```
mysql> USE EMP_DETAILS;
mysql> SHOW TABLES;
| Tables_in_EMP_DETAILS |
 DEPARTMENT
 EMPLOYEE
2 rows in set (0.00 sec)
mysql> SELECT * FROM EMPLOYEE;
                             ENO | ENAME
              | SALARY | DNO | MNGRNO | DOJ | JOB
                                                                 | ADDRESS | CITY
 PINCODE |
 ----+----
            NULL | 2005-01-19 | SENIOR MANAGER | Address 1 | KOCHI
              60000
                          40
   1 | Rex
  682022
   2 | Tex
                          10
                                   1 | 2005-01-19 | MANAGER
                                                                  | Address 2 | CHENNAI
                 30000
   3 | Max
                 30000
                          30
                                   1 | 1998-01-19 | MANAGER
                                                                  | Address 1 | KOCHI
  682022
   4 | Lex
                 30000
                          20
                                   1 | 2000-01-19 | MANAGER
                                                                  | Address 3 | MUMBAI
  682022 I
   5 | Nex
                 30000
                          40
                                   1 | 2004-01-19 | MANAGER
                                                                  | Address 2 | CHENNAI
  68202
                  9600
                                    2 | 2000-01-19 | CLERK
                                                                  | Address 1 | KOCHI
   6 | Ken
                          10
  682022
   7 | Ten
                  7200
                          10
                                    2 | 2000-01-19 | QUALITY CHECKER | Address 2 | CHENNAI
  682022 |
   9 | Ram
                  8040
                          20 |
                                   4 | 2004-01-19 | CLERK
                                                                  | Address 3 | MUMBAI
  6820
                          20
                                    4 | 2000-01-19 | QUALITY CHECKER | Address 3 | MUMBAI
  12 | Rohit
                 14400
  682022
  13 | Jenson |
                  9600
                          30
                                    3 | 1999-01-19 | CLERK
                                                                  | Address 3 | MUMBAI
                                   3 | 2000-01-19 | WORKER
                  8160
                          30
                                                                  | Address 1 | KOCHI
  14 | Johnson |
                                                                  | Address 2 | CHENNAI
  16 | Jack
                  8400
                          40
                                    5 | 2009-01-19 | CLERK
  682022
  17 | Jim
                 12000
                          40
                                    5 | 1998-01-19 | CLERK
                                                                  | Address 1 | KOCHI
  18 | Jill
                 10000
                          40
                                    5 | 2010-01-19 | SENIOR CLERK
                                                                  | Address 3 | MUMBAI
  6820
  19 | Jin
                          10 |
                                   1 | 2009-01-19 | MANAGER
                                                                  | Address 3 | MUMBAI
                 24000
  682022
                                   1 | 2006-01-19 | MANAGER
  20 | Kazuya |
                 18000
                          20
                                                                  | Address 1 | KOCHI
  22 | Isayama | 42000 |
                          40
                                   1 | 2005-01-19 | MANAGER
                                                                  | Address 1 | KOCHI
  -----+
17 rows in set (0.00 sec)
mysql> SELECT * FROM DEPARTMENT;
 DNO | DNAME
                 | D_HOD |
  10 | Marketing | Tex
  20 | Sales
  30 | Accounting | Max
40 | Management | Nex
4 rows in set (0.00 sec)
UPDATE DEPARTMENT SET D HOD='Tex' WHERE DNO=10;
Query 0K, 1 \text{ row affected } (0.04 \text{ sec})
mysql> UPDATE DEPARTMENT SET D_HOD='Lex' WHERE DNO=20;
Query OK, 1 \text{ row} affected (0.02 sec)
Rows matched: 1 Changed: 1 Warnings: 0
mysql> UPDATE DEPARTMENT SET D HOD='Max' WHERE DNO=30;
Query OK, 1 row affected (0.03 sec)
```

```
Rows matched: 1 Changed: 1 Warnings: 0
mysql> UPDATE DEPARTMENT SET D_HOD='Nex' WHERE DNO=40; Query OK, 1 row affected (0.04 \text{ sec})
Rows matched: 1 Changed: 1 Warnings: 0
mysql> SELECT * FROM DEPARTMENT;
 DNO | DNAME
                   | D HOD |
  10 | Marketing | Tex
   20
      | Sales
                   l Lex
   30
      | Accounting | Max
  40 | Management | Nex
