7. Exploiting Join and Caching for Code Optimization

Object querying is an abstraction of operations over collections, whereas manual implementations are performed at low level which forces the developers to specify how a task must be done. Some object-oriented languages allow the programmers to express queries explicitly in the code, which are optimized using the query optimization techniques from the database domain. In this regard, Java Query Language has been developed that allows object querying and performs the query optimization at run-time. Therefore, only one problem is how to reduce the task of query optimization at run-time as much as possible within the Java Query Language system. In this project, we have developed techniques that perform query optimization and caching at compile-time to reduce the burden of optimization at run-time to improve the performance of the code execution.

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Publications: