Assumptions made in developing the model

Selection of the foreign key was based on the first columns such that the parent table is required to hold an index where the columns within the reference clause are listed in the first columns. The columns in the key were indexed in the tables on both ends using the foreign key relationship as explicitly indexed in the parent and child tables.

The outline of the heuristic algebra based optimization algorithm will begin with a break up of SELECT operations in conditions that are conjunctive into cascading of SELECT operations. The next step is shifting of specific SELECT operation far down the QUERY tree in permission of attributes comprised in the SELECT condition followed by rearrangement of the tree leaf nodes such that the relations of the leaf nodes occurs in ample restriction of execution of SELECT operation with initial execution being of the representation of the query tree. At this point we created Cartesian product operations of the SELECT subsequent operation into the tree and the JOIN operations with the break down and movement of lists in PROJECT attributes being down the tree in furthest possible creation of the new PROJECT operations as required. The final step is identification of the sub tress with representation of the group operations in execution of the single algorithm.

It should be noted in the schema provided that two products of the cross operations in the form of nested loops have been identified that require considerable space and time in construction. These two cross products contain a temporary table with the general heuristic rule in optimization being the performance of several SELECT and PROJECT operations in all possible applications prior to use of the JOIN operation.

As such It was identified in the Heuristic query optimization that the search technique in the utilization of Indexed Fields in property searches and after the operation of heuristic query optimization requires reduced time [CPU time = 10 ms, Elapsed time = 111 seconds.] in production of the query outcome.