DBS301 Assignment 3

Names- Date- 09/08/2017

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**TABLE QUERIES:**

1. CUSTOMER

CREATE TABLE CUSTOMER

(

Customer# NUMBER(25) NOT NULL,

LastName VARCHAR(25) NOT NULL,

FirstName VARCHAR(25) NOT NULL,

MidName VARCHAR(25),

DOB DATE NOT NULL,

Address VARCHAR(110) NOT NULL,

City VARCHAR(25) NOT NULL,

Province VARCHAR(25) NOT NULL,

PostCode VARCHAR(25) NOT NULL,

Phone# NUMBER(10) NOT NULL,

UserId VARCHAR(25) NOT NULL,

Password VARCHAR(25) NOT NULL,

Email VARCHAR(45),

CONSTRAINT Cust#\_PK PRIMARY KEY (Customer#),

CONSTRAINT UserId\_UN UNIQUE (UserId),

CONSTRAINT Email\_UN UNIQUE (Email)

);

1. ORDERS

CREATE TABLE ORDERS

(

Ord# NUMBER(20) NOT NULL,

OrdDate DATE NOT NULL,

PayMethod VARCHAR(2) NOT NULL,

Customer# NUMBER(20) NOT NULL,

OSid NUMBER(20) NOT NULL,

CONSTRAINT ORDERS\_Ord#\_PK PRIMARY KEY (Ord#),

CONSTRAINT PM\_CK CHECK (PayMethoD IN ('CH', 'CC')),

CONSTRAINT Cust#\_FK FOREIGN KEY (Customer#) REFERENCES CUSTOMER (Customer#),

CONSTRAINT OSid\_FK FOREIGN KEY (OSid) REFERENCES ORDER\_SOURCE (OSid)

);

1. ORDER\_SOURCE

CREATE TABLE ORDER\_SOURCE

(

OSid NUMBER(20) NOT NULL,

SourceDesc VARCHAR(40) NOT NULL,

CONSTRAINT OSid\_PK PRIMARY KEY (OSid),

CONSTRAINT SourceDesc\_UK UNIQUE (SourceDesc)

);

1. CATEGORY

CREATE TABLE CATEGORY

(

CatId NUMBER(25) NOT NULL,

CatDesc VARCHAR(50) NOT NULL,

CONSTRAINT CatId\_PK PRIMARY KEY (CatId),

CONSTRAINT CatDesc\_UK UNIQUE (CatDesc),

CONSTRAINT CatDesc\_CK CHECK (CatDesc in ('Women''s', 'Men''s', 'Children''s', 'Outdoor Gear', 'Leisure')) );

1. PRODUCT

CREATE TABLE PRODUCT

(

ProdCode NUMBER (25) NOT NULL,

ProdDesc VARCHAR(50) NOT NULL,

CatId NUMBER(25) NOT NULL,

CONSTRAINT ProdCode\_PK PRIMARY KEY (ProdCode),

CONSTRAINT ProdDesc\_UK UNIQUE (ProdDesc),

CONSTRAINT CatId\_FK FOREIGN KEY (CatId) REFERENCES CATEGORY (CatId) );

1. COLOR

CREATE TABLE COLOR

(

ColorCode VARCHAR(30) NOT NULL,

ColorDesc VARCHAR(50) NOT NULL,

CONSTRAINT ColorCode\_PK PRIMARY KEY (ColorCode),

CONSTRAINT ColorDesc\_UK UNIQUE (ColorDesc) );

1. INVENTORY

CREATE TABLE INVENTORY

(

Inv# NUMBER(25) NOT NULL,

ProdCode NUMBER(25) NOT NULL,

ColorCode VARCHAR(25) NOT NULL, "Size" VARCHAR(3),

Price NUMBER(4,2) NOT NULL,

QOH NUMBER(10) NOT NULL,

CONSTRAINT INVT\_Inv# PRIMARY KEY (Inv#),

CONSTRAINT ProdCode\_FK FOREIGN KEY (ProdCode) REFERENCES PRODUCT (ProdCode),

CONSTRAINT ColorCode\_FK FOREIGN KEY (ColorCode) REFERENCES COLOR (ColorCode),

CONSTRAINT Size\_CK CHECK ("Size" IN ('S', 'M', 'L', 'XL', 'XXL')),

CONSTRAINT Price\_CK CHECK (Price <= 9999.99),

CONSTRAINT INVT\_QOH\_CK CHECK (QOH >= 0) );

