Done. 14tables, 13FKs

INVOICE\_INDEX [ **Inv\_Num(FK), Service\_Code(FK), Equip\_ Num (FK), Cust\_Num(FK), Team\_Num(FK)**]

INVOICE[**Inv\_Num**, Inv\_Date]

SERVICE[**Service\_Code**, Service\_Desc, Hourly\_Charge, WorK\_Duration]

EQUIPMENT[**Equip\_Num**, Equip\_Desc]

CUSTOMER[**Cust\_Num**, Cust\_Name, Cust\_ Address]

TEAM[**Team\_Num**, Team\_Desc]

EMPLOYEETEAM[**Team\_Num(fk), Skill\_Num(fk) , Emp\_ Num (fk)**, Position]

EMPLOYEE[ **Emp\_ Num**, Home\_p, Start\_Date, OHIP ]

SKILL[**Skill\_ Num**, Skill\_Desc]

ProdInvSalesCust[**Prod\_Num(FK), Inv\_Num(FK), SalesAssID(FK), Cust\_Num**] //Cust\_Num redunant as FK

Sales[**SalesAssID**, Sales\_Name]

Product [ **Prod\_Num, Prod\_Class(FK), Supplier\_RegNum (fk)**,

Prod\_Desc, Inventory\_Avaliable, Cost, Charge, QTY, markup, Aisle\_No ]

Product\_Class[**Product\_Class**, classification]

Supplier [ **Supplier\_Reg Num**, Supplier\_Name]

Table Create Order, Top Down Order

INVOICE[**Inv\_Num**, Inv\_Date]

SERVICE[**Service\_Code**, Service\_Desc, Hourly\_Charge, Work\_Duration]

EQUIPMENT[**Equip\_ID**, Equip\_Desc]

CUSTOMER[**Cust\_Num**, Cust\_Name, Cust\_ Address]

TEAM[**Team\_Num**, Team\_Desc]

EMPLOYEE[ **Emp\_ Num**, Home\_p, Start\_Date, OHIP ]

SKILL[**Skill\_ Num**, Skill\_Desc]

Sales[**SalesAssID**, Sales\_Name]

Product\_Class[**Product\_Class**, classification]

Supplier [ **Supplier\_Reg Num**, Supplier\_Name]

Product [ **Prod\_Num, Prod\_Class(FK), Supplier\_RegNum (fk)**,

Prod\_Desc, Inventory\_Avaliable, Cost, Charge, QTY, markup, Aisle\_No ]

INVOICE\_INDEX [ **Inv\_Num(FK), Service\_Code(FK), Equip\_ Num (FK), Cust\_Num(FK), Team\_Num(FK)**]

EMPLOYEETEAM[**Team\_Num(fk), Skill\_Num(fk) , Emp\_ Num (fk)**, Position]

ProdInvSalesCust[**Prod\_Num(FK), Inv\_Num(FK), SalesAssID(FK), Cust\_Num(FK)**]

=====================================================================================

TABLE COMMANDS

INVOICE[Inv\_Num, Inv\_Date]

CREATE TABLE INVOICE (

INVOICE\_NUM char (20) not null with defaut,

INVOICE\_DATE DATE not null with default,

Constraint INVOICE\_NUM\_PK

primary key (INVOICE\_NUM ))

=======================================

SERVICE[Service\_Code, Service\_Desc, Hourly\_Charge, Work\_Duration]

CREATE TABLE SERVICE (

SERVICE\_CODE CHAR(4) NOT NULL WITH DEFAULT,

SERVICE\_DESC CHAR (30) NOT NULL WITH DEFAULT,

HOURLY\_CHARGE DECIMAL (4,2) NOT NULL WITH DEFAULT,

WORK\_DURATION DECIMAL (3,2) NOT NULL WITH DEFAULT

Constraint SERVICE\_CODE\_PK

primary key (SERVICE\_CODE ))

================================================

EQUIPMENT[Equip\_ID, Equip\_Desc]

