CRUD

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User Case CRUD Analysis

Use Case 1.1 - Add Part to System

Table	**C**	**R**	**U**	**D**
Inventory	X			
Vendor		X		
Vendor Product		X		
Safety Stock Info		X		

Use Case 1.2 - Identify Resource

Table	**C**	**R**	**U**	**D**
Inventory		X		
Resources		X		

Use Case 1.3 - Create bill of materials

Table	**C**	**R**	**U**	**D**
Inventory		X		
Resource		X		
Bill Of Materials	X	X		

Use Case 1.4 - Create a vendor account.

Table	**C**	**R**	**U**	**D**
Vendor	X	X		
Vendor Product		X		

Use Case 2.1 - Create a customer account

Table	**C**	**R**	**U**	**D**
Customer	X	X		
Credit Reference	X	X		

Use Case 2.2 - Enter customer order.

Table	**C**	**R**	**U**	**D**
Customer		X		
Credit Reference		X		
Inventory		X		
Safety Stock Info		X		
Quantity Status		X		
Sales Tax		X		
Invoice	X	X		
Invoice Line Item	X	X		

Use Case 2.3 - Update customer order

Table	**C**	**R**	**U**	**D**
Customer		X		
Invoice		X	X	X
Invoice Line Item		X	X	X
Credit Reference		X	X	

Use Case 3.1 - Ship customer order

Table	**C**	**R**	**U**	**D**
Customer		X		
Invoice		X		
Inventory		X	X	

Use Case 3.2 - Plan production run of product

Table	**C**	**R**	**U**	**D**
Inventory		X		
Job Order	X			
Bill Of Material	X	X		
Resource		X		
Customer		X		
Invoice		X		
Safety Stock		X		
Quantity Status		X	X	

Use Case 3.3 - Order Product

Table	**C**	**R**	**U**	**D**
Vendor		X		
Vendor Product		X		
Purchase Order	X	X		
Purchase Order Line		X		
Bill Of Material		X		

Use Case 3.4 - Receive Vendor product into inventory

Table	**C**	**R**	**U**	**D**
Purchase Order		X	X	
Inventory		X		
Safety Stock Info		X		

Use Case 3.5 - Enter produced product into inventory

Table	**C**	**R**	**U**	**D**
Inventory		X		
Job Order		X		
Quantity Status			X	
Safety Stock Info			X	
Job Order			X	

Use Case 3.6 - Hilo Driver Pickup

Table	**C**	**R**	**U**	**D**
Hilo Driver		X	X	
Job Order		X		

CRUD ANALYSIS:

Based on the CRUD MAtrix above the following was observed:

TABLE NAME	C	R	U	D	TOTAL
Inventory	1	7	1	0	9
Vendor	1	3	0	0	4
Vendor Product	0	2	0	0	2
Safety Stock Info	0	5	1	0	6
Resources	0	3	0	0	3
Bill of Material	2	3	0	0	5
Customer	1	5	0	0	6
Credit Reference	1	3	1	0	5
Quantity Status	0	2	2	0	4
Sales Tax	0	1	0	0	1
Invoice	1	4	1	1	6
Invoice Line Item	1	2	1	1	5
Job Order	1	2	1	0	4
Purchase Order	1	2	1	0	4
Purchase Order Line	0	1	0	0	1
Hilo Driver	0	1	1	0	2

SUMMARY:

We can see that the Inventory table it called a total of 9 times in relation to the various user case scenarios. The table least used are the Sales Tax and Purchase Order Line tables. Based on the CRUD Matrix Analysis, it was good for performance to implement indexes on the Inventory (9), Invoice(6) tables. For Invoice Line Item however, a view was created in place of an index as it helped with our GUI application. The addition of indexes on the Customer (6), Bill of Material and Credit Reference tables may further better performance.