4 rows in set (0.00 sec)
mysql> UPDATE EMPLOYEE SET JOB='PROFESSOR' WHERE ENO=2;
Query OK, 1 row affected (0.04 sec)
Rows matched: 1 Changed: 1 Warnings: 0
mysql> UPDATE EMPLOYEE SET JOB='ASSOCIATE PROFESSOR' WHERE ENO=3;
Query OK, 1 row affected (0.03 \text{ sec})
Rows matched: 1 Changed: 1 Warnings: 0
mysql> UPDATE EMPLOYEE SET JOB='ASSISTANT PROFESSOR' WHERE ENO=4;
Query OK, 1 row affected (0.04 sec)
Rows matched: 1 Changed: 1 Warnings: 0
mysql> UPDATE EMPLOYEE SET JOB='GUEST LECTURER' WHERE ENO=5;
Query 0K, 1 row affected (0.03 \text{ sec})
Rows matched: 1 Changed: 1 Warnings: 0
mysql> SELECT * FROM EMPLOYEE;
| ENO | ENAME | SALARY | DNO | MNGRNO | DOJ | JOB
                                                                           | ADDRESS | CITY
   | PINCODE |
   1 | Rex
                            40 | NULL | 2005-01-19 | SENIOR MANAGER
                  60000
                                                                           | Address 1 | KOCH
      682022
Ι
     | Tex
                  30000
                             10
                                       1 | 2005-01-19 | PROFESSOR
                                                                           | Address 2 | CHEN
      682022
NAI |
    3 | Max
                  30000
                             30
                                      1 | 1998-01-19 | ASSOCIATE PROFESSOR | Address 1 | KOCH
Т
      682022
                                       1 | 2000-01-19 | ASSISTANT PROFESSOR | Address 3 | MUMB
    4 | Lex
                   30000
                             20
      682022
ΑT
                                       1 | 2004-01-19 | GUEST LECTURER
    5 | Nex
                   30000
                             40
                                                                            | Address 2 | CHEN
NAI |
      682022
    6 | Ken
                   9600
                             10
                                       2 | 2000-01-19 | CLERK
                                                                            | Address 1 | KOCH
      682022
Т
    | Ten
                    7200
                             10
                                       2 | 2000-01-19 | QUALITY CHECKER
                                                                           | Address 2 | CHEN
NAI |
      682022
                   8040
                                      4 | 2004-01-19 | CLERK
                                                                            | Address 3 | MUMB
     | Ram
                             20 I
      682022
ÀΙ
   12 | Rohit
                   14400
                             20
                                       4 | 2000-01-19 | QUALITY CHECKER
                                                                           | Address 3 | MUMB
ÁΙ |
  13 | Jenson
                   9600
                             30
                                       3 | 1999-01-19 | CLERK
                                                                            | Address 3 | MUMB
ΑT
  14 | Johnson |
                    8160
                             30
                                       3 | 2000-01-19 | WORKER
                                                                            | Address 1 | KOCH
Ι
   16 | Jack
                    8400
                             40
                                       5 | 2009-01-19 | CLERK
                                                                            | Address 2 | CHEN
ΝAΙ |
  17 | Jim
                   12000
                             40
                                       5 | 1998-01-19 | CLERK
                                                                            | Address 1 | KOCH
   18 | Jill
                   10000
                                       5 | 2010-01-19 | SENIOR CLERK
                             40 I
                                                                           | Address 3 | MUMB
ÀI |
      682022
  19 | Jin
                                       1 | 2009-01-19 | MANAGER
                   24000
                             10
                                                                            | Address 3 | MUMB
      682022
  20 | Kazuya
                   18000
                             20 I
                                       1 | 2006-01-19 | MANAGER
                                                                            | Address 1 | KOCH
   | 682022 |
22 | Isayama |
                            40
                  42000
                                      1 | 2005-01-19 | MANAGER
                                                                           | Address 1 | KOCH
  682022
+-----
```

```
17 rows in set (0.00 sec)