1. ORDER\_LINE

CREATE TABLE ORDER\_LINE

(

Ord# NUMBER(25) NOT NULL,

Item# NUMBER(25) NOT NULL,

QtyOrdered NUMBER(25) NOT NULL,

Inv# NUMBER(25) NOT NULL,

CONSTRAINT OL\_Ord#\_FK FOREIGN KEY (Ord#) REFERENCES ORDERS (Ord#),

CONSTRAINT OL\_Item#\_PK PRIMARY KEY (Item#),

CONSTRAINT OL\_QtyOrdered\_CK CHECK (QtyOrdered >= 0),

CONSTRAINT OL\_Inv#\_FK FOREIGN KEY (Inv#) REFERENCES INVENTORY (Inv#) );

1. SHIPMENT

CREATE TABLE SHIPMENT

(

ShipId NUMBER(25) NOT NULL,

ShipDate DATE NOT NULL,

CONSTRAINT SP\_ShipId\_PK PRIMARY KEY (ShipId)

);

1. SHIPMENT\_LINE

CREATE TABLE SHIPMENT\_LINE

(

ShipLine# NUMBER(25) NOT NULL,

ShipId NUMBER(25) NOT NULL,

Inv# NUMBER(25) NOT NULL,

QtyShipped NUMBER(25) NOT NULL,

DateReceived DATE,

CONSTRAINT SPL\_ShipLine#\_PK PRIMARY KEY (ShipLine#),

CONSTRAINT SPL\_ShipId\_FK FOREIGN KEY (ShipId) REFERENCES SHIPMENT (ShipId),

CONSTRAINT SPL\_Inv#\_FK FOREIGN KEY (Inv#) REFERENCES INVENTORY (Inv#),

CONSTRAINT SPL\_QtyShipped\_CK CHECK (QtyShipped >= 0),

CONSTRAINT SPL\_COMP\_UK UNIQUE (ShipId, Inv#) );

**INSERT SCRIPTS:**

1. CUSTOMER

INSERT INTO CUSTOMER VALUES

('129965166', 'Shah', 'Karan', '', '1999-02-25', '203 Flagstone Way', 'NewMarket', 'ON', 'L3X2Y3', '2895521020', 'khshah2', 'password', 'khshah2@myseneca.ca' );

INSERT INTO CUSTOMER VALUES

('126330166', 'AHMED', 'MUHAMMAD', '', '1996-06-14', '1435 WOODBINE AVE', 'TORONTO', 'ON', 'M4C4G8', '204914074', 'msyahmed', 'password', 'msyahmed@myseneca.ca' );

INSERT INTO CUSTOMER VALUES

('321546734', 'PATEL', 'HIMANSHU', '', '1996-08-14', '1435 SPRING AVE', 'TORONTO', 'ON', 'M2J4CG', '205614074', 'himpts', 'password', 'himpts@myseneca.ca' );

1. ORDER\_SOURCE

INSERT INTO ORDER\_SOURCE VALUES

(1472583690,'ROCK N ROLL CATALOGUE 2015');

INSERT INTO ORDER\_SOURCE VALUES

(1234567890,'MARKETING WEBSITES');

INSERT INTO ORDER\_SOURCE VALUES

(8794561230,'KINGFISHER CALENDER2016');

1. ORDER

INSERT INTO ORDERS VALUES

(6541237890,'2017-04-19','CC',129965166,8794561230);

INSERT INTO ORDERS VALUES

(4320112240,'2017-02-20','CH',126330166,1234567890);

INSERT INTO ORDERS VALUES

(5421223210,'2017-08-01','CC','321546734',1472583690);

