DoublyLinkedList

+ void * value

+next
+previous

+next
+previous

DoublyLinkedDequeInternalNode

+   void * value

+fifo_node
+lfu_node
+lru_node

MemoryBufferHeader

+ unsigned char isValid

+ unsigned char isDirty

+ unsigned char isBufferBeing WrittenNow

+ int request_write_count

+ sem_t write_lock

+ long block_number

+ long long block_size_byte

+ uint8_t buffer_precalculated_hash

+ long lastestAccessedTime Stamp

+ unsigned int access _count

+ unsigned long long lastest_accessing_timestamp

+header

MemoryBuffer

+ char * buffer