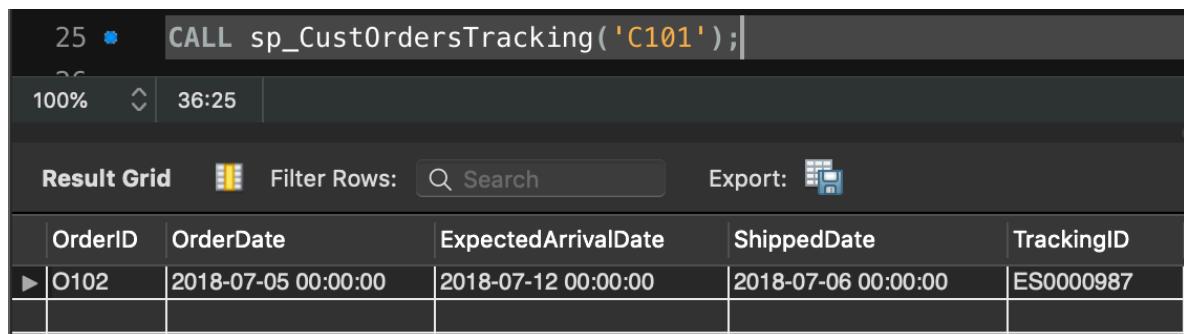


## Screen shots of running results for stored procedures and views

### 1. Stored Procedure 1:

```
CREATE PROCEDURE sp_CustOrdersTracking(in AtCustomerID
varchar(5))
BEGIN
    SELECT OrderID,
    OrderDate,
    ExpectedArrivalDate,
    ShippedDate,
    TrackingID
FROM OrdersInfo
WHERE CustomerID = AtCustomerID
ORDER BY OrderID;
END $$
DELIMITER ;
```



25 • CALL sp\_CustOrdersTracking('C101');

100% 36:25

Result Grid Filter Rows: Search Export:

	OrderID	OrderDate	ExpectedArrivalDate	ShippedDate	TrackingID
▶	O102	2018-07-05 00:00:00	2018-07-12 00:00:00	2018-07-06 00:00:00	ES0000987

### 2. Stored Procedure 2:

```
CREATE PROCEDURE sp_Sales_by_Month(in AtBeginning_Date
Datetime,in AtEnding_Date Datetime)
BEGIN
    SELECT OrdersInfo.ShippedDate,
    OrdersInfo.OrderID,
    vw_Order_Sales.Sales,
    ShippedDate AS Month
FROM OrdersInfo LEFT JOIN vw_Order_Sales ON
OrdersInfo.OrderID = vw_Order_Sales.OrderID
WHERE ShippedDate in (Select ShippedDate from OrdersInfo
                        where OrdersInfo.ShippedDate
Between AtBeginning_Date And AtEnding_Date);
END $$
DELIMITER ;
```

```
48 • CALL sp_Sales_by_Month('2018-07-06 00:00:00.000', '2018-07-12 00:00:00.000');
49
```

100% 7:45

Result Grid Filter Rows: Search Export:

ShippedDate	OrderID	Sales	Month
2018-07-06 00:00:00	O102	837.0000	2018-07-06 00:00:00
2018-07-09 00:00:00	O103	1095.0000	2018-07-09 00:00:00
2018-07-09 00:00:00	O104	942.0000	2018-07-09 00:00:00
2018-07-10 00:00:00	O105	428.1000	2018-07-10 00:00:00
2018-07-11 00:00:00	O106	957.0000	2018-07-11 00:00:00
2018-07-12 00:00:00	O107	465.0000	2018-07-12 00:00:00

### 3. Stored Procedure 3:

```
CREATE PROCEDURE sp_AddModify_OrderDetailsAndProducts(
IN order_ID NVARCHAR(10),
IN product_ID NVARCHAR(10),
IN quantity_bought INT(2))

BEGIN

IF quantity_bought > (SELECT UnitsInStock FROM ProductsInfo
WHERE ProductID = product_id) THEN

signal sqlstate '45000' set message_text = 'Quantity of
product ordered is larger than instock quantity.';

ELSE
INSERT INTO OrderDetailsInfo VALUES
(order_ID,
product_ID,
(SELECT UnitPrice FROM ProductsInfo WHERE ProductID =
product_id),
quantity);

UPDATE ProductsInfo
SET UnitsInStock = UnitsInStock - quantity_bought
WHERE ProductID = product_id;

END IF;

END $$
DELIMITER ;
```

```

100 CALL sp_AddModify_OrderDetailsAndProducts('0111', 'P101', 10);
101 select * from OrderDetailsInfo;#
102 # -----

