SQL1

Additional Practices

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Additional Practices

These exercises can be used for extra practice when having discussed the following topics: SQL basic select, basic SQL*Plus and SQL functions.

1. Show all data of the clerks and analysts who have been hired after the year 1981 and are working in department 20.

```
EMPNO ENAME   JOB     MGR  HIREDATE  SAL  COMM DEPTNO STARS
----- ------- ------- ---- --------- ---- ---- ------ -----
7788  SCOTT   ANALYST 7566 09-DEC-82 3000           20
7876  ADAMS   CLERK   7788 12-JAN-83 1100           20
```

2. Show the name, job, salary and commission of those employees whose salary is higher than their commission. Sort data by the difference between the salary and commission with highest difference displayed first.

```
ENAME      JOB       SAL      COMM
---------- --------- -------- --------
TURNER     SALESMAN     1500        0
ALLEN      SALESMAN     1600      460
WARD       SALESMAN     1250      625
```

3. Show the employees that have no commission with a 10% raise of their salary (round the salaries).

```
New salary
-------------------------------------------
The salary of Smith after a 10% raise is 880
The salary of Jones after a 10% raise is 35998
The salary of Blake after a 10% raise is 3135
The salary of Clark after a 10% raise is 2695
The salary of Scott after a 10% raise is 3300
The salary of King after a 10% raise is 6050
The salary of Adams after a 10% raise is 1331
The salary of James after a 10% raise is 1045
The salary of Ford after a 10% raise is 3300
The salary of Miller after a 10% raise is 1573

10 rows selected.
```

4. Show the name of all employees together with the number of years and the number of completed months that they have been employed.

ENAME	YEARS	MONTHS
KING	16	1
BLAKE	16	8
CLARK	16	6
JONES	16	8
MARTIN	16	3
ALLEN	16	10
TURNER	16	3
JAMES	16	0
WARD	16	10
FORD	16	0
SMITH	17	0
SCOTT	15	0
ADAMS	14	11
MILLER	15	11

14 rows selected.

5. Show those employees that have a name starting with "J", "K", "L", or "M".

ENAME
KING
JONES
MARTIN
JAMES
MILLER

6. Show all employees , while indicating through "Yes" or "No" whether they have commission or not.

ENAME	SAL	COM
SMITH	800	No
ALLEN	1600	Yes
WARD	1250	Yes
JONES	32725	No
MARTIN	1250	Yes
BLAKE	2850	No
CLARK	2450	No

(Note: results continued on next page)

```
SCOTT            3000 No
KING             5500 No
TURNER           1500 Yes
ADAMS            1210 No
JAMES             950 No
FORD             3000 No
MILLER           1430 No
14 rows selected.
```

These exercises can be used for extra practice when having discussed the following topics: SQL basic select, basic SQL*Plus, SQL functions, Joins, Group functions.

7. Show the department names, locations, names, job titles, and salaries of employees that work in New York.

DNAME	LOC	ENAME	JOB	SAL
ACCOUNTING	NEW YORK	KING	PRESIDENT	5000
ACCOUNTING	NEW YORK	CLARK	MANAGER	2450
ACCOUNTING	NEW YORK	MILLER	CLERK	1300

8. How many employees have a name that ends with an "S"? Create two possible solutions.

COUNT(*)
3

9. Show all departments, name and location and the number of employees working on that department. Make sure that departments without employees are included as well.

DEPTNO	DNAME	LOC	COUNT(E.EMPNO)
10	ACCOUNTING	NEW YORK	3
20	RESEARCH	DALLAS	5
30	SALES	CHICAGO	6
40	OPERATIONS	BOSTON	0

10. Which jobs can be found in department 10, as well as in department 20, as well as in department 30?

JOB
CLERK
MANAGER

11. Which jobs can be found in the departments RESEARCH and SALES and how many employees do these jobs? Show the job with the highest frequency first.

```
JOB         FREQUENCY
--------- ---------
SALESMAN            4
CLERK               3
ANALYST             2
MANAGER             2
```

These exercises can be used to have some extra practice when having discussed the following topics: SQL basic select, basic SQL*Plus, SQL functions, Joins, Group functions, Sub-query.

