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CIS 310-01

Assignment 5

2/3/15

1. Start by creating a cross join of the 2 tables.

|  |  |  |
| --- | --- | --- |
| EMPLOYEE | | |
| EMP\_CODE | EMP\_LNAME | JOB\_CODE |
| 14 | Rudell | 2 |
| 15 | McDade | 1 |
| 16 | Ruellardo | 1 |
| 17 | Smith | 3 |
| 20 | Smith | 2 |

|  |  |
| --- | --- |
| JOB | |
| JOB\_CODE | JOB\_DESCRIPTION |
| 1 | Clerical |
| 2 | Technical |
| 3 | Managerial |
| 4 | Database Guru |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CROSS JOIN | | | | |
| EMP\_CODE | EMP\_LNAME | JOB\_CODE | 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 |

|  |  |  |  |
| --- | --- | --- | --- |
| NATURAL JOIN | | | |
| 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 |

Next eliminate the entries that do not have matching data for the common column. Then remove the second common because it is the same as the first.

2. The natural join of the 2 tables would remain the same. No employee in the employee table has the job code 4. This would cause job code 4 to be eliminated for not having a common value in the other table.

3.

|  |  |  |  |
| --- | --- | --- | --- |
| EMPLOYEE LEFT OUTER JOIN JOB | | | |
| 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 |

|  |  |  |  |
| --- | --- | --- | --- |
| EMPLOYEE RIGHT OUTER JOIN JOB | | | |
| EMP\_CODE | EMP\_LNAME | JOB\_CODE | JOB\_DESCRIPTION |
| 15 | McDade | 1 | Clerical |
| 16 | Ruellardo | 1 | Clerical |
| 14 | Rudell | 2 | Technical |
| 20 | Smith | 2 | Technical |
| 17 | Smith | 3 | Managerial |
| NULL | NULL | 4 | Database Guru |

The employee left outer join job table is completely filled out because every employee has a job code and job description that is in the job table. The first table is sorted by EMP\_CODE because that is the left most value. The employee right outer join job has 2 null values because there is no employee, with a code and last name, that holds the job code 4. It is sorted by job code because it is the right most sortable value.