Sean Carney, Tim Wurman
carneys, twurman
EECS 484 Project 4

Testing Report

In order to test the code we wrote for this project, we wrote two SQL files, test34.sql and extendedJoin.sql. We tried to write tests that covered all of the files and different functions we implemented. We tested insertion, selection with and without an index, equijoins with and without an index, and non-equijions.

Both files create tables and insert values into them. This tests insert.cpp. extendedJoin.sql contains tests for index nested loop and sort merge join. To test SMJ.cpp, we write a query with an equi-join when the right relation is smaller than the left relation, and when the left relation is smaller than the right relation. To test INL.cpp, we do the same exact thing but we first create an index on the tables before selecting.

test34.sql contains tests for all of our code. After creating two relations and inserting into them, we test scan select. We test "select *" with no "where" clause. We select with projection and no "where" clause, and then we "select *," this time with a "where" clause. Lastly, we test for selecting with projection and with a "where" clause.

Then we do three tests of SMJ joins, equi-joins with two relations, this time where the joined rows only overlap at the end of one relation and the beginning of the other. Then we create two indexes that will change the previous three queries to INL joins. These test the INL joins when the index is on the first attribute and the second attribute. We test indexselect.cpp with the 'where' clause includes an indexed value. We then drop these indexes and perform tests for scanselect.cpp. We test all of the inequality opertators against SNL.

Lastly, we create two more relations and do more tests of SMJ and INL with those relations. These tests cover a couple of corner cases.