12. Show all employees that have been hired in the first half of the month (before the 16th of the month).

```
ENAME      HIREDATE
---------- ---------
BLAKE      01-MAY-81
CLARK      09-JUN-81
JONES      02-APR-81
TURNER     08-SEP-81
JAMES      03-DEC-81
FORD       03-DEC-81
SCOTT      09-DEC-82
ADAMS      12-JAN-83
8 rows selected.
```

13. Show the names, salaries, and the number of dollars (in thousands) that all employees earn.

```
ENAME             SAL THOUSANDS
---------- --------- ---------
KING             5000         5
BLAKE            2850         2
CLARK            2450         2
JONES            2975         2
MARTIN           1250         1
ALLEN            1600         1
TURNER           1500         1
JAMES             950         0
WARD             1250         1
FORD             3000         3
SMITH             800         0
SCOTT            3000         3
ADAMS            1100         1
MILLER           1300         1
14 rows selected.
```

14. Show all employees, with a manager that has a salary that is higher than 2000. Show the following data: employee name, manager name, manager salary, and salary grade of the manager.

```
ENAME      MANAGER          SAL      GRADE
---------- ---------- --------- ---------
BLAKE      KING            5000         5
CLARK      KING            5000         5
JONES      KING            5000         5
MARTIN     BLAKE           2850         4
ALLEN      BLAKE           2850         4
TURNER     BLAKE           2850         4
JAMES      BLAKE           2850         4
WARD       BLAKE           2850         4
FORD       JONES           2975         4
SMITH      FORD            3000         4
SCOTT      JONES           2975         4
ADAMS      SCOTT           3000         4
MILLER     CLARK           2450         4
13 rows selected.
```

15. Show the employee with the highest salary grouped by their manager. Order the list on manager number.

```
       MGR ENAME             SAL
---------- ---------- ---------
      7566 FORD             3000
      7566 SCOTT            3000
      7698 ALLEN            1600
      7782 MILLER           1300
      7788 ADAMS            1100
      7839 JONES            2975
      7902 SMITH             800
7 rows selected.
```

16. Show the department number and the lowest salary of the department with the highest average salary.

```
DEPTNO MIN(SAL)
------ --------
    10     1300
```

17. Show the department numbers, names, and locations of those departments where no salesman are working.

```
    DEPTNO DNAME          LOC
---------- -------------- -------------
        10 ACCOUNTING     NEW YORK
        20 RESEARCH       DALLAS
        40 OPERATIONS     BOSTON
```

18. Show the department number, department name, and the number of employees working in that department for the department(s) that:

    a. Includes less than 4 employees

```
 DEPTNO DNAME          COUNT(*)
------- -------------- ---------
     10 ACCOUNTING             3
```

    b. Has the maximum number of employees

```
 DEPTNO DNAME          COUNT(*)
------- -------------- ---------
     30 SALES                  6
```

    c. Has the minimum number of employees

```
 DEPTNO DNAME          COUNT(*)
------- -------------- ---------
     10 ACCOUNTING             3
```

19. Show employee number, name, salary, department number, and the average salary of their department, for all employees.

```
    EMPNO ENAME      DEPTNO AVG(S.SAL)
--------- ---------- ------ ----------
     7782 CLARK          10  2916.6667
     7839 KING           10  2916.6667
     7934 MILLER         10  2916.6667
     7876 ADAMS          20       2175
     7902 FORD           20       2175
     7566 JONES          20       2175
     7788 SCOTT          20       2175
     7369 SMITH          20       2175
     7499 ALLEN          30  1566.6667
     7698 BLAKE          30  1566.6667
     7900 JAMES          30  1566.6667
     7654 MARTIN         30  1566.6667
     7844 TURNER         30  1566.6667
     7521 WARD           30  1566.6667
14 rows selected.
```

20. Show all employees that have been hired on the same day on which the maximum number of employees has been hired.

```
ENAME      DAY
---------- ---------
JONES      THURSDAY
JAMES      THURSDAY
FORD       THURSDAY
SCOTT      THURSDAY
```

21. Create a birthday overview based on the hiredate of the employees. Sort the birthdays in ascending order.

```
ENAME      BIRTHDAY
---------- ------------
ADAMS      January   12
MILLER     January   23
ALLEN      February  20
WARD       February  22
JONES      April     02
BLAKE      May       01
CLARK      June      09
TURNER     September 08
MARTIN     September 28
KING       November  17
JAMES      December  03
FORD       December  03
SCOTT      December  09
SMITH      December  17
14 rows selected.
```

22. Show the department number, name, the number of employees and the average salary of all departments together with the names, salaries, and jobs of the employees working in each department.

