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Assignment 3B

1. We have two tables PC and Employee. Keep PC as the left one and Employee as the right one. Show hand calculated/tabulated results for these operations as tables in a word document, without using Oracle or any other query engine.

a. Show a product of the two

b. Show a join of the two.

c. Show a left outer join of the two. What does it represent?

d. Show a right outer join of the two. What does it represent?

e. Draw set diagram circles showing EMP# from each set that are common and the ones that are not common but exclusive to one set or the other.

**PC**

|  |  |  |  |
| --- | --- | --- | --- |
| PC# | Model | Make | Emp# |
| 29 | X500 | HP | 111 |
| 38 | GP550 | HP | 118 |
| 32 | Mini202 | Sony | 111 |
| 24 | DX3900 | Dell |  |

**Employee**

|  |  |  |  |
| --- | --- | --- | --- |
| Emp# | Ename | Dept | Tel# |
| 111 | Tim | MKT | 9121 |
| 115 | Kim | FIN | 9321 |
| 118 | Jane | FIN | 9432 |

**a)** **Product of PC and Employee:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **PC#** | **Model** | **Make** | **Emp#** | **Emp#** | **ENAME** | **Dept** | **Tel#** |
| 29 | X500 | HP | 111 | 111 | Tim | MKT | 9121 |
| 29 | X500 | HP | 111 | 115 | Kim | FIN | 9321 |
| 29 | X500 | HP | 111 | 118 | Jane | FIN | 9432 |
| 38 | GP550 | HP | 118 | 111 | Tim | MKT | 9121 |
| 38 | GP550 | HP | 118 | 115 | Kim | FIN | 9321 |
| 38 | GP550 | HP | 118 | 118 | Jane | FIN | 9432 |
| 32 | Mini202 | Sony | 111 | 111 | Tim | MKT | 9121 |
| 32 | Mini202 | Sony | 111 | 115 | Kim | FIN | 9321 |
| 32 | Mini202 | Sony | 111 | 118 | Jane | FIN | 9432 |
| 24 | DX3900 | Dell | - | 111 | Tim | MKT | 9121 |
| 24 | DX3900 | Dell | - | 115 | Kim | FIN | 9321 |
| 24 | DX3900 | Dell | - | 118 | Jane | FIN | 9432 |

**b)** **Join of PC and Employee:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **PC#** | **Model** | **Make** | **Emp#** | **Ename** | **Dept** | **Tel#** |
| 29 | X500 | HP | 111 | Tim | MKT | 9121 |
| 38 | GP500 | HP | 118 | Jane | FIN | 9432 |
| 32 | Mini202 | Sony | 111 | Tim | MKT | 9121 |

**c)** **Left outer join of PC and Employee:**

This join represents taking all the data from the PC table (The “Left Table”) and only taking the matching data from the Employee table (The “Right Table”).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **PC#** | **Model** | **Make** | **Emp#** | **Ename** | **Dept** | **Tel#** |
| 29 | X500 | HP | 111 | Tim | MKT | 9121 |
| 38 | GP550 | HP | 118 | Jane | FIN | 9432 |
| 32 | Mini202 | Sony | 111 | Tim | MKT | 9121 |
| 24 | DX3900 | Dell | - | NULL | NULL | NULL |

d) **Show a right outer join of the two. What does it represent?**

The right outer join represents taking all of the data from the Employee table (The “Right Table”) and joining it with only the matching data from the PC table (The “Left Table”).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **PC#** | **Model** | **Make** | **Emp#** | **Ename** | **Dept** | **Tel#** |
| 29 | X500 | HP | 111 | Tim | MKT | 9121 |
| 38 | GP550 | HP | 118 | Jane | FIN | 9432 |
| 32 | Mini202 | Sony | 111 | Time | MKT | 9121 |
| NULL | NULL | NULL | 115 | Kim | FIN | 9321 |

**e) Set that are common and ones that are not common but exclusive to each other:**

