

```
1A. CREATE VIEW MAJOR_CUSTOMER AS
SELECT CUSTOMER.CUSTOMER_NUM, CUSTOMER.CUSTOMER_NAME, CUSTOMER.BALANCE,
Customer.CREDIT_LIMIT, CUSTOMER.REP_NUM
FROM CUSTOMER
WHERE CUSTOMER.CREDIT_LIMIT <= '10000'
```

The screenshot shows a SQL Server Enterprise Manager window with two tabs: 'SQLQuery2.sql - W7...(OEC\duboisj (53))' and 'SQLQuery1.sql - W7...(OEC\duboisj (52))'. The 'SQLQuery2.sql' tab is active, displaying the SQL code for creating a view and a query to select from it. The 'Results' pane shows the output of the query, which is a table with 10 rows and 5 columns: CUSTOMER\_NUM, CUSTOMER\_NAME, BALANCE, CREDIT\_LIMIT, and REP\_NUM. The status bar at the bottom indicates 'Query executed successfully.' and '10 rows'.

|    | CUSTOMER_NUM | CUSTOMER_NAME                 | BALANCE | CREDIT_LIMIT | REP_NUM |
|----|--------------|-------------------------------|---------|--------------|---------|
| 1  | 126          | Toys Galore                   | 1210.25 | 7500.00      | 15      |
| 2  | 260          | Brookings Direct              | 575.00  | 10000.00     | 30      |
| 3  | 334          | The Everything Shop           | 2345.75 | 7500.00      | 45      |
| 4  | 386          | Johnson's Department Store    | 879.25  | 7500.00      | 30      |
| 5  | 440          | Grove Historical Museum Store | 345.00  | 5000.00      | 45      |
| 6  | 502          | Cards and More                | 5025.75 | 5000.00      | 15      |
| 7  | 665          | Cricket Gift Shop             | 678.90  | 7500.00      | 30      |
| 8  | 713          | Cress Store                   | 4234.60 | 10000.00     | 15      |
| 9  | 796          | Unique Gifts                  | 124.75  | 7500.00      | 45      |
| 10 | 893          | All Season Gifts              | 935.75  | 7500.00      | 15      |

```
1b. SELECT CUSTOMER_NUM, CUSTOMER_NAME
FROM [MAJOR_CUSTOMER]
WHERE BALANCE > CREDIT_LIMIT
```

The screenshot shows a SQL Server Enterprise Manager window with three tabs: 'SQLQuery3.sql - W7...(OEC\duboisj (54))', 'SQLQuery2.sql - W7...(OEC\duboisj (53))', and 'SQLQuery1.sql - W7...(OEC\duboisj (52))'. The 'SQLQuery3.sql' tab is active, displaying the SQL code for selecting from the 'MAJOR\_CUSTOMER' view. The 'Results' pane shows the output of the query, which is a table with 1 row and 2 columns: CUSTOMER\_NUM and CUSTOMER\_NAME. The status bar at the bottom indicates 'Query executed successfully.' and '1 rows'.

|   | CUSTOMER_NUM | CUSTOMER_NAME  |
|---|--------------|----------------|
| 1 | 502          | Cards and More |

James DuBois

2a. **CREATE VIEW** ITEM\_ORDER **AS**

```
SELECT ITEM.ITEM_NUM, ITEM.DESCRPTION, ITEM.PRICE, ORDERS.ORDER_NUM, ORDERS.ORDER_DATE,  
ORDER_LINE.NUM_ORDERED, ORDER_LINE.QUOTED_PRICE  
FROM ITEM, ORDERS, ORDER_LINE
```

