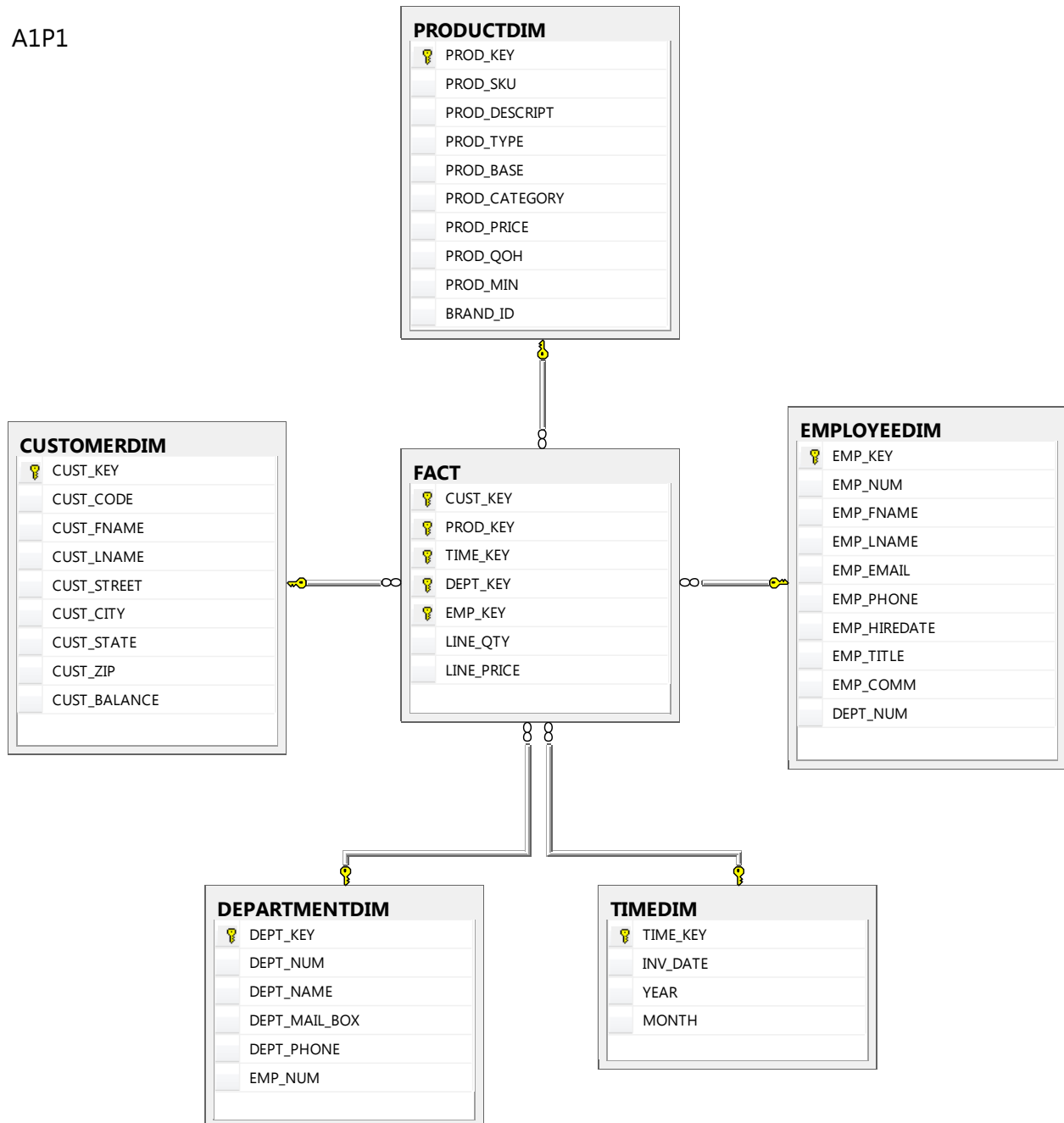


Jenet Baribeau

CIS310-01

A1P1



```
--Jenet Baribeau
--CIS310-01
--A10P2
--7 Dec 2015
```

```
CREATE TABLE CUSTOMERDIM
(
    CUST_KEY INT IDENTITY(1,1),
    CUST_CODE INT NOT NULL,
    CUST_FNAME NVARCHAR(20),
    CUST_LNAME NVARCHAR(20),
    CUST_STREET NVARCHAR(70),
    CUST_CITY NVARCHAR(50),
    CUST_STATE NVARCHAR(2),
    CUST_ZIP NVARCHAR(5),
    CUST_BALANCE MONEY,
)
ALTER TABLE CUSTOMERDIM
ADD CONSTRAINT PK_CUST_KEY PRIMARY KEY(CUST_KEY)

CREATE TABLE PRODUCTDIM
(
    PROD_KEY INT IDENTITY(1,1),
    PROD_SKU NVARCHAR(15) NOT NULL,
    PROD_DESCRIPT NVARCHAR(255),
    PROD_TYPE NVARCHAR(255),
    PROD_BASE NVARCHAR(255),
    PROD_CATEGORY NVARCHAR(255),
    PROD_PRICE DECIMAL (10,2),
    PROD_QOH DECIMAL(10),
    PROD_MIN DECIMAL(10),
    BRAND_ID INT
)
ALTER TABLE PRODUCTDIM
ADD CONSTRAINT PK_PROD_KEY PRIMARY KEY (PROD_KEY)

CREATE TABLE DEPARTMENTDIM
(
    DEPT_KEY INT IDENTITY(1,1),
    DEPT_NUM INT NOT NULL,
    DEPT_NAME NVARCHAR(30),
    DEPT_MAIL_BOX NVARCHAR(3),
    DEPT_PHONE NVARCHAR(9),
    EMP_NUM INT NOT NULL
)
ALTER TABLE DEPARTMENTDIM
ADD CONSTRAINT PK_DEPT_KEY PRIMARY KEY (DEPT_KEY)

CREATE TABLE EMPLOYEEEDIM
(
    EMP_KEY INT IDENTITY(1,1),
    EMP_NUM INT NOT NULL,
    EMP_FNAME NVARCHAR(20),
    EMP_LNAME NVARCHAR(25),
    EMP_EMAIL NVARCHAR(25),
    EMP_PHONE NVARCHAR(20),
    EMP_HIREDATE DATETIME,
```

```

        EMP_TITLE NVARCHAR(45),
        EMP_COMM DECIMAL(2,2),
        DEPT_NUM INT
    )
ALTER TABLE EMPLOYEEEDIM
ADD CONSTRAINT PK_EMP_KEY PRIMARY KEY (EMP_KEY)

CREATE TABLE TIMEDIM
(
    TIME_KEY INT IDENTITY(1,1),
    INV_DATE DATE NOT NULL,
    YEAR INT,
    MONTH VARCHAR(25)
)
ALTER TABLE TIMEDIM
ADD CONSTRAINT PK_TIME_KEY PRIMARY KEY (TIME_KEY)

CREATE TABLE FACT
(
    CUST_KEY INT NOT NULL,