CREATE TABLE EQUIPMENT (

EQUIPMENT\_ID CHAR(20) NOT NULL WITH DEFAULT ,

EQUIPMWNT\_DESC CHAR(20) NOT NULL WITH DEFAULT ,

CONSTRAINT EQUIPMENT\_ID\_PK

PRIMARY KEY (EQUIPMENT\_ID))

==================================================

CUSTOMER[Cust\_Num, Cust\_Name, Cust\_ Address]

CREATE TABLE CUSTOMER(

CUST\_NUM CHAR(20) NOT NULL WITH DEFAULT,

CUST\_NAME CHAR(30) NOT NULL WITH DEFAULT,

CUST\_ADDRESS CHAR(20) NOT NULL WITH DEFAULT,

CONSTRAINT CUSTOMER\_NUM\_PK

PRIMARY KEY(CUST\_NUM))

=================================================

TEAM[Team\_Num, Team\_Desc]

CREATE TABLE TEAM (

TEAM\_NUM CHAR(20) NOT NULL WITH DEFAULT,

TEAM\_DESC CHAR(20) NOT NULL WITH DEFAULT,

CONSTRAINT TEAM\_NUM\_PK

PRIMARY KEY(TEAM\_NUM))

=======================================

EMPLOYEE[ Emp\_ Num, Home\_p, Start\_Date, OHIP ]

CREATE TABLE EMPLOYEE (

EMP\_NUM CHAR(20) NOT NULL WITH DEFAULT,

HOME\_PHONE CHAR(20) NOT NULL WITH DEFAULT,

START\_DATE DATE NOT NULL WITH DEFAULT,

OHIP CHAR(20) NOT NULL WITH DEFAULT,

CONSTRAINT EMPLOYEE\_NUM\_PK

PRIMARY KEY(EMP\_NUM))

=========================================

SKILL[Skill\_ Num, Skill\_Desc]

CREATE TABLE SKILL(

SKILL\_NUM CHAR(20) NOT NULL WITH DEFAULT,

SKILL\_DESC CHAR(20) NOT NULL WITH DEFAULT,

CONSTRAINT SKILL\_NUM\_PK

PRIMARY KEY(SKILL\_NUM))

======================================

Sales[SalesAssID, Sales\_Name]

CREATE TABLE SALES(

SALESASS\_ID CHAR(10) NOT NULL WITH DEFAULT,

SALES\_NAME CHAR(20) NOT NULL WITH DEFAULT,

CONSTRAINT SALES\_ASS\_ID\_PK

PRIMARY KEY(SALESASS\_ID))

=

=======================================

Product\_Class[Product\_Class, classification]

CREATE TABLE PRODUCT\_CLASS(

PRODUCT\_CLASS CHAR(10) NOT NULL WITH DEFAULT,

CLASSIFICATION CHAR(20) NOT NULL WITH DEFAULT,

CONSTRAINT PRODUCT\_CLASS\_PK

PRIMARY KEY(PRODUCT\_CLASS))

=================================================

Supplier [ Supplier\_Reg Num, Supplier\_Name]

CREATE TABLE SUPPLIER(

SUPPLIER\_REG\_NUM CHAR(20) NOT NULL WITH DEFAULT,

SUPPLIER\_NAME CHAR(20) NOT NULL WITH DEFAULT,

CONSTRAINT SUPPLIER\_REG\_NUM

PRIMARY KEY(SUPPLIER\_REG\_NUM))

===============================================

Product [ Prod\_Num, Prod\_Class(FK), Supplier\_RegNum (fk),

Prod\_Desc, Inventory\_Avaliable, Cost, Charge, QTY, markup, Aisle\_No ]