Results

Messages

|    | ITEM_NUM | DESCRIPTION               | PRICE  | ORDER_NUM | ORDER_DATE | NUM_ORDERED | QUOTED_PRICE |
|----|----------|---------------------------|--------|-----------|------------|-------------|--------------|
| 1  | AH74     | Patience                  | 22.99  | 51608     | 2015-10-12 | 5           | 86.99        |
| 2  | BR23     | Skittles                  | 29.99  | 51608     | 2015-10-12 | 5           | 86.99        |
| 3  | CD33     | Wood Block Set (48 piece) | 89.49  | 51608     | 2015-10-12 | 5           | 86.99        |
| 4  | DL51     | Classic Railway Set       | 107.95 | 51608     | 2015-10-12 | 5           | 86.99        |
| 5  | DR67     | Giant Star Brain Teaser   | 31.95  | 51608     | 2015-10-12 | 5           | 86.99        |
| 6  | DW23     | Mancala                   | 50.00  | 51608     | 2015-10-12 | 5           | 86.99        |
| 7  | FD11     | Rocking Horse             | 124.95 | 51608     | 2015-10-12 | 5           | 86.99        |
| 8  | FH24     | Puzzle Gift Set           | 38.95  | 51608     | 2015-10-12 | 5           | 86.99        |
| 9  | KA12     | Cribbage Set              | 75.00  | 51608     | 2015-10-12 | 5           | 86.99        |
| 10 | KD34     | Pentominoes Brain Teaser  | 14.95  | 51608     | 2015-10-12 | 5           | 86.99        |
| 11 | KL78     | Pick Up Sticks            | 10.95  | 51608     | 2015-10-12 | 5           | 86.99        |
| 12 | MT03     | Zauberkasten Brain Teaser | 45.79  | 51608     | 2015-10-12 | 5           | 86.99        |
| 13 | NL89     | Wood Block Set (62 piece) | 119.75 | 51608     | 2015-10-12 | 5           | 86.99        |
| 14 | TR40     | Tic Tac Toe               | 13.99  | 51608     | 2015-10-12 | 5           | 86.99        |
| 15 | TW35     | Fire Engine               | 118.95 | 51608     | 2015-10-12 | 5           | 86.99        |
| 16 | AH74     | Patience                  | 22.99  | 51608     | 2015-10-12 | 25          | 10.95        |

Query executed successfully.

W7DDUBOISJ (12.0 RTM) | OEC\duboisj (52) | TAL | 00:00:00 | 1440 rows

2b. **SELECT** ITEM\_NUM, **DESCRIPTION**, **ORDER\_NUM**, **QUOTED\_PRICE**

**FROM** [ITEM\_ORDER]

**WHERE** QUOTED\_PRICE > '100'

Results Messages

|    | ITEM_NUM | DESCRIPTION               | ORDER_NUM | QUOTED_PRICE |
|----|----------|---------------------------|-----------|--------------|
| 1  | AH74     | Patience                  | 51608     | 104.95       |
| 2  | BR23     | Skittles                  | 51608     | 104.95       |
| 3  | CD33     | Wood Block Set (48 piece) | 51608     | 104.95       |
| 4  | DL51     | Classic Railway Set       | 51608     | 104.95       |
| 5  | DR67     | Giant Star Brain Teaser   | 51608     | 104.95       |
| 6  | DW23     | Mancala                   | 51608     | 104.95       |
| 7  | FD11     | Rocking Horse             | 51608     | 104.95       |
| 8  | FH24     | Puzzle Gift Set           | 51608     | 104.95       |
| 9  | KA12     | Cribbage Set              | 51608     | 104.95       |
| 10 | KD34     | Pentominoes Brain Teaser  | 51608     | 104.95       |
| 11 | KL78     | Pick Up Sticks            | 51608     | 104.95       |
| 12 | MT03     | Zauberkasten Brain Teaser | 51608     | 104.95       |
| 13 | NL89     | Wood Block Set (62 piece) | 51608     | 104.95       |
| 14 | TR40     | Tic Tac Toe               | 51608     | 104.95       |
| 15 | TW35     | Fire Engine               | 51608     | 104.95       |
| 16 | AH74     | Patience                  | 51610     | 104.95       |

Query executed successfully. W7DDUBOISJ (12.0 RTM) OEC\duboisj (52) TAL 00:00:00 600 rows

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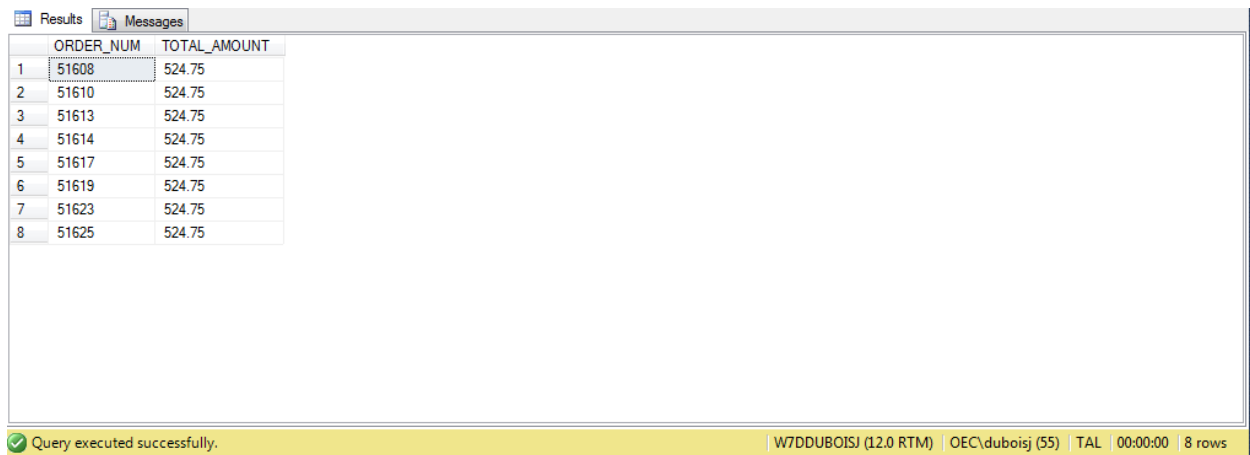
```
3a. CREATE VIEW [ORDER_TOTAL] AS
SELECT TOP 100 PERCENT ORDERS.ORDER_NUM, ORDER_LINE.NUM_ORDERED * ORDER_LINE.QUOTED_PRICE
as TOTAL_AMOUNT
FROM ORDERS, ORDER_LINE
ORDER BY ORDER_NUM
```



