

**Assignment 1**

*— DDL, DML —*

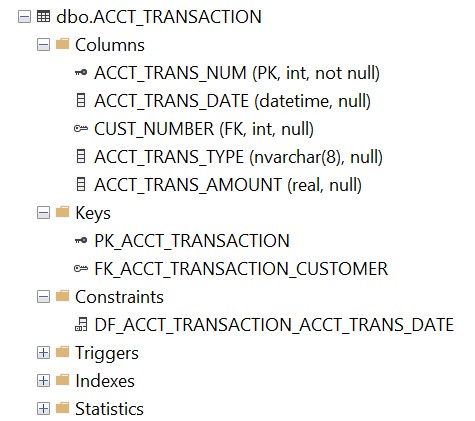
Jeong Eun Jang (W0451032)

DBAS 4002-700

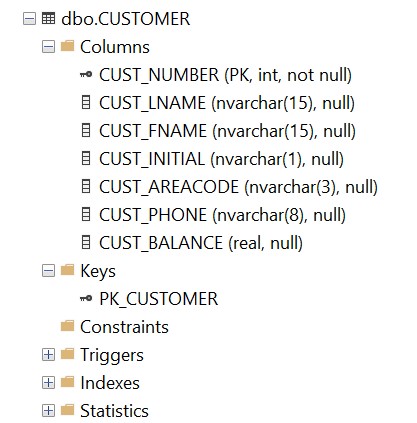
George Campanis

February 26th, 2021

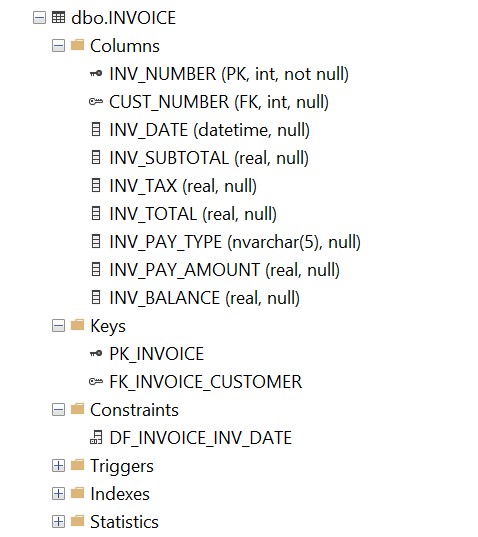
1. **Screen capture image of the MS SQL database and tables**
   1. ACCT\_TRANSCACTION



