IT 650 PROJECT REPORT

PINE VALLEY FURNITURE COMPANY

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Pine Valley Furniture Company

Pine Valley Furniture Company is a small manufacturer that specialized in wood furniture and has around 500 customers with approximately 50 employees with sales increasing up to 25% every year. Each phase in the production takes up to 4 weeks to complete. First, the lumber is purchases in the nearby stores and is sent to a rough mill to cut the wood. The mill consists of various saws, planer, gluing machines. The next phase is finish mill where the cut wood that is obtained from phase one, is sent to the finish mill for boring, routing and sanding the rough-milled parts. Now, it is moved to Assembly Department to assemble the parts into end items of the furniture. It now reaches the final phase where the items are applied with coats of stain and lacquer. The items will now be inspected and packed for shipment.

The company uses various key documents, displays and reports that include customer order form, customer display, product display, customer invoice, bill of materials, routing, work center report, progress report etc. where each one has its own level of importance.

Customer order form is used to record orders which can be taken by email or through phone calls. The form consists of information regarding order number, customer number, customer name and address, date, product number, description of the order, unit price etc.

Customer Display is an on-line display of customer information which includes the customer number, name, address, year of purchase, amount of purchase, credit limit of the customer, outstanding balance, and discount amount. New records will be created for new customers using an on-line terminal. Once the order is completed, the total amount for the order and the outstanding balance of the customer will be computed and displayed. When the outstanding balance exceeds the customer's credit limit, exception notice is printed and transmitted to the clerk.

The customer invoice is generated when the order has been entered and approved. For every customer, two invoices will be generated. A separate invoice is generated after each shipment. One of the copies will be sent to the warehouse and will be used as a picking document.

The bill of materials is a listing of parts or components that are required to build a product or subassembly. This consists of data like product number, description, part number, part description, quantity used, location and code. The current bill of materials structure is 'single-level' or flat bill as it simply lists the various parts and quantities required for a finished item.

The company stores a sequential list of operations required to produce a product. There is one **routing** for each product and this included the product number, description, operation description and time.

Progress report monitors the progress of each production order specified on routing. A daily progress report is printed to state the status of each production order which pertains to only one product.

All reports and transactions needed for everyday operations of the company must be considered while designing the database that enables the company to maximize their reporting and operating potential.

PRODUCTION PROCESS

Production at Pine Valley Furniture Company is mostly to stock. Production starts with the purchase of seasoned rough-cut lumber of various species and grades. Most of the lumber is purchased locally, and there is negligible lead for most items.

The lumber is first sent to the rough mill, where the basic parts used in the furniture are cut and prepared. The rough mill consists of power saws, planers, gluing machines, and other tools that are used to cut and form these parts. A typical production order requires about 1 week in the rough mill (this includes queue time, when the order is waiting for other orders to be completed).

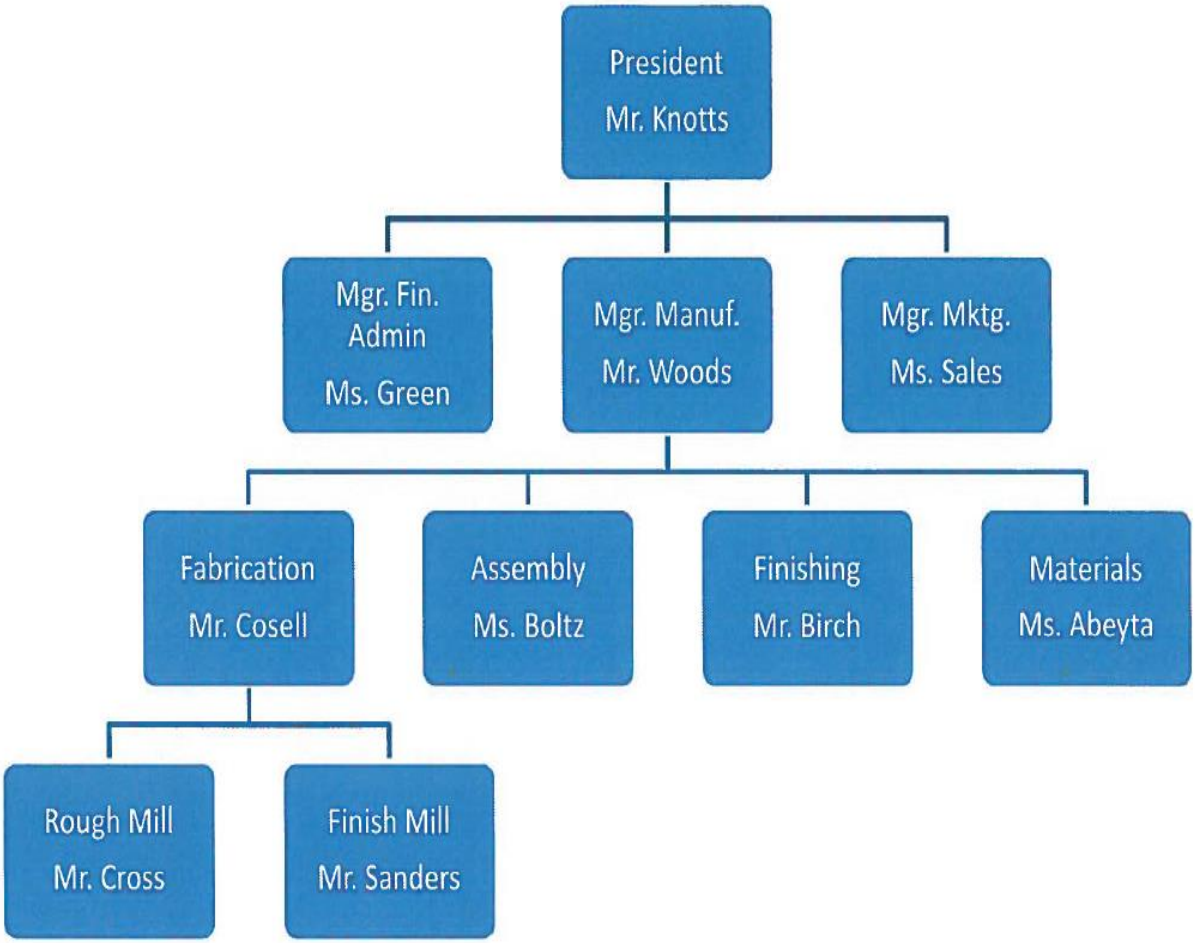
From the rough mill an order is sent to the finish mill, which is responsible for boring, routing, and sanding the rough-milled parts. A typical order requires 1 week in this department. The order is then moved to the Assembly Department, which assembles the finished parts into end items of furniture. Finally, these items travel to the Finish Department, which applies coats of stain and lacquer. The items are then inspected and packed for shipment. A typical order requires 1 week each in assembly and finishing. Thus the total time required to complete a typical production order is 4 weeks.

ORGANIZATION CHART

An organization chart for pine valley Furniture Company is shown in figure 1-1. The president, Donald Knotts, started the company and is the principal owner. Three functional

managers' report to Mr. Knotts: Ms. Green (finance and administration), Mr. Woods (manufacturing), and Ms. Sales (marketing). In turn, manufacturing is divided into four areas: fabrication (which includes the rough and finish mills), assembly, finishing, and materials. The materials manager (Ms. Abeyta) is responsible for production planning and inventory control. The company stresses quality in its products, and all employees are expected to inspect their work and maintain high-quality standards.

In the following sections we describe several of the key documents and reports used by Pine Valley Furniture Company.



CUSTOMER ORDER

Pine Valley Furniture sells finish product furniture as well as accept custom order pieces of furniture from customers from all over US and the world. Bulk order from retail furniture store partners and individual customers can be made on-line thru their website, by phone, email or by regular mail.

Pine Valley sends their furniture store partners product/furniture catalog every quarter to feature Pine Valley Furniture new products, best sellers, in-season pieces and available as well as customizable furniture.

Weekly average order processed by Pine Valley is between 500 to 700 pieces. Average order from individual customer is between 1 to 12 pieces of furniture. Pine Valley process and delivers available product to any customer in the continental U.S. with-in a week. For international and custom made orders, Pine Valley tries to deliver the product within 3 months or less.

