**Approach to PROJ 3, LRU Buffer Pool**

Riley Dorough / Chandler Whitley

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This project was completed through the collaborative efforts of the genius Chandler Whitley & the innovative Riley Dorough.

**Least Recently Edited Buffer Pool**

**MyBufferBlock.h**

Create a class containing a character array of size 4096 bytes.

Buffer Block variables:

* + Integer for block ID
  + Pointer to characters in array

Buffer Block class (construct & destruct):

* Assigns integer for size of blocks

Buffer Block methods:

* GetData() pulls data from the input file
* GetID() returns block IDs
* GetBlockSize() returns size of block
* GetBlock() returns pointer to characters
* setBlock() assigns the characters in the character array

**LRUBufferPool.h**

LRU Buffer Pool variables:

* Integer for size of blocks
* Integer for size of buffer pool
* Pointer to character array
* File stream variable for transferring from the file to the project

LRU Buffer Pool class (construct & destruct):

* Constructor
  + Assigns file name, number of blocks, and size of blocks
  + Reads in the file and calls functions to gather blocks of characters
* Destructor
  + Closes input file, deletes pointers to blocks, and sets char array to null

LRU Buffer Pool methods:

* GetBytes() finds which block to look in and then where in said block to begin retrieving data. Includes a flag to test if the block is already in the bufferpool. Creates a temporary duplicate of the block used to shuffle the buffer pool and add the more recently accessed block to the top (highest priority) side of the buffer pool. (while shuffling down and overriding old data there should be 2 duplicate blocks at the top of the pool, new data will overwrite this). If a block is accessed from the middle of the pool, it should be overwritten by the block above it (one index number lower) and continue this until, as previously mentioned, the top has two identical values.
* GetLRUBlockID() Returns the ID of the least recently used block.

**Main.cpp**

1. Get 80% done
2. Find small strange errors
3. Spend most of the work time solving tiny issues
4. Solve issues
5. Enjoy Spring Break