, Oracle and/or its affiliates.

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> SHOW DATABASES;
+-----+
| Database |
+-----+
| example |
| information_schema |
| mysql |
| performance_schema |
| sample |
| sys |
| test_db |
+-----+
7 rows in set (0.00 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 FROM sample;
+-----+
| Tables_in_sample |
+-----+
| users |
+-----+
1 row in set (0.00 sec)

mysql> DESCRIBE users;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra          |
+-----+-----+-----+-----+-----+-----+
| id    | bigint unsigned | NO   | PRI | NULL    | auto_increment |
| name  | varchar(255)   | YES  |     | NULL    |                |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql>
```

Задание 4. Выполнено. Ознакомился с документацией mysqldump. Создал дамп единственной таблицы help_keyword базы данных mysql, при этом дамп содержит только первые 100 строк таблицы. Вывел в консоль содержимое дампа и убедился, что там только записи с id <100 (нумерация id начинается с 0, поэтому получается 100 записей).

```
andrey@andrey-virtual-machine: ~/CourseSQLBasics/HW2
andrey@andrey-virtual-machine:~/CourseSQLBasics/HW2$ sudo mysqldump mysql help_keyword --where="help_k ^
eyword id<100" > my_dump.sql
andrey@andrey-virtual-machine:~/CourseSQLBasics/HW2$ cat my_dump.sql
-- MySQL dump 10.13  Distrib 8.0.25, for Linux (x86_64)
--
-- Host: localhost      Database: mysql
--
-- Server version      8.0.25-0ubuntu0.20.04.1

/*!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=utf8mb3 STATS_PERSISTENT=0 ROW_FORMAT=D
YNAMIC COMMENT='help keywords';
/*!40101 SET character_set_client = @saved_cs_client */;
```

```
--  
-- Dumping data for table `help_keyword`  
--  
-- WHERE: help_keyword_id<100
```

```
LOCK TABLES `help_keyword` WRITE;
```

```
/*!40000 ALTER TABLE `help_keyword` DISABLE KEYS */;
```

```
INSERT INTO `help_keyword` VALUES (0,'HELP_DATE'),(1,'HELP_VERSION'),(2,'DEFAULT'),(3,'SERIAL'),(4,'VALUE'),(5,'HELP'),(6,'ASYMMETRIC_DECRYPT'),(7,'ASYMMETRIC_DERIVE'),(8,'ASYMMETRIC_ENCRYPT'),(9,'ASYMMETRIC_SIGN'),(10,'ASYMMETRIC_VERIFY'),(11,'CREATE_ASYMMETRIC_PRIV_KEY'),(12,'CREATE_ASYMMETRIC_PUB_KEY'),(13,'CREATE_DH_PARAMETERS'),(14,'CREATE_DIGEST'),(15,'FALSE'),(16,'TRUE'),(17,'BOOL'),(18,'BOOLEAN'),(19,'INT1'),(20,'UNSIGNED'),(21,'ZEROFILL'),(22,'INT2'),(23,'INT3'),(24,'MIDDLEINT'),(25,'INT4'),(26,'INTEGER'),(27,'INT8'),(28,'DEC'),(29,'FIXED'),(30,'NUMERIC'),(31,'DECIMAL'),(32,'FLOAT4'),(33,'FLOAT8'),(34,'PRECISION'),(35,'REAL'),(36,'DATE'),(37,'TIMESTAMP'),(38,'TIME'),(39,'CHARACTER'),(40,'NATIONAL'),(41,'NCHAR'),(42,'BYTE'),(43,'CHAR'),(44,'NVARCHAR'),(45,'VARCHARACTER'),(46,'VARYING'),(47,'LONG'),(48,'LONGBINARY'),(49,'ADD'),(50,'ALTER'),(51,'CREATE'),(52,'INDEX'),(53,'KEY'),(54,'TABLE'),(55,'='), (56,'<=>'),(57,'<>'),(58,'<='), (59,'<'),(60,'>='), (61,'>'),(62,'AND'),(63,'BETWEEN'),(64,'NOT'),(65,'COALESCE'),(66,'GREATEST'),(67,'IN'),(68,'INTERVAL'),(69,'IS'),(70,'NULL'),(71,'ISNULL'),(72,'LEAST'),(73,'OR'),(74,'XOR'),(75,':='),(76,'CASE'),(77,'ELSE'),(78,'END'),(79,'THEN'),(80,'WHEN'),(81,'IF'),(82,'IFNULL'),(83,'NULLIF'),(84,'+'),(85,'-'),(86,'*'),(87,'/'),(88,'DIV'),(89,'MOD'),(90,'ABS'),(91,'ACOS'),(92,'ASIN'),(93,'ATAN'),(94,'ATAN2'),(95,'CEIL'),(96,'CEILING'),(97,'CONV'),(98,'COS'),(99,'COT')
```

```
/*!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 2021-05-29 3:57:16
```

```
andrey@andrey-virtual-machine:~/CourseSQLBasics/HW2$
```