Following is the code for creating the database, table and the entries in them.

```
/* Formatted on 11/30/2017 3:09:43 PM (QP5 v5.185.11230.41888) */
DROP TABLE Uses          CASCADE CONSTRAINTS;
DROP TABLE WorksIn       CASCADE CONSTRAINTS;
DROP TABLE WorkCenter    CASCADE CONSTRAINTS;
DROP TABLE DoesBusinessIn    CASCADE CONSTRAINTS;
DROP TABLE EmployeeSkills    CASCADE CONSTRAINTS;
DROP TABLE Supplies      CASCADE CONSTRAINTS;
DROP TABLE ProducedIn    CASCADE CONSTRAINTS;
DROP TABLE OrderLine     CASCADE CONSTRAINTS;
DROP TABLE Product       CASCADE CONSTRAINTS;
DROP TABLE ProductLine   CASCADE CONSTRAINTS;
DROP TABLE Order         CASCADE CONSTRAINTS;
DROP TABLE Salesperson   CASCADE CONSTRAINTS;
```

```
DROP TABLE Vendor        CASCADE CONSTRAINTS;
DROP TABLE Skill         CASCADE CONSTRAINTS;
DROP TABLE RawMaterial     CASCADE CONSTRAINTS;
DROP TABLE Territory         CASCADE CONSTRAINTS;
DROP TABLE Employee         CASCADE CONSTRAINTS;
DROP TABLE Customer         CASCADE CONSTRAINTS;

CREATE USER pvalley IDENTIFIED BY "welcome123";
GRANT DBA TO pvalley;




CREATE TABLE Customer
(
  CustomerID          NUMBER (11, 0) NOT NULL,
  CustomerName         VARCHAR2 (25) NOT NULL,
  CustomerAddress      VARCHAR2 (30),
  CustomerCity         VARCHAR2 (20),
  CustomerState        CHAR (2),
  CustomerPostalCode   VARCHAR2 (10),
  CONSTRAINT Customer_PK PRIMARY KEY (CustomerID)
);



CREATE TABLE Territory
```

```
(
  TerritoryID     NUMBER (11, 0) NOT NULL,
  TerritoryName   VARCHAR2 (50),
  CONSTRAINT Territory_PK PRIMARY KEY (TerritoryID)
);



CREATE TABLE DoesBusinessIn
(
  CustomerID    NUMBER (11, 0) NOT NULL,
  TerritoryID   NUMBER (11, 0) NOT NULL,
  CONSTRAINT DoesBusinessIn_PK PRIMARY KEY (CustomerID, TerritoryID),
  CONSTRAINT DoesBusinessIn_FK1 FOREIGN KEY
    (CustomerID)
     REFERENCES Customer (CustomerID),
  CONSTRAINT DoesBusinessIn_FK2 FOREIGN KEY
    (TerritoryID)
     REFERENCES Territory (TerritoryID)
);



CREATE TABLE Employee
(
  EmployeeID          VARCHAR2 (10) NOT NULL,
  EmployeeName        VARCHAR2 (25),
```

```
  EmployeeAddress      VARCHAR2 (30),
  EmployeeBirthDate    DATE,
  EmployeeCity         VARCHAR2 (20),
  EmployeeState        CHAR (2),
  EmployeeZipCode      VARCHAR2 (10),
  EmployeeDateHired    DATE,
  EmployeeSupervisor   VARCHAR2 (10),
  CONSTRAINT Employee_PK PRIMARY KEY (EmployeeID)
);



CREATE TABLE Skill
(
  SkillID           VARCHAR2 (12) NOT NULL,
  SkillDescription   VARCHAR2 (30),
  CONSTRAINT Skill_PK PRIMARY KEY (SkillID)
);



CREATE TABLE EmployeeSkills
(
  EmployeeID   VARCHAR2 (10) NOT NULL,
  SkillID      VARCHAR2 (12) NOT NULL,
  CONSTRAINT EmployeeSkills_PK PRIMARY KEY (EmployeeID, SkillID),
  CONSTRAINT EmployeeSkills_FK1 FOREIGN KEY
    (EmployeeID)
```

```
      REFERENCES Employee (EmployeeID),
  CONSTRAINT EmployeeSkills_FK2 FOREIGN KEY
     (SkillID)
      REFERENCES Skill (SkillID)
);



CREATE TABLE Order
(
  OrderID      NUMBER (11, 0) NOT NULL,
  CustomerID   NUMBER (11, 0),
  OrderDate    DATE DEFAULT SYSDATE,
  CONSTRAINT Order_PK PRIMARY KEY (OrderID),
  CONSTRAINT Order_FK1 FOREIGN KEY
     (CustomerID)
      REFERENCES Customer (CustomerID)
);



CREATE TABLE WorkCenter
(
  WorkCenterID        VARCHAR2 (12) NOT NULL,
  WorkCenterLocation   VARCHAR2 (30),
  CONSTRAINT WorkCenter_PK PRIMARY KEY (WorkCenterID)
);
```

```
CREATE TABLE ProductLine
(
  ProductLineID     NUMBER (11, 0) NOT NULL,
  ProductLineName   VARCHAR2 (50),
  CONSTRAINT ProductLine_PK PRIMARY KEY (ProductLineID)
);


CREATE TABLE Product
(
  ProductID             NUMBER (11, 0) NOT NULL,
  ProductLineID         NUMBER (11, 0),
  ProductDescription    VARCHAR2 (50),
  ProductFinish         VARCHAR2 (20),
  ProductStandardPrice  DECIMAL (6, 2),
  CONSTRAINT Product_PK PRIMARY KEY (ProductID),
  CONSTRAINT Product_FK1 FOREIGN KEY
    (ProductLineID)
     REFERENCES ProductLine (ProductLineID)
);

CREATE TABLE ProducedIn
(
  ProductID     NUMBER (11, 0) NOT NULL,
```

```
  WorkCenterID   VARCHAR2 (12) NOT NULL,
  CONSTRAINT ProducedIn_PK PRIMARY KEY (ProductID, WorkCenterID),
  CONSTRAINT ProducedIn_FK1 FOREIGN KEY
    (ProductID)
     REFERENCES Product (ProductID),
  CONSTRAINT ProducedIn_FK2 FOREIGN KEY
    (WorkCenterID)
     REFERENCES WorkCenter (WorkCenterID)
);



CREATE TABLE OrderLine (
  OrderID          NUMBER (11, 0) NOT NULL,
  ProductID        NUMBER (11, 0) NOT NULL,
  OrderedQuantity  NUMBER (11, 0),
  CONSTRAINT OrderLine_PK PRIMARY KEY (OrderID, ProductID),
  CONSTRAINT OrderLine_FK1 FOREIGN KEY (OrderID) REFERENCES Order
(OrderID),
  CONSTRAINT OrderLine_FK2 FOREIGN KEY
    (ProductID)
     REFERENCES Product (ProductID)
);

CREATE UNIQUE INDEX PVALLEY.OrderLine_PK ON PVALLEY.ORDERLINE
(ORDERID, PRODUCTID)
LOGGING
```

```
STORAGE    (
           BUFFER_POOL      DEFAULT
           FLASH_CACHE      DEFAULT
           CELL_FLASH_CACHE DEFAULT
          )
NOPARALLEL;

ALTER TABLE PVALLEY.ORDERLINE
  ADD CONSTRAINT OrderLine_PK
  PRIMARY KEY (ORDERID, PRODUCTID);



CREATE TABLE RawMaterial
(
   MaterialID            VARCHAR2 (12) NOT NULL,
   MaterialName          VARCHAR2 (30),
   MaterialStandardCost   DECIMAL (6, 2),
   UnitOfMeasure         VARCHAR2 (10),
   CONSTRAINT RawMaterial_PK PRIMARY KEY (MaterialID)
);


CREATE TABLE Salesperson
(
   SalespersonID      NUMBER (11, 0) NOT NULL,
   SalespersonName    VARCHAR2 (25),
```

```
  SalespersonPhone   VARCHAR2 (50),
  SalespersonFax     VARCHAR2 (50),
  TerritoryID        NUMBER (11, 0),
  CONSTRAINT Salesperson_PK PRIMARY KEY (SalesPersonID),
  CONSTRAINT Salesperson_FK1 FOREIGN KEY
    (TerritoryID)
     REFERENCES Territory (TerritoryID)
);



CREATE TABLE Vendor
(
  VendorID        NUMBER (11, 0) NOT NULL,
  VendorName      VARCHAR2 (25),
  VendorAddress   VARCHAR2 (30),
  VendorCity      VARCHAR2 (20),
  VendorState     CHAR (2),
  VendorZipcode   VARCHAR2 (50),
  VendorFax       VARCHAR2 (10),
  VendorPhone     VARCHAR2 (10),
  VendorContact   VARCHAR2 (50),
  VendorTaxID     VARCHAR2 (50),
  CONSTRAINT Vendor_PK PRIMARY KEY (VendorID)
);
```

```
CREATE TABLE Supplies
(
  VendorID          NUMBER (11, 0) NOT NULL,
  MaterialID        VARCHAR2 (12) NOT NULL,
  SuppliesUnitPrice   DECIMAL (6, 2),
  CONSTRAINT Supplies_PK PRIMARY KEY (VendorID, MaterialID),
  CONSTRAINT Supplies_FK1 FOREIGN KEY
    (MaterialId)
     REFERENCES RawMaterial (MaterialID),
  CONSTRAINT Supplies_FK2 FOREIGN KEY
    (VendorID)
     REFERENCES Vendor (VendorID)
);
```

```
CREATE TABLE Uses
(
  ProductID         NUMBER (11, 0) NOT NULL,
  MaterialID        VARCHAR2 (12) NOT NULL,
  GoesIntoQuantity   INTEGER,
  CONSTRAINT Uses_PK PRIMARY KEY (ProductID, MaterialID),
  CONSTRAINT Uses_FK1 FOREIGN KEY (ProductID) REFERENCES Product
(ProductID),
  CONSTRAINT Uses_FK2 FOREIGN KEY
    (MaterialID)
     REFERENCES RawMaterial (MaterialID)
```

```
);


CREATE TABLE WorksIn
(
  EmployeeID     VARCHAR2 (10) NOT NULL,
  WorkCenterID   VARCHAR2 (12) NOT NULL,
  CONSTRAINT WorksIn_PK PRIMARY KEY (EmployeeID, WorkCenterID),
  CONSTRAINT WorksIn_FK1 FOREIGN KEY
    (EmployeeID)
     REFERENCES Employee (EmployeeID),
  CONSTRAINT WorksIn_FK2 FOREIGN KEY
    (WorkCenterID)
     REFERENCES WorkCenter (WorkCenterID)