```

100% 1:99

**Result Grid** Filter Rows: Search Edit: Export/Import:

	OrderID	ProductID	UnitPrice	Quantity
▶	O101	P111	5.0000	6
	O101	P116	5.0000	15
	O102	P107	30.0000	6
	O102	P109	97.0000	6
	O102	P117	5.0000	15
	O103	P108	40.0000	15
	O103	P110	31.0000	15
	O103	P117	5.0000	6
	O104	P104	22.0000	15

# Calling following stored procedure will give customized error which we created in our procedure since quantity ordered for the product > in stock quantity

```
CALL sp_AddModify_OrderDetailsAndProducts('0111', 'P110', 1000);
```

```

80 CALL sp_AddModify_OrderDetailsAndProducts('0111', 'P110', 1000);
81

```

100% 27:77

Action Output

	Time	Action	Response
✓ 878	12:01:25	select AVG(Sales) as AOV from vw_Order_Sales L...	1 row(s) returned
✗ 879	12:14:07	CALL sp_AddModify_OrderDetailsAndProducts('...	Error Code: 1644. Quantity of product ordered is larger than instock quantity.

#### 4. Stored Procedure 4:

```

CREATE PROCEDURE sp_AddModify_Products(
IN product_id NVARCHAR(10),
IN product_name NVARCHAR(40),
IN supplier_id NVARCHAR(10),
IN category_id NVARCHAR(10),
IN qty_perunit NVARCHAR(20),
IN unit_price FLOAT(10,4),
IN units_toinsert INT(2),
IN unitson_order INT(2))

```

```
BEGIN
```

```
IF NOT EXISTS (SELECT * FROM ProductsInfo WHERE ProductID =
product_id ) THEN
```

```
INSERT INTO ProductsInfo VALUES
(product_id,
product_name,
supplier_id,
category_id,
qty_perunit,
unit_price,
units_toinsert,
unitson_order);
```

```
ELSE
```

```
UPDATE ProductsInfo
SET
UnitsInStock = UnitsInStock + units_toinsert
WHERE ProductID = product_id;
```

```
END IF;
```

```
END $$
```

```
DELIMITER ;
```

```
Select * from ProductsInfo where ProductId = 'P110'
# Below product has quantity 330
```

76 • CALL sp\_AddModify\_Products('P110', 'Ball Pen', 'S105', 'C104', '10 pens per packet', 11, 10, 0);  
77 • Select \* from ProductsInfo where ProductId = 'P110'

100% 27:74 1 error found

Result Grid Filter Rows: Search Edit: Export/Import:

ProductID	ProductN...	SupplierID	CategoryID	QuantityPer...	UnitPrice	UnitsInStock	UnitsOnOrder
P110	Ikura	S105	CA108	12 - 200 ml jars	31.0000	330	0

```
CALL sp_AddModify_Products('P110', 'Ball Pen', 'S105', 'C104',
'10 pens per packet', 11, 10, 0);
Select * from ProductsInfo where ProductId = 'P110'
#After executing the procedure UnitsInStock is changed to 340
```

83 • CALL sp\_AddModify\_Products('P110', 'Ball Pen', 'S105', 'C104', '10 pens per packet', 11, 10, 0);  
84

100% 1:82 1 error found

Action Output

	Time	Action	Response
✓ 882	12:27:50	Select * from ProductsInfo where ProductId = 'P1...	1 row(s) returned
✓ 883	12:31:01	CALL sp AddModify Products('P110', 'Ball Pen', '...	1 row(s) affected

```

83 • CALL sp_AddModify_Products('P110', 'Ball Pen', 'S105', 'C104', '10 pens per packet', 11, 10, 0);
84 • Select * from ProductsInfo where ProductId = 'P110'

```

100% 1:82 1 error found

Result Grid Filter Rows: Search Edit: Export/Import:

