spool 'C:\Users\ Shrestha\Desktop\Project2\_sps.txt'

set echo on

-- This will ensure that all input and output is logged to the file.

--Suprima Pote Shrestha

--INSY 3304-001

--PROJECT 2

DROP TABLE ORDERDETAIL\_sps;

DROP TABLE ORDER\_sps;

DROP TABLE CUSTOMER\_sps ;

DROP TABLE SALESREP\_sps;

DROP TABLE PRODUCT\_sps;

DROP TABLE COMMISSION\_sps;

DROP TABLE DEPARTMENT\_sps;

DROP TABLE PRODCAT\_sps;

-- Part IA

CREATE TABLE PRODCAT\_sps

(

ProdCatID NUMBER(5),

ProdCatName VARCHAR(20) NOT NULL,

PRIMARY KEY (ProdCatID)

);

CREATE TABLE DEPARTMENT\_sps

(

DeptID NUMBER(5),

DeptName VARCHAR(15) NOT NULL,

PRIMARY KEY (DeptID)

);

CREATE TABLE COMMISSION\_sps

(

CommClass CHAR(1),

CommRate NUMBER(3,2) NOT NULL,

PRIMARY KEY (CommClass)

) ;

CREATE TABLE PRODUCT\_sps

(

ProdID NUMBER(5),

ProdName VARCHAR(20) NOT NULL,

ProdCatID NUMBER(5) NOT NULL,

ProdPrice NUMBER(4,2) NOT NULL,

PRIMARY KEY (ProdID),

FOREIGN KEY (ProdCatID) REFERENCES PRODCAT\_sps

);

CREATE TABLE SALESREP\_sps

(

SalesRepID NUMBER(5),

SalesRepFName VARCHAR(10) NOT NULL,

SalesRepLName VARCHAR(10) NOT NULL,

CommClass CHAR(1) NOT NULL,

DeptID NUMBER(5) NOT NULL,

PRIMARY KEY (SalesRepID),

FOREIGN KEY (CommClass) REFERENCES COMMISSION\_sps,

FOREIGN KEY (DeptID) REFERENCES DEPARTMENT\_sps

);

CREATE TABLE CUSTOMER\_sps

(

CustID CHAR(5) NOT NULL,

CustFName VARCHAR(15) NOT NULL,

CustLName VARCHAR(15) NOT NULL,

CustPhone CHAR(10),

SalesRepID NUMBER(5) NOT NULL,

PRIMARY KEY (CustID),

FOREIGN KEY (SalesRepID) REFERENCES SALESREP\_sps

);

CREATE TABLE ORDER\_sps

(

OrderID NUMBER(5),

OrderDate DATE NOT NULL,

CustID CHAR(5) NOT NULL,

PRIMARY KEY (OrderID),

FOREIGN KEY (CustID) REFERENCES CUSTOMER\_sps

);

CREATE TABLE ORDERDETAIL\_sps

(

OrderID NUMBER(5),

ProdID NUMBER(5) NOT NULL,

ProdQty NUMBER(5) NOT NULL,

ProdPrice NUMBER(4,2) NOT NULL,

PRIMARY KEY (OrderID,ProdID),

FOREIGN KEY (OrderID) REFERENCES ORDER\_sps,

FOREIGN KEY (ProdID) REFERENCES PRODUCT\_sps

);

--PART 1B

DESCRIBE ORDERDETAIL\_sps

DESCRIBE ORDER\_sps

DESCRIBE CUSTOMER\_sps

DESCRIBE SALESREP\_sps

DESCRIBE PRODUCT\_sps

DESCRIBE COMMISSION\_sps

DESCRIBE DEPARTMENT\_sps

DESCRIBE PRODCAT\_sps

-- PART IIA

--Insert rows into PRODCAT table

INSERT INTO PRODCAT\_sps

VALUES(1,'Hand Tools');

INSERT INTO PRODCAT\_sps

VALUES (2, 'Power Tools');

INSERT INTO PRODCAT\_sps

VALUES (3, 'Measuring Tools');

INSERT INTO PRODCAT\_sps

VALUES (4, 'Fastners');

INSERT INTO PRODCAT\_sps

VALUES (5, 'Hardware');

INSERT INTO PRODCAT\_sps

VALUES(6,'MISC');

--Insert rows into DEPARTMENT table

INSERT INTO DEPARTMENT\_sps

VALUES (10, 'Store Sales');

INSERT INTO DEPARTMENT\_sps

VALUES(14, 'Corp Sales');

INSERT INTO DEPARTMENT\_sps

VALUES (16, 'Web Sales');

--Insert rows into COMMISSION table

INSERT INTO COMMISSION\_sps

VALUES ('A', 0.1);

INSERT INTO COMMISSION\_sps

VALUES ('B', 0.08);

INSERT INTO COMMISSION\_sps

VALUES('Z', 0);

INSERT INTO COMMISSION\_sps

VALUES('C',0.05);

--Insert rows into PRODUCT table

INSERT INTO PRODUCT\_sps

VALUES(121,'BD Hammer', 1, 7.00);

INSERT INTO PRODUCT\_sps

VALUES(228,'Makita Power Drill', 2, 65.00);

INSERT INTO PRODUCT\_sps

VALUES(480,'1# BD Nails',4,3.00);

INSERT INTO PRODUCT\_sps

VALUES (407,'1# BD Screws',4,4.25);

INSERT INTO PRODUCT\_sps

VALUES (610,'3M Duct Tape',6 , 1.75);

INSERT INTO PRODUCT\_sps

VALUES (618,'3M Masking Tape', 6,1.25);

INSERT INTO PRODUCT\_sps

VALUES (380,'Acme Yard Stick', 3,1.25);

INSERT INTO PRODUCT\_sps

VALUES (535,'Schlage Door Knob', 5,6.50);

INSERT INTO PRODUCT\_sps

VALUES (123,'Acme Pry Bar', 1, 5.00);

INSERT INTO PRODUCT\_sps

VALUES (229,'BD Power Drill', 2,59.00);

INSERT INTO PRODUCT\_sps

Values (124,'Acme Hammer', 1,6.50);

INSERT INTO PRODUCT\_sps

VALUES (235,'Makita Power Drill', 2,65.00);

-- Insert rows into SALESREP table

INSERT INTO SALESREP\_sps

VALUES (10, 'Alice', 'Jones', 'A',10);

INSERT INTO SALESREP\_sps

VALUES (12, 'Grey', 'Taylor', 'B', 14);

INSERT INTO SALESREP\_sps

VALUES (14, 'Sara', 'Day', 'Z', 10);

INSERT INTO SALESREP\_sps

VALUES (8, 'Kay', 'Price', 'C',14);

INSERT INTO SALESREP\_sps

VALUES (20,'Bob', 'Jackson', 'B', 10);

INSERT INTO SALESREP\_sps

VALUES (22, 'Micah', 'Moore', 'Z', 16);

-- Insert rows into CUTOMER table

INSERT INTO CUSTOMER\_sps

VALUES( 'S100', 'John', 'Smith','2145551212', 10);

INSERT INTO CUSTOMER\_sps

VALUES( 'A120', 'Jane', 'Adams','8175553434', 12);

INSERT INTO CUSTOMER\_sps

VALUES ('J090', 'Tim', 'Jones', NULL, 14);

INSERT INTO CUSTOMER\_sps

VALUES ('B200', 'Ann', 'Brown', '9725557979', 8);

INSERT INTO CUSTOMER\_sps

VALUES ('G070', 'Kate', 'Green', '8175551034', 20);

INSERT INTO CUSTOMER\_sps

VALUES ('S120', 'Nicole' , 'Sims', NULL, 22);

-- Insert rows into ORDER table

INSERT INTO ORDER\_sps

VALUES (100, '24-JAN-2022', 'S100');

INSERT INTO ORDER\_sps

VALUES (101, '25-JAN-2022', 'A120');

INSERT INTO ORDER\_sps

VALUES (102, '25-JAN-2022', 'J090');

INSERT INTO ORDER\_sps

VALUES (103, '26-JAN-2022', 'B200');

INSERT INTO ORDER\_sps

VALUES (104, '26-JAN-2022', 'S100');

INSERT INTO ORDER\_sps

VALUES (105, '26-JAN-2022', 'B200');

INSERT INTO ORDER\_sps

VALUES (106, '27-JAN-2022', 'G070');

INSERT INTO ORDER\_sps

VALUES (107, '27-JAN-2022', 'J090');

INSERT INTO ORDER\_sps

VALUES (108, '27-JAN-2022', 'S120');

