

Домашнее задание ко 9 уроку курса Базы данных

1. Создайте двух пользователей которые имеют доступ к базе данных shop. Первому пользователю shop_read должны быть доступны только запросы на чтение данных, второму пользователю shop - любые операции в пределах базы данных shop.
2. (по желанию) Пусть имеется таблица accounts содержащая три столбца id, name, password, содержащие первичный ключ, имя пользователя и его пароль. Создайте представление username таблицы accounts, предоставляющий доступ к столбца id и name. Создайте пользователя user_read, который бы не имел доступа к таблице accounts,однако, мог бы извлекать записи из представления username.

1. Создайте двух пользователей которые имеют доступ к базе данных shop. Первому пользователю shop_read должны быть доступны только запросы на чтение данных, второму пользователю shop - любые операции в пределах базы данных shop.

Дополнение. Создание пользователей см. файл "lesson_9_2_hw_1.sql"

1.1 просмотр созданных пользователей и их прав

```
sil@UbuntuDesktop: ~$ mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 9
Server version: 5.7.32-0ubuntu0.18.04.1 (Ubuntu)

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owners.

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

mysql> # Список пользователей mysql
mysql> SELECT user,host FROM mysql.user;
+-----+-----+
| user          | host          |
+-----+-----+
| user_1        | %             |
| user_2        | %             |
| debian-sys-maint | localhost    |
| mysql.session | localhost    |
| mysql.sys     | localhost    |
| root         | localhost    |
+-----+-----+
6 rows in set (0.00 sec)

mysql> # Права пользователей
mysql> SHOW GRANTS FOR user_1;
+-----+-----+
| Grants for user_1@% |
+-----+-----+
| GRANT USAGE ON *.* TO 'user_1'@'%' |
| GRANT SELECT ON `shop`.* TO 'user_1'@'%' |
+-----+-----+
2 rows in set (0.00 sec)

mysql> SHOW GRANTS FOR user_2;
+-----+-----+
| Grants for user_2@% |
+-----+-----+
| GRANT USAGE ON *.* TO 'user_2'@'%' |
| GRANT ALL PRIVILEGES ON `shop`.* TO 'user_2'@'%' WITH GRANT OPTION |
+-----+-----+
2 rows in set (0.00 sec)

mysql> exit
Bye
sil@UbuntuDesktop: ~$
```

1.2 Работа пользователя user_1

```
sil@UbuntuDesktop: ~  
sil@UbuntuDesktop:~$ mysql -u user_1 -p  
Enter password:  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 17  
Server version: 5.7.32-0ubuntu0.18.04.1 (Ubuntu)  
  
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owners.  
  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.  
  
mysql> SHOW DATABASES;  
+-----+  
| Database |  
+-----+  
| information_schema |  
| shop |  
+-----+  
2 rows in set (0.00 sec)  
  
mysql> USE shop;  
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_shop |  
+-----+  
| cat |  
| catalogs |  
| cities |  
| datetbl |  
| discounts |  
| flights |  
| orders |  
| orders_products |  
| products |  
| rubrics |  
| samples |  
| storehouses |  
| storehouses_products |  
| tbl_task_3 |  
| users |  
+-----+  
15 rows in set (0.00 sec)  
  
mysql> SELECT * FROM cat;  
+-----+  
| id | name |  
+-----+  
| 1 | Процессоры |  
| 2 | Мат. платы |  
| 3 | Видеокарты |  
+-----+  
3 rows in set (0.00 sec)  
  
mysql> INSERT INTO cat (name) VALUE ('aaaa');  
ERROR 1142 (42000): INSERT command denied to user 'user_1'@'localhost' for table 'cat'  
mysql> SHOW GRANTS;  
+-----+  
| Grants for user_1@% |  
+-----+  
| GRANT USAGE ON *.* TO 'user_1'@'%' |  
| GRANT SELECT ON `shop`.* TO 'user_1'@'%' |  
+-----+  
2 rows in set (0.00 sec)  
  
mysql> exit  
Bye  
sil@UbuntuDesktop:~$
```