);


DELETE FROM TABLE Users;

DELETE FROM TABLE WorksIn;

DELETE FROM TABLE WorkCenter;

DELETE FROM TABLE DoesBusinessIn;

DELETE FROM TABLE EmployeeSkills;
```

```
DELETE FROM TABLE Supplies;

DELETE FROM TABLE ProducedIn;

DELETE FROM TABLE OrderLine;

DELETE FROM TABLE Product;

DELETE FROM TABLE ProductLine;

DELETE FROM TABLE Order;

DELETE FROM TABLE Salesperson;

DELETE FROM TABLE Vendor;

DELETE FROM TABLE Skill;

DELETE FROM TABLE RawMaterial;

DELETE FROM TABLE Territory;

DELETE FROM TABLE Employee;

DELETE FROM TABLE Customer;
```

```
INSERT INTO Customer (CustomerID,
                CustomerName,
                CustomerAddress,
                CustomerCity,
                CustomerState,
                CustomerPostalCode)
    VALUES (1,
            'Contemporary Casuals',
            '1355 S Hines Blvd',
            'Gainesville',
            'FL',
            '32601-2871');

INSERT INTO Customer (CustomerID,
                CustomerName,
                CustomerAddress,
                CustomerCity,
                CustomerState,
                CustomerPostalCode)
    VALUES (2,
            'Value Furniture',
            '15145 S.W. 17th St.',
            'Plano',
            'TX',
            '75094-7743');
```

```
INSERT INTO Customer (CustomerID,
                      CustomerName,
                      CustomerAddress,
                      CustomerCity,
                      CustomerState,
                      CustomerPostalCode)
    VALUES (3,
            'Home Furnishings',
            '1900 Allard Ave.',
            'Albany',
            'NY',
            '12209-1125');

INSERT INTO Customer (CustomerID,
                      CustomerName,
                      CustomerAddress,
                      CustomerCity,
                      CustomerState,
                      CustomerPostalCode)
    VALUES (4,
            'Eastern Furniture',
            '1925 Beltline Rd.',
            'Carteret',
            'NJ',
            '07008-3188');

INSERT INTO Customer (CustomerID,
```

```
            CustomerName,
            CustomerAddress,
            CustomerCity,
            CustomerState,
            CustomerPostalCode)
    VALUES (5,
        'Impressions',
        '5585 Westcott Ct.',
        'Sacramento',
        'CA',
        '94206-4056');

INSERT INTO Customer (CustomerID,
            CustomerName,
            CustomerAddress,
            CustomerCity,
            CustomerState,
            CustomerPostalCode)
    VALUES (6,
        'Furniture Gallery',
        '325 Flatiron Dr.',
        'Boulder',
        'CO',
        '80514-4432');

INSERT INTO Customer (CustomerID,
            CustomerName,
```

```
            CustomerAddress,
            CustomerCity,
            CustomerState,
            CustomerPostalCode)
    VALUES (7,
        'Period Furniture',
        '394 Rainbow Dr.',
        'Seattle',
        'WA',
        '97954-5589');

INSERT INTO Customer (CustomerID,
            CustomerName,
            CustomerAddress,
            CustomerCity,
            CustomerState,
            CustomerPostalCode)
    VALUES (8,
        'California Classics',
        '816 Peach Rd.',
        'Santa Clara',
        'CA',
        '96915-7754');

INSERT INTO Customer (CustomerID,
            CustomerName,
            CustomerAddress,
```

```
            CustomerCity,
            CustomerState,
            CustomerPostalCode)
    VALUES (9,
        'M and H Casual Furniture',
        '3709 First Street',
        'Clearwater',
        'FL',
        '34620-2314');

INSERT INTO Customer (CustomerID,
            CustomerName,
            CustomerAddress,
            CustomerCity,
            CustomerState,
            CustomerPostalCode)
    VALUES (10,
        'Seminole Interiors',
        '2400 Rocky Point Dr.',
        'Seminole',
        'FL',
        '34646-4423');

INSERT INTO Customer (CustomerID,
            CustomerName,
            CustomerAddress,
            CustomerCity,
```

```
            CustomerState,
            CustomerPostalCode)
    VALUES (11,
        'American Euro Lifestyles',
        '2424 Missouri Ave N.',
        'Prospect Park',
        'NJ',
        '07508-5621');

INSERT INTO Customer (CustomerID,
            CustomerName,
            CustomerAddress,
            CustomerCity,
            CustomerState,
            CustomerPostalCode)
    VALUES (12,
        'Battle Creek Furniture',
        '345 Capitol Ave. SW',
        'Battle Creek',
        'MI',
        '49015-3401');

INSERT INTO Customer (CustomerID,
            CustomerName,
            CustomerAddress,
            CustomerCity,
            CustomerState,
```

```
            CustomerPostalCode)
    VALUES (13,
            'Heritage Furnishings',
            '66789 College Ave.',
            'Carlisle',
            'PA',
            '17013-8834');

INSERT INTO Customer (CustomerID,
            CustomerName,
            CustomerAddress,
            CustomerCity,
            CustomerState,
            CustomerPostalCode)
    VALUES (14,
            'Kaneohe Homes',
            '112 Kiowai St.',
            'Kaneohe',
            'HI',
            '96744-2537');

INSERT INTO Customer (CustomerID,
            CustomerName,
            CustomerAddress,
            CustomerCity,
            CustomerState,
            CustomerPostalCode)
```

```
    VALUES (15,
        'Mountain Scenes',
        '4132 Main Street',
        'Ogden',
        'UT',
        '84403-4432');



INSERT INTO Territory (TerritoryID, TerritoryName)
    VALUES (1, 'SouthEast');

INSERT INTO Territory (TerritoryID, TerritoryName)
    VALUES (2, 'SouthWest');

INSERT INTO Territory (TerritoryID, TerritoryName)
    VALUES (3, 'NorthEast');

INSERT INTO Territory (TerritoryID, TerritoryName)
    VALUES (4, 'NorthWest');

INSERT INTO Territory (TerritoryID, TerritoryName)
    VALUES (5, 'Central');



INSERT INTO DoesBusinessIn (CustomerID, TerritoryID)
```

```
    VALUES (1, 1);

INSERT INTO DoesBusinessIn (CustomerID, TerritoryID)
    VALUES (1, 2);

INSERT INTO DoesBusinessIn (CustomerID, TerritoryID)
    VALUES (2, 2);

INSERT INTO DoesBusinessIn (CustomerID, TerritoryID)
    VALUES (3, 3);

INSERT INTO DoesBusinessIn (CustomerID, TerritoryID)
    VALUES (4, 3);

INSERT INTO DoesBusinessIn (CustomerID, TerritoryID)
    VALUES (5, 2);

INSERT INTO DoesBusinessIn (CustomerID, TerritoryID)
    VALUES (6, 5);



INSERT INTO Employee (EmployeeID,
                EmployeeName,
                EmployeeAddress,
                EmployeeCity,
                EmployeeState,
```

```
            EmployeeZip,
            EmployeeDateHired,
            EmployeeBirthDate,
            EmployeeSupervisor)
    VALUES ('123-44-345',
        'Jim Jason',
        '2134 Hilltop Rd',
        '',
        'TN',
        '',
        '12/Jun/99',
        '',
        '454-56-768');

INSERT INTO Employee (EmployeeID,
            EmployeeName,
            EmployeeAddress,
            EmployeeCity,
            EmployeeState,
            EmployeeZip,
            EmployeeDateHired,
            EmployeeBirthDate,
            EmployeeSupervisor)
    VALUES ('454-56-768',
        'Robert Lewis',
        '17834 Deerfield Ln',
        'Nashville',
```