1. CATEGORY

INSERT ALL INTO CATEGORY VALUES

('0011', 'Women''s')

INTO CATEGORY VALUES

('0012', 'Men''s')

INTO CATEGORY VALUES

('0013', 'Children''s') INTO CATEGORY

VALUES

('0014', 'Outdoor Gear')

INTO CATEGORY VALUES

('0015', 'Leisure')

SELECT \* FROM DUAL;

1. PRODUCT

INSERT INTO PRODUCT VALUES(

1121321654,'Tent',0014);

INSERT INTO PRODUCT VALUES(

7789852647,'Women"s Western Outfit',0011);

INSERT INTO PRODUCT VALUES(

6321450001,'Men"s Shirts',0012);

INSERT INTO PRODUCT VALUES(

6666333121,'R/C Helicopter',0013);

INSERT INTO PRODUCT VALUES(

99998886565,'Queen Size Bed',0015);

1. COLOR

INSERT INTO COLOR VALUES(

'BL12345', 'SKY BLUE');

INSERT INTO COLOR VALUES(

'WH3625', 'WHITE');

INSERT INTO COLOR VALUES(

'BLK3145', 'BLACK');

INSERT INTO COLOR VALUES(

'YLL1145', 'YELLOW');

INSERT INTO COLOR VALUES(

'OR1136', 'ORANGE');

1. INVENTORY

INSERT INTO INVENTORY VALUES(

6565651212, 1121321654, 'BL12345', '', 25.55, 5);

INSERT INTO INVENTORY VALUES(

6565651214, 7789852647, 'WH3625', 'L', 50.25, 10);

INSERT INTO INVENTORY VALUES(

65656512116, 6321450001, 'BLK3145', 'XL', 60.50, 6);

1. ORDER\_LINE

INSERT INTO ORDER\_LINE VALUES(

6541237890, 'SECOND', 13, 6565651212);

INSERT INTO ORDER\_LINE VALUES(

4320112240, 'THIRD', 18, 6565651214);

INSERT INTO ORDER\_LINE VALUES(

5421223210, 'FIRST', 19, 65656512116);

1. SHIPMENT

INSERT INTO SHIPMENT VALUES(

7318812981,'2017-08-09');

INSERT INTO SHIPMENT VALUES(

6315217786,'2017-05-14');

INSERT INTO SHIPMENT VALUES(

3525717382,'2017-06-20');

1. SHIPMENT\_LINE

INSERT INTO SHIPMENT\_LINE VALUES(

9654789001,7318812981,6565651212,13,'2017-08-09');

INSERT INTO SHIPMENT\_LINE VALUES(

9654789002,6315217786,6565651214,18,'2017-05-14');

INSERT INTO SHIPMENT\_LINE VALUES(

9654789003,3525717382,65656512116,19,'2017-06-20');

**VIEW:**

CREATE VIEW ItemQtyOnHand AS

(

SELECT P.PRODDESC,

C.COLORDESC, I.PRICE,

O.ORD#, O.ORDDATE,

I.QOH

FROM PRODUCT P, COLOR C, INVENTORY I, ORDERS O, ORDER\_LINE L

WHERE C.COLORCODE = I.COLORCODE

AND

P.PRODCODE = I.PRODCODE

AND

L.ORD# = O.ORD#

AND

L.INV# = I.INV#

AND

L.QTYORDERED > 10 );

SELECT \* FROM ITEMQTYONHAND;

PRODDESC COLORDESC PRICE ORD# ORDDATE QQH

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Tent SKY BLUE 25.55 6541237890 17-04-19 5

Women"s Western Outfit WHITE 50.25 4320112240 17-02-20 10

Men"s Shirts BLACK 60.5 5421223210 17-08-01 6

**TIC**:

**Customer**:

Data-

INSERT INTO CUSTOMER VALUES

('129965166', 'Shah', 'Karan', '', '1999-02-25', '203 Flagstone Way', 'NewMarket', 'ON', 'L3X2Y3', '2895521020', 'khshah2', 'password', 'khshah2@myseneca.ca' );