ProductID	ProductN...	SupplierID	CategoryID	QuantityPer...	UnitPrice	UnitsInStock	UnitsOnOrder
P110	lkura	S105	CA108	12 - 200 ml jars	31.0000	340	0

## 5. View 1:

```

CREATE VIEW vw_Products_Above_Average_Price
AS
SELECT ProductName, UnitPrice
FROM ProductsInfo
WHERE UnitPrice > (SELECT AVG(UnitPrice) From ProductsInfo);
-- subquery

```

```

56 • select * from vw_Products_Above_Average_Price;

```

100% 27:54

Result Grid Filter Rows: Search Export:

ProductName	UnitPrice
Chang	19.0000
Chef Anton's Cajun Seaso...	22.0000
Chef Anton's Gumbo Mix	21.3500
Grandma's Boysenberry S...	25.0000
Uncle Bob's Organic Dried...	30.0000
Northwoods Cranberry Sa...	40.0000
Mishi Kobe Niku	97.0000
lkura	31.0000

## 6. View 2:

```

CREATE VIEW vw_Order_Sales AS
SELECT OrderDetailsInfo.OrderID,
Sum(OrderDetailsInfo.UnitPrice*Quantity) AS Sales
FROM OrderDetailsInfo
GROUP BY OrderDetailsInfo.OrderID;

```

57 • `select * from vw_Order_Sales;`

100% 47:56

Result Grid Filter Rows: Search

OrderID	Sales	
O101	105.0000	
O102	837.0000	
O103	1095.0000	
O104	942.0000	
O105	428.1000	
O106	957.0000	
O107	465.0000	
O108	30.0000	
O109	72.0000	
O110	495.0000	
O111	693.0000	
O112	30.0000	

# This view can be used to create Average Order Value (AOV) by using a simple select query as follows:  
 Select AVG(Sales) as AOV  
 from vw\_Order\_Sales

57 • `select AVG(Sales) as AOV from vw_Order_Sales;`

100% 27:54

Result Grid Filter Rows: Search Export:

AOV
510.92500019

## 7. View 3:

```
CREATE VIEW vw_Invoices
AS
SELECT
    Orders.ShipName AS ShipName,
    Orders.ShipAddress AS ShipAddress,
    Orders.ShipCity AS ShipCity,
    Orders.ShipRegion AS ShipRegion,
    Orders.ShipPostalCode AS ShipPostalCode,
    Orders.ShipCountry AS ShipCountry,
    Orders.CustomerID AS CustomerID,
    Customers.FirstName AS FirstName,
```

```

Customers.LastName AS LastName,
Customers.CustomerAddress AS CustomerAddress,
Customers.CustomerCity AS CustomerCity,
Customers.CustomerRegion AS CustomerRegion,
Customers.CustomerPostalCode AS CustomerPostalCode,
Customers.CustomerCountry AS CustomerCountry,
(Employees.FirstName + ' ' + Employees.LastName) AS
Salesperson,
Orders.OrderID AS OrderID,
Orders.OrderDate AS OrderDate,
Orders.ExpectedArrivalDate AS ExpectedArrivalDate,
Orders.ShippedDate AS ShippedDate,
Shippers.CompanyName As ShipperName,
`Order Details`.ProductID AS ProductID,
Products.ProductName AS ProductName,
`Order Details`.UnitPrice AS UnitPrice,
`Order Details`.Quantity AS Quantity,
FLOOR(`Order Details`.UnitPrice*Quantity) AS ExtendedPrice,
-- truncate to nearest dollars
Orders.FreightAmount AS FreightAmount
FROM CustomersInfo as Customers
LEFT JOIN OrdersInfo as Orders ON Customers.CustomerID =
Orders.CustomerID
LEFT JOIN EmployeesInfo as Employees ON
Employees.EmployeeID = Orders.EmployeeID
LEFT JOIN OrderDetailsInfo as `Order Details` ON
Orders.OrderID = `Order Details`.OrderID
LEFT JOIN ProductsInfo as Products ON Products.ProductID =
`Order Details`.ProductID
LEFT JOIN ShippersInfo as Shippers ON Shippers.ShipperID =
Orders.ShipperID;