'TN',

'',

'01/Jan/99',

'',

'');

INSERT INTO Skill (SkillID, SkillDescription)

VALUES ('BS12', '12in Band Saw');

INSERT INTO Skill (SkillID, SkillDescription)

VALUES ('QC1', 'Quality Control');

INSERT INTO Skill (SkillID, SkillDescription)

VALUES ('RT1', 'Router');

INSERT INTO Skill (SkillID, SkillDescription)

VALUES ('SO1', 'Sander-Orbital');

INSERT INTO Skill (SkillID, SkillDescription)

VALUES ('SB1', 'Sander-Belt');

INSERT INTO Skill (SkillID, SkillDescription)

VALUES ('TS10', '10in Table Saw');

INSERT INTO Skill (SkillID, SkillDescription)

```
    VALUES ('TS12', '12in Table Saw');

INSERT INTO Skill (SkillID, SkillDescription)
    VALUES ('UC1', 'Upholstery Cutter');

INSERT INTO Skill (SkillID, SkillDescription)
    VALUES ('US1', 'Upholstery Sewer');

INSERT INTO Skill (SkillID, SkillDescription)
    VALUES ('UT1', 'Upholstery Tacker');



INSERT INTO EmployeeSkills (EmployeeID, SkillID)
    VALUES ('123-44-345', 'BS12');

INSERT INTO EmployeeSkills (EmployeeID, SkillID)
    VALUES ('123-44-345', 'RT1');

INSERT INTO EmployeeSkills (EmployeeID, SkillID)
    VALUES ('454-56-768', 'BS12');



INSERT INTO Order (OrderID, OrderDate, CustomerID)
    VALUES (1001, '21/Oct/10', 1);
```

```
INSERT INTO Order (OrderID, OrderDate, CustomerID)
    VALUES (1002, '21/Oct/10', 8);

INSERT INTO Order (OrderID, OrderDate, CustomerID)
    VALUES (1003, '22/Oct/10', 15);

INSERT INTO Order (OrderID, OrderDate, CustomerID)
    VALUES (1004, '22/Oct/10', 5);

INSERT INTO Order (OrderID, OrderDate, CustomerID)
    VALUES (1005, '24/Oct/10', 3);

INSERT INTO Order (OrderID, OrderDate, CustomerID)
    VALUES (1006, '24/Oct/10', 2);

INSERT INTO Order (OrderID, OrderDate, CustomerID)
    VALUES (1007, '27/Oct/10', 11);

INSERT INTO Order (OrderID, OrderDate, CustomerID)
    VALUES (1008, '30/Oct/10', 12);

INSERT INTO Order (OrderID, OrderDate, CustomerID)
    VALUES (1009, '05/Nov/10', 4);

INSERT INTO Order (OrderID, OrderDate, CustomerID)
    VALUES (1010, '05/Nov/10', 1);
```

```
INSERT INTO ProductLine (ProductLineID, ProductLineName)
    VALUES (1, 'Cherry Tree');

INSERT INTO ProductLine (ProductLineID, ProductLineName)
    VALUES (2, 'Scandinavia');

INSERT INTO ProductLine (ProductLineID, ProductLineName)
    VALUES (3, 'Country Look');


INSERT INTO Product (ProductID,
                ProductDescription,
                ProductFinish,
                ProductStandardPrice,
                ProductLineID)
    VALUES (1,
            'End Table',
            'Cherry',
            175,
            1);

INSERT INTO Product (ProductID,
                ProductDescription,
                ProductFinish,
                ProductStandardPrice,
```

```
            ProductLineID)
    VALUES (2,
            'Coffee Table',
            'Natural Ash',
            200,
            2);

INSERT INTO Product (ProductID,
            ProductDescription,
            ProductFinish,
            ProductStandardPrice,
            ProductLineID)
    VALUES (3,
            'Computer Desk',
            'Natural Ash',
            375,
            2);

INSERT INTO Product (ProductID,
            ProductDescription,
            ProductFinish,
            ProductStandardPrice,
            ProductLineID)
    VALUES (4,
            'Entertainment Center',
            'Natural Maple',
            650,
```

```
        3);

INSERT INTO Product (ProductID,
            ProductDescription,
            ProductFinish,
            ProductStandardPrice,
            ProductLineID)
    VALUES (5,
        'Writers Desk',
        'Cherry',
        325,
        1);

INSERT INTO Product (ProductID,
            ProductDescription,
            ProductFinish,
            ProductStandardPrice,
            ProductLineID)
    VALUES (6,
        '8-Drawer Desk',
        'White Ash',
        750,
        2);

INSERT INTO Product (ProductID,
            ProductDescription,
            ProductFinish,
```

```
            ProductStandardPrice,
            ProductLineID)
    VALUES (7,
        'Dining Table',
        'Natural Ash',
        800,
        2);

INSERT INTO Product (ProductID,
            ProductDescription,
            ProductFinish,
            ProductStandardPrice,
            ProductLineID)
    VALUES (8,
        'Computer Desk',
        'Walnut',
        250,
        3);



INSERT INTO OrderLine (OrderID, ProductID, OrderedQuantity)
    VALUES (1001, 1, 2);

INSERT INTO OrderLine (OrderID, ProductID, OrderedQuantity)
    VALUES (1001, 2, 2);
```

```
INSERT INTO OrderLine (OrderID, ProductID, OrderedQuantity)
    VALUES (1001, 4, 1);

INSERT INTO OrderLine (OrderID, ProductID, OrderedQuantity)
    VALUES (1002, 3, 5);

INSERT INTO OrderLine (OrderID, ProductID, OrderedQuantity)
    VALUES (1003, 3, 3);

INSERT INTO OrderLine (OrderID, ProductID, OrderedQuantity)
    VALUES (1004, 6, 2);

INSERT INTO OrderLine (OrderID, ProductID, OrderedQuantity)
    VALUES (1004, 8, 2);

INSERT INTO OrderLine (OrderID, ProductID, OrderedQuantity)
    VALUES (1005, 4, 3);

INSERT INTO OrderLine (OrderID, ProductID, OrderedQuantity)
    VALUES (1006, 4, 1);

INSERT INTO OrderLine (OrderID, ProductID, OrderedQuantity)
    VALUES (1006, 5, 2);

INSERT INTO OrderLine (OrderID, ProductID, OrderedQuantity)
    VALUES (1006, 7, 2);
```

```
INSERT INTO OrderLine (OrderID, ProductID, OrderedQuantity)
    VALUES (1007, 1, 3);

INSERT INTO OrderLine (OrderID, ProductID, OrderedQuantity)
    VALUES (1007, 2, 2);

INSERT INTO OrderLine (OrderID, ProductID, OrderedQuantity)
    VALUES (1008, 3, 3);

INSERT INTO OrderLine (OrderID, ProductID, OrderedQuantity)
    VALUES (1008, 8, 3);

INSERT INTO OrderLine (OrderID, ProductID, OrderedQuantity)
    VALUES (1009, 4, 2);

INSERT INTO OrderLine (OrderID, ProductID, OrderedQuantity)
    VALUES (1009, 7, 3);

INSERT INTO OrderLine (OrderID, ProductID, OrderedQuantity)
    VALUES (1010, 8, 10);



INSERT INTO Salesperson (SalesPersonID,
                SalesPersonName,
                SalesPersonPhone,
                SalesPersonFax,
```

```
                TerritoryID)
    VALUES (1,
        'Doug Henny',
        '8134445555',
        '',
        1);

INSERT INTO Salesperson (SalesPersonID,
                SalesPersonName,
                SalesPersonPhone,
                SalesPersonFax,
                TerritoryID)
    VALUES (2,
        'Robert Lewis',
        '8139264006',
        '',
        2);

INSERT INTO Salesperson (SalesPersonID,
                SalesPersonName,
                SalesPersonPhone,
                SalesPersonFax,
                TerritoryID)
    VALUES (3,
        'William Strong',
        '5053821212',
        '',
```

```
        3);


INSERT INTO Salesperson (SalesPersonID,
                SalesPersonName,
                SalesPersonPhone,
                SalesPersonFax,
                TerritoryID)
    VALUES (4,
        'Julie Dawson',
        '4355346677',
        '',
        4);


INSERT INTO Salesperson (SalesPersonID,
                SalesPersonName,
                SalesPersonPhone,
                SalesPersonFax,
                TerritoryID)
    VALUES (5,
        'Jacob Winslow',
        '2238973498',
        '',
        5);



INSERT INTO WorkCenter (WorkCenterID, WorkCenterLocation)
    VALUES ('SM1', 'Main Saw Mill');
```

```
INSERT INTO WorkCenter (WorkCenterID, WorkCenterLocation)
    VALUES ('WR1', 'Warehouse and Receiving');


INSERT INTO WORKS_IN (EmployeeID, Work_CenterID)
    VALUES ('123-44-345', 'SM1');
```