    PROD_KEY INT NOT NULL,
    TIME_KEY INT NOT NULL,
    DEPT_KEY INT NOT NULL,
    EMP_KEY INT NOT NULL,
    LINE_QTY FLOAT,
    LINE_PRICE DECIMAL (8,2)
)
ALTER TABLE FACT
ADD CONSTRAINT PK_FACT PRIMARY KEY (CUST_KEY, PROD_KEY, TIME_KEY, DEPT_KEY, EMP_KEY)

ALTER TABLE FACT
ADD CONSTRAINT FK_CUST_KEY FOREIGN KEY (CUST_KEY)
REFERENCES CUSTOMERDIM(CUST_KEY)

ALTER TABLE FACT
ADD CONSTRAINT FK_PROD_KEY FOREIGN KEY (PROD_KEY)
REFERENCES PRODUCTDIM(PROD_KEY)

ALTER TABLE FACT
ADD CONSTRAINT FK_TIME_KEY FOREIGN KEY (TIME_KEY)
REFERENCES TIMEDIM(TIME_KEY)

ALTER TABLE FACT
ADD CONSTRAINT FK_DEPT_KEY FOREIGN KEY (DEPT_KEY)
REFERENCES DEPARTMENTDIM(DEPT_KEY)

ALTER TABLE FACT
ADD CONSTRAINT FK_EMP_KEY FOREIGN KEY (EMP_KEY)
REFERENCES EMPLOYEEEDIM(EMP_KEY)

DROP TABLE STAGING

CREATE TABLE STAGING
(
    CUST_KEY INT,
    PROD_KEY INT,
    TIME_KEY INT,

```

```
)  
    DEPT_KEY INT,  
    EMP_KEY INT,  
    LINE_QTY FLOAT,  
    LINE_PRICE DECIMAL(8, 2),  
    CUST_CODE INT,  
    PROD_SKU NVARCHAR (15),  
    INV_DATE DATETIME,  
    DEPT_NUM INT,  
    EMP_NUM INT
```

```
--Jenet Baribeau
--CIS310-01
--A10P2
--7 Dec 2015
```

```
CREATE TABLE CUSTOMERDIM
(
    CUST_KEY INT IDENTITY(1,1),
    CUST_CODE INT NOT NULL,
    CUST_FNAME NVARCHAR(20),
    CUST_LNAME NVARCHAR(20),
    CUST_STREET NVARCHAR(70),
    CUST_CITY NVARCHAR(50),
    CUST_STATE NVARCHAR(2),
    CUST_ZIP NVARCHAR(5),
    CUST_BALANCE MONEY,
)
ALTER TABLE CUSTOMERDIM
ADD CONSTRAINT PK_CUST_KEY PRIMARY KEY(CUST_KEY)

CREATE TABLE PRODUCTDIM
(
    PROD_KEY INT IDENTITY(1,1),
    PROD_SKU NVARCHAR(15) NOT NULL,
    PROD_DESCRIPT NVARCHAR(255),
    PROD_TYPE NVARCHAR(255),
    PROD_BASE NVARCHAR(255),
    PROD_CATEGORY NVARCHAR(255),
    PROD_PRICE DECIMAL (10,2),
    PROD_QOH DECIMAL(10),
    PROD_MIN DECIMAL(10),
    BRAND_ID INT
