# Online Store Database Design and Development

Sai Kiran Gontyala
Sriganesh Baskaran
Yoshitha Gattu
Rupa Mahendran
Uchechukwu Okafor

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# Scenario

The online store database needs to keep track of orders for its inventory. When a customer places orders, the system must record that the order and order items. The system must update the available quantity on hand to reflect that the by product(s) has been sold. When an employee processes orders, the system must confirm that the ordered items are in stock. The online store need to keep track of customers and employees, too. The system must update the available quantity on hand to reflect that the by product(s) has been sold.
Each item has item description, item finish and price.

# Business Rules

One customer may or may not place many orders.

One order must be placed by one and only one customer.


One order must contain one or more item.

One item may or may not be in many orders.


One employee may or may not process many orders.

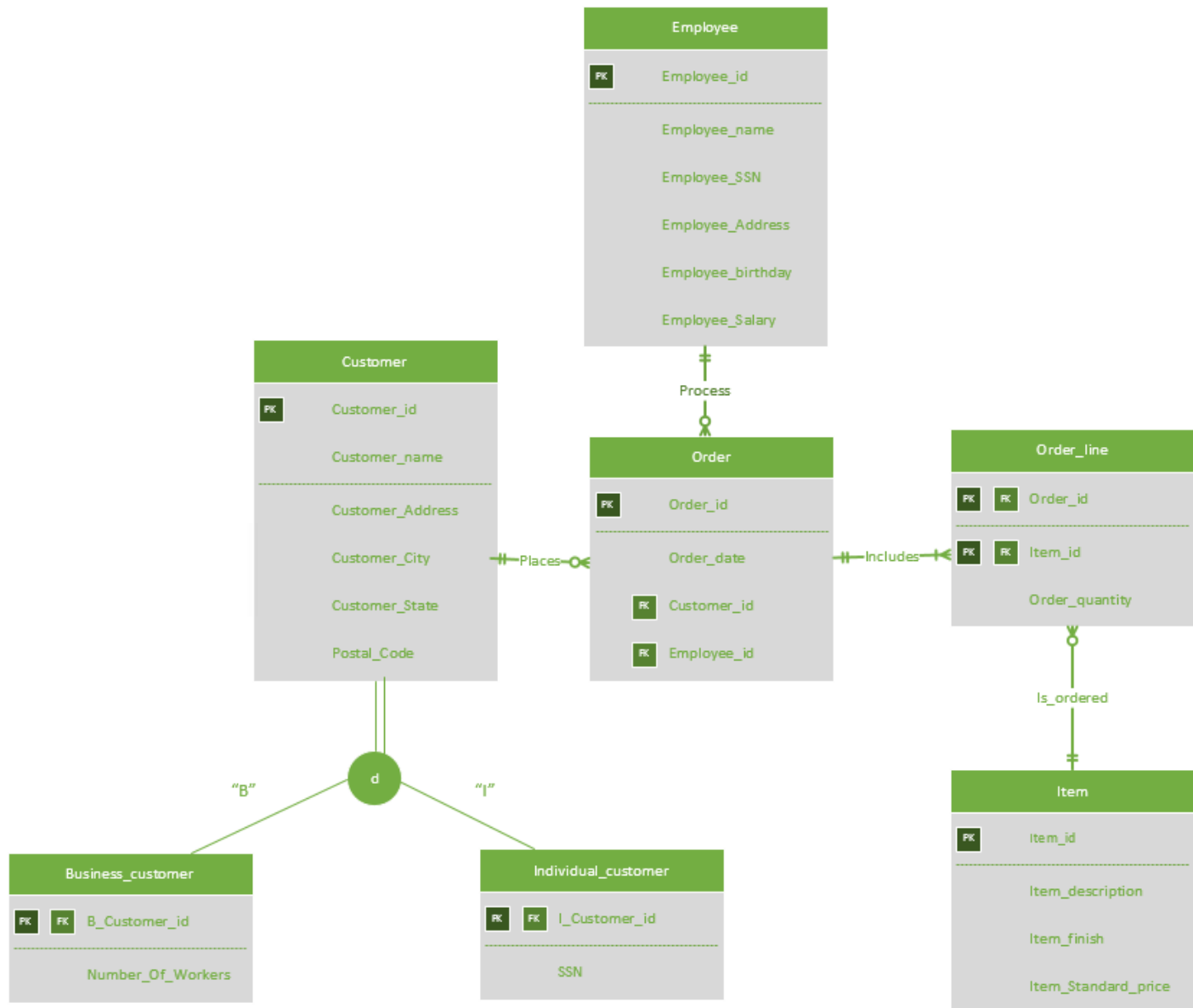One order must be processed by one and only one employee.