--Inser rows into ORDERDETAIL table

INSERT INTO ORDERDETAIL\_sps

VALUES (100, 121, 2, 8.00);

INSERT INTO ORDERDETAIL\_sps

VALUES (100, 228, 1, 65.00);

INSERT INTO ORDERDETAIL\_sps

VALUES (100, 480, 2, 3.00);

INSERT INTO ORDERDETAIL\_sps

VALUES (100, 407, 1, 4.25);

INSERT INTO ORDERDETAIL\_sps

VALUES (101, 610, 200, 1.75);

INSERT INTO ORDERDETAIL\_sps

VALUES (101, 618, 100, 1.25);

INSERT INTO ORDERDETAIL\_sps

VALUES (102, 380, 2, 1.25);

INSERT INTO ORDERDETAIL\_sps

VALUES (102, 121, 1, 7.00);

INSERT INTO ORDERDETAIL\_sps

VALUES (102, 535, 4, 7.50);

INSERT INTO ORDERDETAIL\_sps

VALUES (103, 121, 50, 7.00);

INSERT INTO ORDERDETAIL\_sps

VALUES (103, 123, 20, 6.25);

INSERT INTO ORDERDETAIL\_sps

VALUES (104, 229, 1, 50.00);

INSERT INTO ORDERDETAIL\_sps

VALUES (104, 610, 200, 1.75);

INSERT INTO ORDERDETAIL\_sps

VALUES (104, 380, 2, 1.25);

INSERT INTO ORDERDETAIL\_sps

VALUES (104, 535, 4, 7.50);

INSERT INTO ORDERDETAIL\_sps

VALUES (105, 610, 200, 1.75);

INSERT INTO ORDERDETAIL\_sps

VALUES (105, 123, 40, 5.00);

INSERT INTO ORDERDETAIL\_sps

VALUES (106, 124, 1, 6.50);

INSERT INTO ORDERDETAIL\_sps

VALUES (107, 229, 1, 59.00);

INSERT INTO ORDERDETAIL\_sps

VALUES (108, 235, 1, 65.00);

--save all rows

COMMIT;

-- Part IIB

SELECT \* FROM PRODCAT\_sps;

SELECT \* FROM PRODUCT\_sps;

SELECT \* FROM DEPARTMENT\_sps;

SELECT \* FROM COMMISSION\_sps;

SELECT \* FROM ORDERDETAIL\_sps;

SELECT \* FROM ORDER\_sps;

SELECT \* FROM CUSTOMER\_sps;

SELECT \* FROM SALESREP\_sps;

-- PART III

--changing the phone number of a customer

UPDATE CUSTOMER\_sps

SET CustPhone = '2145551234'

WHERE CustID = 'B200';

INSERT INTO CUSTOMER\_sps

VALUES('G119', 'Amanda', 'Green', NULL ,14);

--ORDER TABLE

UPDATE ORDER\_sps

SET OrderDate = '28-JAN-2022'

WHERE OrderID = 108;

INSERT INTO ORDER\_sps

VALUES (109,'28-JAN-2022','G119');

--Changing price of product

UPDATE ORDERDETAIL\_sps

SET ProdPrice= 62.00

WHERE ProdID = 235 AND OrderID = 108;

--Adding the Products

INSERT INTO ORDERDETAIL\_sps

VALUES (108,407,1,5.25);

INSERT INTO ORDERDETAIL\_sps

VALUES (108,618,2,2.15);

INSERT INTO ORDERDETAIL\_sps

VALUES (109,121,1,8.25);

INSERT INTO ORDERDETAIL\_sps

VALUES (109,480,1,3.75);

--save changes to disk

COMMIT;

--PART IV

SELECT \* FROM PRODCAT\_sps

ORDER BY ProdCatID;

SELECT \* FROM DEPARTMENT\_sps

ORDER BY DeptName;

SELECT \* FROM COMMISSION\_sps

ORDER BY CommClass;

SELECT \* FROM PRODUCT\_sps

ORDER BY ProdID;

SELECT \* FROM SALESREP\_sps

ORDER BY SalesRepID;

SELECT \* FROM CUSTOMER\_sps

ORDER BY CustID;

SELECT \* FROM ORDER\_sps

ORDER BY OrderID;

SELECT \* FROM ORDERDETAIL\_sps

ORDER BY OrderID, ProdID;

set echo off

-- This will turn off logging.

spool off

-- This will close the file.

--Suprima Pote Shrestha

--INSY 3304-001

--Karen Scott

spool 'C:\Users\Adarsha Shrestha\Desktop\sql\project\project(2).txt'

set echo on

--Part I

--1,2,3

SET LINESIZE 150

--Format column heading (varchar and char columns only)

COLUMN ProdName FORMAT a12

COLUMN Avg\_Price FORMAT a10

COLUMN OrderDate FORMAT a10

COLUMN "Order Date" FORMAT a10

COLUMN "SalesRepFirstName" FORMAT a17

COLUMN "SalesRepLastName" FORMAT a17

COLUMN "Customer ID" FORMAT a12

COLUMN CommClass FORMAT a12

COLUMN DeptName FORMAT a12

COLUMN SalesRepFName FORMAT a17

COLUMN SalesRepLName FORMAT a17

COLUMN CustID FORMAT a12

COLUMN "Cust ID" FORMAT a7

COLUMN CustFName FORMAT a14

COLUMN CustLName FORMAT a14

--4. Adding a New Customer

INSERT INTO CUSTOMER\_sps VALUES

('T104','Wes','Thomas','469-555-1215',22);

--5. Adding a New Product

INSERT INTO PRODUCT\_sps

VALUES(246,'Milwaukee Power Dril1',2, 179.00);

--6. Add a new Order. Generate the OrderID by incrementing the max OrderID by 1

INSERT INTO ORDER\_sps

VALUES ((SELECT ((MAX(OrderID))+1) FROM ORDER\_sps),'28-JAN-2022', 'T104');

INSERT INTO ORDERDETAIL\_sps

VALUES ((SELECT MAX(ORDERID) FROM ORDER\_sps), 618, 1,( SELECT ProdPrice FROM PRODUCT\_sps WHERE ProdID=618));

INSERT INTO ORDERDETAIL\_sps

VALUES ((SELECT MAX(ORDERID) FROM ORDER\_sps), 407,2, (SELECT ProdPrice FROM PRODUCT\_sps WHERE ProdID= 407));

INSERT INTO ORDERDETAIL\_sps

VALUES ((SELECT MAX(ORDERID) FROM ORDER\_sps), 124,1, (SELECT ProdPrice FROM PRODUCT\_sps WHERE ProdID= 124));

--7.

INSERT INTO ORDER\_sps

VALUES ((SELECT (MAX(OrderID)+1) FROM ORDER\_sps),'29-JAN-2022', 'S100');

INSERT INTO ORDERDETAIL\_sps

VALUES ((SELECT MAX(ORDERID) FROM ORDER\_sps), 535,3,( SELECT ProdPrice FROM PRODUCT\_sps WHERE ProdID=535));

INSERT INTO ORDERDETAIL\_sps

VALUES ((SELECT MAX(ORDERID) FROM ORDER\_sps), 246, 1,(SELECT ProdPrice FROM PRODUCT\_sps WHERE ProdID=246));

INSERT INTO ORDERDETAIL\_sps

VALUES ((SELECT MAX(ORDERID) FROM ORDER\_sps), 610, 2, (SELECT ProdPrice FROM PRODUCT\_sps WHERE ProdID=610));

--8. Change Cust Phone Number

UPDATE CUSTOMER\_sps

SET CustPhone = '817-555-8918'

WHERE CustID = 'B200' ;

--9.

--Save changes to disk (in memory only until you COMMIT)

COMMIT ;

-- PART II

--1.

SELECT (SalesRepFName || ' ' || SalesRepLName) AS "SalesRep Name" ,

SalesRepID AS "Sales Rep ID", C.CommClass AS "Commission Class" , CommRate AS "Commission Rate"

FROM SALESREP\_sps S INNER JOIN COMMISSION\_sps C ON S.CommClass = C.CommClass

ORDER BY SalesRepLName ;

--2

SELECT OrderID AS "Order ID", ProdID AS "Product ID", ProdQty AS "Qty",TO\_CHAR(ProdPrice, '$999.99') AS "Price"

FROM ORDERDETAIL\_sps

ORDER BY OrderID ASC, ProdID ASC;

--3.