Following is the table summary of all the tables used in the database.

Table Summary

Table Name	# Cols	# Indexes	Size	Tablespace
CUSTOMER	6	1	64K	USERS
DOESBUSINESSIN	2	1	64K	USERS
EMPLOYEE	9	1	64K	USERS
EMPLOYEESKILLS	2	1	64K	USERS
ORDERLINE	3	1	64K	USERS
Order	3	1	64K	USERS
PRODUCEDIN	2	1	0	USERS
PRODUCT	5	1	64K	USERS
PRODUCTLINE	2	1	64K	USERS
RAWMATERIAL	4	1	0	USERS
SALESPERSON	5	1	64K	USERS
SKILL	2	1	64K	USERS
SUPPLIES	3	1	0	USERS
TERRITORY	2	1	64K	USERS
USES	3	1	0	USERS
VENDOR	10	1	0	USERS
WORKCENTER	2	1	64K	USERS
WORKSIN	2	1	0	USERS

Following is the table definition or the structure of the tables included in the database.

Customer Table

Columns in Table CUSTOMER

Col ID	Column Name	Data Type	Not Null	Data Def.	Comments
1	**CUSTOMERID**	NUMBER(11)	Y		
2	CUSTOMERNAME	VARCHAR2(25 BYTE)	Y		
3	CUSTOMERADDRESS	VARCHAR2(30 BYTE)			
4	CUSTOMERCITY	VARCHAR2(20 BYTE)			
5	CUSTOMERSTATE	CHAR(2 BYTE)			
6	CUSTOMERPOSTALCODE	VARCHAR2(10 BYTE)			

Indexes on Table CUSTOMER

Uniqueness	Index Name	Type	Columns	Partitions	Part Type	Part Cols	Subpart Type	Subpart Cols
UNIQUE	CUSTOMER_PK	NORMAL	CUSTOMERID	<none>				

PK, UK, & Check Constraints on Table CUSTOMER

Constraint Name	Type	Condition	Status	Columns
CUSTOMER_PK	Primary Key		ENABLED	CUSTOMERID

Table CUSTOMER does not have...

A comment

Partitions

Foreign Key Constraints

DoesBussinessIn Table

Columns in Table DOESBUSINESSIN

Col ID	Column Name	Data Type	Not Null	Data Def.	Comments
1	**CUSTOMERID**$_1$	NUMBER(11)	Y		
2	**TERRITORYID**$_2$	NUMBER(11)	Y		

Indexes on Table DOESBUSINESSIN

Uniqueness	Index Name	Type	Columns	Partitions	Part Type	Part Cols	Subpart Type	Subpart Cols
UNIQUE	DOESBUSINESSIN_PK	NORMAL	CUSTOMERID, TERRITORYID	<none>				

Foreign Key Constraints on Table DOESBUSINESSIN

Constraint Name	Columns	Ref Table Owner	Ref Table Name	Ref Columns	Delete Rule	Status	Deferrable	Deferred
DOESBUSINESSIN_FK1	CUSTOMERID	PVALLEY	CUSTOMER	CUSTOMERID	NO ACTION	ENABLED	No	No
DOESBUSINESSIN_FK2	TERRITORYID	PVALLEY	TERRITORY	TERRITORYID	NO ACTION	ENABLED	No	No

PK, UK, & Check Constraints on Table DOESBUSINESSIN

Constraint Name	Type	Condition	Status	Columns
DOESBUSINESSIN_PK	Primary Key		ENABLED	CUSTOMERID, TERRITORYID

Table DOESBUSINESSIN does not have...

A comment

Partitions

Employee Table

Columns in Table EMPLOYEE

Col ID	Column Name	Data Type	Not Null	Data Def.	Comments
1	**EMPLOYEEID**	VARCHAR2(10 BYTE)	Y		
2	EMPLOYEENAME	VARCHAR2(25 BYTE)			
3	EMPLOYEEADDRESS	VARCHAR2(30 BYTE)			
4	EMPLOYEEBIRTHDATE	DATE			
5	EMPLOYEECITY	VARCHAR2(20 BYTE)			
6	EMPLOYEESTATE	CHAR(2 BYTE)			
7	EMPLOYEEZIPCODE	VARCHAR2(10 BYTE)			
8	EMPLOYEEDATEHIRED	DATE			
9	EMPLOYEESUPERVISOR	VARCHAR2(10 BYTE)			

Indexes on Table EMPLOYEE

Uniqueness	Index Name	Type	Columns	Partitions	Part Type	Part Cols	Subpart Type	Subpart Cols
UNIQUE	EMPLOYEE_PK	NORMAL	EMPLOYEEID	<none>				

PK, UK, & Check Constraints on Table EMPLOYEE

Constraint Name	Type	Condition	Status	Columns
EMPLOYEE_PK	Primary Key		ENABLED	EMPLOYEEID

Table EMPLOYEE does not have...