One customer must be either a business or individual customer.

One business customer or individual customer must be a customer.

# Entity types and relationship types

|          | customer | Order        | item | employee |
|----------|----------|--------------|------|----------|
| customer | --       | Placed by    | --   | --       |
| Order    | Places   | --           | Be in | Process  |
| Item     | --       | Contain      | --   | --       |
| employee | --       | Processed by | --   | --       |

# ER Diagram

**Employee**

| | |
|---|---|
| FK | Employee_id |

Employee_name

Employee_SSN

Employee_Address

Employee_birthday

Employee_Salary

Process

**Customer**

| | |
|---|---|
| PK | Customer_id |

Customer_name

Customer_Address

Customer_City — Places — Order

Customer_State

Postal_Code

**Order**

| | |
|---|---|
| PK | Order_id |

Order_date

| FK | Customer_id |
| FK | Employee_id |

Includes

**Order_line**

| | | |
|---|---|---|
| FK | FK | Order_id |
| FK | FK | Item_id |

Order_quantity

Is_ordered

**Item**

| | |
|---|---|
| PK | Item_id |

Item_description

Item_finish

Item_Standard_price

d

"B"  "I"

**Business_customer**

| | | |
|---|---|---|
| PK | FK | B_Customer_id |

Number_Of_Workers

**Individual_customer**

| | | |
|---|---|---|
| PK | FK | I_Customer_id |

SSN

# Tables & Attributes

Table Name: **Employee**

| Employee_id (PK) | Employee_Name | Employee_SSN | Employee_Address | Employee_birthday | Employee_Salary |
|---|---|---|---|---|---|
| | | | | | |

Table Name: **Orders**

| Order_id (PK) | Customer_ID(FK) | Employee_id(FK) | Order_date | |
|---|---|---|---|---|
| | | | | |

Table Name: **Orders_Line**

| Order_ID(PK)(FK) | Item_ID(PK)(FK) | Ordered_Quantity | | |
|---|---|---|---|---|
| | | | | |

Table Name: **Items**

| Item_id(PK) | Item_description | Item_finish | Standard_Price | |
|---|---|---|---|---|
| | | | | |

Table Name: **Cust**

| Customer_id(PK) | Customer_name | Customer_Address | Customer_City | Customer_State | Postal_code |
|---|---|---|---|---|---|
| | | | | | |

Table Name: **B_CUST**

| B_Customer_id(PK)(FK) | NUMBER_OF_WORKERS | | |
|---|---|---|---|
| | | | |

Table Name: **I_CUST**

| I_Customer_id(PK)(FK) | SSN | | |
|---|---|---|---|

# Referential Integrity

Orders**.**Employee_id(FK) → Employee**.**Employee_id (PK)

Orders**.**Customer_id(FK)  → Cust**.**Customer_id (PK)

Orders_line**.**Order_id(FK)  → Orders**.**Order_id (PK)

Orders_line**.**Item_id(FK)  → Items**.**Item_id (PK)

B_Cust**.**B_Customer_id (FK) → Cust**.**Customer_id  (PK)

I_Cust**.**I_Customer_id(FK)  → Cust**.**Customer_id(PK)

