

CS648 Project

Running Hbase in Postgresql



April 14, 2018

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This project is aiming at replacing the storage engine of Postgresql with Hbase. Hbase is a open-source, distributed database running on top of HDFS (Hadoop Distributed File System).

Even though It wasn’t successful in the end, the following are steps I took:

1. C API

Hbase is written in Java while Hbase is written in C. To link with Hbase, a third-party C API library of Hbase was found on https://github.com/mapr/libhbase.

Libbase.so was successfully built but libjvm.so failed to.

1. Modify Configure and Configure.in files

Changes are made and these 2 files to include header files of libhbase and linked with libhase.so.

1. Implementations in hba.c

Implementations in hba.c are constructed according to the wrapper in smgr.c.

Row\_data needs to be constructed so that the first field in row\_data can be used as a key and value can be stored in list of cell\_data. In our case, only one is stored in the list, which is our value.

This project is stuck on the “conflicting type” problem while compiling. The applicability of the libhase cannot be tested. However, libhbase should be tested independently with hbase before being used.