INSERT INTO CUSTOMER VALUES

('126330166', 'AHMED', 'MUHAMMAD', '', '1996-06-14', '1435 WOODBINE AVE', 'TORONTO', 'ON', 'M4C4G8', '204914074', 'msyahmed', 'password', 'msyahmed@myseneca.ca' );

INSERT INTO CUSTOMER VALUES

('321546734', 'PATEL', 'HIMANSHU', '', '1996-08-14', '1435 SPRING AVE', 'TORONTO', 'ON', 'M2J4CG', '205614074', 'himpts', 'password', 'himpts@myseneca.ca' );

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Column Name** | **Customer#** | **LastName** | **FirstName** | **MidName** | **DOB** | **Address** | **City** | **Province** | **PostCode** | **Phone#** | **UserId** | **Password** | **EMail** |
| **Key Type** | PK |  |  |  |  |  |  |  |  |  |  |  |  |
| **Nulls/Unique** |  | NN | NN |  | NN | NN | NN | NN | NN | NN | NN, UN | NN, UN | NN |
| **FK Ref Table** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **FK Column** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Datatype** | Number | Varchar | Varchar | Varchar | Date | Varchar | Varchar | Varchar | Varchar | Number | Varchar | Varchar | Varchar |
| **MAX Length** | 25 | 25 | 25 | 25 |  | 110 | 25 | 25 | 25 | 10 | 25 | 25 | 45 |
| **Validation** |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Orders:**

 Data-

INSERT INTO ORDERS VALUES

(6541237890,'2017-04-19','CC',129965166,8794561230);

INSERT INTO ORDERS VALUES

(4320112240,'2017-02-20','CH',126330166,1234567890);

INSERT INTO ORDERS VALUES

(5421223210,'2017-08-01','CC','321546734',1472583690);

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Column Name** | Ord# | OrdDate | PayMethod | Customer# | OSid |
| **Key Type** | PK |  |  | FK | FK |
| **Nulls/Unique** | NN | NN | NN | NN | NN |
| **FK Ref Table** |  |  |  | Customer | Order\_source |
| **FK Column** |  |  |  | Customer# | OSid |
| **Datatype** | Number | Date | Varchar | Number | Number |
| **MAX Length** | 20 |  | 2 | 20 | 20 |
| **Validation** |  |  | IN (CC, CH) |  |  |

**Order\_source:**

Data-

INSERT INTO ORDER\_SOURCE VALUES

(1472583690,'ROCK N ROLL CATALOGUE 2015');

INSERT INTO ORDER\_SOURCE VALUES

(1234567890,'MARKETING WEBSITES');

INSERT INTO ORDER\_SOURCE VALUES

(8794561230,'KINGFISHER CALENDER2016');

|  |  |  |
| --- | --- | --- |
| **Column Name** | OSid | SourceDesc |
| **Key Type** | PK |  |
| **Nulls/Unique** | NN | NN, UN |
| **FK Ref Table** |  |  |
| **FK Column** |  |  |
| **Datatype** | Number | Varchar |
| **MAX Length** | 20 | 40 |
| **Validation** |  |  |

**Category:**

Data-

INSERT ALL INTO CATEGORY VALUES

('0011', 'Women''s')

INTO CATEGORY VALUES

('0012', 'Men''s')

INTO CATEGORY VALUES

('0013', 'Children''s') INTO CATEGORY

VALUES

('0014', 'Outdoor Gear')

INTO CATEGORY VALUES

('0015', 'Leisure')

SELECT \* FROM DUAL;

|  |  |  |
| --- | --- | --- |
| **Column Name** | CatId | CatDesc |
| **Key Type** | PK |  |
| **Nulls/Unique** | NN | NN, UN |
| **FK Ref Table** |  |  |
| **FK Column** |  |  |
| **Datatype** | Number | Varchar |
| **MAX Length** | 25 | 50 |
| **Validation** |  | IN (Women’s, Men’s, Children’s, Outdoor gear, Leisure) |

**Product:**

Data-

INSERT INTO PRODUCT VALUES(

1121321654,'Tent',0014);