# Functional Dependency Analysis for Normalization

**Employee_id** → Employee_Name, Employee_SSN, Employee_Address, Employee_birthday, Employee_Salary  (Full Dependency)

**Order_id** → Customer_ID, Employee_id, Order_date  (Full Dependency)

**Order_ID, Item_ID** → Ordered_Quantity  (Full Dependency)

**Item_id** →  Item_description, Item_finish, Standard_Price  (Full Dependency)

**Customer_ID** → Customer_name, Customer_Address, Customer_City, Customer_State,(Full Dependency)

**PostalCode** → Customer_State, Customer_city (Transitive Dependency)

**B_Customer_id** →  NUMBER_OF_WORKERS (Full Dependency)

**I_Customer_Id** →  SSN (Full Dependency)

# Normalized tables in the relational

| Table Name | 1NF | 2NF | 3NF |
|---|---|---|---|
| Employee | X | X | X |
| Orders | X | X | X |
| Orders_Line | X | X | X |
| Items | X | X | X |
| Cust | X | X | Transitive |
| B_Cust | X | X | X |
| I_Cust | X | X | X |

# Database Creation (DDL)

DROP TABLE CUST_t CASCADE CONSTRAINTS ;

DROP TABLE I_CUST_t CASCADE CONSTRAINTS ;

DROP TABLE B_CUST_t CASCADE CONSTRAINTS ;

DROP TABLE ORDERS_t CASCADE CONSTRAINTS ;

DROP TABLE EMPLOYEE_t CASCADE CONSTRAINTS ;

DROP TABLE ITEMS_t CASCADE CONSTRAINTS ;

DROP TABLE Orders_line_t CASCADE CONSTRAINTS ;

CREATE TABLE CUST_t

(Customer_Id number NOT NULL, Customer_Name VARCHAR(25), Customer_Address VARCHAR(30), Customer_City VARCHAR(20), Customer_State VARCHAR(2),Postal_Code VARCHAR(10), CONSTRAINT CUST_PK PRIMARY KEY (Customer_Id));

INSERT INTO CUST_t  (Customer_Id, Customer_Name, Customer_Address, Customer_City, Customer_State, Postal_Code) VALUES  (1001, 'Saikiran Gontyala', '7937 Praire Rose Way', 'Highland', 'CA', '92346');

INSERT INTO CUST_t  (Customer_Id, Customer_Name, Customer_Address, Customer_City, Customer_State, Postal_Code)

VALUES  (1002, 'Rupa Mahendran', '109 westchester road', 'Boston', 'MA', '02130');

INSERT INTO CUST_t  (Customer_Id, Customer_Name, Customer_Address, Customer_City, Customer_State, Postal_Code)

VALUES  (1003, 'Yoshitha Gattu', '7518 Carothers Street', 'Houston', 'TX', '77028');

INSERT INTO CUST_t  (Customer_Id, Customer_Name, Customer_Address, Customer_City, Customer_State, Postal_Code)

VALUES  (1004, 'Sriganesh Baskaran', '109 Selwyn Road', 'Randolph', 'MA', '02368');

INSERT INTO CUST_t  (Customer_Id, Customer_Name, Customer_Address, Customer_City, Customer_State, Postal_Code) VALUES  (1005, 'Uchechukwu Okafor', '1528 West 207th', 'Torrance', 'CA', '90501');


CREATE TABLE B_CUST_t (B_CUSTOMER_Id number NOT NULL, NUMBER_OF_WORKERS number, CONSTRAINT B_CUST_PK PRIMARY KEY (B_CUSTOMER_Id), CONSTRAINT B_CUST_FK1 FOREIGN KEY (B_Customer_Id) REFERENCES CUST_t(Customer_Id));


INSERT INTO B_CUST_t  (B_Customer_Id, NUMBER_OF_WORKERS ) VALUES  (1011, 24);

INSERT INTO B_CUST_t  (B_Customer_Id, NUMBER_OF_WORKERS ) VALUES  (1012, 10);

INSERT INTO B_CUST_t  (B_Customer_Id, NUMBER_OF_WORKERS )VALUES  (1013, 86);

INSERT INTO B_CUST_t  (B_Customer_Id, NUMBER_OF_WORKERS ) VALUES  (1014, 18);

INSERT INTO B_CUST_t  (B_Customer_Id, NUMBER_OF_WORKERS ) VALUES  (1015, 80);