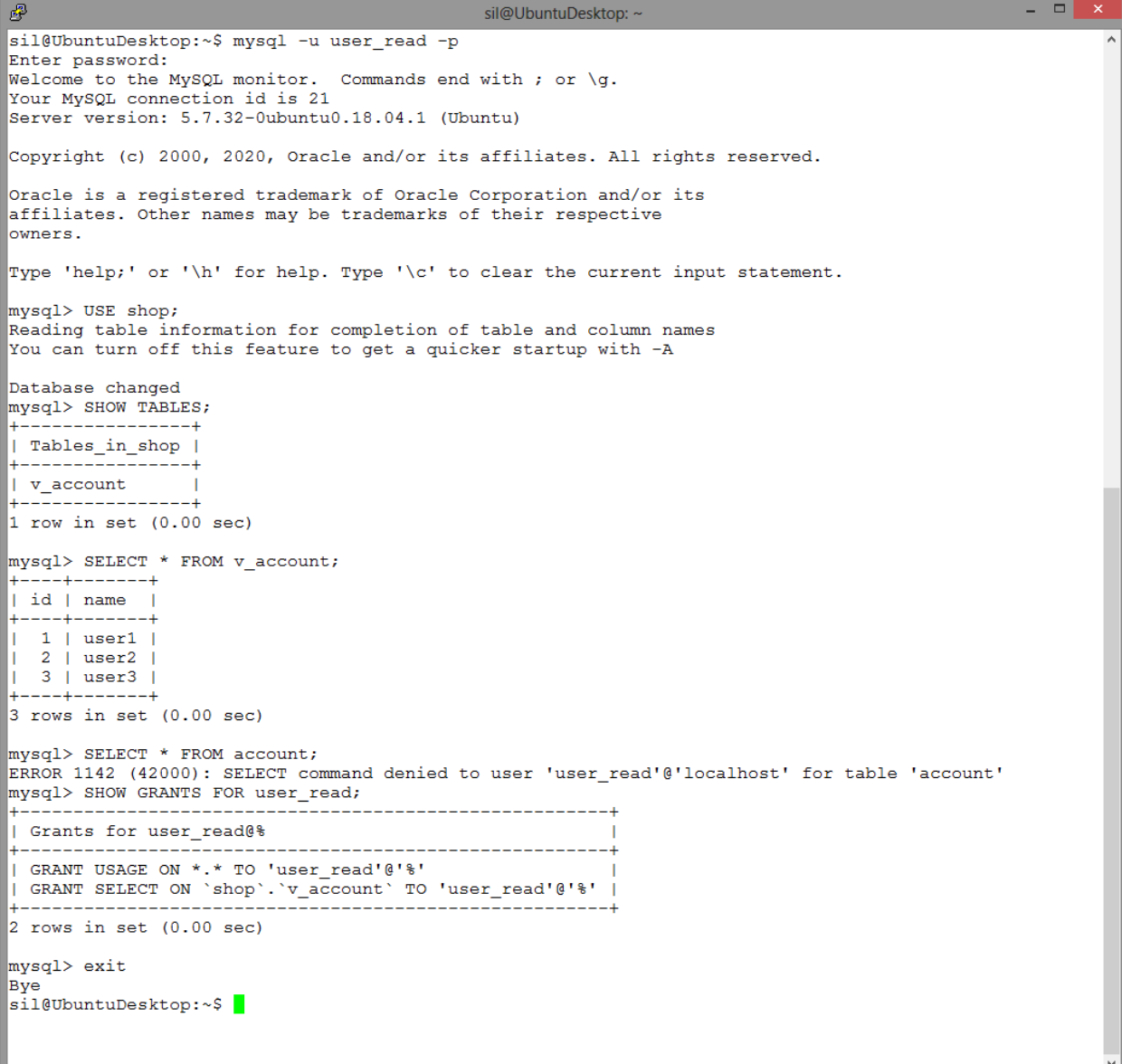
1.3 Работа пользователя user_2

```
sil@UbuntuDesktop: ~  
sil@UbuntuDesktop:~$ mysql -u user_2 -p  
Enter password:  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 15  
Server version: 5.7.32-0ubuntu0.18.04.1 (Ubuntu)  
  
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owners.  
  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.  
  
mysql> SHOW DATABASES;  
+-----+  
| Database |  
+-----+  
| information_schema |  
| shop |  
+-----+  
2 rows in set (0.00 sec)  
  
mysql> USE shop;  
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_shop |  
+-----+  
| cat |  
| catalogs |  
| cities |  
| datetbl |  
| discounts |  
| flights |  
| orders |  
| orders_products |  
| products |  
| rubrics |  
| samples |  
| storehouses |  
| storehouses_products |  
| tbl_task_3 |  
| users |  
+-----+  
15 rows in set (0.00 sec)  
  
mysql> SELECT * FROM cat;  
+-----+  
| id | name |  
+-----+  
| 1 | Процессоры |  
| 2 | Мат. платы |  
| 3 | Видеокарты |  
+-----+  
3 rows in set (0.00 sec)  
  
mysql> INSERT INTO cat (name) VALUE ('aaaa');  
Query OK, 1 row affected (0.01 sec)  
  
mysql> SHOW GRANTS;  
+-----+  
| Grants for user_2@% |  
+-----+  
| GRANT USAGE ON *.* TO 'user_2'@'%' |  
| GRANT ALL PRIVILEGES ON `shop`.* TO 'user_2'@'%' WITH GRANT OPTION |  
+-----+  
2 rows in set (0.00 sec)  
  
mysql> exit  
Bye  
sil@UbuntuDesktop:~$
```

2. (по желанию) Пусть имеется таблица accounts содержащая три столбца id, name, password, содержащие первичный ключ, имя пользователя и его пароль. Создайте представление username таблицы accounts, предоставляющий доступ к столбца id и name. Создайте пользователя user_read, который бы не имел доступа к таблице accounts,однако, мог бы извлекать записи из представления username.

Дополнение. Создание пользователей см. файл "lesson_9_2_hw_2.sql"

2.1 Работа пользователя user_read



```
sil@UbuntuDesktop: ~$ mysql -u user_read -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 21
Server version: 5.7.32-0ubuntu0.18.04.1 (Ubuntu)

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

mysql> USE shop;
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_shop |
+-----+
| v_account      |
+-----+
1 row in set (0.00 sec)

mysql> SELECT * FROM v_account;
+----+-----+
| id | name |
+----+-----+
|  1 | user1 |
|  2 | user2 |
|  3 | user3 |
+----+-----+
3 rows in set (0.00 sec)

mysql> SELECT * FROM account;
ERROR 1142 (42000): SELECT command denied to user 'user_read'@'localhost' for table 'account'
mysql> SHOW GRANTS FOR user_read;
+-----+
| Grants for user_read@% |
+-----+
| GRANT USAGE ON *.* TO 'user_read'@'%' |
| GRANT SELECT ON `shop`.`v_account` TO 'user_read'@'%' |
+-----+
2 rows in set (0.00 sec)

mysql> exit
Bye
sil@UbuntuDesktop: ~$
```