A comment

Partitions

Foreign Key Constraints

EmployeeSkills Table

Columns in Table EMPLOYEESKILLS

Col ID	Column Name	Data Type	Not Null	Data Def.	Comments
1	**EMPLOYEEID**$_1$	VARCHAR2(10 BYTE)	Y		
2	**SKILLID**$_2$	VARCHAR2(12 BYTE)	Y		

Indexes on Table EMPLOYEESKILLS

Uniqueness	Index Name	Type	Columns	Partitions	Part Type	Part Cols	Subpart Type	Subpart Cols
UNIQUE	EMPLOYEESKILLS_PK	NORMAL	EMPLOYEEID, SKILLID	<none>				

Foreign Key Constraints on Table EMPLOYEESKILLS

Constraint Name	Columns	Ref Table Owner	Ref Table Name	Ref Columns	Delete Rule	Status	Deferrable	Deferred
EMPLOYEESKILLS_FK1	EMPLOYEEID	PVALLEY	EMPLOYEE	EMPLOYEEID	NO ACTION	ENABLED	No	No
EMPLOYEESKILLS_FK2	SKILLID	PVALLEY	SKILL	SKILLID	NO ACTION	ENABLED	No	No

PK, UK, & Check Constraints on Table EMPLOYEESKILLS

Constraint Name	Type	Condition	Status	Columns
EMPLOYEESKILLS_PK	Primary Key		ENABLED	EMPLOYEEID, SKILLID

Table EMPLOYEESKILLS does not have...

A comment

Partitions

Orders Table

Columns in Table Order

Col ID	Column Name	Data Type	Not Null	Data Def.	Comments
1	**ORDERID**	NUMBER(11)	Y		
2	CUSTOMERID	NUMBER(11)			
3	ORDERDATE	DATE		SYSDATE	

Indexes on Table Order

Uniqueness	Index Name	Type	Columns	Partitions	Part Type	Part Cols	Subpart Type	Subpart Cols
UNIQUE	ORDER_PK	NORMAL	ORDERID	<none>				

Foreign Key Constraints on Table Order

Constraint Name	Columns	Ref Table Owner	Ref Table Name	Ref Columns	Delete Rule	Status	Deferrable	Deferred
ORDER_FK1	CUSTOMERID	PVALLEY	CUSTOMER	CUSTOMERID	NO ACTION	ENABLED	No	No

PK, UK, & Check Constraints on Table Order

Constraint Name	Type	Condition	Status	Columns
ORDER_PK	Primary Key		ENABLED	ORDERID

Table Order
does not
have...
A comment
Partitions

OrderLine Table

Columns in Table ORDERLINE

Col ID	Column Name	Data Type	Not Null	Data Def.	Comments
1	**ORDERID**$_1$	NUMBER(11)	Y		
2	**PRODUCTID**$_2$	NUMBER(11)	Y		
3	ORDEREDQUANTITY	NUMBER(11)			

Indexes on Table ORDERLINE

Uniqueness	Index Name	Type	Columns	Partitions	Part Type	Part Cols	Subpart Type	Subpart Cols
UNIQUE	ORDERLINE_PK	NORMAL	ORDERID, PRODUCTID	<none>				

Foreign Key Constraints on Table ORDERLINE

Constraint Name	Columns	Ref Table Owner	Ref Table Name	Ref Columns	Delete Rule	Status	Deferrable	Deferred
ORDERLINE_FK1	ORDERID	PVALLEY	Order	ORDERID	NO ACTION	ENABLED	No	No
ORDERLINE_FK2	PRODUCTID	PVALLEY	PRODUCT	PRODUCTID	NO ACTION	ENABLED	No	No

PK, UK, & Check Constraints on Table ORDERLINE

Constraint Name	Type	Condition	Status	Columns
ORDERLINE_PK	Primary Key		ENABLED	ORDERID, PRODUCTID

Table
ORDERLINE
does not
have...
A comment
Partitions

ProducedIn Table

Columns in Table PRODUCEDIN

Col ID	Column Name	Data Type	Not Null	Data Def.	Comments
1	**PRODUCTID**$_1$	NUMBER(11)	Y		
2	**WORKCENTERID**$_2$	VARCHAR2(12 BYTE)	Y		

Indexes on Table PRODUCEDIN

Uniqueness	Index Name	Type	Columns	Partitions	Part Type	Part Cols	Subpart Type	Subpart Cols
UNIQUE	PRODUCEDIN_PK	NORMAL	PRODUCTID, WORKCENTERID	<none>				

Foreign Key Constraints on Table PRODUCEDIN

Constraint Name	Columns	Ref Table Owner	Ref Table Name	Ref Columns	Delete Rule	Status	Deferrable	Deferred
PRODUCEDIN_FK1	PRODUCTID	PVALLEY	PRODUCT	PRODUCTID	NO ACTION	ENABLED	No	No
PRODUCEDIN_FK2	WORKCENTERID	PVALLEY	WORKCENTER	WORKCENTERID	NO ACTION	ENABLED	No	No

PK, UK, & Check Constraints on Table PRODUCEDIN

Constraint Name	Type	Condition	Status	Columns
PRODUCEDIN_PK	Primary Key		ENABLED	PRODUCTID, WORKCENTERID

Table PRODUCEDIN does not have...

A comment

Partitions

Product Table

Columns in Table PRODUCT

Col ID	Column Name	Data Type	Not Null	Data Def.	Comments
1	**PRODUCTID**	NUMBER(11)	Y		
2	PRODUCTLINEID	NUMBER(11)			
3	PRODUCTDESCRIPTION	VARCHAR2(50 BYTE)			
4	PRODUCTFINISH	VARCHAR2(20 BYTE)			
5	PRODUCTSTANDARDPRICE	NUMBER(6,2)			

Indexes on Table PRODUCT

Uniqueness	Index Name	Type	Columns	Partitions	Part Type	Part Cols	Subpart Type	Subpart Cols
UNIQUE	PRODUCT_PK	NORMAL	PRODUCTID	<none>				

Foreign Key Constraints on Table PRODUCT

Constraint Name	Columns	Ref Table Owner	Ref Table Name	Ref Columns	Delete Rule	Status	Deferrable	Deferred
PRODUCT_FK1	PRODUCTLINEID	PVALLEY	PRODUCTLINE	PRODUCTLINEID	NO ACTION	ENABLED	No	No

PK, UK, & Check Constraints on Table PRODUCT

Constraint Name	Type	Condition	Status	Columns
PRODUCT_PK	Primary Key		ENABLED	PRODUCTID

Table PRODUCT does not have...

A comment

Partitions

ProductLine Table

Columns in Table PRODUCTLINE

Col ID	Column Name	Data Type	Not Null	Data Def.	Comments
1	**PRODUCTLINEID**	NUMBER(11)	Y		
2	PRODUCTLINENAME	VARCHAR2(50 BYTE)			

Indexes on Table PRODUCTLINE

Uniqueness	Index Name	Type	Columns	Partitions	Part Type	Part Cols	Subpart Type	Subpart Cols
UNIQUE	PRODUCTLINE_PK	NORMAL	PRODUCTLINEID	<none>				

PK, UK, & Check Constraints on Table PRODUCTLINE

Constraint Name	Type	Condition	Status	Columns
PRODUCTLINE_PK	Primary Key		ENABLED	PRODUCTLINEID

Table PRODUCTLINE
does not have...
A comment
Partitions
Foreign Key Constraints

RawMaterial Table

Columns in Table RAWMATERIAL

Col ID	Column Name	Data Type	Not Null	Data Def.	Comments
1	**MATERIALID**	VARCHAR2(12 BYTE)	Y		
2	MATERIALNAME	VARCHAR2(30 BYTE)			
3	MATERIALSTANDARDCOST	NUMBER(6,2)			
4	UNITOFMEASURE	VARCHAR2(10 BYTE)			

Indexes on Table RAWMATERIAL

Uniqueness	Index Name	Type	Columns	Partitions	Part Type	Part Cols	Subpart Type	Subpart Cols
UNIQUE	RAWMATERIAL_PK	NORMAL	MATERIALID	<none>				

PK, UK, & Check Constraints on Table RAWMATERIAL

Constraint Name	Type	Condition	Status	Columns
RAWMATERIAL_PK	Primary Key		ENABLED	MATERIALID