mysql> SELECT * FROM DEPARTMENT;
 DNO | DNAME | D_HOD |
  10 | Marketing | Tex
   20 | Sales
                    | Lex
  30 | Accounting | Max
  40 | Management | Nex
4 rows in set (0.00 sec)
mysql> SELECT ENAME AS NAME, JOB AS DESIGNATION, DNAME AS DEPARTMENT FROM EMPLOYEE, DEPARTMENT WH
| NAME | DESIGNATION | DEPARTMENT |
 Tex | PROFESSOR | Marketing
       | ASSOCIATE PROFESSOR | Accounting
 Max
       | ASSISTANT PROFESSOR | Sales
 Lex
4 rows in set (0.00 sec)
mysql> INSERT INTO DEPARTMENT VALUES(50, 'Human Resource', 'John');
Query 0K, 1 row affected (0.03 \text{ sec})
mysql> SELECT * FROM DEPARTMENT;
  10 | Marketing | Tex
   20 | Sales
  30 | Accounting | Max
40 | Management | Nex
                        | Nex
  50 | Human Resource | John
5 rows in set (0.00 sec)
mysql> SELECT * FROM EMPLOYEE LEFT OUTER JOIN DEPARTMENT ON EMPLOYEE.DNO=DEPARTMENT.DNO;
| ENO | ENAME | SALARY | DNO | MNGRNO | DOJ | JOB
                                                                               | ADDRESS | CITY
  | PINCODE | DNO | DNAME | D_HOD |
 2 | Tex | 30000 | 10 | 1 | 2005-01-19 | PROFESSOR

XI | 682022 | 10 | Marketing | Tex |
6 | Ken | 9600 | 10 | 2 | 2000-01-19 | CLERK
| 682022 | 10 | Marketing | Tex |
7 | Ten | 7200 | 10 | 2 | 2000-01-19 | QUALITY CHECKER

XI | 682022 | 10 | Marketing | Tex |
19 | Jin | 24000 | 10 | 1 | 2009-01-19 | MANAGER
                                                                              | Address 2 | CHEN
                                                                               | Address 1 | KOCH
                                                                              | Address 2 | CHEN
  NAI |
| <mark>19</mark> | Jin
ÀΙ |
ÀΙ |
ΑI
ΔТ
      682022
                  30 | Accounting | Max

9600 | 30 | 3 |

30 | Accounting | Max
Ι
   13 | Jenson |
                                             1999-01-19 | CLERK
                                                                                | Address 3 | MUMB
ΑT
      682022 I
                   8160 | 30 | 3 | 2000-01-19 | WORKER
   14 | Johnson |
                                                                                | Address 1 | KOCH
       682022 | 30 | Accounting | Max
| Rex | 60000 | 40 | NULL
                                     NULL | 2005-01-19 | SENIOR MANAGER
                                                                                | Address 1 | KOCH
      | Rex
      | Nex | 30000 | 40 | 1 | 2004-01-19 | GUEST LECTURER | 682022 | 40 | Management | Nex |
    5 | Nex
                                                                               | Address 2 | CHEN
| Address 2 | CHEN
                                                                               | Address 1 | KOCH
```

```
| 22 | Isayama | 42000 | 40 | 1 | 2005-01-19 | MANAGER | | 682022 | 40 | Management | Nex |
                                                                     | Address 1 | KOCH
             --+-----+----+
17 rows in set (0.00 sec)
mysql> SELECT * FROM EMPLOYEE RIGHT OUTER JOIN DEPARTMENT ON EMPLOYEE.DNO=DEPARTMENT.DNO;
ENO | ENAME | SALARY | DNO | MNGRNO | DOJ | JOB
                                                                       | ADDRESS | CIT
  | PINCODE | DNO | DNAME | D_HOD |
    2 | Tex | 30000 | 10 | 1 | 2005-01-19 | PROFESSOR
| 682022 | 10 | Marketing | Tex |
                                                                      | Address 2 | CHE
       682022 | 10 | Marketing
                                   | Tex
| 6 | Ken
HI | 682022 |
| 7 | Ten
             | 9600 | 10 |
                                                                    | Address 1 | KOC
                                     2 | 2000-01-19 | CLERK
       682022
                '<mark>10</mark> | Marketing
                                   | Tex |
                                     2 | 2000-01-19 | QUALITY CHECKER | Address 2 | CHE
               7200 | 10 |
       682022 | 10 | Marketing
| Jin | 24000 | 10 |
NNAI |
                                   | Tex
| <mark>19</mark> | Jin
                                     1 | 2009-01-19 | MANAGER
                                                                     | Address <mark>3</mark> | MUM
BAI |
                                   | Tex
   1 | 2000-01-19 | ASSISTANT PROFESSOR | Address 3 | MUM
                                   | Lex
                                     4 | 2004-01-19 | CLERK
                                                                       | Address 3 | MUM
BAI
                                   | Lex
                                     4 | 2000-01-19 | QUALITY CHECKER
                                                                      | Address 3 | MUM
       682022 | 20 | Sales
ΒAI |