CREATE TABLE PRODUCT (

**//PRODUCT\_NUM CHAR(20) NOT NULL WITH DEFAULT UNIQUE,**

PRODUCT\_NUM CHAR(20) NOT NULL WITH DEFAULT,

PRODUCT\_CLASS CHAR(10) NOT NULL WITH DEFAULT,

SUPPLIER\_REG\_NUM CHAR(20) NOT NULL WITH DEFAULT,

PROD\_DESC CHAR(20) NOT NULL WITH DEFAULT,

INVENTORY\_AVAILABLE NUMERIC(5) NOT NULL WITH DEFAULT,

COST DECIMAL (4,2) NOT NULL WITH DEFAULT,

**CHARGE DECIMAL (4,2) NOT NULL WITH DEFAULT, //drop charge, it is calculated**

QTY DECIMAL (8) NOT NULL WITH DEFAULT, //shouldn’t it be int?

MARKUP DECIMAL **(4,2)** NOT NULL WITH DEFAULT, //change from (4) to (4,2)

AISLE\_NO DECIMAL (2) NOT NULL WITH DEFAULT, //shouldn’t it be int?

CONSTRAINT PRODUCT\_PK

PRIMARY KEY(PRODUCT\_NUM,PRODUCT\_CLASS,SUPPLIER\_REG\_NUM))

ALTER TABLE PRODUCT

ADD CONSTRAINT PRODUCT\_CLASS\_FK

FOREIGN KEY (PRODUCT\_CLASS)

REFERENCES PRODUCT\_CLASS(PRODUCT\_CLASS)

ALTER TABLE PRODUCT

ADD CONSTRAINT PRODUCT\_SUPPLIER\_NUM\_FK

FOREIGN KEY (SUPPLIER\_REG\_NUM)

REFERENCES SUPPLIER(SUPPLIER\_REG\_NUM)

)

===================================================

INVOICE\_INDEX [ Inv\_Num(FK), Service\_Code(FK), Equip\_ Num (FK), Cust\_Num(FK), Team\_Num(FK)]

CREATE TABLE INVOICE\_INDEX (

INVOICE\_NUM char (20) NOT NULL WITH DEFAULT,

SERVICE\_CODE CHAR(4) NOT NULL WITH DEFAULT,

EQUIPMENT\_ID CHAR(20) NOT NULL WITH DEFAULT ,

CUST\_NUM CHAR(20) NOT NULL WITH DEFAULT,

TEAM\_NUM CHAR(20) NOT NULL WITH DEFAULT,

CONSTRAINT INVOICE\_INDEX\_PK

PRIMARY KEY( INVOICE\_NUM,SERVICE\_CODE,EQUIPMENT\_ID,CUST\_NUM,TEAM\_NUM))

ALTER TABLE INVOICE\_INDEX

ADD CONSTRAINT INVOICE\_INDEX\_NUM\_FK

FOREIGN KEY (INVOICE\_NUM)

REFERENCES INVOICE(INVOICE\_NUM)

ALTER TABLE INVOICE\_INDEX

ADD CONSTRAINT INVOICE\_INDEX\_SERVICECODE\_FK

FOREIGN KEY (SERVICE\_CODE)

REFERENCES SERVICE(SERVICE\_CODE)

ALTER TABLE INVOICE\_INDEX

ADD CONSTRAINT INVOICE\_INDEX\_EQUIPID\_FK

FOREIGN KEY (EQUIPMENT\_ID)

REFERENCES EQUIPMENT(EQUIPMENT\_ID)

ALTER TABLE INVOICE\_INDEX

ADD CONSTRAINT INVOICE\_INDEX\_CUSTNUM\_FK

FOREIGN KEY (CUST\_NUM)

REFERENCES CUSTOMER(CUST\_NUM)

ALTER TABLE INVOICE\_INDEX

ADD CONSTRAINT INVOICE\_INDEX\_TEAMNUM\_FK

FOREIGN KEY (TEAM\_NUM)

REFERENCES TEAM(TEAM\_NUM)

=============================================================

EMPLOYEETEAM[Team\_Num(fk), Skill\_Num(fk) , Emp\_ Num (fk), Position]

