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SQL HW Part 3

Cartesian Joins

Part 1:

 The outputs of following queries are 25 and 10, respectively.

SELECT COUNT(\*)

FROM first\_table;

SELECT COUNT(\*)

FROM second\_table;

 What will be the number of rows in the output of the following query?

SELECT \*

FROM first\_table, second\_table;

The number of rows from this query will be 250, as it will run each row from first\_table ten times.

Part 2

The table from the SELECT \* FROM table1, table 2 will be id 1 three times going from 10, then 11, then 12. Then it will do the same for ids 2-4

Foreign Keys

employees

|  |  |  |  |
| --- | --- | --- | --- |
| Employee\_id | First\_name | Last\_name | Department\_id |
| 14 | Jan | Jansenn | 45 |
| 17 | Sam | Samuels | 45 |

Departments

|  |  |
| --- | --- |
| Id | Dept\_name |
| 45 | webdev |
| 45 | webdev |

ALTER vs UPDATE

The ALTER command can add, delete, modify, the attributes of the relations of a table. The UPDATE command modifies one or more records in a table.

ALTER TABLE table\_name

CHANGE department\_id dept\_id;

ALTER TABLE table\_name

ADD annual\_salary INT;

The Thrill of the Case

UPDATE table\_name

SET species = mouse

WHERE animal\_name = Mickey Mouse;

UPDATE table\_name

SET species = mouse

WHERE animal\_name = Minnie Mouse;

UPDATE table\_name

SET species = duck

WHERE animal\_name = Daffy Duck;

SQL JOINS

INNER JOIN – returns records that has matching values in both tables

FULL OUTTER JOIN – returns all records if there is a match in either the left or the right table

LEFT JOIN – returns all records from the left table, and if there is a match in the right table, that is returned as well

RIGHT JOIN – returns all records from the right table, and if there is a match in the left table, that is returned as well

On the table in the example, a LEFT JOIN was used, as the last row with Tahki, Greece is returns a null value for the yarn. The LEFT JOIN is used when we want to return all the vendor and country names regardless of if they got any yarn.