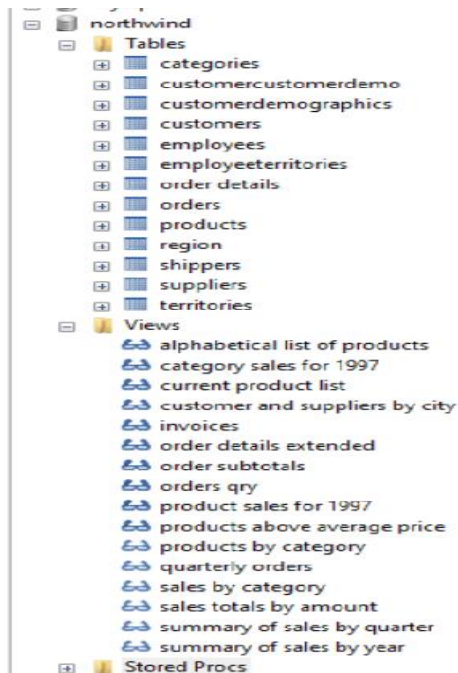




# STORED PROCEDURE

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өгсөн датаг өгөгдлийн сан дээр  
боловсруулж хүснэгт ээ үүсгэв.

## Даалгавар 7 (use NorthWind)

1. Ажилтны дэлгэрэнгүй мэдээллийг хэвлэж гаргах stored procedure бич
2. 1998 оны шилдэг ажилтанг захиалга хүргэж өгсөн тоо, хүргэж өгдөг дундаж хугацаагаар нь шалгаруулан олох stored procedure бич
3. Өмнөх (1) гэсэн даалгавраар хийсэн stored procedure өмнө нь өгөгдлийн санд үүссэн бол устгаад шинээр үүсгэдэг байхаар (1) гэсэн stored procedure-ийн кодыг өөрчил
4. Оны шилдэг захиалагчийг өөрийн сонгон шалгаруулалтаар олох stored procedure бич
5. (4) даалгавраар хийсэн stored procedure ашиглан бүх оны шилдгийн шилдэг захиалагчийн тухай мэдээллийг хэвлэж гаргах stored procedure бич.
6. Хамгийн их орлого оруулсан үйлчлүүлэгчдийг нийт орлогын 3 хувьтай тэнцэх мөнгийг олгохоор болжээ. Энэ жагсаалтыг үйлчлүүлэгчийн нэр, орлогын нийт мөнгөн дүн, 3 хувьтай тэнцэх мөнгөн дүн зэргээр хэвлэж гаргах stored procedure бич.

1.

The screenshot shows the SQLyog Ultimate interface with the 'northwind' database selected. The 'Query' tab is active, displaying a SQL script that creates a stored procedure named 'get\_employee\_details'. The script includes a 'BEGIN' statement, a 'SELECT' query from the 'employees' table, and an 'END' statement. The 'Messages' tab at the bottom shows '0 row(s) affected' and execution statistics: Execution Time: 00:00:00:015, Transfer Time: 00:00:01:000, Total Time: 00:00:01:015. The status bar at the bottom indicates 'Query batch completed successfully'.

```

1  BEGIN
2  //
3  CREATE PROCEDURE get_employee_details(@EmployeeID INT(4), @LastName VARCHAR(20), @FirstName VARCHAR(10), @Title VARCHAR(30), @TitleOfCourtesy VARCHAR(25), @Birth
4  BEGIN
5      SELECT *
6      FROM employees
7      WHERE employee_id = @emp_id;
8  END
9  //
10 BEGIN;

```

Execution Time : 00:00:00:015  
Transfer Time : 00:00:01:000  
Total Time : 00:00:01:015

Query batch completed successfully Exec: 00:00:00:015 Total: 00:00:01:015 Ln 1, Col 1 Connections: 1 Registered To: SEAS

2.

