James DuBois

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'

	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

	CUSTOMER_NUM	CUSTOMER_NAME
1	502	Cards and More

James DuBois

2a. CREATE VIEW ITEM_ORDER AS
SELECT ITEM.ITEM_NUM, ITEM.DESCRIPTION, ITEM.PRICE, ORDERS.ORDER_NUM, ORDERS.ORDER_DATE,
ORDER_LINE.NUM_ORDERED, ORDER_LINE.QUOTED_PRICE
FROM ITEM, ORDERS, ORDER_LINE
WHERE ORDERS.ORDER_NUM=ORDER_LINE.ORDER_NUM AND ITEM.ITEM_NUM=ORDER_LINE.ITEM_NUM;

Results | Messages

	ITEM_NUM	DESCRIPTION	PRICE	ORDER_NUM	ORDER_DATE	NUM_ORDERED	QUOTED_PRICE
1	CD33	Wood Block Set (48 piece)	89.49	51608	2015-10-12	5	86.99
2	KL78	Pick Up Sticks	10.95	51610	2015-10-12	25	10.95
3	TR40	Tic Tac Toe	13.99	51610	2015-10-12	10	13.99
4	DL51	Classic Railway Set	107.95	51613	2015-10-13	5	104.95
5	FD11	Rocking Horse	124.95	51614	2015-10-13	1	124.95
6	NL89	Wood Block Set (62 piece)	119.75	51617	2015-10-15	4	115.99
7	TW35	Fire Engine	118.95	51617	2015-10-15	3	116.95
8	FD11	Rocking Horse	124.95	51619	2015-10-15	2	121.95
9	DR67	Giant Star Brain Teaser	31.95	51623	2015-10-15	5	29.95
10	FH24	Puzzle Gift Set	38.95	51623	2015-10-15	12	36.95
11	KD34	Pentominoes Brain Teaser	14.95	51623	2015-10-15	10	13.10
12	MT03	Zauberkasten Brain Teaser	45.79	51625	2015-10-16	8	45.79

Query executed successfully.   W7DDUBOISJ (12.0 RTM) | OEC\duboisj (64) | TAL | 00:00:00 | 12 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	DL51	Classic Railway Set	51613	104.95
2	FD11	Rocking Horse	51614	124.95
3	NL89	Wood Block Set (62 piece)	51617	115.99
4	TW35	Fire Engine	51617	116.95
5	FD11	Rocking Horse	51619	121.95

Query executed successfully.   W7DDUBOISJ (12.0 RTM) | OEC\duboisj (64) | TAL | 00:00:00 | 5 rows

James DuBois

3a. CREATE VIEW [ORDER_TOTAL] AS

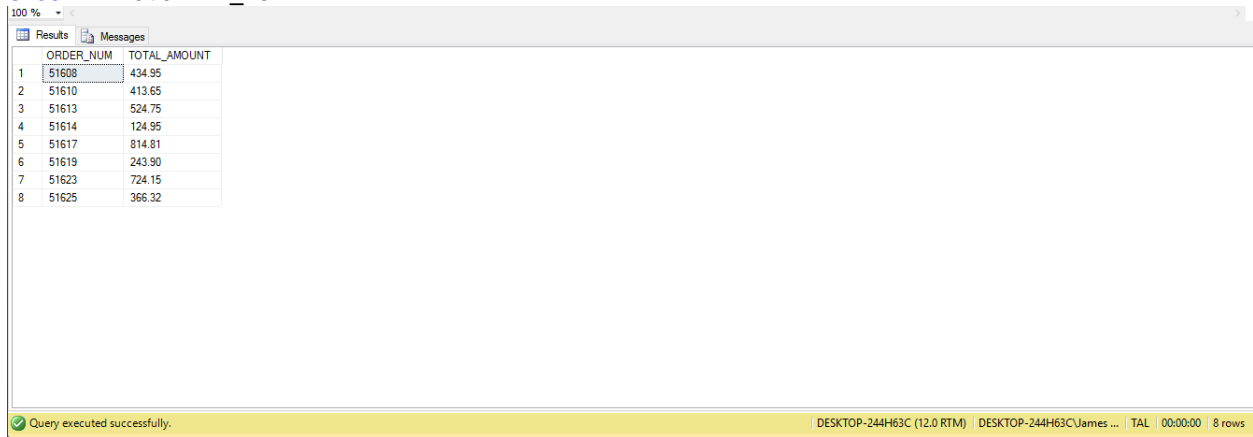SELECT top 100 O.ORDER_NUM, sum(OL.NUM_ORDERED * OL.QUOTED_PRICE) as TOTAL_AMOUNT