Table RAWMATERIAL
does not have...
A comment
Partitions
Foreign Key Constraints

SalesPerson Table

Columns in Table SALESPERSON

Col ID	Column Name	Data Type	Not Null	Data Def.	Comments
1	**SALESPERSONID**	NUMBER(11)	Y		
2	SALESPERSONNAME	VARCHAR2(25 BYTE)			
3	SALESPERSONPHONE	VARCHAR2(50 BYTE)			
4	SALESPERSONFAX	VARCHAR2(50 BYTE)			
5	TERRITORYID	NUMBER(11)			

Indexes on Table SALESPERSON

Uniqueness	Index Name	Type	Columns	Partitions	Part Type	Part Cols	Subpart Type	Subpart Cols
UNIQUE	SALESPERSON_PK	NORMAL	SALESPERSONID	<none>				

Foreign Key Constraints on Table SALESPERSON

Constraint Name	Columns	Ref Table Owner	Ref Table Name	Ref Columns	Delete Rule	Status	Deferrable	Deferred
SALESPERSON_FK1	TERRITORYID	PVALLEY	TERRITORY	TERRITORYID	NO ACTION	ENABLED	No	No

PK, UK, & Check Constraints on Table SALESPERSON

Constraint Name	Type	Condition	Status	Columns
SALESPERSON_PK	Primary Key		ENABLED	SALESPERSONID

Table SALESPERSON does not have...
A comment
Partitions

Skills Table

Columns in Table SKILL

Col ID	Column Name	Data Type	Not Null	Data Def.	Comments
1	**SKILLID**	VARCHAR2(12 BYTE)	Y		
2	SKILLDESCRIPTION	VARCHAR2(30 BYTE)			

Indexes on Table SKILL

Uniqueness	Index Name	Type	Columns	Partitions	Part Type	Part Cols	Subpart Type	Subpart Cols
UNIQUE	SKILL_PK	NORMAL	SKILLID	<none>				

PK, UK, & Check Constraints on Table SKILL

Constraint Name	Type	Condition	Status	Columns
SKILL_PK	Primary Key		ENABLED	SKILLID

Table SKILL does not have...
A comment
Partitions
Foreign Key Constraints

Supplies Table

Columns in Table SUPPLIES

Col ID	Column Name	Data Type	Not Null	Data Def.	Comments
1	**VENDORID**$_1$	NUMBER(11)	Y		
2	**MATERIALID**$_2$	VARCHAR2(12 BYTE)	Y		
3	SUPPLIESUNITPRICE	NUMBER(6,2)			

Indexes on Table SUPPLIES

Uniqueness	Index Name	Type	Columns	Partitions	Part Type	Part Cols	Subpart Type	Subpart Cols
UNIQUE	SUPPLIES_PK	NORMAL	VENDORID, MATERIALID	<none>				

Foreign Key Constraints on Table SUPPLIES

Constraint Name	Columns	Ref Table Owner	Ref Table Name	Ref Columns	Delete Rule	Status	Deferrable	Deferred
SUPPLIES_FK1	MATERIALID	PVALLEY	RAWMATERIAL	MATERIALID	NO ACTION	ENABLED	No	No
SUPPLIES_FK2	VENDORID	PVALLEY	VENDOR	VENDORID	NO ACTION	ENABLED	No	No

PK, UK, & Check Constraints on Table SUPPLIES

Constraint Name	Type	Condition	Status	Columns
SUPPLIES_PK	Primary Key		ENABLED	VENDORID, MATERIALID

Table SUPPLIES does not have...
A comment
Partitions

Territory Table

Columns in Table TERRITORY

Col ID	Column Name	Data Type	Not Null	Data Def.	Comments
1	**TERRITORYID**	NUMBER(11)	Y		
2	TERRITORYNAME	VARCHAR2(50 BYTE)			

Indexes on Table TERRITORY

Uniqueness	Index Name	Type	Columns	Partitions	Part Type	Part Cols	Subpart Type	Subpart Cols
UNIQUE	TERRITORY_PK	NORMAL	TERRITORYID	<none>				

PK, UK, & Check Constraints on Table TERRITORY

Constraint Name	Type	Condition	Status	Columns
TERRITORY_PK	Primary Key		ENABLED	TERRITORYID

Table TERRITORY does not have...
A comment
Partitions
Foreign Key Constraints

Uses Table

Columns in Table USES

Col ID	Column Name	Data Type	Not Null	Data Def.	Comments
1	**PRODUCTID**$_1$	NUMBER(11)	Y		
2	**MATERIALID**$_2$	VARCHAR2(12 BYTE)	Y		
3	GOESINTOQUANTITY	INTEGER			

Indexes on Table USES

Uniqueness	Index Name	Type	Columns	Partitions	Part Type	Part Cols	Subpart Type	Subpart Cols
UNIQUE	USES_PK	NORMAL	PRODUCTID, MATERIALID	<none>				

Foreign Key Constraints on Table USES

Constraint Name	Columns	Ref Table Owner	Ref Table Name	Ref Columns	Delete Rule	Status	Deferrable	Deferred
USES_FK1	PRODUCTID	PVALLEY	PRODUCT	PRODUCTID	NO ACTION	ENABLED	No	No
USES_FK2	MATERIALID	PVALLEY	RAWMATERIAL	MATERIALID	NO ACTION	ENABLED	No	No

PK, UK, & Check Constraints on Table USES

Constraint Name	Type	Condition	Status	Columns
USES_PK	Primary Key		ENABLED	PRODUCTID, MATERIALID

Table USES
does not
have...
A comment
Partitions

Vendor Table

Columns in Table VENDOR

Col ID	Column Name	Data Type	Not Null	Data Def.	Comments
1	**VENDORID**	NUMBER(11)	Y		
2	VENDORNAME	VARCHAR2(25 BYTE)			
3	VENDORADDRESS	VARCHAR2(30 BYTE)			
4	VENDORCITY	VARCHAR2(20 BYTE)			
5	VENDORSTATE	CHAR(2 BYTE)			
6	VENDORZIPCODE	VARCHAR2(50 BYTE)			
7	VENDORFAX	VARCHAR2(10 BYTE)			
8	VENDORPHONE	VARCHAR2(10 BYTE)			
9	VENDORCONTACT	VARCHAR2(50 BYTE)			
10	VENDORTAXID	VARCHAR2(50 BYTE)			

Indexes on Table VENDOR

Uniqueness	Index Name	Type	Columns	Partitions	Part Type	Part Cols	Subpart Type	Subpart Cols
UNIQUE	VENDOR_PK	NORMAL	VENDORID	<none>				

PK, UK, & Check Constraints on Table VENDOR

Constraint Name	Type	Condition	Status	Columns
VENDOR_PK	Primary Key		ENABLED	VENDORID

Table VENDOR does
not have...
A comment
Partitions
Foreign Key Constraints

WorkCenter Table

Columns in Table WORKCENTER

Col ID	Column Name	Data Type	Not Null	Data Def.	Comments
1	**WORKCENTERID**	VARCHAR2(12 BYTE)	Y		
2	WORKCENTERLOCATION	VARCHAR2(30 BYTE)			

Indexes on Table WORKCENTER

Uniqueness	Index Name	Type	Columns	Partitions	Part Type	Part Cols	Subpart Type	Subpart Cols
UNIQUE	WORKCENTER_PK	NORMAL	WORKCENTERID	<none>				

PK, UK, & Check Constraints on Table WORKCENTER

Constraint Name	Type	Condition	Status	Columns
WORKCENTER_PK	Primary Key		ENABLED	WORKCENTERID

Table WORKCENTER
does not have...
A comment
Partitions
Foreign Key Constraints

WorksIn Table

Columns in Table WORKSIN

Col ID	Column Name	Data Type	Not Null	Data Def.	Comments
1	**EMPLOYEEID**$_1$	VARCHAR2(10 BYTE)	Y		
2	**WORKCENTERID**$_2$	VARCHAR2(12 BYTE)	Y		

Indexes on Table WORKSIN

Uniqueness	Index Name	Type	Columns	Partitions	Part Type	Part Cols	Subpart Type	Subpart Cols
UNIQUE	WORKSIN_PK	NORMAL	EMPLOYEEID, WORKCENTERID	<none>				

Foreign Key Constraints on Table WORKSIN

Constraint Name	Columns	Ref Table Owner	Ref Table Name	Ref Columns	Delete Rule	Status	Deferrable	Deferred
WORKSIN_FK1	EMPLOYEEID	PVALLEY	EMPLOYEE	EMPLOYEEID	NO ACTION	ENABLED	No	No
WORKSIN_FK2	WORKCENTERID	PVALLEY	WORKCENTER	WORKCENTERID	NO ACTION	ENABLED	No	No

PK, UK, & Check Constraints on Table WORKSIN

Constraint Name	Type	Condition	Status	Columns
WORKSIN_PK	Primary Key		ENABLED	EMPLOYEEID, WORKCENTERID

Table
WORKSIN
does not
have...
A comment
Partitions

Following are the screenshots of the table made with the entries.