INSERT INTO PRODUCT VALUES(

7789852647,'Women"s Western Outfit',0011);

INSERT INTO PRODUCT VALUES(

6321450001,'Men"s Shirts',0012);

INSERT INTO PRODUCT VALUES(

6666333121,'R/C Helicopter',0013);

INSERT INTO PRODUCT VALUES(

99998886565,'Queen Size Bed',0015);

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | ProdCode | ProdDesc | CatId |
| **Key Type** | PK |  | FK |
| **Nulls/Unique** | NN | NN, UN | NN |
| **FK Ref Table** |  |  | Category |
| **FK Column** |  |  | CatId |
| **Datatype** | Number | Varchar | Number |
| **MAX Length** | 25 | 50 | 25 |
| **Validation** |  |  |  |

**Color:**

Data-

INSERT INTO COLOR VALUES(

'BL12345', 'SKY BLUE');

INSERT INTO COLOR VALUES(

'WH3625', 'WHITE');

INSERT INTO COLOR VALUES(

'BLK3145', 'BLACK');

INSERT INTO COLOR VALUES(

'YLL1145', 'YELLOW');

INSERT INTO COLOR VALUES(

'OR1136', 'ORANGE');

|  |  |  |
| --- | --- | --- |
| **Column Name** | ColorCode | ColorDesc |
| **Key Type** | PK |  |
| **Nulls/Unique** | NN | NN, UN |
| **FK Ref Table** |  |  |
| **FK Column** |  |  |
| **Datatype** | Number | Varchar |
| **MAX Length** | 23 | 50 |
| **Validation** |  |  |

**Order\_Line**

Data-

INSERT INTO ORDER\_LINE VALUES(

6541237890, 'SECOND', 13, 6565651212);

INSERT INTO ORDER\_LINE VALUES(

4320112240, 'THIRD', 18, 6565651214);

INSERT INTO ORDER\_LINE VALUES(

5421223210, 'FIRST', 19, 65656512116);

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | Ord# | Item# | QtyOrdered | Inv# |
| **Key Type** | FK | PK |  | FK |
| **Nulls/Unique** | NN | NN | NN | NN |
| **FK Ref Table** | Orders |  |  | Inventory |
| **FK Column** | Ord# |  |  | Inv# |
| **Datatype** | Number | Number | Number | Number |
| **MAX Length** | 25 | 25 | 25 | 25 |
| **Validation** |  |  | QtyOrdered > 0 |  |

**Shipment:**

Data-

INSERT INTO SHIPMENT VALUES(

7318812981,'2017-08-09');

INSERT INTO SHIPMENT VALUES(

6315217786,'2017-05-14');

INSERT INTO SHIPMENT VALUES(

3525717382,'2017-06-20');

|  |  |  |
| --- | --- | --- |
| **Column Name** | **ShipId** | **ShipDate** |
| **Key Type** | PK |  |
| **Nulls/Unique** | NN | NN |
| **FK Ref Table** |  |  |
| **FK Column** |  |  |
| **Datatype** | Number | Date |
| **MAX Length** | 25 |  |
| **Validation** |  |  |

**Shipment\_Line**

Data-

INSERT INTO SHIPMENT\_LINE VALUES(

9654789001,7318812981,6565651212,13,'2017-08-09');

INSERT INTO SHIPMENT\_LINE VALUES(

9654789002,6315217786,6565651214,18,'2017-05-14');

INSERT INTO SHIPMENT\_LINE VALUES(

9654789003,3525717382,65656512116,19,'2017-06-20');

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Column Name** | ShipLine# | ShipId | Inv# | QtyShipped | DateReceived |
| **Key Type** | PK | FK1 | FK1 |  |  |
| **Nulls/Unique** | NN | NN | NN | NN |  |
| **FK Ref Table** |  | Shipment | Inventory |  |  |
| **FK Column** |  | ShipId | Inv# |  |  |
| **Datatype** | Number | Number | Number | Number | Date |
| **MAX Length** | 25 | 25 | 25 | 25 |  |
| **Validation** |  |  |  | QtyShipped >= 0 |  |