DEPTNO	DNAME	EMPLOYEES	AVG_SAL	ENAME	SAL	JOB
10	ACCOUNTING	3	2916.67	CLARK	2450	MANAGER
				KING	5000	PRESIDENT
				MILLER	1300	CLERK
20	RESEARCH	5	2175.00	ADAMS	1100	CLERK
				FORD	3000	ANALYST
				JONES	2975	MANAGER
				SCOTT	3000	ANALYST
				SMITH	800	CLERK
30	SALES	6	1566.67	ALLEN	1600	SALESMAN
				BLAKE	2850	MANAGER
				JAMES	950	CLERK
				MARTIN	1250	SALESMAN
				TURNER	1500	SALESMAN
				WARD	1250	SALESMAN
40	OPERATIONS	0	No average			

Additional Practice Solutions

These exercises can be used for extra practice when having discussed the following topics: SQL basic select, basic SQL*Plus and SQL functions.

1. Show all data of the clerks and analysts that have been hired after the year 1981 and are working on department 20.

```
SQL> SELECT *
  2  FROM   emp
  3  WHERE  job IN  ('CLERK', 'ANALYST')
  4  AND    hiredate >= TO_DATE('01-JAN-1982','DD-MON-YYYY')
  5  AND    deptno = 20;
```

2. Show the name, job, salary and commission of those employees whose salary is higher than commission. Sort data by the difference between the salary and commission difference with highest difference first.

```
SQL> SELECT   ename, job, sal, comm
  2  FROM     emp
  3  WHERE    sal > comm
  4  ORDER BY sal - comm desc;
```

3. Show the employees that have no commission with a 10% raise of their salary (round the salaries).

```
SQL> SELECT   'The salary of ' ||initcap(ename)
  2           ||' after a 10% raise is '
  3           ||ROUND(sal * 1.1) "New salary"
  4  FROM     emp
  5  WHERE comm IS NULL;
```

4. Show the name of all employees together with the number of years and the number of completed months that they have been employed.

```
SQL> SELECT   ename,
  2           TRUNC(MONTHS_BETWEEN(SYSDATE, hiredate)/12)
  3           YEARS,
  4           TRUNC(MOD(MONTHS_BETWEEN(SYSDATE, hiredate),
  5           12)) MONTHS
  6  FROM     emp;
```

5. Show those employees that have a name starting with "J", "K", "L", or "M".

```
SQL> SELECT  ename
  2  FROM    emp
  3  WHERE   SUBSTR(ename, 1,1) IN ('J', 'K', 'L', 'M');
```

6. Show all employees, while indicating through "Yes" or "No" whether they have commission or not.

```
SQL> SELECT    ename, sal,
  2            decode(comm, NULL, 'No', 'Yes') commission
  3  FROM emp;
```

These exercises can be used for extra practice when having discussed the following topics: SQL basic select, basic SQL*Plus, SQL functions, Joins, Group functions.

7. Show the department names, locations, names, job titles and salaries of employees that work in New York.

```
SQL> SELECT    d.dname, d.loc,
  2            e.ename, e.job, e.sal
  3  FROM      emp e, dept d
  4  WHERE     e.deptno = d.deptno
  5  AND       d.loc = 'NEW YORK';
```

8. How many employees have a name that ends with an "S"? Create two possible solutions.

```
SQL> SELECT    COUNT(*)
  2  FROM      emp
  3  WHERE     ename LIKE '%S';

SQL> SELECT    COUNT(*)
  2  FROM      emp
  3  WHERE     SUBSTR(ename, -1) = 'S';
```

9. Show all departments, name and location and the number of employees working on that department. Make sure that departments without employees are included as well.

```
SQL> SELECT    d.deptno, d.dname, d.loc, COUNT(e.empno)
  2  FROM      emp e, dept d
  3  WHERE     e.deptno(+) = d.deptno
  4  GROUP BY d.deptno, d.dname, d.loc;
```

10. Which jobs can be found in department 10, as well as in department 20, as well as in department 30?

```
SQL> SELECT    DISTINCT e1.job
  2  FROM      emp e1, emp e2, emp e3
  3  WHERE     e1.deptno = 10
  4  AND       e2.deptno = 20
  5  AND       e3.deptno = 30
  6  AND       e1.job = e2.job
  7  AND       e2.job = e3.job;
```

11. Which jobs can be found in the departments RESEARCH and SALES and how many employees do these jobs? Show the job with the highest frequency first.

```
SQL> SELECT      e.job, count(e.job) FREQUENCY
  2  FROM        emp e, dept d
  3  WHERE       e.deptno = d.deptno
  4  AND         d.dname IN ('RESEARCH', 'SALES')
  5  GROUP BY    e.job
  6  ORDER BY    FREQUENCY DESC;
```

These exercises can be used to have some extra practice when having discussed the following topics: SQL basic select, basic SQL*Plus, SQL functions, Joins, Group functions, Sub-query.