Customer Table

CustomerID	CustomerName	CustomerAddress	CustomerCity	CustomerState	CustomerPostalCode
1	Contemporary Casuals	1355 S Hines Blvd	Gainesville	FL	32601-2871
2	Value Furniture	15145 S.W. 17th St.	Plano	TX	75094-7743
3	Home Furnishings	1900 Allard Ave.	Albany	NY	12209-1125
4	Eastern Furniture	1925 Beltline Rd.	Carteret	NJ	07008-3188
5	Impressions	5585 Westcott Ct.	Sacramento	CA	94206-4056
6	Furniture Gallery	325 Flatiron Dr.	Boulder	CO	80514-4432
7	Period Furniture	394 Rainbow Dr.	Seattle	WA	97954-5589
8	California Classics	816 Peach Rd.	Santa Clara	CA	96915-7754
9	M and H Casual Furniture	3709 First Street	Clearwater	FL	34620-2314
10	Seminole Interiors	2400 Rocky Point Dr.	Seminole	FL	34646-4423
11	American Euro Lifestyles	2424 Missouri Ave N.	Prospect Park	NJ	07508-5621
12	Battle Creek Furniture	345 Capitol Ave. SW	Battle Creek	MI	49015-3401
13	Heritage Furnishings	66789 College Ave.	Carlisle	PA	17013-8834
14	Kaneohe Homes	112 Kiowai St.	Kaneohe	HI	96744-2537
15	Mountain Scenes	4132 Main Street	Ogden	UT	84403-4432

DoesBussinessIn Table

CustomerID	TerritoryID
1	1
1	2
2	2
3	3
4	3
5	2
6	5

Employee Table

EmployeeID	EmployeeName	EmployeeAddress	EmployeeBirthDate	EmployeeCity	EmployeeState	EmployeeZip	EmployeeDateHired	EmployeeSupervisor
123-44-345	Jim Jason	2134 Hilltop Rd	1972-10-22		TN		1999-06-12	454-56-768
454-56-768	Robert Lewis	17834 Deerfield Ln	1969-10-11	Nashville	TN		1999-01-01	

OrderLine Table

OrderID	ProductID	OrderedQuantity
1001	1	2
1001	2	2
1001	4	1
1002	3	5
1003	3	3
1004	6	2
1004	8	2
1005	4	3
1006	4	1
1006	5	2
1006	7	2
1007	1	3
1007	2	2
1008	3	3
1008	8	3
1009	4	2
1009	7	3
1010	8	10

EmployeeSkills Table

EmployeeID	SkillID
123-44-345	BS12
123-44-345	RT1
454-56-768	BS12

Orders Table

OrderID	CustomerID	OrderDate
1001	1	2010-10-22
1002	8	2010-10-21
1003	15	2010-10-22
1004	5	2010-10-22
1005	3	2010-10-24
1006	2	2010-10-24
1007	11	2010-10-27
1008	12	2010-10-30
1009	4	2010-11-05
1010	1	2010-11-05

Product Table

ProductID	ProductLineID	ProductDescription	ProductFinish	ProductStandardPrice
1	1	End Table	Cherry	175.00
2	2	Coffee Table	Natural Ash	200.00
3	2	Computer Desk	Natural Ash	375.00
4	3	Entertainment Center	Natural Maple	650.00
5	1	Writers Desk	Cherry	325.00
6	2	8-Drawer Desk	White Ash	750.00
7	2	Dining Table	Natural Ash	800.00
8	3	Computer Desk	Walnut	250.00

ProductLine Table

ProductLineID	ProductLineName
1	Cherry Tree
2	Scandinavia
3	Country Look

SalesPerson Table

SalespersonID	SalespersonName	SalespersonPhone	SalespersonFax	TerritoryID
1	Doug Henny	8134445555		1
2	Robert Lewis	8139264006		2
3	William Strong	5053821212		3
4	Julie Dawson	4355346677		4
5	Jacob Winslow	2238973498		5

Skills Table

SkillID	SkillDescription
BS12	12in Band Saw
QC1	Quality Control
RT1	Router
SO1	Sander-Orbital
SB1	Sander-Belt
TS10	10in Table Saw
TS12	12in Table Saw
UC1	Upholstery Cutter
US1	Upholstery Sewer
UT1	Upholstery Tacker

Territory Table

TerritoryID	TerritoryName
1	SouthEast
2	SouthWest
3	NorthEast
4	NorthWest
5	Central

WorkCenter Table

WorkCenterID	WorkCenterLocation
SM1	Main Saw Mill
WR1	Warehouse and Receiving

WorksIn Table

EmployeeID	WorkCenterID
123-44-345	SM1

Following is the indexing done in the database between the tables.

Schema PVALLEY
Oracle Version 11.2.0.4.0
As Of 11/30/2017 3:40:25 PM

Summary
Indexes
Tables

Index Summary

Index Name	Index Type	Uniqueness	Table Owner	Table Name	Columns	Size	Tablespace
PRODUCT_PK	NORMAL	UNIQUE	PVALLEY	PRODUCT	1	64K	USERS
PRODUCEDIN_PK	NORMAL	UNIQUE	PVALLEY	PRODUCEDIN	2	0	USERS
SALESPERSON_PK	NORMAL	UNIQUE	PVALLEY	SALESPERSON	1	64K	USERS
WORKCENTER_PK	NORMAL	UNIQUE	PVALLEY	WORKCENTER	1	64K	USERS
CUSTOMER_PK	NORMAL	UNIQUE	PVALLEY	CUSTOMER	1	64K	USERS
TERRITORY_PK	NORMAL	UNIQUE	PVALLEY	TERRITORY	1	64K	USERS
DOESBUSINESSIN_PK	NORMAL	UNIQUE	PVALLEY	DOESBUSINESSIN	2	64K	USERS
EMPLOYEE_PK	NORMAL	UNIQUE	PVALLEY	EMPLOYEE	1	64K	USERS
SKILL_PK	NORMAL	UNIQUE	PVALLEY	SKILL	1	64K	USERS
EMPLOYEESKILLS_PK	NORMAL	UNIQUE	PVALLEY	EMPLOYEESKILLS	2	64K	USERS
ORDER_PK	NORMAL	UNIQUE	PVALLEY	Order	1	64K	USERS
PRODUCTLINE_PK	NORMAL	UNIQUE	PVALLEY	PRODUCTLINE	1	64K	USERS
WORKSIN_PK	NORMAL	UNIQUE	PVALLEY	WORKSIN	2	0	USERS
VENDOR_PK	NORMAL	UNIQUE	PVALLEY	VENDOR	1	0	USERS
USES_PK	NORMAL	UNIQUE	PVALLEY	USES	2	0	USERS
SUPPLIES_PK	NORMAL	UNIQUE	PVALLEY	SUPPLIES	2	0	USERS
RAWMATERIAL_PK	NORMAL	UNIQUE	PVALLEY	RAWMATERIAL	1	0	USERS
ORDERLINE_PK	NORMAL	UNIQUE	PVALLEY	ORDERLINE	2	64K	USERS