|    | ORDER_NUM | TOTAL_AMOUNT |
|----|-----------|--------------|
| 1  | 51608     | 434.95       |
| 2  | 51608     | 273.75       |
| 3  | 51608     | 139.90       |
| 4  | 51608     | 524.75       |
| 5  | 51608     | 124.95       |
| 6  | 51608     | 463.96       |
| 7  | 51608     | 350.85       |
| 8  | 51608     | 243.90       |
| 9  | 51608     | 149.75       |
| 10 | 51608     | 443.40       |
| 11 | 51608     | 131.00       |
| 12 | 51608     | 366.32       |
| 13 | 51610     | 434.95       |
| 14 | 51610     | 273.75       |
| 15 | 51610     | 139.90       |
| 16 | 51610     | 524.75       |

Query executed successfully. W7DDUBOISJ (12.0 RTM) OEC\duboisj (55) TAL 00:00:00 96 rows

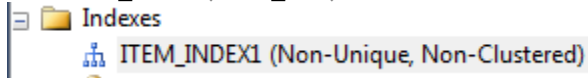
```
3b. SELECT ORDER_NUM, TOTAL_AMOUNT
FROM [ORDER_TOTAL]
WHERE TOTAL_AMOUNT > 500
```



|   | ORDER_NUM | TOTAL_AMOUNT |
|---|-----------|--------------|
| 1 | 51608     | 524.75       |
| 2 | 51610     | 524.75       |
| 3 | 51613     | 524.75       |
| 4 | 51614     | 524.75       |
| 5 | 51617     | 524.75       |
| 6 | 51619     | 524.75       |
| 7 | 51623     | 524.75       |
| 8 | 51625     | 524.75       |

Query executed successfully. W7DDUBOISJ (12.0 RTM) OEC\duboisj (55) TAL 00:00:00 8 rows

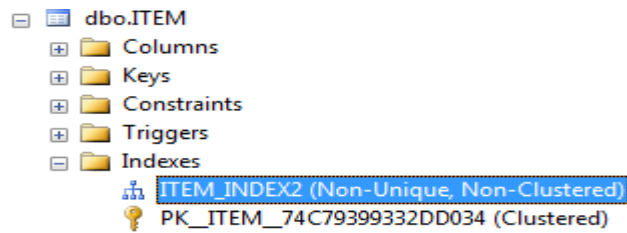
```
6a. CREATE INDEX ITEM_INDEX1
ON ORDER_LINE (ITEM_NUM)
```



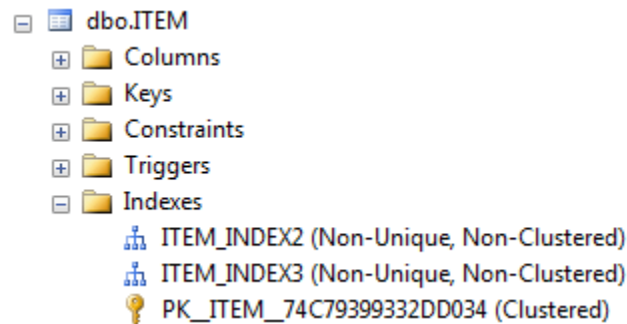
Indexes

ITEM\_INDEX1 (Non-Unique, Non-Clustered)