12. Show all employees that have been hired in the first half of the month (before the 16th of the month).

```
SQL> SELECT    ename, hiredate
  2  FROM      emp
  3  WHERE     TO_CHAR(hiredate, 'DD') < 16;
```

13. Show the names, salaries, and the number of dollars (in thousands) that all employees earn.

```
SQL> SELECT    ename, sal, TRUNC(sal, -3)/1000 Thousands
  2  FROM      emp;
```

14. Show all employees, with a manager that has a salary that is higher than 2000. Show the following data: employee name, manager name, manager salary, and salary grade of the manager.

```
SQL> SELECT    e.ename, m.ename manager, m.sal, s.grade
  2  FROM      emp e, emp m, salgrade s
  3  WHERE     e.mgr = m.empno
  4  AND       m.sal BETWEEN s.losal AND s.hisal
  5  AND       m.sal > 2000;
```

15. Show the employee with the highest salary grouped by their manager. Order the list on manager number.

```
SQL> SELECT    e.mgr, e.ename, e.sal
  2  FROM      emp e
  3  WHERE     (e.mgr, e.sal) = ANY
  4            (SELECT mgr, MAX(sal)
  5            FROM emp
  6            WHERE mgr IS NOT NULL
  7            GROUP BY mgr)
  8  ORDER BY e.mgr;
```

16. Show the department number and the lowest salary of the department with the highest average salary.

```
SQL> SELECT    deptno, MIN(sal)
  2  FROM      emp
  3  GROUP BY  deptno
  4  HAVING    AVG(sal) =
  5            (SELECT MAX(AVG(sal))
  6            FROM emp
  7            GROUP BY deptno);
```

17. Show the department number, names and location of those departments where no salesman are working.

```
SQL> SELECT    *
  2  FROM      dept
  3  WHERE     deptno NOT IN
  4            (SELECT deptno
  5            FROM emp
  6            WHERE job = 'SALESMAN');
```

18. Show the department number, department name, and the number of employees working in that department for the department(s) that:
    a. Includes less than 4 employees

```
SQL> SELECT    d.deptno, d.dname, COUNT(*)
  2  FROM      dept d, emp e
  3  WHERE     d.deptno = e.deptno
  4  GROUP BY  d.deptno, d.dname
  5  HAVING    COUNT(*) < 4;
```

b. Has the maximum number of employees

```
SQL> SELECT       d.deptno, d.dname, COUNT(*)
  2  FROM         dept d, emp e
  3  WHERE        d.deptno = e.deptno
  4  GROUP BY     d.deptno, d.dname
  5  HAVING       COUNT(*) =
  6               (SELECT MAX(COUNT(*))
  7               FROM emp
  8               GROUP BY deptno);
```

c. Has the minimum number of employees

```
SQL> SELECT       d.deptno, d.dname, COUNT(*)
  2  FROM         dept d, emp e
  3  WHERE        d.deptno = e.deptno
  4  GROUP BY     d.deptno, d.dname
  5  HAVING       COUNT(*) =
  6               (SELECT MIN(COUNT(*))
  7               FROM emp
  8               GROUP BY deptno);
```

19. Show employee number, name, salary, department number, and the average salary of their department, for all employees.

```
SQL> SELECT    e.empno, e.ename, e.deptno, AVG(s.sal)
  2  FROM      emp e, emp s
  3  WHERE     e.deptno = s.deptno
  4  GROUP BY  e.empno, e.ename, e.deptno;
```