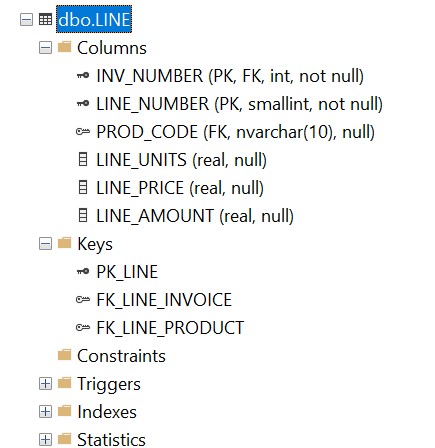
* 1. CUSTOMER



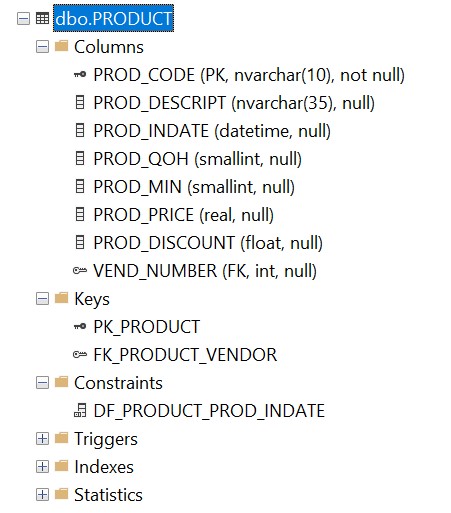
* 1. INVOICE



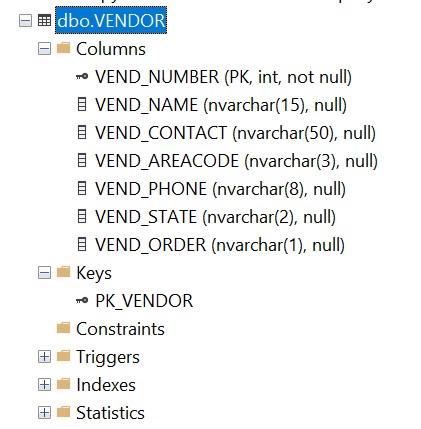
* 1. LINE