CREATE TABLE I_CUST_t (I_CUSTOMER_Id number NOT NULL, SSN number, CONSTRAINT I_CUST_PK PRIMARY KEY (I_CUSTOMER_Id), CONSTRAINT I_CUST_FK1 FOREIGN KEY (I_Customer_Id) REFERENCES CUST_t(Customer_Id));

INSERT INTO I_CUST_t  (I_Customer_Id, SSN ) VALUES  (1001, 123456789);

INSERT INTO I_CUST_t  (I_Customer_Id, SSN ) VALUES  (1002, 234567891);

INSERT INTO I_CUST_t  (I_Customer_Id, SSN ) VALUES  (1003, 345678912);

INSERT INTO I_CUST_t  (I_Customer_Id, SSN ) VALUES  (1004, 456789123);

INSERT INTO I_CUST_t  (I_Customer_Id, SSN ) VALUES  (1005, 567891234);


CREATE TABLE ORDERS_t (Order_Id INTEGER NOT NULL, Customer_Id number, Employee_Id number, Order_Date DATE, CONSTRAINT ORDERS_PK PRIMARY KEY (Order_Id), CONSTRAINT ORDERS_FK1 FOREIGN KEY (Customer_Id) REFERENCES CUST_t(Customer_Id), CONSTRAINT ORDERS_FK2 FOREIGN KEY (Employee_Id) REFERENCES EMPLOYEE_t(Employee_Id));


INSERT INTO ORDERS_t  (Order_Id, Customer_Id, Employee_Id, Order_Date) VALUES (111, 1001, 3, '21/Dec/18');

INSERT INTO ORDERS_t  (Order_Id, Customer_Id, Employee_Id, Order_Date) VALUES (112, 1002, 2, '21/Dec/18');

INSERT INTO ORDERS_t  (Order_Id, Customer_Id, Employee_Id, Order_Date) VALUES (113, 1003, 4, '21/Dec/18');

INSERT INTO ORDERS_t  (Order_Id, Customer_Id, Employee_Id, Order_Date) VALUES (114, 1004, 5, '21/Dec/18');

INSERT INTO ORDERS_t  (Order_Id, Customer_Id, Employee_Id, Order_Date) VALUES (115, 1005, 1, '21/Dec/18');


CREATE TABLE EMPLOYEE_t (Employee_Id number NOT NULL, Employee_Name VARCHAR(25), Employee_SSN number, Employee_Address VARCHAR(50), Employee_Birthday VARCHAR(20), Employee_Salary Decimal(7,2), CONSTRAINT EMPLOYEE_PK PRIMARY KEY (Employee_Id));


INSERT INTO EMPLOYEE_t  (Employee_Id, Employee_Name, Employee_SSN, Employee_Address, Employee_Birthday, Employee_Salary) VALUES  (1, 'Zhicheng Yu', '847364956', '1 Orange Way Los Angeles, CA', '05-12-1995', 45000.00);

INSERT INTO EMPLOYEE_t  (Employee_Id, Employee_Name, Employee_SSN, Employee_Address, Employee_Birthday, Employee_Salary)VALUES  (2, 'Noelle Cespedes', '906483264', '5154 State University Drive Los Angeles, CA', '09-01-1980', 50000.00);

INSERT INTO EMPLOYEE_t  (Employee_Id, Employee_Name, Employee_SSN, Employee_Address, Employee_Birthday, Employee_Salary) VALUES  (3, 'Prudhvi Vetukuri', '648340700', '22518 Figueroa St. Carson, CA', '03-28-1989', 48000.00);

INSERT INTO EMPLOYEE_t  (Employee_Id, Employee_Name, Employee_SSN, Employee_Address, Employee_Birthday, Employee_Salary) VALUES  (4, 'Maria Espinoza', '094672111', '1 Sea Hawk Way Redondo Beach, CA', '01-01-1993', 45000.00);

INSERT INTO EMPLOYEE_t  (Employee_Id, Employee_Name, Employee_SSN, Employee_Address, Employee_Birthday, Employee_Salary) VALUES  (5, 'Clarence Serdoff', '753962538', '24428 Eshelman Ave Lomita, CA', '05-09-1988', 49950.00);