SELECT CustID , CustFName AS "CustFirstName", CustLName AS "CustLastName", SUBSTR(CustPhone,1,3) ||'-'|| SUBSTR(CustPhone,4,3) || '-'|| SUBSTR(CustPhone,7,4) AS "CustPhone", S.SalesRepID, SalesRepFName AS "SalesRepFirstName", SalesRepLName AS "SalesRepLastName"

FROM CUSTOMER\_sps C, SALESREP\_sps S

WHERE S.SalesRepID= C.SalesRepID

ORDER BY CustID;

--4.

SELECT DE.DeptID AS "Dept\_ID", DE.DeptName AS "Dept\_Name", SR.SalesRepID AS "Sales\_Rep\_ID",

SR.SalesRepFName AS "First\_Name", SR.SalesRepLName AS "Last\_Name",

SR.CommClass AS "Commission\_Class", C.CommRate AS "Commission\_Rate"

FROM DEPARTMENT\_sps DE, SALESREP\_sps SR, COMMISSION\_sps C

WHERE C.CommClass = SR.CommClass AND

DE.DeptID = SR.DeptID AND

(DE.DeptID, CommRate) IN

(SELECT DeptID, MAX(CommRate)

FROM SALESREP\_sps

GROUP BY DeptID);

--5

SELECT OD.ProdID AS "Product\_ID", PR.ProdName AS "Product\_Name", PR.ProdCatID AS "Category",

TO\_CHAR(PR.ProdPrice, '$999.99' ) AS "Price"

FROM PRODUCT\_sps PR, ORDER\_sps O, ORDERDETAIL\_sps OD

WHERE PR.ProdID = OD.ProdID AND

O.OrderID = OD.OrderID AND

O.OrderID = 100 AND

PR.ProdPrice = (SELECT MAX(ProdPrice)

FROM ORDERDETAIL\_sps OD

WHERE OrderID = 100) ;

--6

SELECT DeptName AS "Dept\_Name", COUNT(SalesRepID) AS "Sales\_Rep\_Count"

FROM DEPARTMENT\_sps D, SALESREP\_sps SR

WHERE D.DeptID = SR.DeptID

GROUP BY DeptName

ORDER BY COUNT(SalesRepID);

--7

SELECT SalesRepID AS "Sales\_Rep\_ID", SalesRepFName AS "First\_Name", SalesRepLName AS "Last\_Name",

CONCAT(TO\_CHAR((CommRate\*100), '99'),'%') AS "Commission\_Rate"

FROM SALESREP\_sps S , COMMISSION\_sps C

WHERE S.CommClass = C.CommClass AND

CommRate>0 AND

CommRate<=0.5

ORDER BY CommRate DESC;

--8.

SELECT O.OrderID, TO\_CHAR(O.OrderDate, 'mm/dd/yy') AS "OrderDate", C.CustFName, C.CustLName, S.SalesRepID, S.SalesRepFName, S.SalesRepLName

FROM ORDER\_sps O, CUSTOMER\_sps C, SALESREP\_sps S

WHERE O.CustID = C.CustID AND

C.SalesRepID = S.SalesRepID

ORDER BY OrderID;

--9.

SELECT O.OrderID, P.ProdID, P.ProdName, P.ProdCatID AS "CatID",

O.ProdPrice AS "Price", O.ProdQty AS "Qty", (O.ProdPrice\*O.ProdQty) AS "ExtPrice"

FROM ORDERDETAIL\_sps O, PRODUCT\_sps P

WHERE O.ProdID = P.ProdID AND

OrderID = 104

ORDER BY "ExtPrice";

--10

SELECT D.DeptID AS "DeptID", DeptName AS "DeptName",

COUNT(SalesRepID) AS "SalesRepCount", CONCAT(TO\_CHAR(AVG(CommRate)\*100, '99.9'),'%') AS "AvgCommRate"

FROM DEPARTMENT\_sps D, SALESREP\_sps S, COMMISSION\_sps C

WHERE D.DeptID = S.DeptID AND

S.CommClass = C.CommClass

GROUP BY D.DeptID, DeptName

ORDER BY "AvgCommRate";

--11

SELECT S.SalesRepID, S.SalesRepFName, S.SalesRepLName,

CONCAT(TO\_CHAR(C.CommRate\*100, '99.9'),'%') AS "CommRate"

FROM SALESREP\_sps S , COMMISSION\_sps C

WHERE S.CommClass = C.CommClass AND

CommRate >0

ORDER BY SalesRepID;

--12

SELECT S.SalesRepID, (SalesRepFName || ' ' || SalesRepLName) AS "SalesRep\_Name", D.DeptName

FROM SALESREP\_sps S, DEPARTMENT\_sps D, COMMISSION\_sps C

WHERE S.DeptID = D.DeptID AND

S.CommClass = C.CommClass AND

C.CommClass = 'A'

ORDER BY D.DeptID, SalesRepID;

--13.

SELECT OrderID AS "Order\_ID", TO\_CHAR(SUM(ProdPrice\* ProdQty), '$9999.99') AS "Order\_Total"

FROM ORDERDETAIL\_sps

WHERE OrderID= 104

GROUP BY OrderID;

--14.

SELECT TO\_CHAR(AVG(ProdPrice),'$999.99') AS "Avg\_Price"

FROM PRODUCT\_sps

"Avg\_Price";

--15.

SELECT OD.ProdID AS "ProductID",ProdName AS "Name", TO\_CHAR(P.ProdPrice, '$999.00') AS "Price"

FROM ORDERDETAIL\_sps OD, PRODUCT\_sps P

WHERE P.ProdID= OD.ProdID

GROUP BY OD.ProdID,ProdName, P.ProdPrice

HAVING COUNT(OrderID) =

(SELECT MAX(COUNT(OrderID))

FROM ORDERDETAIL\_sps

GROUP BY ProdID);

--16.

SELECT ProdCatID AS "Cat\_ID", ProdID AS "Prod\_ID", ProdName AS "Prod\_Name", TO\_CHAR(ProdPrice, '$999.99') AS " Price"

FROM PRODUCT\_sps

WHERE (ProdCatID, ProdPrice) IN

(SELECT ProdCatID, MIN(ProdPrice)

FROM PRODUCT\_sps

GROUP BY ProdCatID);

--17.

SELECT ProdID AS "Product\_ID", ProdName AS "Product\_Name",ProdCatName AS "Category",TO\_CHAR(ProdPrice, '$999.99') AS "Avg\_Price"

FROM PRODUCT\_sps P

INNER JOIN PRODCAT\_sps PC ON PC.ProdCatID = P.ProdCatID

WHERE ProdPrice > (SELECT AVG(ProdPrice)

FROM PRODUCT\_sps);

--18.

SELECT (C.CustFName || ' ' || C.CustLName) AS "Name", C.CustPhone AS "Phone", TO\_CHAR(O.OrderDate, 'mm/dd/yy') AS "Order Date", O.OrderID AS "Order ID", O.CustID AS "Cust ID"

FROM ORDER\_sps O, CUSTOMER\_sps C

WHERE C.CustID= O.CustID AND

O.OrderDate <= '26-JAN-2022'

ORDER BY O.OrderDate, O.CustID;

--19.

SELECT CustID, CustFName AS "FirstName", CustLName AS "LastName"

FROM CUSTOMER\_sps

WHERE CustFName LIKE 'A%'

ORDER BY CustLName;

--20

SELECT CustID AS "Customer ID", (CustFName || ' ' || CustLName) AS "Name", SUBSTR(CustPhone,1,3) ||'-'|| SUBSTR(CustPhone,4,3) || '-'||SUBSTR(CustPhone,7,4) AS "Phone"

FROM CUSTOMER\_sps

WHERE SalesRepID = 12;

set echo off

spool off

SQL> -- This will ensure that all input and output is logged to the file.

SQL>

SQL> --Suprima Pote Shrestha

SQL> --INSY 3304-001

SQL> --PROJECT 2

SQL>

SQL>

SQL> DROP TABLE ORDERDETAIL\_sps;

Table dropped.

SQL> DROP TABLE ORDER\_sps;

Table dropped.

SQL> DROP TABLE CUSTOMER\_sps ;

Table dropped.

SQL> DROP TABLE SALESREP\_sps;

Table dropped.

SQL> DROP TABLE PRODUCT\_sps;

Table dropped.

SQL> DROP TABLE COMMISSION\_sps;

Table dropped.

SQL> DROP TABLE DEPARTMENT\_sps;

Table dropped.

SQL> DROP TABLE PRODCAT\_sps;

Table dropped.