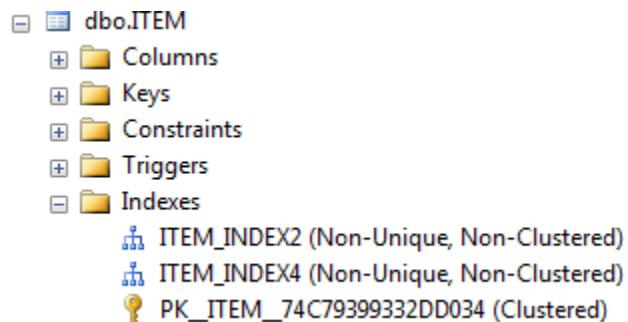
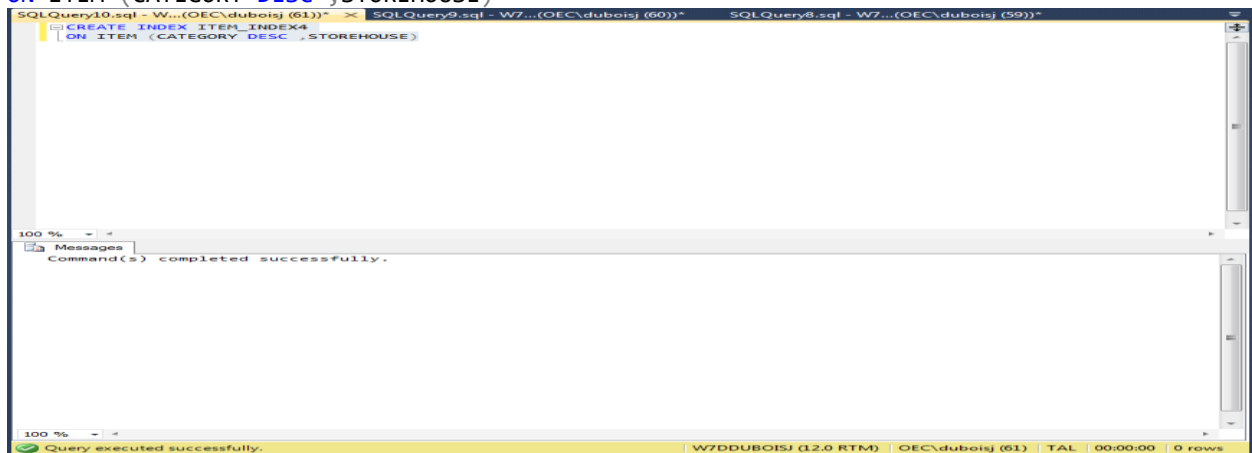
6b. **CREATE INDEX** ITEM\_INDEX2  
**ON** ITEM (CATEGORY)



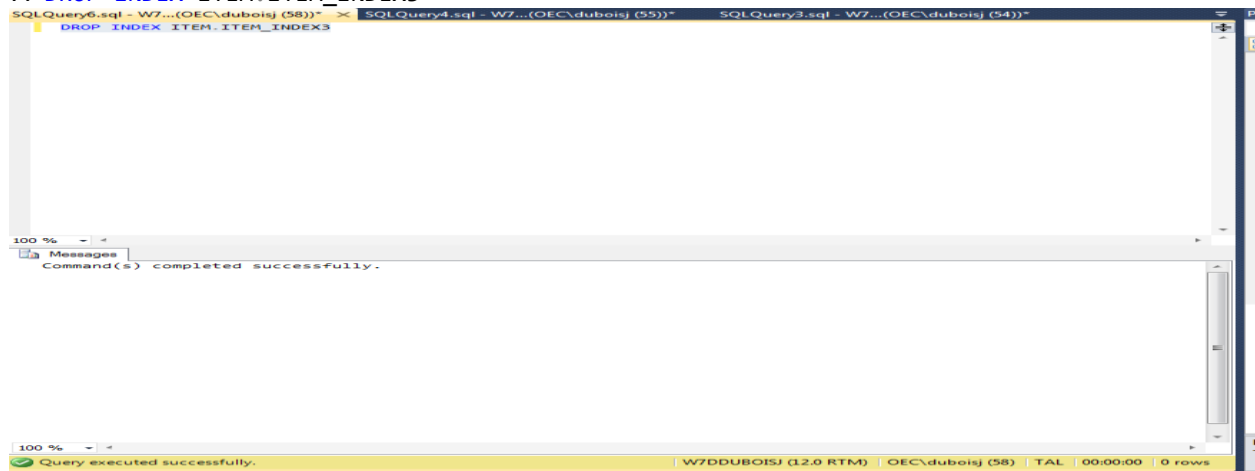
6c. **CREATE INDEX** ITEM\_INDEX3  
**ON** ITEM (CATEGORY,STOREHOUSE)