)
ALTER TABLE PRODUCTDIM
ADD CONSTRAINT PK_PROD_KEY PRIMARY KEY (PROD_KEY)

CREATE TABLE DEPARTMENTDIM
(
    DEPT_KEY INT IDENTITY(1,1),
    DEPT_NUM INT NOT NULL,
    DEPT_NAME NVARCHAR(30),
    DEPT_MAIL_BOX NVARCHAR(3),
    DEPT_PHONE NVARCHAR(9),
    EMP_NUM INT NOT NULL
)
ALTER TABLE DEPARTMENTDIM
ADD CONSTRAINT PK_DEPT_KEY PRIMARY KEY (DEPT_KEY)

CREATE TABLE EMPLOYEEEDIM
(
    EMP_KEY INT IDENTITY(1,1),
    EMP_NUM INT NOT NULL,
    EMP_FNAME NVARCHAR(20),
    EMP_LNAME NVARCHAR(25),
    EMP_EMAIL NVARCHAR(25),
    EMP_PHONE NVARCHAR(20),
    EMP_HIREDATE DATETIME,
```

```

        EMP_TITLE NVARCHAR(45),
        EMP_COMM DECIMAL(2,2),
        DEPT_NUM INT
    )
ALTER TABLE EMPLOYEEEDIM
ADD CONSTRAINT PK_EMP_KEY PRIMARY KEY (EMP_KEY)

CREATE TABLE TIMEDIM
(
    TIME_KEY INT IDENTITY(1,1),
    INV_DATE DATE NOT NULL,
    YEAR INT,
    MONTH VARCHAR(25)
)
ALTER TABLE TIMEDIM
ADD CONSTRAINT PK_TIME_KEY PRIMARY KEY (TIME_KEY)

CREATE TABLE FACT
(
    CUST_KEY INT NOT NULL,
    PROD_KEY INT NOT NULL,
    TIME_KEY INT NOT NULL,
    DEPT_KEY INT NOT NULL,
    EMP_KEY INT NOT NULL,
    LINE_QTY FLOAT,
    LINE_PRICE DECIMAL (8,2)
)
ALTER TABLE FACT
ADD CONSTRAINT PK_FACT PRIMARY KEY (CUST_KEY, PROD_KEY, TIME_KEY, DEPT_KEY, EMP_KEY)

ALTER TABLE FACT
ADD CONSTRAINT FK_CUST_KEY FOREIGN KEY (CUST_KEY)
REFERENCES CUSTOMERDIM(CUST_KEY)

ALTER TABLE FACT
ADD CONSTRAINT FK_PROD_KEY FOREIGN KEY (PROD_KEY)
REFERENCES PRODUCTDIM(PROD_KEY)

ALTER TABLE FACT
ADD CONSTRAINT FK_TIME_KEY FOREIGN KEY (TIME_KEY)
REFERENCES TIMEDIM(TIME_KEY)

ALTER TABLE FACT
ADD CONSTRAINT FK_DEPT_KEY FOREIGN KEY (DEPT_KEY)
REFERENCES DEPARTMENTDIM(DEPT_KEY)

ALTER TABLE FACT
ADD CONSTRAINT FK_EMP_KEY FOREIGN KEY (EMP_KEY)
REFERENCES EMPLOYEEEDIM(EMP_KEY)

DROP TABLE STAGING

CREATE TABLE STAGING
(