SQL>

SQL>

SQL> -- Part IA

SQL>

SQL> CREATE TABLE PRODCAT\_sps

2 (

3 ProdCatID NUMBER(5),

4 ProdCatName VARCHAR(20) NOT NULL,

5 PRIMARY KEY (ProdCatID)

6 );

Table created.

SQL>

SQL>

SQL> CREATE TABLE DEPARTMENT\_sps

2 (

3 DeptID NUMBER(5),

4 DeptName VARCHAR(15) NOT NULL,

5 PRIMARY KEY (DeptID)

6 );

Table created.

SQL>

SQL> CREATE TABLE COMMISSION\_sps

2 (

3 CommClass CHAR(1),

4 CommRate NUMBER(3,2) NOT NULL,

5 PRIMARY KEY (CommClass)

6 ) ;

Table created.

SQL>

SQL> CREATE TABLE PRODUCT\_sps

2 (

3 ProdID NUMBER(5),

4 ProdName VARCHAR(20) NOT NULL,

5 ProdCatID NUMBER(5) NOT NULL,

6 ProdPrice NUMBER(4,2) NOT NULL,

7 PRIMARY KEY (ProdID),

8 FOREIGN KEY (ProdCatID) REFERENCES PRODCAT\_sps

9 );

Table created.

SQL>

SQL> CREATE TABLE SALESREP\_sps

2 (

3 SalesRepID NUMBER(5),

4 SalesRepFName VARCHAR(10) NOT NULL,

5 SalesRepLName VARCHAR(10) NOT NULL,

6 CommClass CHAR(1) NOT NULL,

7 DeptID NUMBER(5) NOT NULL,

8 PRIMARY KEY (SalesRepID),

9 FOREIGN KEY (CommClass) REFERENCES COMMISSION\_sps,

10 FOREIGN KEY (DeptID) REFERENCES DEPARTMENT\_sps

11 );

Table created.

SQL>

SQL> CREATE TABLE CUSTOMER\_sps

2 (

3 CustID CHAR(5) NOT NULL,

4 CustFName VARCHAR(15) NOT NULL,

5 CustLName VARCHAR(15) NOT NULL,

6 CustPhone CHAR(10),

7 SalesRepID NUMBER(5) NOT NULL,

8 PRIMARY KEY (CustID),

9 FOREIGN KEY (SalesRepID) REFERENCES SALESREP\_sps

10 );

Table created.

SQL>

SQL>

SQL>

SQL> CREATE TABLE ORDER\_sps

2 (

3 OrderID NUMBER(5),

4 OrderDate DATE NOT NULL,

5 CustID CHAR(5) NOT NULL,

6 PRIMARY KEY (OrderID),

7 FOREIGN KEY (CustID) REFERENCES CUSTOMER\_sps

8 );

Table created.

SQL>

SQL> CREATE TABLE ORDERDETAIL\_sps

2 (

3 OrderID NUMBER(5),

4 ProdID NUMBER(5) NOT NULL,

5 ProdQty NUMBER(5) NOT NULL,

6 ProdPrice NUMBER(4,2) NOT NULL,

7 PRIMARY KEY (OrderID,ProdID),

8 FOREIGN KEY (OrderID) REFERENCES ORDER\_sps,

9 FOREIGN KEY (ProdID) REFERENCES PRODUCT\_sps

10 );

Table created.

SQL>

SQL>

SQL> --PART 1B

SQL> DESCRIBE ORDERDETAIL\_sps

Name Null? Type

----------------------------------------- -------- ----------------------------

ORDERID NOT NULL NUMBER(5)

PRODID NOT NULL NUMBER(5)

PRODQTY NOT NULL NUMBER(5)

PRODPRICE NOT NULL NUMBER(4,2)

SQL> DESCRIBE ORDER\_sps

Name Null? Type

----------------------------------------- -------- ----------------------------

ORDERID NOT NULL NUMBER(5)

ORDERDATE NOT NULL DATE

CUSTID NOT NULL CHAR(5)

SQL> DESCRIBE CUSTOMER\_sps

Name Null? Type

----------------------------------------- -------- ----------------------------

CUSTID NOT NULL CHAR(5)

CUSTFNAME NOT NULL VARCHAR2(15)

CUSTLNAME NOT NULL VARCHAR2(15)

CUSTPHONE CHAR(10)

SALESREPID NOT NULL NUMBER(5)

SQL> DESCRIBE SALESREP\_sps

Name Null? Type

----------------------------------------- -------- ----------------------------

SALESREPID NOT NULL NUMBER(5)

SALESREPFNAME NOT NULL VARCHAR2(10)

SALESREPLNAME NOT NULL VARCHAR2(10)

COMMCLASS NOT NULL CHAR(1)

DEPTID NOT NULL NUMBER(5)

SQL> DESCRIBE PRODUCT\_sps

Name Null? Type

----------------------------------------- -------- ----------------------------

PRODID NOT NULL NUMBER(5)

PRODNAME NOT NULL VARCHAR2(20)

PRODCATID NOT NULL NUMBER(5)

PRODPRICE NOT NULL NUMBER(4,2)

SQL> DESCRIBE COMMISSION\_sps

Name Null? Type

----------------------------------------- -------- ----------------------------

COMMCLASS NOT NULL CHAR(1)

COMMRATE NOT NULL NUMBER(3,2)

SQL> DESCRIBE DEPARTMENT\_sps

Name Null? Type

----------------------------------------- -------- ----------------------------

DEPTID NOT NULL NUMBER(5)

DEPTNAME NOT NULL VARCHAR2(15)

SQL> DESCRIBE PRODCAT\_sps

Name Null? Type

----------------------------------------- -------- ----------------------------

PRODCATID NOT NULL NUMBER(5)

PRODCATNAME NOT NULL VARCHAR2(20)

SQL>

SQL> -- PART IIA

SQL>

SQL> --Insert rows into PRODCAT table

SQL>

SQL> INSERT INTO PRODCAT\_sps

2 VALUES(1,'Hand Tools');

1 row created.

SQL>

SQL> INSERT INTO PRODCAT\_sps

2 VALUES (2, 'Power Tools');

1 row created.

SQL>

SQL> INSERT INTO PRODCAT\_sps

2 VALUES (3, 'Measuring Tools');

1 row created.

SQL>

SQL> INSERT INTO PRODCAT\_sps

2 VALUES (4, 'Fastners');

1 row created.

SQL>

SQL> INSERT INTO PRODCAT\_sps

2 VALUES (5, 'Hardware');

1 row created.

SQL>

SQL> INSERT INTO PRODCAT\_sps

2 VALUES(6,'MISC');

1 row created.

SQL>

SQL>

SQL>

SQL>

SQL> --Insert rows into DEPARTMENT table

SQL> INSERT INTO DEPARTMENT\_sps

2 VALUES (10, 'Store Sales');

1 row created.

SQL>

SQL> INSERT INTO DEPARTMENT\_sps

2 VALUES(14, 'Corp Sales');

1 row created.

SQL>

SQL> INSERT INTO DEPARTMENT\_sps

2 VALUES (16, 'Web Sales');

1 row created.

SQL>

SQL>

SQL> --Insert rows into COMMISSION table

SQL> INSERT INTO COMMISSION\_sps

2 VALUES ('A', 0.1);

1 row created.

SQL>

SQL> INSERT INTO COMMISSION\_sps

2 VALUES ('B', 0.08);

1 row created.

SQL>

SQL> INSERT INTO COMMISSION\_sps

2 VALUES('Z', 0);

1 row created.

SQL>

SQL> INSERT INTO COMMISSION\_sps

2 VALUES('C',0.05);

1 row created.

SQL>

SQL>

SQL> --Insert rows into PRODUCT table

SQL> INSERT INTO PRODUCT\_sps

2 VALUES(121,'BD Hammer', 1, 7.00);

1 row created.

SQL>

SQL> INSERT INTO PRODUCT\_sps

2 VALUES(228,'Makita Power Drill', 2, 65.00);

1 row created.

SQL>

SQL> INSERT INTO PRODUCT\_sps

2 VALUES(480,'1# BD Nails',4,3.00);

1 row created.

SQL>

SQL> INSERT INTO PRODUCT\_sps

2 VALUES (407,'1# BD Screws',4,4.25);

1 row created.

SQL>

SQL> INSERT INTO PRODUCT\_sps

2 VALUES (610,'3M Duct Tape',6 , 1.75);

1 row created.

SQL>

SQL> INSERT INTO PRODUCT\_sps

2 VALUES (618,'3M Masking Tape', 6,1.25);

1 row created.