FROM ORDERS O
INNER JOIN ORDER_LINE OL
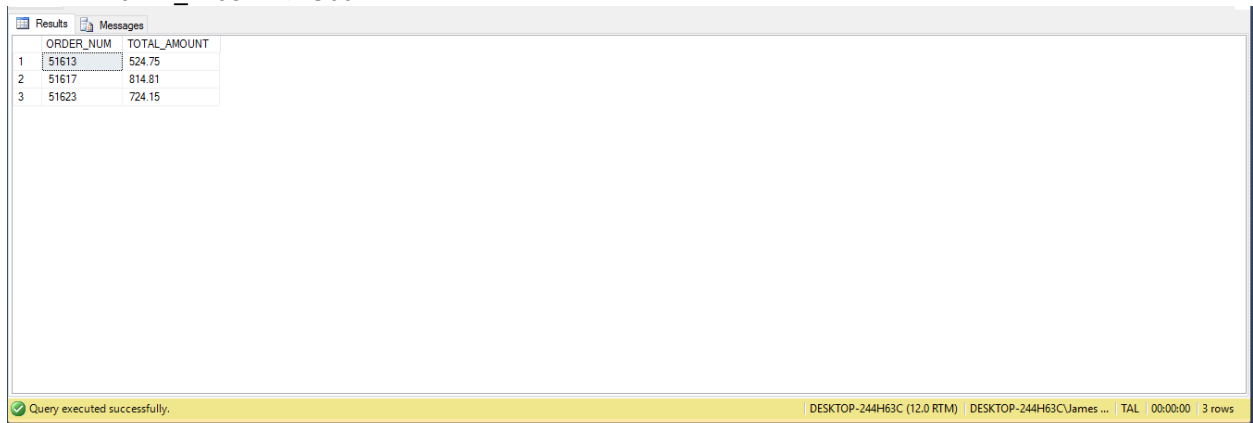ON O.ORDER_NUM = OL.ORDER_NUM

GROUP BY O.ORDER_NUM

	ORDER_NUM	TOTAL_AMOUNT
1	51608	434.95
2	51610	413.65
3	51613	524.75
4	51614	124.95
5	51617	814.81
6	51619	243.90
7	51623	724.15
8	51625	366.32

Query executed successfully.   DESKTOP-244H63C (12.0 RTM) | DESKTOP-244H63C\James ... | TAL | 00:00:00 | 8 rows

3b. SELECT ORDER_NUM, TOTAL_AMOUNT
 FROM [ORDER_TOTAL]
 WHERE TOTAL_AMOUNT > 500
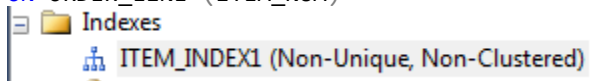
	ORDER_NUM	TOTAL_AMOUNT
1	51613	524.75
2	51617	814.81
3	51623	724.15

Query executed successfully.   DESKTOP-244H63C (12.0 RTM) | DESKTOP-244H63C\James ... | TAL | 00:00:00 | 3 rows
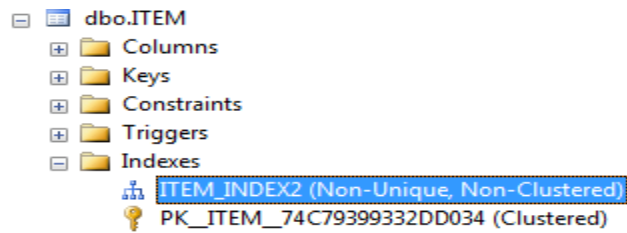
6a. CREATE INDEX ITEM_INDEX1
ON ORDER_LINE (ITEM_NUM)

Indexes
    ITEM_INDEX1 (Non-Unique, Non-Clustered)

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6b. CREATE INDEX ITEM_INDEX2
ON ITEM (CATEGORY)

- dbo.ITEM
  - Columns
  - Keys
  - Constraints
  - Triggers
  - Indexes
    - ITEM_INDEX2 (Non-Unique, Non-Clustered)
    - PK_ITEM_74C79399332DD034 (Clustered)

6c. CREATE INDEX ITEM_INDEX3
ON ITEM (CATEGORY,STOREHOUSE)