6d. **CREATE INDEX** ITEM\_INDEX4  
**ON** ITEM (CATEGORY **DESC** ,STOREHOUSE)



## 7. DROP INDEX ITEM.ITEM\_INDEX3



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```
8a. USE TAL;
GO
EXEC sp_tables ;
GO
```

|    | TABLE_QUALIFIER | TABLE_OWNER        | TABLE_NAME              | TABLE_TYPE | REMARKS |
|----|-----------------|--------------------|-------------------------|------------|---------|
| 1  | TAL             | dbo                | CUSTOMER                | TABLE      | NULL    |
| 2  | TAL             | dbo                | ITEM                    | TABLE      | NULL    |
| 3  | TAL             | dbo                | ORDER_LINE              | TABLE      | NULL    |
| 4  | TAL             | dbo                | ORDERS                  | TABLE      | NULL    |
| 5  | TAL             | dbo                | REP                     | TABLE      | NULL    |
| 6  | TAL             | sys                | trace_xe_action_map     | TABLE      | NULL    |
| 7  | TAL             | sys                | trace_xe_event_map      | TABLE      | NULL    |
| 8  | TAL             | dbo                | ITEM_ORDER              | VIEW       | NULL    |
| 9  | TAL             | dbo                | MAJOR_CUSTOMER          | VIEW       | NULL    |
| 10 | TAL             | dbo                | ORDER_TOTAL             | VIEW       | NULL    |
| 11 | TAL             | INFORMATION_SCHEMA | CHECK_CONSTRAINTS       | VIEW       | NULL    |
| 12 | TAL             | INFORMATION_SCHEMA | COLUMN_DOMAIN_USAGE     | VIEW       | NULL    |
| 13 | TAL             | INFORMATION_SCHEMA | COLUMN_PRIVILEGES       | VIEW       | NULL    |
| 14 | TAL             | INFORMATION_SCHEMA | COLUMNS                 | VIEW       | NULL    |
| 15 | TAL             | INFORMATION_SCHEMA | CONSTRAINT_COLUMN_USAGE | VIEW       | NULL    |
| 16 | TAL             | INFORMATION_SCHEMA | CONSTRAINT_TABLE_USAGE  | VIEW       | NULL    |

Query executed successfully. | W7DDUBOISJ (12.0 RTM) | OEC\duboisj (57) | TAL | 00:00:00 | 435 rows

8b.

```
USE TAL
```

```
exec sp_columns ITEM
```

|   | TABLE_QUALIFIER | TABLE_OWNER | TABLE_NAME | COLUMN_NAME | DATA_TYPE | TYPE_NAME | PRECISION | LENGTH | SCALE | RADIX | NUM |
|---|-----------------|-------------|------------|-------------|-----------|-----------|-----------|--------|-------|-------|-----|
| 1 | TAL             | dbo         | ITEM       | ITEM_NUM    | 1         | char      | 4         | 4      | NULL  | NULL  | 0   |
| 2 | TAL             | dbo         | ITEM       | DESCRIPTION | 1         | char      | 30        | 30     | NULL  | NULL  | 1   |
| 3 | TAL             | dbo         | ITEM       | ON_HAND     | 3         | decimal   | 4         | 6      | 0     | 10    | 1   |
| 4 | TAL             | dbo         | ITEM       | CATEGORY    | 1         | char      | 3         | 3      | NULL  | NULL  | 1   |
| 5 | TAL             | dbo         | ITEM       | STOREHOUSE  | 1         | char      | 1         | 1      | NULL  | NULL  | 1   |
| 6 | TAL             | dbo         | ITEM       | PRICE       | 3         | decimal   | 6         | 8      | 2     | 10    | 1   |

Query executed successfully. | W7DDUBOISJ (12.0 RTM) | OEC\duboisj (57) | TAL | 00:00:00 | 6 rows

9. **ALTER TABLE ORDER\_LINE ADD FOREIGN KEY (ORDER\_NUM) REFERENCES ORDERS(ORDER\_NUM)**



- Columns
  - ORDER\_NUM (PK, FK, char(5), not null)
  - ITEM\_NUM (PK, char(4), not null)
  - NUM\_ORDERED (decimal(3,0), null)
  - QUOTED\_PRICE (decimal(6,2), null)
- Keys
  - PK\_ORDER\_LI\_EB0B45ACBA301806
  - FK\_ORDER\_LIN\_ORDER\_1ED998B2

## 10. ALTER TABLE CUSTOMER

ADD CHECK (CREDIT\_LIMIT in (5000, 7500, 10000, 15000))