CREATE TABLE EMPLOYEETEAM (

TEAM\_NUM CHAR(20) NOT NULL WITH DEFAULT,

SKILL\_NUM CHAR(20) NOT NULL WITH DEFAULT,

EMP\_NUM CHAR(20) NOT NULL WITH DEFAULT,

POSITION CHAR(20) NOT NULL WITH DEFAULT,

CONSTRAINT EMPLOYEETEAM\_PK

PRIMARY KEY(SKILL\_NUM,EMP\_NUM ,TEAM\_NUM))

ALTER TABLE EMPLOYEETEAM

ADD CONSTRAINT EMPLOYEETEAM\_SKILLNUM\_FK

FOREIGN KEY(SKILL\_NUM)

REFERENCES SKILL(SKILL\_NUM)

ALTER TABLE EMPLOYEETEAM

ADD CONSTRAINT EMPLOYEETEAM\_TEAMNUM\_FK

FOREIGN KEY(TEAM\_NUM)

REFERENCES TEAM(TEAM\_NUM)

ALTER TABLE EMPLOYEETEAM

ADD CONSTRAINT EMPLOYEETEAM\_EMPNUM\_FK

FOREIGN KEY(EMP\_NUM)

REFERENCES EMPLOYEE(EMP\_NUM)

======================================================================

ProdInvSalesCust[Prod\_Num(FK), Inv\_Num(FK), SalesAssID(FK), Cust\_Num(FK)]

CREATE TABLE PROD\_INV\_SALES\_CUST(

INVOICE\_NUM char (20) not null with default,

PRODUCT\_NUM CHAR(20) NOT NULL WITH DEFAULT,

SALESASS\_ID CHAR(10) NOT NULL WITH DEFAULT,

CUST\_NUM CHAR(20) NOT NULL WITH DEFAULT,

CONSTRAINT PROD\_INV\_SALES\_CUST\_PK

PRIMARY KEY(INVOICE\_NUM,PRODUCT\_NUM,SALESASS\_ID,CUST\_NUM ))

ALTER TABLE PROD\_INV\_SALES\_CUST

ADD CONSTRAINT INVNUM\_FK

FOREIGN KEY(INVOICE\_NUM)

REFERENCES INVOICE(INVOICE\_NUM)

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

// I WAS unable to get fk for this

// error message which I am getting

// Table PRODUCT in DB201BG05 does not have a matching parent key.

ALTER TABLE PRODUCT ADD CONSTRAINT Product\_Num\_UN UNIQUE (PRODUCT\_NUM)

**ALTER TABLE PROD\_INV\_SALES\_CUST**

**ADD CONSTRAINT PRODUCTNUM\_FK**

**FOREIGN KEY(PRODUCT\_NUM)**

**REFERENCES PRODUCT(PRODUCT\_NUM)**

//foreign key added

ALTER TABLE PROD\_INV\_SALES\_CUST

ADD CONSTRAINT SALESASS\_ID\_FK

FOREIGN KEY(SALESASS\_ID)

REFERENCES SALES(SALESASS\_ID)

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

ALTER TABLE PROD\_INV\_SALES\_CUST

ADD CONSTRAINT CUSTNUM\_FK

FOREIGN KEY(CUST\_NUM)

REFERENCES CUSTOMER(CUST\_NUM)

**~~~~~~~~~~~~~~~~~~~~~~~~~~~INSERT COMMAND~~~~~~~~~~~~~**

INSERT INTO PRODUCT

VALUES ( '10', 'GT', '174', '6 foot garden rake', 5, 9.23, 1, 0.30, 1)

