1. NATURAL JOIN OF JOB AND EMPLOYEE

Step 1: Product

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| EMP\_CODE | EMP\_LNAME | EMP.JOB\_CODE | JOB.JOB\_CODE | JOB\_DESCRIPTION |
| 14 | Rudell | 2 | 1 | Clerical |
| 14 | Rudell | 2 | 2 | Technical |
| 14 | Rudell | 2 | 3 | Managerial |
| 15 | McDade | 1 | 1 | Clerical |
| 15 | McDade | 1 | 2 | Technical |
| 15 | McDade | 1 | 3 | Managerial |
| 16 | Ruellardo | 1 | 1 | Clerical |
| 16 | Ruellardo | 1 | 2 | Technical |
| 16 | Ruellardo | 1 | 3 | Managerial |
| 17 | Smith | 3 | 1 | Clerical |
| 17 | Smith | 3 | 2 | Technical |
| 17 | Smith | 3 | 3 | Managerial |
| 20 | Smith | 2 | 1 | Clerical |
| 20 | Smith | 2 | 2 | Technical |
| 20 | Smith | 2 | 3 | Managerial |

Step 2: Select

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| EMP\_CODE | EMP\_LNAME | EMP.JOB\_CODE | JOB.JOB\_CODE | JOB\_DESCRIPTION |
| 14 | Rudell | 2 | 2 | Technical |
| 15 | McDade | 1 | 1 | Clerical |
| 16 | Ruellardo | 1 | 1 | Clerical |
| 17 | Smith | 3 | 3 | Managerial |
| 20 | Smith | 2 | 2 | Technical |

Step 3: Project

|  |  |  |  |
| --- | --- | --- | --- |
| EMP\_CODE | EMP\_LNAME | JOB\_CODE | JOB\_DESCRIPTION |
| 14 | Rudell | 2 | Technical |
| 15 | McDade | 1 | Clerical |
| 16 | Ruellardo | 1 | Clerical |
| 17 | Smith | 3 | Managerial |
| 20 | Smith | 2 | Technical |

2. JOB LEFT OUTER JOIN EMPLOYEE

Include all jobs, even jobs without an employee holding that position.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| EMP\_CODE | EMP\_LNAME | EMP.JOB\_CODE | JOB.JOB\_CODE | JOB\_DESCRIPTION |
| 14 | Rudell | 2 | 2 | Technical |
| 15 | McDade | 1 | 1 | Clerical |
| 16 | Ruellardo | 1 | 1 | Clerical |
| 17 | Smith | 3 | 3 | Managerial |
| 20 | Smith | 2 | 2 | Technical |
|  |  |  | 4 | CEO |

3. JOB RIGHT OUTER JOIN EMPLOYEE

Include all employees, even employees without a matching job description.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| EMP\_CODE | EMP\_LNAME | EMP.JOB\_CODE | JOB.JOB\_CODE | JOB\_DESCRIPTION |
| 14 | Rudell | 2 | 2 | Technical |
| 15 | McDade | 1 | 1 | Clerical |
| 16 | Ruellardo | 1 | 1 | Clerical |
| 17 | Smith | 3 | 3 | Managerial |
| 20 | Smith | 2 | 2 | Technical |
| 21 | Johnson | 5 |  |  |