The screenshot shows the SQLyog Ultimate interface with the 'northwind' database selected. The 'Query' tab is active, displaying a SQL script that creates a stored procedure named 'bringsa\_in\_iday'. The script includes a 'BEGIN' statement, a 'SELECT' query from the 'orders' table, and an 'END' statement. The 'Result' tab at the bottom shows the results of the query, which includes columns for 'average', 'EmployeeID', 'LastName', 'FirstName', and 'OrderDate'. The status bar at the bottom indicates 'Query batch completed successfully'.

```

11 //1996 оны шундг эхлэлтэй захиалга хүртэл өгсөн тоо, хүртэл өгсөн дундаж хугацаагаар нь шалгаруулан олж stored PROCEDURE бич
12
13
14
15
16 CREATE PROCEDURE bringsa_in_iday()
17 BEGIN
18     SELECT ((COUNT(o.EmployeeID))/(TIMESTAMPDIFF(DAY, OrderDate, ShippedDate))) AS average, o.EmployeeID, e.LastName, e.FirstName, OrderDate
19     FROM orders o
20     INNER JOIN employees e
21     ON e.EmployeeID = o.EmployeeID
22     WHERE (OrderDate LIKE "1996-4")
23     GROUP BY o.EmployeeID
24     ORDER BY average DESC
25 END
26
27
28

```

average	EmployeeID	LastName	FirstName	OrderDate
7.7500	4	Peacock	Margaret	1996-07-08 00:00:00
6.3333	8	Callahan	Laura	1996-07-22 00:00:00
5.5000	7	King	Robert	1996-08-26 00:00:00
4.3333	1	Devolio	Nancy	1996-07-17 00:00:00
3.0000	6	Suyama	Michael	1996-07-05 00:00:00
2.5714	3	Leverling	Janet	1996-07-08 00:00:00
1.6667	9	Dodsworth	Anne	1996-07-12 00:00:00
0.9167	5	Buchanan	Steven	1996-07-04 00:00:00
0.8889	2	Fuller	Andrew	1996-07-25 00:00:00

Query batch completed successfully Exec: 00:00:00:000 Total: 00:00:00:000 9 row(s) Ln 26, Col 1 Connections: 1 Registered To: SEAS

3.

The screenshot shows the SQLyog Ultimate interface with the 'northwind' database selected. The 'Query' window displays the following SQL code:

```
25
26
27 //3. Өгөгж (1) гэсэн даалгараар хийсэн stored PROCEDURE өгөгж нь өгөгдлийн санд
28 үүссэн бол устгаад шинээр үүсгэдэг байхаар (1) гэсэн stored PROCEDURE-ийн
29 кодыг өөрчил
30
31
32 DROP PROCEDURE IF EXISTS get_employee_details
33
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```

The 'Messages' window shows the execution results:

```
0 row(s) affected
Execution Time : 00:00:00:031
Transfer Time : 00:00:01:016
Total Time : 00:00:01:047
```

The status bar at the bottom indicates 'Query batch completed successfully' with execution time 'Exec: 00:00:00:031' and total time 'Total: 00:00:01:047'.

The screenshot shows the SQLyog Ultimate interface with the 'northwind' database selected. The 'Query' window displays the following SQL code:

```
25
26
27 //3. Өгөгж (1) гэсэн даалгараар хийсэн stored PROCEDURE өгөгж нь өгөгдлийн санд
28 үүссэн бол устгаад шинээр үүсгэдэг байхаар (1) гэсэн stored PROCEDURE-ийн
29 кодыг өөрчил
30
31
32 DROP PROCEDURE IF EXISTS get_employee_details
33
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41
42
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50
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```

The 'Messages' window shows the execution results:

```
0 row(s) affected
Execution Time : 00:00:00:031
Transfer Time : 00:00:01:015
Total Time : 00:00:01:046
```

The status bar at the bottom indicates 'Query batch completed successfully' with execution time 'Exec: 00:00:00:031' and total time 'Total: 00:00:01:046'.