                                   | Lex
   20 | Kazuya | 18000 | 20 |
| 682022 | 20 | Sales
| 3 | Max | 30000 | 30 |
                                     1 | 2006-01-19 | MANAGER
                                                                       | Address 1 | KOC
                                   | Lex
                                     1 | 1998-01-19 | ASSOCIATE PROFESSOR | Address 1 | KOC
       682022
HT
                 30 | Accounting
                                   Max
    13 | Jenson | 9600 | 30 |
                                     3 | 1999-01-19 | CLERK
                                                                       | Address 3 | MUM
                30 | Accounting
                                   Max
BAI | 682022 |
      | Johnson | 8160 | 30 |
                                     3 | 2000-01-19 | WORKER
                                                                       | Address 1 | KOC
       682022 | 30 | Accounting
                                   Max
                                  NULL | 2005-01-19 | SENIOR MANAGER
                                                                      | Address 1 | KOC
    1 | Rex
               | 60000 | 40 |
       682022 | 40 | Management

Nex | 30000 | 40 |

40 | Management
HΙ
                                   | Nex
     5 | Nex
                                     1 | 2004-01-19 | GUEST LECTURER
                                                                      | Address 2 | CHE
NNAI |
       682022 | 40 | Management
                                   | Nex
                                    5 | 2009-01-19 | CLERK
| <mark>16</mark> | Jack
               8400 | 40 |
                                                                        | Address 2 | CHE
ΝΑΙ |
       682022 | 40 | Management
                                   | Nex
    17 | Jim | 12000 | 40 | 682022 | 40 | Management
                                     5 | 1998-01-19 | CLERK
                                                                       | Address 1 | KOC
                                   | Nex
  18 | Jill | 10000 | 40 |
                                     5 | 2010-01-19 | SENIOR CLERK
                                                                       | Address 3 | MUM
BAI | 682022 | 40 | Management
                                   | Nex
| 22 | Isayama | 42000 | 40 |
HI | 682022 | 40 | Marrier
                                    1 | 2005-01-19 | MANAGER
                                                                        | Address 1 | KOC
                                 | Nex
HI | 682022
| NULL | NULL
       682022 | 40 | Management | Nex |
NULL | NULL | NULL | NULL | NULL | NULL
NULL | 50 | Human Resource | John |
                                         NULL NUL
        18 rows in set (0.00 sec)
mysql> SELECT * FROM EMPLOYEE LEFT OUTER JOIN DEPARTMENT ON EMPLOYEE.DNO=DEPARTMENT.DNO UNION
SÉLECT * FROM EMPLOYEE RIGHT OUTER JOIN DEPARTMENT ON EMPLOYEE.DNO=DEPARTMENT.DNO;
| ENO | ENAME | SALARY | DNO | MNGRNO | DOJ
                                               | JOB
                                                                       | ADDRESS | CIT
  | Address 2 | CHE
                                                                      | Address 1 | KOC
                                     2 | 2000-01-19 | QUALITY CHECKER
                                                                     | Address 2 | CHE
                                                                     | Address <mark>3</mark> | MUM
BAI | 682022 | 10 | Marketing | 4 | Lex | 30000 | 20 | BAI | 682022 | 20 | Sales | 9 | Ram | 8040 | 20 | BAI | 682022 | 20 | Sales
                                     1 | 2000-01-19 | ASSISTANT PROFESSOR | Address 3 | MUM
                                    | Lex |
                                     4 | 2004-01-19 | CLERK
                                                                       | Address 3 | MUM
                                    | Lex |
```

12 Rohit BAI 682022			QUALITY CHECKER	Address 3	MUM
	18000 20	Lex	MANAGER	Address 1	KOC
<mark>3</mark> Max		1 1998-01-19	ASSOCIATE PROFESSOR	Address 1	KOC
13 Jenson	9600 30	3 1999-01-19 Max	CLERK	Address 3	MUM
14 Johnson		3 2000-01-19	WORKER	Address 1	KOC
1 Rex		NULL 2005-01-19	SENIOR MANAGER	Address 1	K0C
5 Nex	30000 40 40 Management	1 2004-01-19	GUEST LECTURER	Address 2	CHE
<mark>16</mark> Jack	8400 40	5 2009-01-19	CLERK	Address 2	CHE
17 Jim HT 682022	12000 40 40 Management	5 1998-01-19 Nex	CLERK	Address 1	KOC
18 Jill	10000 40 40 Management	5 2010-01-19	SENIOR CLERK	Address 3	MUM
<mark>22</mark> Isayama		1 2005-01-19	MANAGER	Address 1	KOC
NULL NULL	NULL NULL 50 Human Resour	NULL NULL	NULL	NULL	NUL
++			+	-+	-+

....+....+

¹⁸ **rows in set** (0.00 sec)