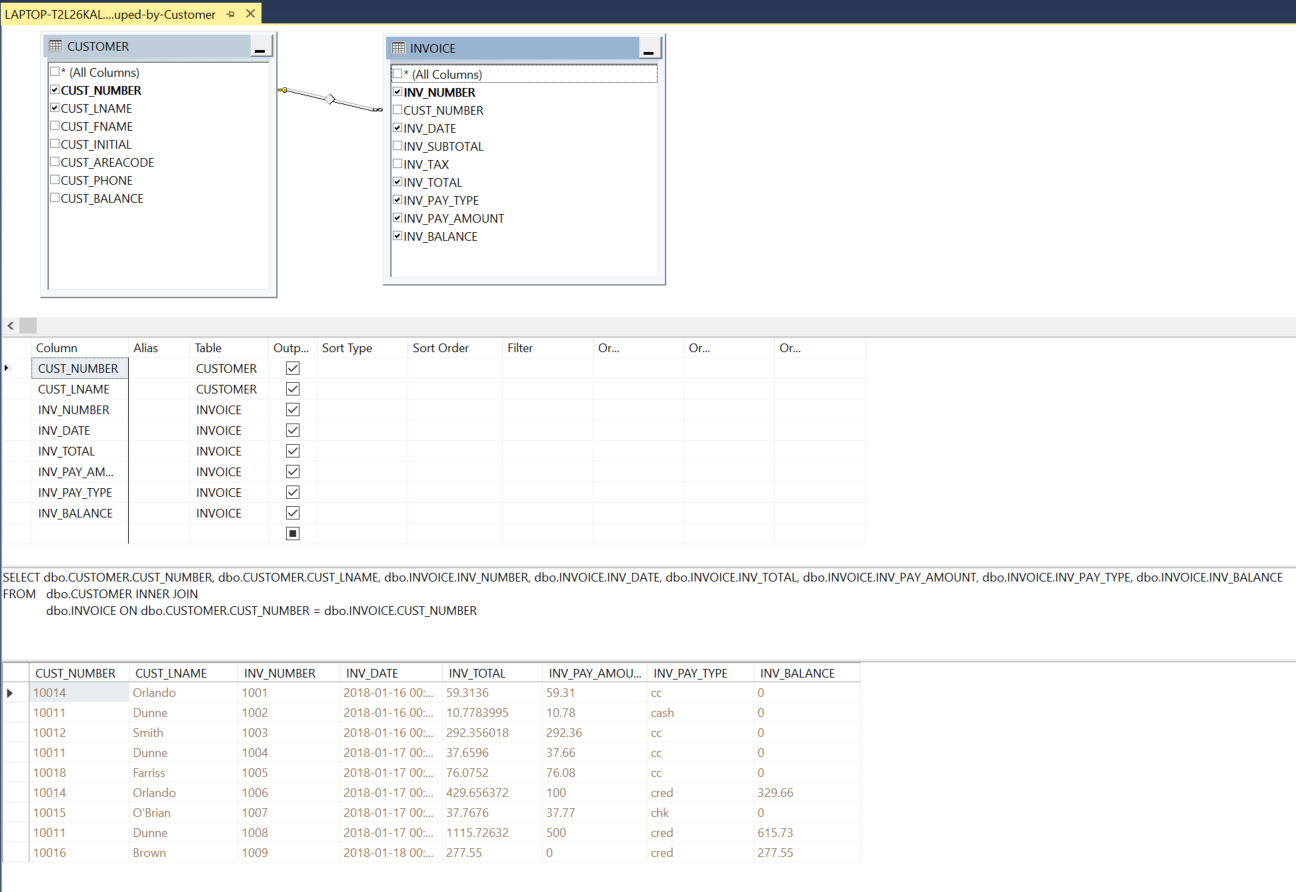
* 1. PRODUCT



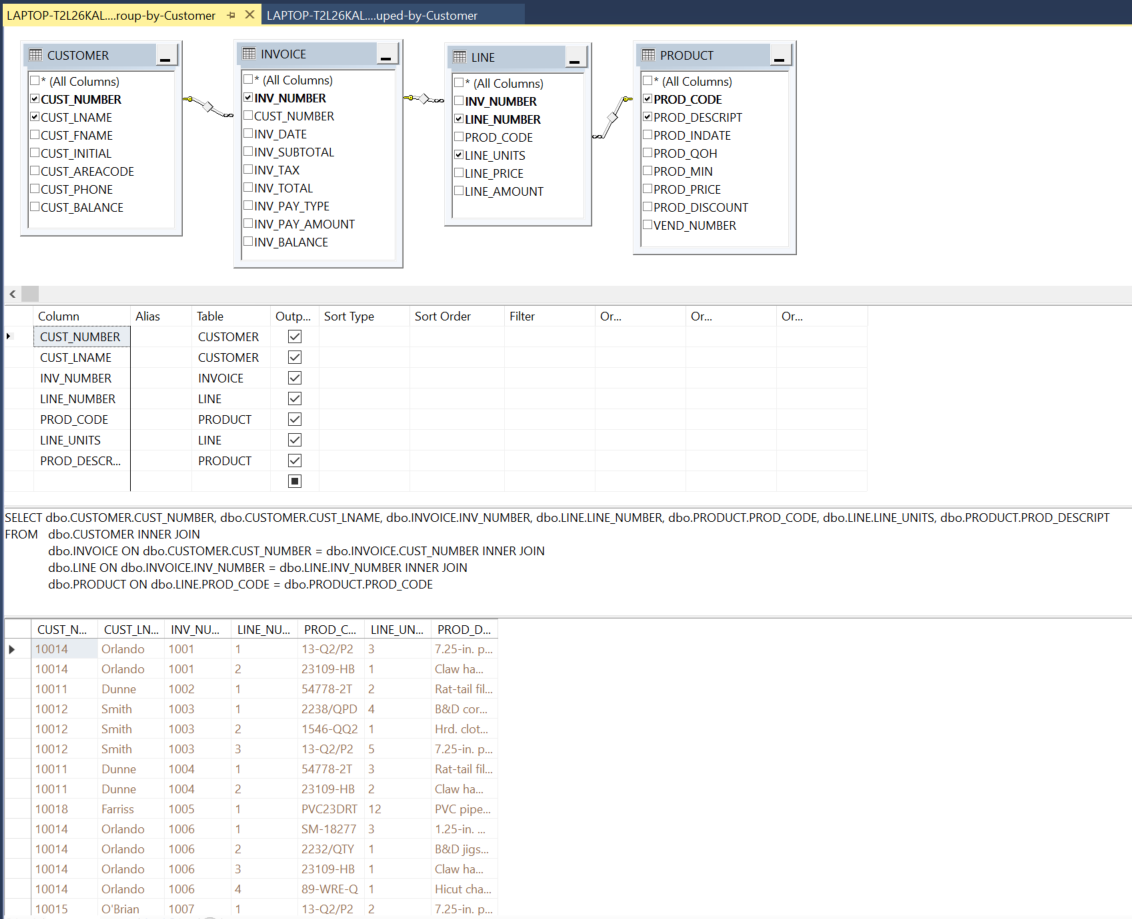
* 1. VENDOR



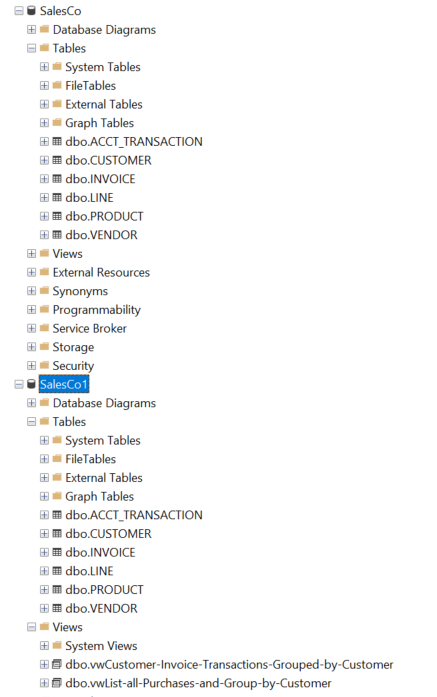
1. **Screen capture of the output of queries.**
   1. aryCustomer-Invoice-Transactions-Grouped-by-Customer



* 1. qryList-all-Purchases-and-Group-by-Customer



1. **A script of recreating the database.**



CREATE DATABASE **SalesCo1**;