20. Show all employees that have been hired on the same day on which the maximum number of employees has been hired.

```
SQL> SELECT    ename, TO_CHAR(hiredate, 'DAY') day
  2  FROM      emp
  3  WHERE     TO_CHAR(hiredate, 'Day') =
  4            (SELECT TO_CHAR(hiredate, 'Day')
  5            FROM       emp
  6            GROUP BY   TO_CHAR(hiredate, 'Day')
  7            HAVING     COUNT(*) =
  8                       (SELECT  MAX(COUNT(*))
  9                       FROM     emp
 10                       GROUP BY TO_CHAR(hiredate, 'Day')));
```

21. Create a birthday overview based on the hiredate of the employees. Sort the birthdays in ascending order.

```
SQL> SELECT   ename, TO_CHAR(hiredate, 'Month DD') BIRTHDAY
  2  FROM     emp
  3  ORDER BY TO_CHAR(hiredate, 'DDD');
```

22. Show the department number, name, the number of employees and the average salary of all department, together with the names, salaries, and jobs of the employees working in each department.

```
SQL> SELECT   d.deptno, d.dname, count(e1.empno) employees,
  2           NVL(TO_CHAR(AVG(e1.sal), '99999.99'),
  3           'No average' ) avg_sal,
  4           e2.ename, e2.sal, e2.job
  5  FROM     dept d, emp e1, emp e2
  6  WHERE    d.deptno = e1.deptno(+)
  7  AND      d.deptno = e2.deptno(+)
  8  GROUP BY d.deptno, d.dname, e2.ename, e2.sal, e2.job
  9  ORDER BY d.deptno, employees;
```

Table Descriptions and Data

EMP Table

```
SQL> DESCRIBE emp
```

Name	Null?	Type
EMPNO	NOT NULL	NUMBER(4)
ENAME		VARCHAR2(10)
JOB		VARCHAR2(9)
MGR		NUMBER(4)
HIREDATE		DATE
SAL		NUMBER(7,2)
COMM		NUMBER(7,2)
DEPTNO	NOT NULL	NUMBER(2)

```
SQL> SELECT * FROM emp;
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7839	KING	PRESIDENT		17-NOV-81	5000		10
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7900	JAMES	CLERK	7698	03-DEC-81	950		30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7902	FORD	ANALYST	7566	03-DEC-81	3000		20
7369	SMITH	CLERK	7902	17-DEC-80	800		20
7788	SCOTT	ANALYST	7566	09-DEC-82	3000		20
7876	ADAMS	CLERK	7788	12-JAN-83	1100		20
7934	MILLER	CLERK	7782	23-JAN-82	1300		10

DEPT Table

```
SQL> DESCRIBE dept
```

```
Name                            Null?    Type
------------------------------- -------- ----
DEPTNO                          NOT NULL NUMBER(2)
DNAME                                    VARCHAR2(14)
LOC                                      VARCHAR2(13)
```

```
SQL> SELECT * FROM dept;
```

```
    DEPTNO DNAME          LOC
---------- -------------- -------------
        10 ACCOUNTING     NEW YORK
        20 RESEARCH       DALLAS
        30 SALES          CHICAGO
        40 OPERATIONS     BOSTON
```

SALGRADE Table

```
SQL> DESCRIBE salgrade

Name                           Null?    Type
------------------------------ -------- ----
GRADE                                   NUMBER
LOSAL                                   NUMBER
HISAL                                   NUMBER

SQL> SELECT * FROM salgrade;

    GRADE      LOSAL      HISAL
--------- --------- ---------
        1        700       1200
        2       1201       1400
        3       1401       2000
        4       2001       3000
        5       3001       9999
```

ORD Table

```
SQL> DESCRIBE ord
```

```
Name                           Null?    Type
------------------------------ -------- ----
ORDID                          NOT NULL NUMBER(4)
ORDERDATE                               DATE
COMMPLAN                                VARCHAR2(1)
CUSTID                         NOT NULL NUMBER(6)
SHIPDATE                                DATE
TOTAL                                   NUMBER(8,2)
```