CREATE TABLE ITEMS_t (Item_Id number NOT NULL, Item_Description VARCHAR(50), Item_Finish VARCHAR(20), Standard_Price Decimal(6,2) , CONSTRAINT ITEMS_PK PRIMARY KEY (Item_Id));

INSERT INTO ITEMS_t  (Item_Id, Item_Description, Item_Finish, Standard_Price) VALUES (4021, 'Norton Security Deluxe', 'Norton', 20.00);

INSERT INTO ITEMS_t  (Item_Id, Item_Description, Item_Finish, Standard_Price) VALUES (4022, '128GB USB', 'SanDisk', 21.45);

INSERT INTO ITEMS_t  (Item_Id, Item_Description, Item_Finish, Standard_Price) VALUES (4023, 'Laptop Backpacks', 'HP', 25.47);

INSERT INTO ITEMS_t  (Item_Id, Item_Description, Item_Finish, Standard_Price) VALUES (4024, 'Power Adapter', 'MacBook', 69.00);

INSERT INTO ITEMS_t  (Item_Id, Item_Description, Item_Finish, Standard_Price) VALUES (4025, 'Power Adapter', 'HP', 18.99);

CREATE TABLE Orders_line_t (Order_Id INTEGER NOT NULL, Item_Id number NOT NULL, Ordered_Quantity number, CONSTRAINT Orders_line_PK PRIMARY KEY (Order_Id, Item_Id), CONSTRAINT Orders_line_FK1 FOREIGN KEY (Order_Id) REFERENCES ORDERS_t(Order_Id), CONSTRAINT Orders_line_FK2 FOREIGN KEY (Item_Id) REFERENCES ITEMS_t(Item_Id));

INSERT INTO Order_line_t (Order_Id, Item_Id, Ordered_Quantity) VALUES ( 111, 4021, 1);

INSERT INTO Order_line_t (Order_Id, Item_Id, Ordered_Quantity) VALUES ( 112, 4022, 4);

INSERT INTO Order_line_t (Order_Id, Item_Id, Ordered_Quantity) VALUES ( 113, 4023, 15);

INSERT INTO Order_line_t (Order_Id, Item_Id, Ordered_Quantity) VALUES ( 114, 4024, 3);

INSERT INTO Order_line_t (Order_Id, Item_Id, Ordered_Quantity) VALUES ( 115, 4025, 6);

INSERT INTO Order_line_t (Order_Id, Item_Id, Ordered_Quantity) VALUES ( 115, 4024, 4);


COMMIT;


# Database Description

DESC ORDERS_t;

|  | Null? | Type |
|---|---|---|
| ORDER_ID | NOT NULL | NUMBER(38) |
| CUSTOMER_ID |  | NUMBER |
| EMPLOYEE_ID |  | NUMBER |
| ORDER_DATE |  | DATE |


DESC I_CUST_t;

| Name | Null? | Type |
|---|---|---|
| I_CUSTOMER_ID | NOT NULL | NUMBER |
| SSN |  | NUMBER |


DESC B_CUST_t;

| Name | Null? | Type |
|---|---|---|
| B_CUSTOMER_ID | NOT NULL | NUMBER |
| NUMBER_OF_WORKERS |  | NUMBER |

DESC CUST_t;

| Name | Null? | Type |
|---|---|---|
| CUSTOMER_ID | NOT NULL | NUMBER |
| CUSTOMER_NAME | | VARCHAR2(25) |
| CUSTOMER_ADDRESS | | VARCHAR2(30) |
| CUSTOMER_CITY | | VARCHAR2(20) |
| CUSTOMER_STATE | | VARCHAR2(2) |
| POSTAL_CODE | | VARCHAR2(10) |

DESC EMPLOYEE_t;

| Name | Null? | Type |
|---|---|---|
| EMPLOYEE_ID | NOT NULL | NUMBER |
| EMPLOYEE_NAME | | VARCHAR2(25) |
| EMPLOYEE_SSN | | NUMBER |
| EMPLOYEE_ADDRESS | | VARCHAR2(50) |
| EMPLOYEE_BIRTHDAY | | VARCHAR2(20) |
| EMPLOYEE_SALARY | | NUMBER(7,2) |