    CUST_KEY INT,
    PROD_KEY INT,
    TIME_KEY INT,

```

```
)  
  
DEPT_KEY INT,  
EMP_KEY INT,  
LINE_QTY FLOAT,  
LINE_PRICE DECIMAL(8, 2),  
CUST_CODE INT,  
PROD_SKU NVARCHAR (15),  
INV_DATE DATETIME,  
DEPT_NUM INT,  
EMP_NUM INT
```

```
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--A10 - PART 3

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO

ALTER PROCEDURE STAR_SCHEMA
AS
BEGIN

ALTER TABLE FACT
DROP CONSTRAINT FK_CUST_KEY

ALTER TABLE FACT
DROP CONSTRAINT FK_PROD_KEY

ALTER TABLE FACT
DROP CONSTRAINT FK_TIME_KEY

ALTER TABLE FACT
DROP CONSTRAINT FK_DEPT_KEY

ALTER TABLE FACT
DROP CONSTRAINT FK_EMP_KEY

ALTER TABLE CUSTOMERDIM
DROP CONSTRAINT PK_CUST_KEY

ALTER TABLE PRODUCTDIM
DROP CONSTRAINT PK_PROD_KEY

ALTER TABLE TIMEDIM
DROP CONSTRAINT PK_TIME_KEY

ALTER TABLE DEPARTMENTDIM
DROP CONSTRAINT PK_DEPT_KEY

ALTER TABLE EMPLOYEEEDIM
DROP CONSTRAINT PK_EMP_KEY

ALTER TABLE FACT
DROP CONSTRAINT PK_FACT

TRUNCATE TABLE CUSTOMERDIM
TRUNCATE TABLE PRODUCTDIM
TRUNCATE TABLE TIMEDIM
TRUNCATE TABLE DEPARTMENTDIM
TRUNCATE TABLE EMPLOYEEEDIM
TRUNCATE TABLE FACT
TRUNCATE TABLE STAGING

ALTER TABLE CUSTOMERDIM
ADD CONSTRAINT PK_CUST_KEY PRIMARY KEY(CUST_KEY)

ALTER TABLE PRODUCTDIM
```



```

ADD CONSTRAINT PK_PROD_KEY PRIMARY KEY(PROD_KEY)

ALTER TABLE TIMEDIM
ADD CONSTRAINT PK_TIME_KEY PRIMARY KEY(TIME_KEY)

ALTER TABLE DEPARTMENTDIM
ADD CONSTRAINT PK_DEPT_KEY PRIMARY KEY(DEPT_KEY)

ALTER TABLE EMPLOYEEDIM
ADD CONSTRAINT PK_EMP_KEY PRIMARY KEY(EMP_KEY)

ALTER TABLE FACT
ADD CONSTRAINT PK_FACT PRIMARY KEY (CUST_KEY, PROD_KEY, TIME_KEY, DEPT_KEY, EMP_KEY)

ALTER TABLE FACT
ADD CONSTRAINT FK_CUST_KEY
FOREIGN KEY (CUST_KEY)
REFERENCES CUSTOMERDIM(CUST_KEY)

ALTER TABLE FACT
ADD CONSTRAINT FK_PROD_KEY
FOREIGN KEY (PROD_KEY)
REFERENCES PRODUCTDIM(PROD_KEY)

ALTER TABLE FACT