SQL>

SQL> INSERT INTO PRODUCT\_sps

2 VALUES (380,'Acme Yard Stick', 3,1.25);

1 row created.

SQL>

SQL>

SQL> INSERT INTO PRODUCT\_sps

2 VALUES (535,'Schlage Door Knob', 5,6.50);

1 row created.

SQL>

SQL> INSERT INTO PRODUCT\_sps

2 VALUES (123,'Acme Pry Bar', 1, 5.00);

1 row created.

SQL>

SQL> INSERT INTO PRODUCT\_sps

2 VALUES (229,'BD Power Drill', 2,59.00);

1 row created.

SQL>

SQL> INSERT INTO PRODUCT\_sps

2 Values (124,'Acme Hammer', 1,6.50);

1 row created.

SQL>

SQL> INSERT INTO PRODUCT\_sps

2 VALUES (235,'Makita Power Drill', 2,65.00);

1 row created.

SQL>

SQL>

SQL> -- Insert rows into SALESREP table

SQL> INSERT INTO SALESREP\_sps

2 VALUES (10, 'Alice', 'Jones', 'A',10);

1 row created.

SQL>

SQL> INSERT INTO SALESREP\_sps

2 VALUES (12, 'Grey', 'Taylor', 'B', 14);

1 row created.

SQL>

SQL> INSERT INTO SALESREP\_sps

2 VALUES (14, 'Sara', 'Day', 'Z', 10);

1 row created.

SQL>

SQL> INSERT INTO SALESREP\_sps

2 VALUES (8, 'Kay', 'Price', 'C',14);

1 row created.

SQL>

SQL> INSERT INTO SALESREP\_sps

2 VALUES (20,'Bob', 'Jackson', 'B', 10);

1 row created.

SQL>

SQL> INSERT INTO SALESREP\_sps

2 VALUES (22, 'Micah', 'Moore', 'Z', 16);

1 row created.

SQL>

SQL>

SQL>

SQL>

SQL> -- Insert rows into CUTOMER table

SQL>

SQL> INSERT INTO CUSTOMER\_sps

2 VALUES( 'S100', 'John', 'Smith','2145551212', 10);

1 row created.

SQL>

SQL> INSERT INTO CUSTOMER\_sps

2 VALUES( 'A120', 'Jane', 'Adams','8175553434', 12);

1 row created.

SQL>

SQL> INSERT INTO CUSTOMER\_sps

2 VALUES ('J090', 'Tim', 'Jones', NULL, 14);

1 row created.

SQL>

SQL> INSERT INTO CUSTOMER\_sps

2 VALUES ('B200', 'Ann', 'Brown', '9725557979', 8);

1 row created.

SQL>

SQL> INSERT INTO CUSTOMER\_sps

2 VALUES ('G070', 'Kate', 'Green', '8175551034', 20);

1 row created.

SQL>

SQL> INSERT INTO CUSTOMER\_sps

2 VALUES ('S120', 'Nicole' , 'Sims', NULL, 22);

1 row created.

SQL>

SQL>

SQL> -- Insert rows into ORDER table

SQL> INSERT INTO ORDER\_sps

2 VALUES (100, '24-JAN-2022', 'S100');

1 row created.

SQL>

SQL> INSERT INTO ORDER\_sps

2 VALUES (101, '25-JAN-2022', 'A120');

1 row created.

SQL>

SQL> INSERT INTO ORDER\_sps

2 VALUES (102, '25-JAN-2022', 'J090');

1 row created.

SQL>

SQL> INSERT INTO ORDER\_sps

2 VALUES (103, '26-JAN-2022', 'B200');

1 row created.

SQL>

SQL> INSERT INTO ORDER\_sps

2 VALUES (104, '26-JAN-2022', 'S100');

1 row created.

SQL>

SQL> INSERT INTO ORDER\_sps

2 VALUES (105, '26-JAN-2022', 'B200');

1 row created.

SQL>

SQL> INSERT INTO ORDER\_sps

2 VALUES (106, '27-JAN-2022', 'G070');

1 row created.

SQL>

SQL> INSERT INTO ORDER\_sps

2 VALUES (107, '27-JAN-2022', 'J090');

1 row created.

SQL>

SQL> INSERT INTO ORDER\_sps

2 VALUES (108, '27-JAN-2022', 'S120');

1 row created.

SQL>

SQL>

SQL> --Inser rows into ORDERDETAIL table

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (100, 121, 2, 8.00);

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (100, 228, 1, 65.00);

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (100, 480, 2, 3.00);

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (100, 407, 1, 4.25);

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (101, 610, 200, 1.75);

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (101, 618, 100, 1.25);

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (102, 380, 2, 1.25);

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (102, 121, 1, 7.00);

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (102, 535, 4, 7.50);

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (103, 121, 50, 7.00);

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (103, 123, 20, 6.25);

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (104, 229, 1, 50.00);

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (104, 610, 200, 1.75);

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (104, 380, 2, 1.25);

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (104, 535, 4, 7.50);

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (105, 610, 200, 1.75);

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (105, 123, 40, 5.00);

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (106, 124, 1, 6.50);

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (107, 229, 1, 59.00);

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (108, 235, 1, 65.00);

1 row created.

SQL>

SQL>

SQL> --save all rows

SQL> COMMIT;

Commit complete.

SQL>

SQL> -- Part IIB

SQL>

SQL> SELECT \* FROM PRODCAT\_sps;

PRODCATID PRODCATNAME

---------- --------------------

1 Hand Tools

2 Power Tools

3 Measuring Tools

4 Fastners

5 Hardware

6 MISC

6 rows selected.

SQL> SELECT \* FROM PRODUCT\_sps;

PRODID PRODNAME PRODCATID PRODPRICE

---------- -------------------- ---------- ----------

121 BD Hammer 1 7

228 Makita Power Drill 2 65

480 1# BD Nails 4 3

407 1# BD Screws 4 4.25

610 3M Duct Tape 6 1.75

618 3M Masking Tape 6 1.25

380 Acme Yard Stick 3 1.25

535 Schlage Door Knob 5 6.5

123 Acme Pry Bar 1 5

229 BD Power Drill 2 59

124 Acme Hammer 1 6.5

PRODID PRODNAME PRODCATID PRODPRICE

---------- -------------------- ---------- ----------

235 Makita Power Drill 2 65

12 rows selected.

SQL> SELECT \* FROM DEPARTMENT\_sps;

DEPTID DEPTNAME

---------- ---------------

10 Store Sales

14 Corp Sales

16 Web Sales

SQL> SELECT \* FROM COMMISSION\_sps;

C COMMRATE

- ----------

A .1

B .08

Z 0

C .05

SQL> SELECT \* FROM ORDERDETAIL\_sps;

ORDERID PRODID PRODQTY PRODPRICE

---------- ---------- ---------- ----------

100 121 2 8

100 228 1 65

100 480 2 3

100 407 1 4.25

101 610 200 1.75

101 618 100 1.25

102 380 2 1.25

102 121 1 7

102 535 4 7.5

103 121 50 7

103 123 20 6.25

ORDERID PRODID PRODQTY PRODPRICE

---------- ---------- ---------- ----------

104 229 1 50

104 610 200 1.75

104 380 2 1.25

104 535 4 7.5

105 610 200 1.75

105 123 40 5

106 124 1 6.5

107 229 1 59

108 235 1 65

20 rows selected.

SQL> SELECT \* FROM ORDER\_sps;

ORDERID ORDERDATE CUSTI

---------- --------- -----

100 24-JAN-22 S100

101 25-JAN-22 A120

102 25-JAN-22 J090

103 26-JAN-22 B200

104 26-JAN-22 S100

105 26-JAN-22 B200

106 27-JAN-22 G070

107 27-JAN-22 J090

108 27-JAN-22 S120

9 rows selected.

SQL> SELECT \* FROM CUSTOMER\_sps;

CUSTI CUSTFNAME CUSTLNAME CUSTPHONE SALESREPID

----- --------------- --------------- ---------- ----------

S100 John Smith 2145551212 10

A120 Jane Adams 8175553434 12

J090 Tim Jones 14

B200 Ann Brown 9725557979 8

G070 Kate Green 8175551034 20

S120 Nicole Sims 22

6 rows selected.

SQL> SELECT \* FROM SALESREP\_sps;

SALESREPID SALESREPFN SALESREPLN C DEPTID

---------- ---------- ---------- - ----------

10 Alice Jones A 10

12 Grey Taylor B 14

14 Sara Day Z 10

8 Kay Price C 14

20 Bob Jackson B 10

22 Micah Moore Z 16

6 rows selected.

