

## Abstract

Along with the growing of database became much bigger, the performance become an important issue. One of the factors influences the relational database performance is the physical design. The physical design of relational database must weigh the indexes that will be select and used.

In this final task has developed a software to help selecting index and configure. The index selection is done with use workload from log audit and data definition language from system catalog which used. Selection a correct index is hoped to increase the database performance.

Based on testing, showing software can do the index selection for optimization of index with the decreasing cost of query reach 1.611.542 % for the workload of transaction and 14.364.850 % for the workload of report after optimization by 1 column of index and use of heuristic rules lessen the amount of index candidate which require to be made by real with average 33,2 % to lessen the time execute.

**Keywords:** Index, Index Selection, workload, system catalog, MySQL, performance.