ADD CONSTRAINT FK_TIME_KEY
FOREIGN KEY (TIME_KEY)
REFERENCES TIMEDIM(TIME_KEY)

ALTER TABLE FACT
ADD CONSTRAINT FK_DEPT_KEY
FOREIGN KEY (DEPT_KEY)
REFERENCES DEPARTMENTDIM(DEPT_KEY)

ALTER TABLE FACT
ADD CONSTRAINT FK_EMP_KEY
FOREIGN KEY (EMP_KEY)
REFERENCES EMPLOYEEDIM(EMP_KEY)

INSERT INTO CUSTOMERDIM (CUST_CODE, CUST_FNAME, CUST_LNAME,
                        CUST_STREET, CUST_CITY, CUST_STATE, CUST_ZIP,
                        CUST_BALANCE)
SELECT CUST_CODE, CUST_FNAME, CUST_LNAME,
       CUST_STREET, CUST_CITY, CUST_STATE, CUST_ZIP, CUST_BALANCE
FROM LGCUSTOMER

INSERT INTO PRODUCTDIM (PROD_SKU, PROD_DESCRIPTOR, PROD_TYPE, PROD_BASE, PROD_CATEGORY,
                       PROD_PRICE, PROD_QOH, PROD_MIN, BRAND_ID)
SELECT PROD_SKU, PROD_DESCRIPTOR, PROD_TYPE, PROD_BASE, PROD_CATEGORY,
       PROD_PRICE, PROD_QOH, PROD_MIN, BRAND_ID
FROM LGPRODUCT

INSERT INTO TIMEDIM (INV_DATE, YEAR, MONTH)
SELECT INV_DATE, YEAR(INV_DATE), MONTH(INV_DATE)
FROM LGINVOICE

INSERT INTO DEPARTMENTDIM (DEPT_NUM, DEPT_NAME, DEPT_MAIL_BOX, DEPT_PHONE, EMP_NUM)

```

```
SELECT DEPT_NUM, DEPT_NAME, DEPT_MAIL_BOX, DEPT_PHONE, EMP_NUM
FROM LGDEPARTMENT
```

```
INSERT INTO EMPLOYEEEDIM (EMP_NUM, EMP_FNAME, EMP_LNAME, EMP_EMAIL, EMP_PHONE,
                           EMP_HIREDATE, EMP_TITLE, EMP_COMM, DEPT_NUM)
SELECT EMP_NUM, EMP_FNAME, EMP_LNAME, EMP_EMAIL, EMP_PHONE,
       EMP_HIREDATE, EMP_TITLE, EMP_COMM, DEPT_NUM
FROM LGEMPLOYEE
```

```
INSERT INTO STAGING (LINE_QTY, LINE_PRICE, CUST_CODE, PROD_SKU, INV_DATE, DEPT_NUM,
EMP_NUM)
SELECT L.LINE_QTY, L.LINE_PRICE, C.CUST_CODE, P.PROD_SKU, I.INV_DATE, E.DEPT_NUM,
E.EMP_NUM
FROM LGCUSTOMER C INNER JOIN LGINVOICE I ON C.CUST_CODE = I.CUST_CODE
      INNER JOIN LGEMPLOYEE E ON I.EMPLOYEE_ID = E.EMP_NUM
      INNER JOIN LGDEPARTMENT D ON E.DEPT_NUM = D.DEPT_NUM