- dbo.ITEM
  - Columns
  - Keys
  - Constraints
  - Triggers
  - Indexes
    - ITEM_INDEX2 (Non-Unique, Non-Clustered)
    - ITEM_INDEX3 (Non-Unique, Non-Clustered)
    - PK_ITEM_74C79399332DD034 (Clustered)
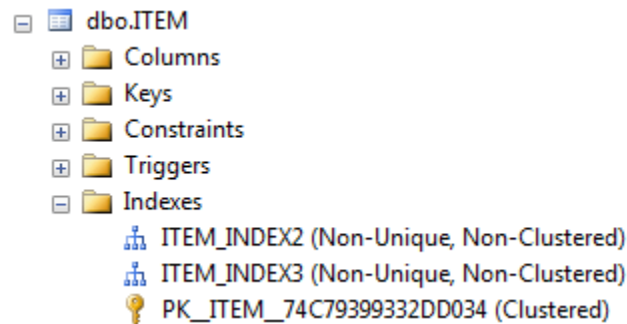
6d. CREATE INDEX ITEM_INDEX4
ON ITEM (CATEGORY DESC ,STOREHOUSE)

- dbo.ITEM
  - Columns
  - Keys
  - Constraints
  - Triggers
  - Indexes
    - ITEM_INDEX2 (Non-Unique, Non-Clustered)
    - ITEM_INDEX4 (Non-Unique, Non-Clustered)
    - PK_ITEM_74C79399332DD034 (Clustered)
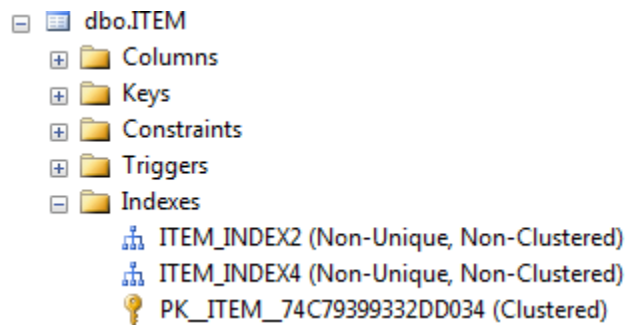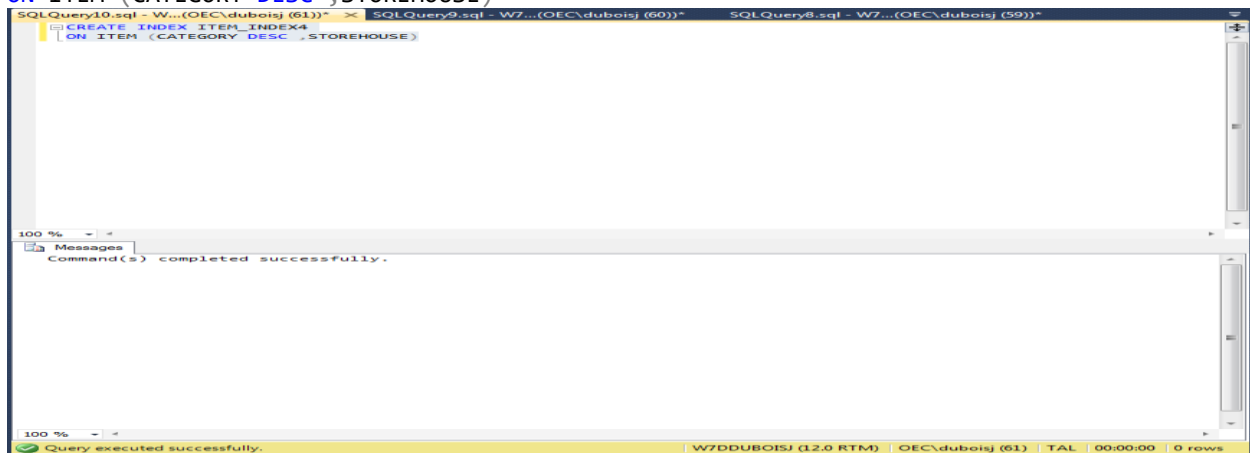
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7. DROP INDEX ITEM.ITEM_INDEX3

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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	NU
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)

```
ALTER TABLE ORDER_LINE ADD FOREIGN KEY (ORDER_NUM) REFERENCES ORDERS(ORDER_NUM)
```

Messages
Command(s) completed successfully.

Query executed successfully.   W7DDUBOISJ (12.0 RTM) OEC\duboisj (59) TAL 00:00:00 0 rows

- 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))

dbo.CUSTOMER
- Columns
  - CUSTOMER_NUM (PK, char(3), not null)
  - CUSTOMER_NAME (char(35), not null)
  - STREET (char(20), null)
  - CITY (char(15), null)
  - STATE (char(2), null)
  - POSTAL_CODE (char(5), null)
  - BALANCE (decimal(8,2), null)
  - CREDIT_LIMIT (decimal(8,2), null)
  - REP_NUM (char(2), null)
- Keys
- Constraints
  - CK_CUSTOMER_CREDIT_1FCDBCEB
- Triggers