SQL>

SQL> -- PART III

SQL>

SQL> --changing the phone number of a customer

SQL> UPDATE CUSTOMER\_sps

2 SET CustPhone = '2145551234'

3 WHERE CustID = 'B200';

1 row updated.

SQL>

SQL> INSERT INTO CUSTOMER\_sps

2 VALUES('G119', 'Amanda', 'Green', NULL ,14);

1 row created.

SQL>

SQL> --ORDER TABLE

SQL> UPDATE ORDER\_sps

2 SET OrderDate = '28-JAN-2022'

3 WHERE OrderID = 108;

1 row updated.

SQL>

SQL> INSERT INTO ORDER\_sps

2 VALUES (109,'28-JAN-2022','G119');

1 row created.

SQL>

SQL> --Changing price of product

SQL>

SQL> UPDATE ORDERDETAIL\_sps

2 SET ProdPrice= 62.00

3 WHERE ProdID = 235 AND OrderID = 108;

1 row updated.

SQL>

SQL> --Adding the Products

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (108,407,1,5.25);

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (108,618,2,2.15);

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (109,121,1,8.25);

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES (109,480,1,3.75);

1 row created.

SQL>

SQL> --save changes to disk

SQL> COMMIT;

Commit complete.

SQL>

SQL> --PART IV

SQL>

SQL> SELECT \* FROM PRODCAT\_sps

2 ORDER BY ProdCatID;

PRODCATID PRODCATNAME

---------- --------------------

1 Hand Tools

2 Power Tools

3 Measuring Tools

4 Fastners

5 Hardware

6 MISC

6 rows selected.

SQL> SELECT \* FROM DEPARTMENT\_sps

2 ORDER BY DeptName;

DEPTID DEPTNAME

---------- ---------------

14 Corp Sales

10 Store Sales

16 Web Sales

SQL> SELECT \* FROM COMMISSION\_sps

2 ORDER BY CommClass;

C COMMRATE

- ----------

A .1

B .08

C .05

Z 0

SQL> SELECT \* FROM PRODUCT\_sps

2 ORDER BY ProdID;

PRODID PRODNAME PRODCATID PRODPRICE

---------- -------------------- ---------- ----------

121 BD Hammer 1 7

123 Acme Pry Bar 1 5

124 Acme Hammer 1 6.5

228 Makita Power Drill 2 65

229 BD Power Drill 2 59

235 Makita Power Drill 2 65

380 Acme Yard Stick 3 1.25

407 1# BD Screws 4 4.25

480 1# BD Nails 4 3

535 Schlage Door Knob 5 6.5

610 3M Duct Tape 6 1.75

PRODID PRODNAME PRODCATID PRODPRICE

---------- -------------------- ---------- ----------

618 3M Masking Tape 6 1.25

12 rows selected.

SQL> SELECT \* FROM SALESREP\_sps

2 ORDER BY SalesRepID;

SALESREPID SALESREPFN SALESREPLN C DEPTID

---------- ---------- ---------- - ----------

8 Kay Price C 14

10 Alice Jones A 10

12 Grey Taylor B 14

14 Sara Day Z 10

20 Bob Jackson B 10

22 Micah Moore Z 16

6 rows selected.

SQL> SELECT \* FROM CUSTOMER\_sps

2 ORDER BY CustID;

CUSTI CUSTFNAME CUSTLNAME CUSTPHONE SALESREPID

----- --------------- --------------- ---------- ----------

A120 Jane Adams 8175553434 12

B200 Ann Brown 2145551234 8

G070 Kate Green 8175551034 20

G119 Amanda Green 14

J090 Tim Jones 14

S100 John Smith 2145551212 10

S120 Nicole Sims 22

7 rows selected.

SQL> SELECT \* FROM ORDER\_sps

2 ORDER BY OrderID;

ORDERID ORDERDATE CUSTI

---------- --------- -----

100 24-JAN-22 S100

101 25-JAN-22 A120

102 25-JAN-22 J090

103 26-JAN-22 B200

104 26-JAN-22 S100

105 26-JAN-22 B200

106 27-JAN-22 G070

107 27-JAN-22 J090

108 28-JAN-22 S120

109 28-JAN-22 G119

10 rows selected.

SQL> SELECT \* FROM ORDERDETAIL\_sps

2 ORDER BY OrderID, ProdID;

ORDERID PRODID PRODQTY PRODPRICE

---------- ---------- ---------- ----------

100 121 2 8

100 228 1 65

100 407 1 4.25

100 480 2 3

101 610 200 1.75

101 618 100 1.25

102 121 1 7

102 380 2 1.25

102 535 4 7.5

103 121 50 7

103 123 20 6.25

ORDERID PRODID PRODQTY PRODPRICE

---------- ---------- ---------- ----------

104 229 1 50

104 380 2 1.25

104 535 4 7.5

104 610 200 1.75

105 123 40 5

105 610 200 1.75

106 124 1 6.5

107 229 1 59

108 235 1 62

108 407 1 5.25

108 618 2 2.15

ORDERID PRODID PRODQTY PRODPRICE

---------- ---------- ---------- ----------

109 121 1 8.25

109 480 1 3.75

24 rows selected.

SQL>

SQL>

SQL>

SQL> set echo off

SQL>

SQL> --Part I

SQL>

SQL> --1,2,3

SQL>

SQL>

SQL> SET LINESIZE 150

SQL>

SQL> --Format column heading (varchar and char columns only)

SQL> COLUMN ProdName FORMAT a12

SQL> COLUMN Avg\_Price FORMAT a10

SQL> COLUMN OrderDate FORMAT a10

SQL> COLUMN "Order Date" FORMAT a10

SQL> COLUMN "SalesRepFirstName" FORMAT a17

SQL> COLUMN "SalesRepLastName" FORMAT a17

SQL> COLUMN "Customer ID" FORMAT a12

SQL> COLUMN CommClass FORMAT a12

SQL> COLUMN DeptName FORMAT a12

SQL> COLUMN SalesRepFName FORMAT a17

SQL> COLUMN SalesRepLName FORMAT a17

SQL> COLUMN CustID FORMAT a12

SQL> COLUMN "Cust ID" FORMAT a7

SQL> COLUMN CustFName FORMAT a14

SQL> COLUMN CustLName FORMAT a14

SQL>

SQL>

SQL>

SQL>

SQL> --4. Adding a New Customer

SQL>

SQL> INSERT INTO CUSTOMER\_sps VALUES

2 ('T104','Wes','Thomas','469-555-1215',22);

1 row created.

SQL>

SQL>

SQL> --5. Adding a New Product

SQL>

SQL> INSERT INTO PRODUCT\_sps

2 VALUES(246,'Milwaukee Power Dril1',2, 179.00);

1 row created.

SQL>

SQL>

SQL> --6. Add a new Order. Generate the OrderID by incrementing the max OrderID by 1

SQL>

SQL> INSERT INTO ORDER\_sps

2 VALUES ((SELECT ((MAX(OrderID))+1) FROM ORDER\_sps),'28-JAN-2022', 'T104');

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES ((SELECT MAX(ORDERID) FROM ORDER\_sps), 618, 1,( SELECT ProdPrice FROM PRODUCT\_sps WHERE ProdID=618));

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES ((SELECT MAX(ORDERID) FROM ORDER\_sps), 407,2, (SELECT ProdPrice FROM PRODUCT\_sps WHERE ProdID= 407));

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES ((SELECT MAX(ORDERID) FROM ORDER\_sps), 124,1, (SELECT ProdPrice FROM PRODUCT\_sps WHERE ProdID= 124));

1 row created.

SQL>

SQL>

SQL> --7.

SQL>

SQL> INSERT INTO ORDER\_sps

2 VALUES ((SELECT (MAX(OrderID)+1) FROM ORDER\_sps),'29-JAN-2022', 'S100');

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES ((SELECT MAX(ORDERID) FROM ORDER\_sps), 535,3,( SELECT ProdPrice FROM PRODUCT\_sps WHERE ProdID=535));

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES ((SELECT MAX(ORDERID) FROM ORDER\_sps), 246, 1,(SELECT ProdPrice FROM PRODUCT\_sps WHERE ProdID=246));

1 row created.

SQL>

SQL> INSERT INTO ORDERDETAIL\_sps

2 VALUES ((SELECT MAX(ORDERID) FROM ORDER\_sps), 610, 2, (SELECT ProdPrice FROM PRODUCT\_sps WHERE ProdID=610));

1 row created.

