

Лабораторная работа №3

Цель: познакомиться с OrientDB. Создать тестовую базу данных, создать 2 коллекции, внести 5 записей, связать коллекции.

Ход работы:

Создали базу данных TEST (рис. 1)

```
orientdb {server=remote:localhost/data/db_orient/test}> CREATE DATABASE remote:localhost/data/db_orient/test root 1234 plocal
1
Creating database [remote:localhost/data/db_orient/test] using the storage type [PLOCAL]...
Database created successfully.
Current database is: remote:localhost/data/db_orient/test
orientdb {db=test}> _
```

Рис. 1

Создали вершины Product и Shop через команду CREATE CLASS <name>. Добавили поле name в каждую из коллекций через команду CREATE Property <name_class>.<name> <type>. Внесли по 5 записей в каждую коллекцию через команду CREATE VERTEX < name_class > set name = <name>. Результат на рис. 2-3.

```
orientdb {db=test}> CREATE CLASS Product extends V
Class created successfully.
orientdb {db=test}> CREATE CLASS Shop extends V
Class created successfully.
orientdb {db=test}> CREATE Property Shop.name STRING
Property created successfully.
orientdb {db=test}> CREATE Property PRODUCT.name STRING
Property created successfully.
orientdb {db=test}> CREATE VERTEX Product set name = 'Book'
Created vertex '[Product#40:0{name:Book} v1]' in 0,005000 sec(s).
orientdb {db=test}> CREATE VERTEX Product set name = 'Notebook'
Created vertex '[Product#41:0{name:Notebook} v1]' in 0,001000 sec(s).
orientdb {db=test}> CREATE VERTEX Product set name = 'Pen'
Created vertex '[Product#42:0{name:Pen} v1]' in 0,001000 sec(s).
orientdb {db=test}> CREATE VERTEX Product set name = 'n'
Created vertex '[Product#43:0{name:n} v1]' in 0,002000 sec(s).
orientdb {db=test}> CREATE VERTEX Product set name = 'Ruler'
Created vertex '[Product#44:0{name:Ruler} v1]' in 0,002000 sec(s).
orientdb {db=test}> CREATE VERTEX Product set name = 'Eraser'
```

Рис. 2

```

orientdb {db=test}> CREATE VERTEX Shop set name = 'Shop_1'
Created vertex '[Shop#46:0{name:Shop_1} v1]' in 0,001000 sec(s).
orientdb {db=test}> CREATE VERTEX Shop set name = 'Shop_2'
Created vertex '[Shop#47:0{name:Shop_2} v1]' in 0,001000 sec(s).
orientdb {db=test}> CREATE VERTEX Shop set name = 'Shop_3'
Created vertex '[Shop#48:0{name:Shop_3} v1]' in 0,001000 sec(s).
orientdb {db=test}> CREATE VERTEX Shop set name = 'Shop_4'
Created vertex '[Shop#49:0{name:Shop_4} v1]' in 0,002000 sec(s).
orientdb {db=test}> CREATE VERTEX Shop set name = 'Shop_5'
Created vertex '[Shop#50:0{name:Shop_5} v1]' in 0,002000 sec(s).

```

Рис. 3

Создали связь между некоторыми записями (рис. 4)

```

orientdb {db=test}> create class Connection extends E
Class created successfully.
orientdb {db=test}> create edge Connection from #40:0 to #46:0
+---+-----+-----+-----+
|# |@RID |@CLASS  |out |in |
+---+-----+-----+-----+
|0 |#52:0|Connection|#40:0|#46:0|
+---+-----+-----+-----+
Created '1' edges in 0,009000 sec(s).

orientdb {db=test}> create edge Connection from #42:0 to #47:0
+---+-----+-----+-----+
|# |@RID |@CLASS  |out |in |
+---+-----+-----+-----+
|0 |#53:0|Connection|#42:0|#47:0|
+---+-----+-----+-----+
Created '1' edges in 0,002000 sec(s).

orientdb {db=test}> create edge Connection from #43:0 to #48:0 set MyFieldName = 1
+---+-----+-----+-----+-----+
|# |@RID |@CLASS  |out |in |MyFieldName|
+---+-----+-----+-----+-----+
|0 |#54:0|Connection|#43:0|#48:0|1|
+---+-----+-----+-----+-----+
Created '1' edges in 0,003000 sec(s).

```

Рис. 4

Все записи между таблицами на рис. 5

```

orientdb {db=test}> select from V
+---+-----+-----+-----+-----+-----+
|# |@RID |@CLASS  |name |out_Connection|in_Connection|
+---+-----+-----+-----+-----+-----+
|0 |#40:0|Product |Book |[#52:0]       |              |
|1 |#41:0|Product |Notebook|              |              |
|2 |#42:0|Product |Pen   |[#53:0]       |              |
|3 |#43:0|Product |n     |[#54:0]       |              |
|4 |#44:0|Product |Ruler |              |              |
|5 |#45:0|Product |Eraser|              |              |
|6 |#46:0|Shop   |Shop_1|              |[#52:0]       |
|7 |#47:0|Shop   |Shop_2|              |[#53:0]       |
|8 |#48:0|Shop   |Shop_3|              |[#54:0]       |
|9 |#49:0|Shop   |Shop_4|              |              |
|10|#50:0|Shop   |Shop_5|              |              |
+---+-----+-----+-----+-----+-----+

11 item(s) found. Query executed in 0.007 sec(s).
orientdb {db=test}>

```

Рис. 5