Testing methodology

To test select, we used testSelect.sql

This contains select with every type of operator, with both scanSelect and indexSelect methods. We manually check each to make sure the correct results are returned.

To test join, we used testJoin.sql

We first created a table of data with a single index. We start with an equi-join, which will use the INL method. We created a second index to make sure that INL still functions correctly. We tested inequality joins that return both zero results, a number of results, and every tuple. These test the SNL method of join. All of the results were calculated manually and compared.

We created another set of relations that contain no matches, and test to make sure each method returns no results.

We created a third set of relations and test INL and SMJ (with and without an index) to make sure they return the same results. We then test every type of operator to make sure SNL works for each one. Again, the results were precomputed manually and compared.

We created a fourth set of relations with 1000 tuples each, to test that SMJ and the other join methods functioned correctly with larger data sets.

To test insert

We simply used the tests above, which only outputted the correct results if the insertions had been successful. We also manually test various insertions by using the print utility.