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**CHANGELOG:**

* Table implementation now supports multiple tables
* Fix node implementation to allow 2 parameters
* Inner join
* Outer join

**IMPLEMENTATION:**

Inner join = returns the records that have matching values in both tables

Outer join = returns all records from the left table, and the matching records in both tables

**COMPILE:**

Use the provided make file and type “make”.

NOTE: Please add a space in the test file before the ‘(‘ particularly in the create table Employee and create table Sales lines.

To run do ./main < PA3\_test.sql

**DOCUMENTATION:**

One of the major changes needed from PA2 to PA3 was the fixing the implementation of the tables. Before, it was assumed that the there would only be one table. Now the functions that were used before have been modified to be used for multiple functions, primarily changing the need to pass the table vector by reference. Now, the function is called and will return the new table into a separate table vectors.

Furthermore, another modification was made to the “parameters” or “columns” of the tables. As before it was assumed that there would be three different columns. Now, there has been an addition of functions to handle two “parameters” or “columns”. These modifications were made in the table header file, essentially more options to the constructors. Also, modifying the insertTemp() function with an if statement to determine if the number of columns desired is 2 or 3 by using modulo.

The two inner join function, which has the same function and the only difference being the change is getSet() function parameters, differentiate with an if statement. It searches for keywords “inner” or “left outer” to determine which of the two syntaxes it should follow. Despite that, it functions the same as the select function as after it identifies the desired indices, it searches that tables’ vector for the tuples and prints the shared values in both tables. The outer join function operates the same with the addition of another array that keeps track of the values that have been printed from the shared tuples. After printing out those tuples, the table is iterated over again in comparison to the counter array and printing any remaining tuples that have not already been printed.