1. GO
2. USE SalesCo1;
3. GO
4. CREATE TABLE [dbo].[ACCT\_TRANSACTION](
5. [ACCT\_TRANS\_NUM] [int] NOT NULL,
6. [ACCT\_TRANS\_DATE] [datetime] NULL,
7. [CUST\_NUMBER] [int] NULL,
8. [ACCT\_TRANS\_TYPE] [nvarchar](8) NULL,
9. [ACCT\_TRANS\_AMOUNT] [real] NULL,
10. CONSTRAINT [PK\_ACCT\_TRANSACTION] PRIMARY KEY CLUSTERED
11. (
12. [ACCT\_TRANS\_NUM] ASC
13. )WITH (PAD\_INDEX = OFF, STATISTICS\_NORECOMPUTE = OFF, IGNORE\_DUP\_KEY = OFF, ALLOW\_ROW\_LOCKS = ON, ALLOW\_PAGE\_LOCKS = ON, OPTIMIZE\_FOR\_SEQUENTIAL\_KEY = OFF) ON [PRIMARY]
14. ) ON [PRIMARY]
15. GO
16. CREATE TABLE [dbo].[CUSTOMER](
17. [CUST\_NUMBER] [int] NOT NULL,
18. [CUST\_LNAME] [nvarchar](15) NULL,
19. [CUST\_FNAME] [nvarchar](15) NULL,
20. [CUST\_INITIAL] [nvarchar](1) NULL,
21. [CUST\_AREACODE] [nvarchar](3) NULL,
22. [CUST\_PHONE] [nvarchar](8) NULL,
23. [CUST\_BALANCE] [real] NULL,
24. CONSTRAINT [PK\_CUSTOMER] PRIMARY KEY CLUSTERED
25. (
26. [CUST\_NUMBER] ASC
27. )WITH (PAD\_INDEX = OFF, STATISTICS\_NORECOMPUTE = OFF, IGNORE\_DUP\_KEY = OFF, ALLOW\_ROW\_LOCKS = ON, ALLOW\_PAGE\_LOCKS = ON, OPTIMIZE\_FOR\_SEQUENTIAL\_KEY = OFF) ON [PRIMARY]
28. ) ON [PRIMARY]
29. GO
30. CREATE TABLE [dbo].[INVOICE](
31. [INV\_NUMBER] [int] NOT NULL,
32. [CUST\_NUMBER] [int] NULL,
33. [INV\_DATE] [datetime] NULL,
34. [INV\_SUBTOTAL] [real] NULL,
35. [INV\_TAX] [real] NULL,
36. [INV\_TOTAL] [real] NULL,
37. [INV\_PAY\_TYPE] [nvarchar](5) NULL,
38. [INV\_PAY\_AMOUNT] [real] NULL,
39. [INV\_BALANCE] [real] NULL,
40. CONSTRAINT [PK\_INVOICE] PRIMARY KEY CLUSTERED
41. (
42. [INV\_NUMBER] ASC
43. )WITH (PAD\_INDEX = OFF, STATISTICS\_NORECOMPUTE = OFF, IGNORE\_DUP\_KEY = OFF, ALLOW\_ROW\_LOCKS = ON, ALLOW\_PAGE\_LOCKS = ON, OPTIMIZE\_FOR\_SEQUENTIAL\_KEY = OFF) ON [PRIMARY]
44. ) ON [PRIMARY]
45. GO
46. CREATE TABLE [dbo].[LINE](
47. [INV\_NUMBER] [int] NOT NULL,
48. [LINE\_NUMBER] [smallint] NOT NULL,
49. [PROD\_CODE] [nvarchar](10) NULL,
50. [LINE\_UNITS] [real] NULL,
51. [LINE\_PRICE] [real] NULL,
52. [LINE\_AMOUNT] [real] NULL,
53. CONSTRAINT [PK\_LINE] PRIMARY KEY CLUSTERED
54. (
55. [INV\_NUMBER] ASC,
56. [LINE\_NUMBER] ASC
57. )WITH (PAD\_INDEX = OFF, STATISTICS\_NORECOMPUTE = OFF, IGNORE\_DUP\_KEY = OFF, ALLOW\_ROW\_LOCKS = ON, ALLOW\_PAGE\_LOCKS = ON, OPTIMIZE\_FOR\_SEQUENTIAL\_KEY = OFF) ON [PRIMARY]
58. ) ON [PRIMARY]
59. GO
60. CREATE TABLE [dbo].[PRODUCT](
61. [PROD\_CODE] [nvarchar](10) NOT NULL,
62. [PROD\_DESCRIPT] [nvarchar](35) NULL,
63. [PROD\_INDATE] [datetime] NULL,
64. [PROD\_QOH] [smallint] NULL,
65. [PROD\_MIN] [smallint] NULL,
66. [PROD\_PRICE] [real] NULL,
67. [PROD\_DISCOUNT] [float] NULL,
68. [VEND\_NUMBER] [int] NULL,
69. CONSTRAINT [PK\_PRODUCT] PRIMARY KEY CLUSTERED