SQL>

SQL>

SQL>

SQL> --8. Change Cust Phone Number

SQL>

SQL> UPDATE CUSTOMER\_sps

2 SET CustPhone = '817-555-8918'

3 WHERE CustID = 'B200' ;

1 row updated.

SQL>

SQL> --9.

SQL>

SQL> --Save changes to disk (in memory only until you COMMIT)

SQL> COMMIT ;

Commit complete.

SQL>

SQL>

SQL> -- PART II

SQL>

SQL> --1.

SQL>

SQL> SELECT (SalesRepFName || ' ' || SalesRepLName) AS "SalesRep Name" ,

2 SalesRepID AS "Sales Rep ID", C.CommClass AS "Commission Class" , CommRate AS "Commission Rate"

3 FROM SALESREP\_sps S INNER JOIN COMMISSION\_sps C ON S.CommClass = C.CommClass

4 ORDER BY SalesRepLName ;

SalesRep Name Sales Rep ID C Commission Rate

------------------------------- ------------ - ---------------

Sara Day 14 Z 0

Bob Jackson 20 B .08

Alice Jones 10 A .1

Micah Moore 22 Z 0

Kay Price 8 C .05

Greg Taylor 12 B .08

6 rows selected.

SQL>

SQL> --2

SQL>

SQL> SELECT OrderID AS "Order ID", ProdID AS "Product ID", ProdQty AS "Qty",TO\_CHAR(ProdPrice, '$999.99') AS "Price"

2 FROM ORDERDETAIL\_sps

3 ORDER BY OrderID ASC, ProdID ASC;

Order ID Product ID Qty Price

---------- ---------- ---------- --------

100 121 2 $8.00

100 228 1 $65.00

100 407 1 $4.25

100 480 2 $3.00

101 610 200 $1.75

101 618 100 $1.25

102 121 1 $7.00

102 380 2 $1.25

102 535 4 $7.50

103 121 50 $7.00

103 123 20 $6.25

Order ID Product ID Qty Price

---------- ---------- ---------- --------

104 229 1 $50.00

104 380 2 $1.25

104 535 4 $7.50

104 610 200 $1.75

105 123 40 $5.00

105 610 200 $1.75

106 124 1 $6.50

107 229 1 $59.00

108 235 1 $62.00

108 407 1 $5.25

108 618 2 $2.15

Order ID Product ID Qty Price

---------- ---------- ---------- --------

109 121 1 $8.25

109 480 1 $3.75

110 124 1 $6.50

110 407 2 $4.25

110 618 1 $1.25

111 246 1 $179.00

111 535 3 $7.50

111 610 2 $1.75

30 rows selected.

SQL>

SQL> --3.

SQL> SELECT CustID , CustFName AS "CustFirstName", CustLName AS "CustLastName", SUBSTR(CustPhone,1,3) ||'-'|| SUBSTR(CustPhone,4,3) || '-'|| SUBSTR(CustPhone,7,4) AS "CustPhone", S.SalesRepID, SalesRepFName AS "SalesRepFirstName", SalesRepLName AS "SalesRepLastName"

2 FROM CUSTOMER\_sps C, SALESREP\_sps S

3 WHERE S.SalesRepID= C.SalesRepID

4 ORDER BY CustID;

CUSTID CustFirstName CustLastName CustPhone SALESREPID SalesRepFirstName SalesRepLastName

------------ --------------- --------------- ------------------------------------------ ---------- ----------------- -----------------

A120 Jane Adams 817-555-3434 12 Greg Taylor

B200 Ann Brown 817--55-5-89 8 Kay Price

G070 Kate Green 817-555-1034 20 Bob Jackson

G119 Amanda Green -- 14 Sara Day

J090 Tim Jones -- 14 Sara Day

S100 John Smith 214-555-1212 10 Alice Jones

S120 Nicole Sims -- 22 Micah Moore

T104 Wes Thomas 469--55-5-12 22 Micah Moore

8 rows selected.

SQL>

SQL>

SQL> --4.

SQL> SELECT DE.DeptID AS "Dept\_ID", DE.DeptName AS "Dept\_Name", SR.SalesRepID AS "Sales\_Rep\_ID",

2 SR.SalesRepFName AS "First\_Name", SR.SalesRepLName AS "Last\_Name",

3 SR.CommClass AS "Commission\_Class", C.CommRate AS "Commission\_Rate"

4 FROM DEPARTMENT\_sps DE, SALESREP\_sps SR, COMMISSION\_sps C

5 WHERE C.CommClass = SR.CommClass AND

6 DE.DeptID = SR.DeptID AND

7 (DE.DeptID, CommRate) IN

8 (SELECT DeptID, MAX(CommRate)

9 FROM SALESREP\_sps

10 GROUP BY DeptID);

Dept\_ID Dept\_Name Sales\_Rep\_ID First\_Name Last\_Name C Commission\_Rate

---------- --------------- ------------ --------------- --------------- - ---------------

10 Store Sales 10 Alice Jones A .1

14 Corp Sales 12 Greg Taylor B .08

10 Store Sales 20 Bob Jackson B .08

10 Store Sales 14 Sara Day Z 0

16 Web Sales 22 Micah Moore Z 0

14 Corp Sales 8 Kay Price C .05

6 rows selected.

SQL>

SQL>

SQL> --5

SQL>

SQL> SELECT OD.ProdID AS "Product\_ID", PR.ProdName AS "Product\_Name", PR.ProdCatID AS "Category",

2 TO\_CHAR(PR.ProdPrice, '$999.99' ) AS "Price"

3 FROM PRODUCT\_sps PR, ORDER\_sps O, ORDERDETAIL\_sps OD

4 WHERE PR.ProdID = OD.ProdID AND

5 O.OrderID = OD.OrderID AND

6 O.OrderID = 100 AND

7 PR.ProdPrice = (SELECT MAX(ProdPrice)

8 FROM ORDERDETAIL\_sps OD

9 WHERE OrderID = 100) ;

Product\_ID Product\_Name Category Price

---------- ------------------------- ---------- --------

228 Makita Power Drill 2 $65.00

SQL>

SQL> --6

SQL> SELECT DeptName AS "Dept\_Name", COUNT(SalesRepID) AS "Sales\_Rep\_Count"

2 FROM DEPARTMENT\_sps D, SALESREP\_sps SR

3 WHERE D.DeptID = SR.DeptID

4 GROUP BY DeptName

5 ORDER BY COUNT(SalesRepID);

Dept\_Name Sales\_Rep\_Count

--------------- ---------------

Web Sales 1

Corp Sales 2

Store Sales 3

SQL>

SQL>

SQL>

SQL> --7

SQL> SELECT SalesRepID AS "Sales\_Rep\_ID", SalesRepFName AS "First\_Name", SalesRepLName AS "Last\_Name",

2 CONCAT(TO\_CHAR((CommRate\*100), '99'),'%') AS "Commission\_Rate"

3 FROM SALESREP\_sps S , COMMISSION\_sps C

4 WHERE S.CommClass = C.CommClass AND

5 CommRate>0 AND

6 CommRate<=0.5

7 ORDER BY CommRate DESC;

Sales\_Rep\_ID First\_Name Last\_Name Comm

------------ --------------- --------------- ----

10 Alice Jones 10%

20 Bob Jackson 8%

12 Greg Taylor 8%

8 Kay Price 5%

SQL>

SQL> --8.

SQL>

SQL> SELECT O.OrderID, TO\_CHAR(O.OrderDate, 'mm/dd/yy') AS "OrderDate", C.CustFName, C.CustLName, S.SalesRepID, S.SalesRepFName, S.SalesRepLName

2 FROM ORDER\_sps O, CUSTOMER\_sps C, SALESREP\_sps S

3 WHERE O.CustID = C.CustID AND

4 C.SalesRepID = S.SalesRepID

5 ORDER BY OrderID;

ORDERID OrderDate CUSTFNAME CUSTLNAME SALESREPID SALESREPFNAME SALESREPLNAME

---------- ---------- -------------- -------------- ---------- ----------------- -----------------

100 01/24/22 John Smith 10 Alice Jones

101 01/25/22 Jane Adams 12 Greg Taylor

102 01/25/22 Tim Jones 14 Sara Day

103 01/26/22 Ann Brown 8 Kay Price

104 01/26/22 John Smith 10 Alice Jones

105 01/26/22 Ann Brown 8 Kay Price

106 01/27/22 Kate Green 20 Bob Jackson

107 01/27/22 Tim Jones 14 Sara Day

108 01/28/22 Nicole Sims 22 Micah Moore

109 01/28/22 Amanda Green 14 Sara Day

110 01/28/22 Wes Thomas 22 Micah Moore

ORDERID OrderDate CUSTFNAME CUSTLNAME SALESREPID SALESREPFNAME SALESREPLNAME

---------- ---------- -------------- -------------- ---------- ----------------- -----------------

111 01/29/22 John Smith 10 Alice Jones

12 rows selected.