DESC ITEMS_t;

| Name | Null? | Type |
|---|---|---|
| ITEM_ID | NOT NULL | NUMBER |
| ITEM_DESCRIPTION | | VARCHAR2(50) |
| ITEM_FINISH | | VARCHAR2(20) |
| STANDARD_PRICE | | NUMBER(6,2) |

DESC Order_line_t

| Name | Null? | Type |
|---|---|---|
| ORDER_ID | NOT NULL | NUMBER(38) |
| ITEM_ID | NOT NULL | NUMBER |
| ORDERED_QUANTITY | | NUMBER |

# Database Instances

SELECT * FROM CUST_t;

| CUSTOMER_ID | CUSTOMER_NAME | CUSTOMER_ADDRESS | CUSTOMER_CITY | CUSTOM | POSTAL_CODE |
|---|---|---|---|---|---|
| 1001 | Saikiran Gontyala | 7937 Praire Rose Way | Highland | CA | 92346 |
| 1002 | Rupa Mahendran | 109 westchester road | Boston | MA | 02130 |
| 1003 | Yoshitha Gattu | 7518 Carothers Street | Houston | TX | 77028 |
| 1004 | Sriganesh Baskaran | 109 Selwyn Road | Randolph | MA | 02368 |
| 1005 | Uchechukwu Okafor | 1528 West 207th | Torrance | CA | 90501 |

SELECT * FROM B_CUST_t;

| B_CUSTOMER_ID | NUMBER_OF_WORKERS |
|---|---|
| 1011 | 24 |
| 1012 | 10 |
| 1013 | 86 |
| 1014 | 18 |
| 1015 | 80 |

SELECT * FROM I_CUST_t;

| I_CUSTOMER_ID | SSN |
|---|---|
| 1001 | 123456789 |
| 1002 | 234567891 |
| 1003 | 345678912 |
| 1004 | 456789123 |
| 1005 | 567891234 |

SELECT * FROM ORDERS_t;

| ORDER_ID | CUSTOMER_ID | EMPLOYEE_ID | ORDER_DATE |
|---|---|---|---|
| 111 | 1001 | 3 | 21-DEC-18 |
| 112 | 1002 | 2 | 21-DEC-18 |
| 113 | 1003 | 4 | 21-DEC-18 |
| 114 | 1004 | 5 | 21-DEC-18 |
| 115 | 1005 | 1 | 21-DEC-18 |

SELECT * FROM EMPLOYEE_t;

| EMPLOYEE_ID | EMPLOYEE_NAME | EMPLOYEE_SSN | EMPLOYEE_ADDRESS | EMPLOYEE_BIRTHDAY | EMPLOYEE_SALARY |
|---|---|---|---|---|---|
| 1 | Zhicheng Yu | 847364956 | 1 Orange Way Los Angeles, CA | 05-12-1995 | 45000 |
| 2 | Noelle Cespedes | 906483264 | 5154 State University Drive Los Angeles, CA | 09-01-1980 | 50000 |
| 3 | Prudhvi Vetukuri | 648340700 | 22518 Figueroa St. Carson, CA | 03-28-1989 | 48000 |
| 4 | Maria Espinoza | 94672111 | 1 Sea Hawk Way Redondo Beach, CA | 01-01-1993 | 45000 |
| 5 | Clarence Serdoff | 753962538 | 24428 Eshelman Ave Lomita, CA | 05-09-1988 | 49950 |

SELECT * FROM ITEMS_t;

| ITEM_ID | ITEM_DESCRIPTION | ITEM_FINISH | STANDARD_PRICE |
|---|---|---|---|
| 4021 | Norton Security Deluxe | Norton | 20 |
| 4022 | 128GB USB | SanDisk | 21.45 |
| 4023 | Laptop Backpacks | HP | 25.47 |
| 4024 | Power Adapter | MacBook | 69 |
| 4025 | Power Adapter | HP | 18.99 |