```
SQL> SELECT * FROM ord;
```

ORDID	ORDERDATE	C	CUSTID	SHIPDATE	TOTAL
610	07-JAN-87	A	101	08-JAN-87	101.4
611	11-JAN-87	B	102	11-JAN-87	45
612	15-JAN-87	C	104	20-JAN-87	5860
601	01-MAY-86	A	106	30-MAY-86	2.4
602	05-JUN-86	B	102	20-JUN-86	56
604	15-JUN-86	A	106	30-JUN-86	698
605	14-JUL-86	A	106	30-JUL-86	8324
606	14-JUL-86	A	100	30-JUL-86	3.4
609	01-AUG-86	B	100	15-AUG-86	97.5
607	18-JUL-86	C	104	18-JUL-86	5.6
608	25-JUL-86	C	104	25-JUL-86	35.2
603	05-JUN-86		102	05-JUN-86	224
620	12-MAR-87		100	12-MAR-87	4450
613	01-FEB-87		108	01-FEB-87	6400
614	01-FEB-87		102	05-FEB-87	23940
616	03-FEB-87		103	10-FEB-87	764
619	22-FEB-87		104	04-FEB-87	1260
617	05-FEB-87		105	03-MAR-87	46370
615	01-FEB-87		107	06-FEB-87	710
618	15-FEB-87	A	102	06-MAR-87	3510.5
621	15-MAR-87	A	100	01-JAN-87	730

PRODUCT Table

```
SQL> DESCRIBE product

Name                            Null?    Type
------------------------------- -------- ----
PRODID                          NOT NULL NUMBER(6)
DESCRIP                                  VARCHAR2(30)
```

```
SQL> SELECT * FROM product;

   PRODID DESCRIP
--------- ------------------------------
   100860 ACE TENNIS RACKET I
   100861 ACE TENNIS RACKET II
   100870 ACE TENNIS BALLS-3 PACK
   100871 ACE TENNIS BALLS-6 PACK
   100890 ACE TENNIS NET
   101860 SP TENNIS RACKET
   101863 SP JUNIOR RACKET
   102130 RH: "GUIDE TO TENNIS"
   200376 SB ENERGY BAR-6 PACK
   200380 SB VITA SNACK-6 PACK
```

ITEM Table

```
SQL> DESCRIBE item
```

```
 Name                                      Null?    Type
 ----------------------------------------- -------- ------------
 ORDID                                     NOT NULL NUMBER(4)
 ITEMID                                    NOT NULL NUMBER(4)
 PRODID                                             NUMBER(6)
 ACTUALPRICE                                        NUMBER(8,2)
 QTY                                                NUMBER(8)
 ITEMTOT                                            NUMBER(8,2)
```

```
SQL> SELECT * FROM item;
```

ORDID	ITEMID	PRODID	ACTUALPRICE	QTY	ITEMTOT
610	3	100890	58	1	58
611	1	100861	45	1	45
612	1	100860	30	100	3000
601	1	200376	2.4	1	2.4
602	1	100870	2.8	20	56
604	1	100890	58	3	174
604	2	100861	42	2	84
604	3	100860	44	10	440
603	2	100860	56	4	224
610	1	100860	35	1	35
610	2	100870	2.8	3	8.4
613	4	200376	2.2	200	440
614	1	100860	35	444	15540
614	2	100870	2.8	1000	2800
612	2	100861	40.5	20	810
612	3	101863	10	150	1500
620	1	100860	35	10	350
620	2	200376	2.4	1000	2400
620	3	102130	3.4	500	1700
613	1	100871	5.6	100	560
613	2	101860	24	200	4800
613	3	200380	4	150	600
619	3	102130	3.4	100	340
617	1	100860	35	50	1750
617	2	100861	45	100	4500
614	3	100871	5.6	1000	5600

Continued on next page

ITEM Table (continued)

ORDID	ITEMID	PRODID	ACTUALPRICE	QTY	ITEMTOT
616	1	100861	45	10	450
616	2	100870	2.8	50	140
616	3	100890	58	2	116
616	4	102130	3.4	10	34
616	5	200376	2.4	10	24
619	1	200380	4	100	400
619	2	200376	2.4	100	240
615	1	100861	45	4	180
607	1	100871	5.6	1	5.6
615	2	100870	2.8	100	280
617	3	100870	2.8	500	1400
617	4	100871	5.6	500	2800
617	5	100890	58	500	29000
617	6	101860	24	100	2400
617	7	101863	12.5	200	2500
617	8	102130	3.4	100	340
617	9	200376	2.4	200	480
617	10	200380	4	300	1200
609	2	100870	2.5	5	12.5
609	3	100890	50	1	50
618	1	100860	35	23	805
618	2	100861	45.11	50	2255.5
618	3	100870	45	10	450
621	1	100861	45	10	450
621	2	100870	2.8	100	280
615	3	100871	5	50	250
608	1	101860	24	1	24
608	2	100871	5.6	2	11.2
609	1	100861	35	1	35
606	1	102130	3.4	1	3.4
605	1	100861	45	100	4500
605	2	100870	2.8	500	1400
605	3	100890	58	5	290
605	4	101860	24	50	1200
605	5	101863	9	100	900
605	6	102130	3.4	10	34
612	4	100871	5.5	100	550
619	4	100871	5.6	50	280

CUSTOMER Table

