

COP6726 Database System Implementation

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1 Note

We implement our DBFile.cc.

First we make a small change to test.cc, because our implementation:

1. DBFile::Create(...) will create file then close that file.
2. DBFile::Load(...) will work on a binary file which has already been opened by default.

So, in “*test.cc* → *test1()*”, we add a sentence “*dbfile.Open(rel → path());*” before “*dbfile.Load(*(rel → schema()), tbl_path);*”.

Second, we also wrote our own test file named “*main.cc*” (previous “*main.cc*” has been renamed “*main_previous.cc*”). our own *main.cc* is interactive, please try to play with it!

2 Details

DBFile::Load(...) will load all text records in a *****.tbl (designate by the user) which reside in */cise/tmp/dbi_sp11/DATA/10M/* into the same-name binary file which reside in the same directory when you execute the file.

DBFile::MoveFirst() will set the explicit read pointer(in the implementation, we use “currentReadingPage” and “currentReadingRecord” to indicate which page and which record we have read) to the begin of the binary file.

DBFile::Add(...) act as writing, this function will read a text record in *****.tbl to binary record file.

DBFile::GetNext(...) act as reading, read record from binary file. Using our explicit reading pointer to indicate record position.