SELECT * FROM Orders_line_t;

| ORDER_ID | ITEM_ID | ORDERED_QUANTITY |
|---|---|---|
| 111 | 4021 | 1 |
| 112 | 4022 | 4 |
| 113 | 4023 | 15 |
| 114 | 4024 | 3 |
| 115 | 4025 | 6 |
| 115 | 4024 | 4 |

# SQL Queries (DML)

**Update CUSTOMER_ADDRESS of CUSTOMER whose CUSTOMER_ID is 1004**

UPDATE CUST_T SET

CUSTOMER_ADDRESS = '5154 State University Drive'

WHERE CUSTOMER_ID = 1004;

BEFORE:

| CUSTOME R_ID | CUSTOMER_ NAME | CUSTOMER_AD DRESS | CUSTOMER_ CITY | CUST OM | POSTAL_C ODE |
|---|---|---|---|---|---|
| 1001 | Saikiran Gontyala | 7937 Praire Rose Way | Highland | CA | 92346 |
| 1002 | Rupa Mahendran | 109 westchester road | Boston | MA | 02130 |
| 1003 | Yoshitha Gattu | 7518 Carothers Street | Houston | TX | 77028 |
| 1004 | Sriganesh Baskaran | 109 Selwyn Road | Randolph | MA | 02368 |
| 1005 | Uchechukwu Okafor | 1528 West 207th | Torrance | CA | 90501 |

AFTER:

| CUSTOMER_ID | CUSTOMER_NAME | CUSTOMER_ADDRESS | CUSTOMER_CITY | CUSTOM | POSTAL_CODE |
|---|---|---|---|---|---|
| 1001 | Saikiran Gontyala | 7937 Praire Rose Way | Highland | CA | 92346 |
| 1002 | Rupa Mahendran | 109 westchester road | Boston | MA | 02130 |
| 1003 | Yoshitha Gattu | 7518 Carothers Street | Houston | TX | 77028 |
| 1004 | Sriganesh Baskaran | 5154 State University Drive | Randolph | MA | 02368 |
| 1005 | Uchechukwu Okafor | 1528 West 207th | Torrance | CA | 90501 |

**INSERT STATEMENT**

INSERT INTO CUST_t  (Customer_Id, Customer_Name, Customer_Address, Customer_City, Customer_State, Postal_Code) VALUES  (1006, 'Kaneohe Homes', '112 Kiowai St.', 'Kaneohe', 'HI', '96744');

| CUSTOMER_ID | CUSTOMER_NAME | CUSTOMER_ADDRESS | CUSTOMER_CITY | CUSTOM | POSTAL_CODE |
|---|---|---|---|---|---|
| 1001 | Saikiran Gontyala | 7937 Praire Rose Way | Highland | CA | 92346 |
| 1002 | Rupa Mahendran | 109 westchester road | Boston | MA | 02130 |
| 1003 | Yoshitha Gattu | 7518 Carothers Street | Houston | TX | 77028 |
| 1004 | Sriganesh Baskaran | 5154 State University Drive | Randolph | MA | 02368 |
| 1005 | Uchechukwu Okafor | 1528 West 207th | Torrance | CA | 90501 |
| 1006 | Kaneohe Homes | 112 Kiowai St. | Kaneohe | HI | 96744 |

**Create a view for customer in New York, California and Florida.**

CREATE VIEW  CUSTOMERS_IN_TX_FL_CA

AS

SELECT CUSTOMER_NAME, CUSTOMER_STATE

FROM CUST_T

WHERE CUSTOMER_STATE IN ('TX', 'CA', 'HI');

| CUSTOMER_NAME | CUSTOM |
|---|---|
| Saikiran Gontyala | CA |
| Yoshitha Gattu | TX |
| Uchechukwu Okafor | CA |
| Kaneohe Homes | HI |

**Display all customer names and their respective order IDs including those without any order**

SELECT Customer_Name, Customer_State,  Order_id

FROM Cust_T LEFT OUTER JOIN Orders_T ON Cust_t.customer_id = Orders_t.customer_id