```
SQL> DESCRIBE customer

Name                 Null?                Type
-----------------    -----------------    --------------
CUSTID               NOT NULL NUMBER(6)
NAME                                      VARCHAR2(45)
ADDRESS                                   VARCHAR2(40)
CITY                                      VARCHAR2(30)
STATE                                     VARCHAR2(2)
ZIP                                       VARCHAR2(9)
AREA                                      NUMBER(3)
PHONE                                     VARCHAR2(9)
REPID                NOT NULL             NUMBER(4)
CREDITLIMIT                               NUMBER(9,2)
COMMENTS                                  LONG
```

CUSTOMER Table (continued)

```
SQL> SELECT * FROM customer;
```

CUSTID	NAME	ADDRESS
100	JOCKSPORTS	345 VIEWRIDGE
101	TKB SPORT SHOP	490 BOLI RD.
102	VOLLYRITE	9722 HAMILTON
103	JUST TENNIS	HILLVIEW MALL
104	EVERY MOUNTAIN	574 SURRY RD.
105	K + T SPORTS	3476 EL PASEO
106	SHAPE UP	908 SEQUOIA
107	WOMENS SPORTS	VALCO VILLAGE
108	NORTH WOODS HEALTH AND FITNESS SUPPLY CENTER	98 LONE PINE WAY

CITY	ST	ZIP	AREA	PHONE	REPID	CREDITLIMIT
BELMONT	CA	96711	415	598-6609	7844	5000
REDWOOD CITY	CA	94061	415	368-1223	7521	10000
BURLINGAME	CA	95133	415	644-3341	7654	7000
BURLINGAME	CA	97544	415	677-9312	7521	3000
CUPERTINO	CA	93301	408	996-2323	7499	10000
SANTA CLARA	CA	91003	408	376-9966	7844	5000
PALO ALTO	CA	94301	415	364-9777	7521	6000
SUNNYVALE	CA	93301	408	967-4398	7499	10000
HIBBING	MN	55649	612	566-9123	7844	8000

COMMENTS
Very friendly people to work with -- sales rep likes to be called Mike.
Rep called 5/8 about change in order - contact shipping.
Company doing heavy promotion beginning 10/89. Prepare for large orders during orders during winter
Contact rep about new line of tennis rackets.
Customer with high market share (23%) due to aggressive advertising.
Tends to order large amounts of merchandise at once. Accounting is considering raising their credit limit
Support intensive. Orders small amounts (< 800) of merchandise at a time.
First sporting goods store geared exclusively towards women. Unusual promotional style

PRICE Table

```
SQL> DESCRIBE price

Name                                      Null?    Type
----------------------------------------- -------- ----
PRODID                                    NOT NULL NUMBER(6)
STDPRICE                                           NUMBER(8,2)
MINPRICE                                           NUMBER(8,2)
STARTDATE                                          DATE
ENDDATE                                            DATE
```

```
SQL> SELECT * FROM price;

   PRODID  STDPRICE  MINPRICE STARTDATE ENDDATE
--------- --------- --------- --------- ---------
   100871       4.8       3.2 01-JAN-85 01-DEC-85
   100890        58      46.4 01-JAN-85
   100890        54      40.5 01-JUN-84 31-MAY-84
   100860        35        28 01-JUN-86
   100860        32      25.6 01-JAN-86 31-MAY-86
   100860        30        24 01-JAN-85 31-DEC-85
   100861        45        36 01-JUN-86
   100861        42      33.6 01-JAN-86 31-MAY-86
   100861        39      31.2 01-JAN-85 31-DEC-85
   100870       2.8       2.4 01-JAN-86
   100870       2.4       1.9 01-JAN-85 01-DEC-85
   100871       5.6       4.8 01-JAN-86
   101860        24        18 15-FEB-85
   101863      12.5       9.4 15-FEB-85
   102130       3.4       2.8 18-AUG-85
   200376       2.4      1.75 15-NOV-86
   200380         4       3.2 15-NOV-86
```