**INSERT INTO** PRODUCT

**VALUES (** '**40**'**,** '**GT**'**,** '**171**'**,** '*Flat-nosed Shovel* ' **,2, 6.15 , 1, 0.30, 1)**

**INSERT INTO** PRODUCT

**VALUES (** '**100**'**,** '**SB**'**,** '**175**'**,** '*Golden cedar sapling*'**,23,** *23.33***, 5, 0.50,5)**

**INSERT INTO** PRODUCT

**VALUES (**'**140**'**,** '**FT**'**,** '**172**'**,** '*General.g lawn.fertil*'**,12, 8.00, 2, 0.25, 6)**

**INSERT INTO** PRODUCT

**VALUES (** '**170**'**,** '**SP**'**,** '**173**'**,** '*120 foot watering hose*'**, 9,** *23.33***, 3, 0.50, 3)**

**INSERT INTO PROD\_INV\_SALES\_CUST**

VALUES ( '1977', '10', '144', '56')

INSERT INTO PROD\_INV\_SALES\_CUST

VALUES ( '1977', '40', '144', '56')

INSERT INTO PROD\_INV\_SALES\_CUST

VALUES ( '1977', '140', '144', '56')

INSERT INTO PROD\_INV\_SALES\_CUST

VALUES ( '2077', '10', '145', '10')

INSERT INTO PROD\_INV\_SALES\_CUST

VALUES ( '2077', '170', '145', '10')

INSERT INTO PROD\_INV\_SALES\_CUST

VALUES ( '2077', '140', '145', '10')

INSERT INTO PROD\_INV\_SALES\_CUST

VALUES ( '2997', '170', '146', '14')

**INSERT INTO EMPLOYEETEAM**

VALUES ( '1', '101', '130', 'Supervisor')

INSERT INTO EMPLOYEETEAM

VALUES ( '1', '102', '130', 'Supervisor')

INSERT INTO EMPLOYEETEAM

VALUES ( '1', '103', '131', 'Lawn Care')

INSERT INTO EMPLOYEETEAM

VALUES ( '1', '105', '131', 'Lawn Care')

INSERT INTO EMPLOYEETEAM

VALUES ( '2', '101', '133', 'Supervisor')

INSERT INTO EMPLOYEETEAM

VALUES ( '2', '103', '132', 'Lawn Care')

INSERT INTO EMPLOYEETEAM

VALUES ( '2', '104', '132', 'Lawn Care')

Only issue now is that in userviews, it had more than 1 equip\_id per invoice. Could ignore the additional equip\_ids.

//can pretend that only **on(e)** equip is used per invoice I guess. See userview 1

//so u wanted one invoice to have multiple servCode, EqupId, CustNum, and TeamNum

**INSERT INTO INVOICE\_INDEX** VALUES ( **'1355',** 'LC', '140', '34', **'1**') //works //added

**INSERT INTO INVOICE\_INDEX** VALUES ( '1977', 'LW', '150', '34', '2')

**INSERT INTO INVOICE\_INDEX** VALUES ( '2077', 'TG', '163', '34', '2')

**INSERT INTO INVOICE\_INDEX** VALUES ( '2997', 'LF', '789', '34', '2')

**INSERT INTO INVOICE\_INDEX** VALUES ( '4007', 'GP', '189', '34', '2')

//theres two rows in invoice\_index, but only have different invoice\_num

//these all have same equip\_id, imagine

**INSERT INTO INVOICE\_INDEX** VALUES ( **'1355',** 'LC ', '150', '34', **'1'**) // don’t add this

**INSERT INTO INVOICE\_INDEX** VALUES ( '1355', 'LW', '150', '34', '1')

**INSERT INTO INVOICE\_INDEX** VALUES ( '1355', 'LF', '150', '34', '1')

**INSERT INTO INVOICE\_INDEX** VALUES ( '1355', 'TG', '150', '34', '1')

**INSERT INTO INVOICE\_INDEX** VALUES ( **'1355',** 'LC ', '189', '34', **'1'**) // don’t add this

**INSERT INTO INVOICE\_INDEX** VALUES ( '1355', 'LW', '189', '34', '1')

**INSERT INTO INVOICE\_INDEX** VALUES ( '1355', 'LF', '189', '34', '1')

**INSERT INTO INVOICE\_INDEX** VALUES ( '1355', 'TG', '189', '34', '1')