ORDER BY Order_id;

| CUSTOMER_NAME | CUSTOM | ORDER_ID |
|---|---|---|
| Saikiran Gontyala | CA | 111 |
| Rupa Mahendran | MA | 112 |
| Yoshitha Gattu | TX | 113 |
| Sriganesh Baskaran | MA | 114 |
| Uchechukwu Okafor | CA | 115 |
| Kaneohe Homes | HI | |

**Display to determine the number of customers coming from each State.**

SELECT CUSTOMER_STATE, COUNT(CUSTOMER_STATE) Customers_per_State

FROM CUST_T

GROUP BY CUSTOMER_STATE

HAVING COUNT(*) >0;

| CUSTOM | CUSTOMERS_PER_STATE |
|---|---:|
| HI | 1 |
| CA | 2 |
| MA | 2 |
| TX | 1 |

**Display to determine the number of orders each employee managed**.

SELECT EMPLOYEE_ID,  COUNT(ORDER_ID)ORDERS_MANAGED

FROM ORDERS_T

GROUP BY EMPLOYEE_ID

HAVING COUNT(*) >0;

| EMPLOYEE_ID | ORDERS_MANAGED |
|---:|---:|
| 5 | 1 |
| 3 | 1 |
| 2 | 1 |
| 1 | 1 |
| 4 | 1 |

**Display to determine the Order details where Customer_id is more than 1004**

SELECT *

 FROM order_p

 WHERE order_id IN (SELECT order_id

 FROM order_p

 WHERE customer_id > 1004) ;

| ORDER_ID | CUSTOMER_ID | EMPLOYEE_ID | ORDER_DATE |
|---:|---:|---:|---|
| 115 | 1005 | 1 | 21-DEC-18 |

**Creating PROCEDURE**

CREATE OR REPLACE PROCEDURE QUERY_CUST (v_id IN cust_t.customer_id%TYPE, v_name OUT cust_t.customer_name%TYPE, v_address OUT cust_t.customer_address%TYPE,

v_state OUT cust_t.customer_state%TYPE)

IS

BEGIN

SELECT customer_name, customer_address, customer_state

INTO v_name, v_address, v_state

FROM cust_t

WHERE customer_id = v_id;

END query_CUST;

/

Variable g_name varchar(25)

Variable g_address  varchar2(30)

Variable g_state  varchar(2)

EXECUTE QUERY_CUST (1005, :g_name, :g_address, :g_state)

PRINT g_name g_address g_state

| G_NAME |
| --- |
| Uchechukwu Okafor |

| G_ADDRESS |
| --- |
| 1528 West 207th |

| G_STATE |
| --- |
| CA |

## Form of the Customer whose Customer_id is 1001

| | |
|---|---|
| CUSTOMER_ID | 1001 |
| CUSTOMER_NAME | Saikiran Gontyala |
| CUSTOMER_ADDRESS | 7937 Praire Rose Way |
| CUSTOMER_CITY | Highland |
| CUSTOMER_STATE | CA |
| POSTAL_CODE | 92346 |

## Quary of the Customer whose Customer_id is 1001

| Expr1000 | CUSTOMER_NAME | CUSTOMER_ADDRESS | CUSTOMER_ | CUSTOMER_ |
|---|---|---|---|---|
| 1001 | Saikiran Gontyala | 7937 Praire Rose Way | Highland | 1001 |

## Report of all the Customers

| CUSTOMER_ID | CUSTOMER_NAME | CUSTOMER_ADDRESS | CUSTOMER_CITY | CUSTOMER_STATE | POSTAL_CODE |
|---|---|---|---|---|---|
| 1001 | Saikiran Gontyala | 7937 Praire Rose Way | Highland | CA | 92346 |
| 1002 | Rupa Mahendran | 109 westchester road | Boston | MA | 02130 |
| 1003 | Yoshitha Gattu | 7518 Carothers Street | Houston | TX | 77028 |
| 1004 | Sriganesh Baskaran | 109 Selwyn Road | Randolph | MA | 02368 |
| 1005 | Uchechukwu Okafor | 1528 West 207th | Torrance | CA | 90501 |