SQL>

SQL>

SQL> --9.

SQL> SELECT O.OrderID, P.ProdID, P.ProdName, P.ProdCatID AS "CatID",

2 O.ProdPrice AS "Price", O.ProdQty AS "Qty", (O.ProdPrice\*O.ProdQty) AS "ExtPrice"

3 FROM ORDERDETAIL\_sps O, PRODUCT\_sps P

4 WHERE O.ProdID = P.ProdID AND

5 OrderID = 104

6 ORDER BY "ExtPrice";

ORDERID PRODID PRODNAME CatID Price Qty ExtPrice

---------- ---------- ------------ ---------- ---------- ---------- ----------

104 380 Acme Yard St 3 1.25 2 2.5

ick

104 535 Schlage Door 5 7.5 4 30

Knob

104 229 BD Power Dri 2 50 1 50

ll

104 610 3M Duct Tape 6 1.75 200 350

SQL>

SQL>

SQL> --10

SQL> SELECT D.DeptID AS "DeptID", DeptName AS "DeptName",

2 COUNT(SalesRepID) AS "SalesRepCount", CONCAT(TO\_CHAR(AVG(CommRate)\*100, '99.9'),'%') AS "AvgCommRate"

3 FROM DEPARTMENT\_sps D, SALESREP\_sps S, COMMISSION\_sps C

4 WHERE D.DeptID = S.DeptID AND

5 S.CommClass = C.CommClass

6 GROUP BY D.DeptID, DeptName

7 ORDER BY "AvgCommRate";

DeptID DeptName SalesRepCount AvgCom

---------- ------------ ------------- ------

16 Web Sales 1 .0%

10 Store Sales 3 6.0%

14 Corp Sales 2 6.5%

SQL>

SQL>

SQL> --11

SQL> SELECT S.SalesRepID, S.SalesRepFName, S.SalesRepLName,

2 CONCAT(TO\_CHAR(C.CommRate\*100, '99.9'),'%') AS "CommRate"

3 FROM SALESREP\_sps S , COMMISSION\_sps C

4 WHERE S.CommClass = C.CommClass AND

5 CommRate >0

6 ORDER BY SalesRepID;

SALESREPID SALESREPFNAME SALESREPLNAME CommRa

---------- ----------------- ----------------- ------

8 Kay Price 5.0%

10 Alice Jones 10.0%

12 Greg Taylor 8.0%

20 Bob Jackson 8.0%

SQL>

SQL>

SQL> --12

SQL> SELECT S.SalesRepID, (SalesRepFName || ' ' || SalesRepLName) AS "SalesRep\_Name", D.DeptName

2 FROM SALESREP\_sps S, DEPARTMENT\_sps D, COMMISSION\_sps C

3 WHERE S.DeptID = D.DeptID AND

4 S.CommClass = C.CommClass AND

5 C.CommClass = 'A'

6 ORDER BY D.DeptID, SalesRepID;

SALESREPID SalesRep\_Name DEPTNAME

---------- ------------------------------- ------------

10 Alice Jones Store Sales

SQL>

SQL>

SQL>

SQL>

SQL> --13.

SQL>

SQL> SELECT OrderID AS "Order\_ID", TO\_CHAR(SUM(ProdPrice\* ProdQty), '$9999.99') AS "Order\_Total"

2 FROM ORDERDETAIL\_sps

3 WHERE OrderID= 104

4 GROUP BY OrderID;

Order\_ID Order\_Tot

---------- ---------

104 $432.50

SQL>

SQL>

SQL>

SQL> --14.

SQL> SELECT TO\_CHAR(AVG(ProdPrice),'$999.99') AS "Avg\_Price"

2 FROM PRODUCT\_sps

3 "Avg\_Price";

Avg\_Price

----------

$31.19

SQL>

SQL>

SQL> --15.

SQL> SELECT OD.ProdID AS "ProductID",ProdName AS "Name", TO\_CHAR(P.ProdPrice, '$999.00') AS "Price"

2 FROM ORDERDETAIL\_sps OD, PRODUCT\_sps P

3 WHERE P.ProdID= OD.ProdID

4 GROUP BY OD.ProdID,ProdName, P.ProdPrice

5 HAVING COUNT(OrderID) =

6 (SELECT MAX(COUNT(OrderID))

7 FROM ORDERDETAIL\_sps

8 GROUP BY ProdID);

ProductID Name Price

---------- ------------------------- --------

121 BD Hammer $7.00

610 3M Duct Tape $1.75

SQL>

SQL>

SQL>

SQL> --16.

SQL> SELECT ProdCatID AS "Cat\_ID", ProdID AS "Prod\_ID", ProdName AS "Prod\_Name", TO\_CHAR(ProdPrice, '$999.99') AS " Price"

2 FROM PRODUCT\_sps

3 WHERE (ProdCatID, ProdPrice) IN

4 (SELECT ProdCatID, MIN(ProdPrice)

5 FROM PRODUCT\_sps

6 GROUP BY ProdCatID);

Cat\_ID Prod\_ID Prod\_Name Price

---------- ---------- ------------------------- --------

4 480 1#BD Nails $3.00

6 618 3M Masking Tape $1.25

3 380 Acme Yard Stick $1.25

5 535 Schlage Door Knob $7.50

1 123 Acme Pry Bar $5.00

2 229 BD Power Drill $59.00

6 rows selected.

SQL> --17.

SQL> SELECT ProdID AS "Product\_ID", ProdName AS "Product\_Name",ProdCatName AS "Category",TO\_CHAR(ProdPrice, '$999.99') AS "Avg\_Price"

2 FROM PRODUCT\_sps P

3 INNER JOIN PRODCAT\_sps PC ON PC.ProdCatID = P.ProdCatID

4 WHERE ProdPrice > (SELECT AVG(ProdPrice)

5 FROM PRODUCT\_sps);

Product\_ID Product\_Name Category Avg\_Price

---------- ------------------------- ------------------------- ----------

235 Makita Power Drill Hand Tools $65.00

228 Makita Power Drill Power Tools $65.00

229 BD Power Drill Power Tools $59.00

246 Milwaukee Power Dril1 Power Tools $179.00

SQL>

SQL>

SQL> --18.

SQL> SELECT (C.CustFName || ' ' || C.CustLName) AS "Name", C.CustPhone AS "Phone", TO\_CHAR(O.OrderDate, 'mm/dd/yy') AS "Order Date", O.OrderID AS "Order ID", O.CustID AS "Cust ID"

2 FROM ORDER\_sps O, CUSTOMER\_sps C

3 WHERE C.CustID= O.CustID AND

4 O.OrderDate <= '26-JAN-2022'

5 ORDER BY O.OrderDate, O.CustID;

Name Phone Order Date Order ID Cust ID

------------------------------- --------------- ---------- ---------- -------

John Smith 2145551212 01/24/22 100 S100

Jane Adams 8175553434 01/25/22 101 A120

Tim Jones 01/25/22 102 J090

Ann Brown 817-555-8918 01/26/22 105 B200

Ann Brown 817-555-8918 01/26/22 103 B200

John Smith 2145551212 01/26/22 104 S100

6 rows selected.

SQL>

SQL>

SQL> --19.

SQL> SELECT CustID, CustFName AS "FirstName", CustLName AS "LastName"

2 FROM CUSTOMER\_sps

3 WHERE CustFName LIKE 'A%'

4 ORDER BY CustLName;

CUSTID FirstName LastName

------------ --------------- ---------------

B200 Ann Brown

G119 Amanda Green

SQL>

SQL>

SQL> --20

SQL> SELECT CustID AS "Customer ID", (CustFName || ' ' || CustLName) AS "Name", SUBSTR(CustPhone,1,3) ||'-'|| SUBSTR(CustPhone,4,3) || '-'||SUBSTR(CustPhone,7,4) AS "Phone"

2 FROM CUSTOMER\_sps

3 WHERE SalesRepID = 12;

Customer ID Name Phone

------------ ------------------------------- ------------------------------------------

A120 Jane Adams 817-555-3434

SQL>

SQL> set echo off