```

58 • select \* from vw\_Invoices;  
59  
60  
100% 30:57

Result Grid Filter Rows: Search Export

ShipName	ShipAddress	ShipCity	ShipReg...	ShipPostal...	ShipCou...	Custom...	FirstNa...	LastNa...	CustomerAddress	Customer...	CustomerRe...	CustomerPosta...	Cus...
Toms Spezialitten	Luisenstr. 48	Prineville	OR	97754	USA	C101	Schmitt	Carine	54 rue Royale	Lynwood	WA	90262	USA
Toms Spezialitten	Luisenstr. 48	Prineville	OR	97754	USA	C101	Schmitt	Carine	54 rue Royale	Lynwood	WA	90262	USA
Toms Spezialitten	Luisenstr. 48	Prineville	OR	97754	USA	C101	Schmitt	Carine	54 rue Royale	Lynwood	WA	90262	USA
Vins et alcools Che...	59 rue de l-Abb...	Mount Vernon	WA	98274	USA	C102	King	Jean	8489 Strong St.	Las Vegas	NV	89108	USA
Vins et alcools Che...	59 rue de l-Abb...	Mount Vernon	WA	98274	USA	C102	King	Jean	8489 Strong St.	Las Vegas	NV	89108	USA
Victuailles en stock	2, rue du Comm...	Paradise Va...	AZ	85253	USA	C103	Ferguson	Peter	636 St Kilda Road	Bothell	WA	98012	USA
Victuailles en stock	2, rue du Comm...	Paradise Va...	AZ	85253	USA	C103	Ferguson	Peter	636 St Kilda Road	Bothell	WA	98012	USA
Victuailles en stock	2, rue du Comm...	Paradise Va...	AZ	85253	USA	C103	Ferguson	Peter	636 St Kilda Road	Bothell	WA	98012	USA
Hanari Carnes	Rua do Pao, 67	Buckeye	AZ	85326	USA	C104	Labrune	Janine	67, rue des Cinquante O...	Bellevue	WA	98006	USA
Hanari Carnes	Rua do Pao, 67	Buckeye	AZ	85326	USA	C104	Labrune	Janine	67, rue des Cinquante O...	Bellevue	WA	98006	USA
Hanari Carnes	Rua do Pao, 67	Buckeye	AZ	85326	USA	C104	Labrune	Janine	67, rue des Cinquante O...	Bellevue	WA	98006	USA
Rattlesnake Canyo...	2817 Milton Dr.	Albuquerque	NM	87110	USA	C104	Labrune	Janine	67, rue des Cinquante O...	Bellevue	WA	98006	USA
Hanari Carnes	Rua do Pao, 67	Lysite	WY	82642	USA	C105	Bergulf...	Jonas	Erling Skakkes gate 78	Bellevue	WA	98006	USA
Hanari Carnes	Rua do Pao, 67	Lysite	WY	82642	USA	C105	Bergulf...	Jonas	Erling Skakkes gate 78	Bellevue	WA	98006	USA
Suprmes dlces	Boulevard Tirou...	Newark	CA	94560	USA	C106	Nelson	Susan	5677 Strong St.	San Rafael	CA	94901	USA
Suprmes dlces	Boulevard Tirou...	Newark	CA	94560	USA	C106	Nelson	Susan	5677 Strong St.	San Rafael	CA	94901	USA
Suprmes dlces	Boulevard Tirou...	Newark	CA	94560	USA	C106	Nelson	Susan	5677 Strong St.	San Rafael	CA	94901	USA
Suprmes dlces	Boulevard Tirou...	Newark	CA	94560	USA	C106	Nelson	Susan	5677 Strong St.	San Rafael	CA	94901	USA
HULL	HULL	HULL	HULL	HULL	HULL	HULL	Piestrz...	Zbyszek	ul. Filtrowa 68	Orange	CA	92867	USA
Chop-suey Chinese	Hauptstr. 31	Wood Lake	MN	56297	USA	C108	Keitel	Roland	Lyonerstr. 34	Auburn	AL	36830	USA
Chop-suey Chinese	Hauptstr. 31	Wood Lake	MN	56297	USA	C108	Keitel	Roland	Lyonerstr. 34	Auburn	AL	36830	USA
Chop-suey Chinese	Hauptstr. 31	Wood Lake	MN	56297	USA	C108	Keitel	Roland	Lyonerstr. 34	Auburn	AL	36830	USA
Chop-suey Chinese	Hauptstr. 31	Wood Lake	MN	56297	USA	C108	Keitel	Roland	Lyonerstr. 34	Auburn	AL	36830	USA
Richter Supermarkt	Starenweg 5	Annnville	PA	17003	USA	C109	Murphy	Julie	5557 North Pendale Street	San Fran...	CA	94112	USA

