CUSTOMERSAMPLE

CustID	Address
100	Bundoora
200	Preston
300	Melbourne

ITEMSAMPLE

ItemID	ItemCost
1001	2000
1002	5000
1003	10000

PURCHASESAMPLE

CustID	ItemID	Qtt
100	1001	1
100	1002	1
200	1001	1
200	1003	1

HIRESAMPLE

CustID	ItemID	Fee
100	1001	200
200	1002	500
300	1003	1000

Display the total amount of purchase made by every customer in the database.

```
SELECT C.CustID, SUM(P.Qtt*I.ItemCost)
FROM ItemSample I, PurchaseSample P, CustomerSample C
WHERE C.CustID = P.CustID
AND P.ItemID = I.ItemID
GROUP BY C.CustID;
```

```
SQL> SELECT C.CustID, SUM(P.Qtt*I.ItemCost)
  2  FROM ItemSample I, PurchaseSample P, CustomerSample C
  3  WHERE C.CustID = P.CustID
  4  AND P.ItemID = I.ItemID
  5  GROUP BY C.CustID;

    CUSTID SUM(P.QTT*I.ITEMCOST)
---------- --------------------
       100                 7000
       200                12000
```

Display the total amount of purchase made by every customer in the database.

```
SELECT C.CustID, SUM(P.Qtt*I.ItemCost)
FROM ItemSample I, PurchaseSample P, CustomerSample C
WHERE C.CustID = P.CustID (+)
AND P.ItemID = I.ItemID (+)
GROUP BY C.CustID;
```

```
SQL> SELECT C.CustID, SUM(P.Qtt*I.ItemCost)
  2  FROM ItemSample I, PurchaseSample P, CustomerSample C
  3  WHERE C.CustID = P.CustID (+)
  4  AND P.ItemID = I.ItemID (+)
  5  GROUP BY C.CustID;

    CUSTID SUM(P.QTT*I.ITEMCOST)
---------- --------------------
       100                 7000
       300
       200                12000
```

NVL Expression

```
NVL (expr1, expr2)
```

NVL lets you replace null (returned as a blank) with a string in the results of a query. If *expr1* is null, then NVL returns *expr2*. If *expr1* is not null, then NVL returns *expr1*.

Display the total amount of purchase made by every customer in the database.

```
SELECT C.CustID, NVL(SUM(P.Qtt*I.ItemCost), 0)
FROM ItemSample I, PurchaseSample P, CustomerSample C
WHERE C.CustID = P.CustID (+)
AND P.ItemID = I.ItemID (+)
GROUP BY C.CustID;
```

```
SQL> SELECT C.CustID, NVL(SUM(P.Qtt*I.ItemCost), 0)
  2  FROM ItemSample I, PurchaseSample P, CustomerSample C
  3  WHERE C.CustID = P.CustID (+)
  4  AND P.ItemID = I.ItemID (+)
  5  GROUP BY C.CustID;

    CUSTID NVL(SUM(P.QTT*I.ITEMCOST),0)
---------- ---------------------------
       100                        7000
       300                           0
       200                       12000
```

Temporary Table in FROM clause

```
SELECT R1.xxx, R2.xxx
FROM (SELECT xxx) R1, (SELECT xxx) R2
WHERE …
```

Display the total amount of transactions (purchase and hire) made by every customer in the database.

```
SELECT R1.CustID, R1.TotalPurchase + R2.TotalHire
FROM
  (
   SELECT C.CustID, NVL(SUM(P.Qtt*I.ItemCost), 0) AS TotalPurchase
   FROM ItemSample I, PurchaseSample P, CustomerSample C
   WHERE C.CustID = P.CustID (+)
   AND P.ItemID = I.ItemID (+)
   GROUP BY C.CustID
   ) R1,
  (
   SELECT C.CustID, NVL(SUM(H.Fee), 0) AS TotalHire
   FROM HireSample H, CustomerSample C
   WHERE C.CustID = H.CustID (+)
   GROUP BY C.CustID
   ) R2
WHERE R1.CustID = R2.CustID;
```

```
SQL> SELECT R1.CustID, R1.TotalPurchase + R2.TotalHire
  2  FROM
  3    (
  4     SELECT C.CustID, NVL(SUM(P.Qtt*I.ItemCost), 0) AS TotalPurchase
  5     FROM ItemSample I, PurchaseSample P, CustomerSample C
  6     WHERE C.CustID = P.CustID (+)
  7     AND P.ItemID = I.ItemID (+)
  8     GROUP BY C.CustID
  9     ) R1,
 10    (
 11     SELECT C.CustID, NVL(SUM(H.Fee), 0) AS TotalHire
 12     FROM HireSample H, CustomerSample C
 13     WHERE C.CustID = H.CustID (+)
 14     GROUP BY C.CustID
 15     ) R2
 16  WHERE R1.CustID = R2.CustID;

    CUSTID R1.TOTALPURCHASE+R2.TOTALHIRE
---------- ----------------------------
       100                         7200
       300                         1000
       200                        12500
```