70. (
71. [PROD\_CODE] ASC
72. )WITH (PAD\_INDEX = OFF, STATISTICS\_NORECOMPUTE = OFF, IGNORE\_DUP\_KEY = OFF, ALLOW\_ROW\_LOCKS = ON, ALLOW\_PAGE\_LOCKS = ON, OPTIMIZE\_FOR\_SEQUENTIAL\_KEY = OFF) ON [PRIMARY]
73. ) ON [PRIMARY]
74. GO
75. CREATE TABLE [dbo].[VENDOR](
76. [VEND\_NUMBER] [int] NOT NULL,
77. [VEND\_NAME] [nvarchar](15) NULL,
78. [VEND\_CONTACT] [nvarchar](50) NULL,
79. [VEND\_AREACODE] [nvarchar](3) NULL,
80. [VEND\_PHONE] [nvarchar](8) NULL,
81. [VEND\_STATE] [nvarchar](2) NULL,
82. [VEND\_ORDER] [nvarchar](1) NULL,
83. CONSTRAINT [PK\_VENDOR] PRIMARY KEY CLUSTERED
84. (
85. [VEND\_NUMBER] ASC
86. )WITH (PAD\_INDEX = OFF, STATISTICS\_NORECOMPUTE = OFF, IGNORE\_DUP\_KEY = OFF, ALLOW\_ROW\_LOCKS = ON, ALLOW\_PAGE\_LOCKS = ON, OPTIMIZE\_FOR\_SEQUENTIAL\_KEY = OFF) ON [PRIMARY]
87. ) ON [PRIMARY]
88. GO
89. ALTER TABLE ACCT\_TRANSACTION
90. ADD CONSTRAINT FK\_ACCT\_TRANSACTION\_CUSTOMER FOREIGN KEY (CUST\_NUMBER)
91. REFERENCES CUSTOMER(CUST\_NUMBER)
92. ON DELETE CASCADE ON UPDATE CASCADE;
93. ALTER TABLE INVOICE
94. ADD CONSTRAINT FK\_INVOICE\_CUSTOMER FOREIGN KEY (CUST\_NUMBER)
95. REFERENCES CUSTOMER(CUST\_NUMBER)
96. ON DELETE CASCADE ON UPDATE CASCADE;
97. ALTER TABLE LINE
98. ADD CONSTRAINT FK\_LINE\_PRODUCT FOREIGN KEY (PROD\_CODE)
99. REFERENCES PRODUCT(PROD\_CODE)
100. ON DELETE CASCADE ON UPDATE CASCADE;
101. ALTER TABLE LINE
102. ADD CONSTRAINT FK\_LINE\_INVOICE FOREIGN KEY (INV\_NUMBER)
103. REFERENCES INVOICE(INV\_NUMBER)
104. ON DELETE CASCADE ON UPDATE CASCADE;
105. ALTER TABLE PRODUCT
106. ADD CONSTRAINT FK\_PRODUCT\_VENDOR FOREIGN KEY (VEND\_NUMBER)
107. REFERENCES VENDOR(VEND\_NUMBER)
108. ON DELETE CASCADE ON UPDATE CASCADE;
109. GO
110. CREATE VIEW [dbo].[vwCustomer-Invoice-Transactions-Grouped-by-Customer]
111. AS
112. SELECT dbo.CUSTOMER.CUST\_NUMBER, dbo.CUSTOMER.CUST\_LNAME, dbo.INVOICE.INV\_NUMBER, dbo.INVOICE.INV\_DATE, dbo.INVOICE.INV\_TOTAL, dbo.INVOICE.INV\_PAY\_AMOUNT, dbo.INVOICE.INV\_PAY\_TYPE, dbo.INVOICE.INV\_BALANCE
113. FROM dbo.CUSTOMER INNER JOIN
114. dbo.INVOICE ON dbo.CUSTOMER.CUST\_NUMBER = dbo.INVOICE.CUST\_NUMBER
115. GO
116. CREATE VIEW [dbo].[vwList-all-Purchases-and-Group-by-Customer]
117. AS
118. SELECT dbo.CUSTOMER.CUST\_NUMBER, dbo.CUSTOMER.CUST\_LNAME, dbo.INVOICE.INV\_NUMBER, dbo.LINE.LINE\_NUMBER, dbo.PRODUCT.PROD\_CODE, dbo.LINE.LINE\_UNITS, dbo.PRODUCT.PROD\_DESCRIPT
119. FROM dbo.CUSTOMER INNER JOIN
120. dbo.INVOICE ON dbo.CUSTOMER.CUST\_NUMBER = dbo.INVOICE.CUST\_NUMBER INNER JOIN
121. dbo.LINE ON dbo.INVOICE.INV\_NUMBER = dbo.LINE.INV\_NUMBER INNER JOIN
122. dbo.PRODUCT ON dbo.LINE.PROD\_CODE = dbo.PRODUCT.PROD\_CODE
123. GO

* Inserting data in case of FK has a value of null.