# We can further filter the view and check invoices by customer

Select \* from vw\_Invoices where CustomerID = 'C101'

```
58 select * from vw_Invoices
59 where CustomerID = 'C101';
```

100% 30:57

Result Grid Filter Rows: Search Export:

ShipName	ShipAddress	ShipCity	ShipReg...	ShipPostal...	ShipCou...	Custom...	FirstNa...	LastNa...	CustomerAd...	Customer...	CustomerRe...	CustomerPosta...	CustomerCo...	Salesper...
Toms Spezialitten	Luisenstr. 48	Prineville	OR	97754	USA	C101	Schmitt	Carine	54 rue Royale	Lynwood	WA	90262	USA	0
Toms Spezialitten	Luisenstr. 48	Prineville	OR	97754	USA	C101	Schmitt	Carine	54 rue Royale	Lynwood	WA	90262	USA	0
Toms Spezialitten	Luisenstr. 48	Prineville	OR	97754	USA	C101	Schmitt	Carine	54 rue Royale	Lynwood	WA	90262	USA	0

## 8. View 4:

CREATE VIEW vw\_Alphabetical\_list\_of\_products

AS

SELECT Products.\*, Categories.CategoryName

FROM CategoriesInfo Categories

LEFT JOIN ProductsInfo Products ON Categories.CategoryID = Products.CategoryID

ORDER BY Products.ProductName;

```
59 select * from vw_Alphabetical_list_of_products;
```

100% 27:58

Result Grid Filter Rows: Search Export:

ProductID	ProductName	SupplierID	CategoryID	QuantityPerUnit	UnitPrice	UnitsInStock	UnitsOnOrder	CategoryName
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	Fruits/Vegeta...
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	Grains/Cereals
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	Confections
P103	Aniseed Syrup	S101	CA102	12 - 550 ml bottles	10.0000	130	70	Condiments
P114	Blind clips	S106	CA109	10 Packets X 20 b...	2.0000	500	0	Office
P118	Butter	S109	CA104	12 - 200 ml jars	15.0000	400	0	Dairy Products
P101	Chai	S101	CA101	10 boxes x 20 bags	18.0000	380	0	Beverages
P102	Chang	S101	CA101	24 - 12 oz bottles	19.0000	170	40	Beverages
P119	Cheese	S109	CA104	12 - 200 ml jars	10.0000	300	0	Dairy Products
P104	Chef Anton's Cajun Sea...	S102	CA102	48 - 6 oz jars	22.0000	530	0	Condiments
P105	Chef Anton's Gumbo Mix	S102	CA102	36 boxes	21.3500	100	0	Condiments
P116	Glue sticks	S108	CA109	10 Packets X 20 b...	5.0000	400	0	Office
P106	Grandma's Boysenberry...	S103	CA102	12 - 8 oz jars	25.0000	120	0	Condiments
P117	Highlighters	S108	CA109	10 Packets X 20 b...	5.0000	400	0	Office
P110	Ikura	S105	CA108	12 - 200 ml jars	31.0000	320	0	Seafood
P112	Markers	S106	CA109	10 Packets X 20 b...	5.0000	350	0	Office
P120	Milk	S109	CA104	12 - 200 ml jars	3.0000	300	0	Dairy Products
P109	Mishi Kobe Niku	S104	CA106	18 - 500 g pkgs.	97.0000	290	0	Meat/Poultry
P108	Northwoods Cranberry...	S103	CA102	12 - 12 oz jars	40.0000	601	0	Condiments
P113	Paper clips	S106	CA109	10 Packets X 20 b...	2.0000	500	0	Office
P111	Pen	S105	CA109	10 Packets X 20 b...	5.0000	310	0	Office