#### 4. Оны шилдэг захиалагчийг өөрийн сонгон шалгаруулалтаар олох stored procedure бич

The screenshot displays the SQLyog Ultimate interface. On the left, a tree view shows the database structure, including tables like 'territories', 'views', and 'stored procs'. The 'stored procs' folder is expanded, showing a list of procedures such as 'sp\_CheckAverageDeliveryTime', 'sp\_employees\_cursor', and 'sp\_employees\_rank'. The main window shows a query editor with the following SQL code:

```
1 BEGIN
2 CREATE PROCEDURE Sainzahalagch (@YEAR INT, @CUST CustomerName VARCHAR(255), @TOT totalOrders INT)
3 BEGIN
4     SELECT
5         c.ContactName,
6         o.OrderID
7     INTO
8         CustomerName,
9         totalOrders
10    FROM
11        Customers c
12        INNER JOIN Orders o ON c.CustomerID = o.CustomerID
13    WHERE
14        YEAR(o.OrderDate) = @YEAR
15    GROUP BY
16        c.CustomerID
17    ORDER BY
18        COUNT(o.OrderID) DESC
19    LIMIT 1;
20 END
21
```

Below the query editor, the 'Messages' tab shows the execution results:

```
0 row(s) affected
Execution Time : 00:00:00:000
Transfer Time : 00:00:01:015
Total Time : 00:00:01:015
```

The status bar at the bottom indicates 'Query batch completed successfully' and shows execution statistics: 'Exec: 00:00:00:000', 'Total: 00:00:01:015', 'Ln 0, Col 1', 'Connections: 1', and 'Registered To: SEAS'.

5.

The screenshot shows the SQLyog Ultimate interface with the 'test' database selected. The left sidebar displays the database schema, including tables like 'employees' and 'orders'. The main window shows the execution of a stored procedure named 'bugsainuud'. The query text is as follows:

```

DELIMITER ;;
CREATE PROCEDURE bugsainuud()
BEGIN
    DECLARE year_val INT;
    DECLARE bestCustomer VARCHAR(50);
    DECLARE totalOrders INT;
    CREATE TEMPORARY TABLE SainCustomersOffEachYear (
        J11 INT,
        Herelegchiin_ner VARCHAR(50),
        Huit_sahialga INT
    );
    SET year_val = 1996;
    WHILE year_val <= 1998 DO
        CALL Sainshahialgch(year_val, @bestCustomer, @totalOrders);
        INSERT INTO SainCustomersOffEachYear(J11, Herelegchiin_ner, Huit_sahialga)
        VALUES (year_val, @bestCustomer, @totalOrders);
        SET year_val = year_val + 1;
    END WHILE;
    SELECT J11, Herelegchiin_ner, Huit_sahialga
    FROM SainCustomersOffEachYear;
    DROP TEMPORARY TABLE IF EXISTS SainCustomersOffEachYear;
END ;;
DELIMITER ;

```

The execution results show 0 rows affected. The status bar at the bottom indicates 'Query batch completed successfully'.

Jil burin buh sainuud

The screenshot shows the SQLyog Ultimate interface with the 'test' database selected. The left sidebar displays the database schema. The main window shows the execution of the stored procedure 'bugsainuud'. The query text is the same as in the previous screenshot. However, the execution results show an error:

```

CALL bugsainuud()

```

The error message is: 'Error: 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '' at line 1'. The status bar at the bottom indicates 'Query batch completed with error(s)'.

6. Хамгийн их орлого оруулсан үйлчлүүлэгчдийг нийт орлогын 3 хувьтай тэнцэх мөнгийг олгохоор болжээ. Энэ жагсаалтыг үйлчлүүлэгчийн нэр, орлогын нийт мөнгөн дүн, 3 хувьтай тэнцэх мөнгөн дүн зэргээр хэвлэж гаргах stored procedure бич.