      INNER JOIN LGLINE L ON I.INV_NUM = L.INV_NUM
      INNER JOIN LGPRODUCT P ON L.PROD_SKU = P.PROD_SKU
```

```
UPDATE STAGING
SET CUST_KEY = C.CUST_KEY
FROM STAGING S INNER JOIN CUSTOMERDIM C
ON S.CUST_CODE = C.CUST_CODE
```

```
UPDATE STAGING
SET PROD_KEY = P.PROD_KEY
FROM STAGING S INNER JOIN PRODUCTDIM P
ON S.PROD_SKU = P.PROD_SKU
```

```
UPDATE STAGING
SET TIME_KEY = T.TIME_KEY
FROM STAGING S INNER JOIN TIMEDIM T
ON S.INV_DATE = T.INV_DATE
```

```
UPDATE STAGING
SET DEPT_KEY = D.DEPT_KEY
FROM STAGING S INNER JOIN DEPARTMENTDIM D
ON S.DEPT_NUM = D.DEPT_NUM
```

```
UPDATE STAGING
SET EMP_KEY = E.EMP_KEY
FROM STAGING S INNER JOIN EMPLOYEEEDIM E
ON S.EMP_NUM = E.EMP_NUM
```

```
INSERT INTO FACT (CUST_KEY, PROD_KEY, TIME_KEY, DEPT_KEY, EMP_KEY, LINE_QTY, LINE_PRICE)
SELECT CUST_KEY, PROD_KEY, TIME_KEY, DEPT_KEY, EMP_KEY, LINE_QTY, LINE_PRICE
FROM STAGING
```

```
END
GO
```

```
--Jenet Baribeau
--CIS310-01
--A10 PART 4
```

```
--1
```

```
SELECT C.CUST_CITY, P.PROD_CATEGORY, CAST(SUM(LINE_QTY * LINE_PRICE) AS MONEY) AS TOTAL
FROM CUSTOMERDIM C INNER JOIN FACT F ON C.CUST_KEY = F.CUST_KEY
      INNER JOIN PRODUCTDIM P ON F.PROD_KEY = P.PROD_KEY
GROUP BY C.CUST_CITY, P.PROD_CATEGORY
```

```
--2
```

```
SELECT SUM(LINE_QTY*LINE_PRICE) AS SALES, MONTH
FROM TIMEDIM T INNER JOIN FACT F ON T.TIME_KEY = F.TIME_KEY
GROUP BY MONTH
```

```
--3
```

```
--Provide PROD_TYPE for customers who bought water based products in october and the
employee who create largest invoice.
```

```
SELECT C.CUST_LNAME, P.PROD_TYPE, MONTH(10) AS MONTH, E.EMP_LNAME
FROM CUSTOMERDIM C INNER JOIN FACT F ON C.CUST_KEY = F.CUST_KEY
      INNER JOIN PRODUCTDIM P ON F.PROD_KEY = P.PROD_KEY
      INNER JOIN EMPLOYEEDIM E ON F.EMP_KEY = E.EMP_KEY
GROUP BY C.CUST_LNAME, P.PROD_TYPE, E.EMP_LNAME
```