



**NANYANG
TECHNOLOGICAL
UNIVERSITY**

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Nanyang Technological University

CZ4031 Database System Principles

Assignment 1
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Group 20

Tok Jing Xian
Chan Zhao Hui
Leow Wei Thou, Samuel
Bhadra Soham (U1822379K)

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INTRODUCTION

Description

In this project, we design and implement a simple storage and database system using C++ that uses B+ trees for indexing records. We support inserting, searching for and deleting records. We use a single C++ file containing all the functions.

Implementation overview

STORAGE COMPONENT

As per the project requirements, we have defined the disk size as 10^8 bytes or 100 MB and the block size as 100 bytes.

```
#define DISK_SIZE      100000000
#define BLOCK_SIZE     100
#define BLOCKS_IN_DISK (DISK_SIZE/BLOCK_SIZE)
#define RECORD_SIZE    sizeof(Record)
#define RECORDS_PER_BLOCK ((BLOCK_SIZE-typeof(int))/RECORD_SIZE)
#define POINTER_SIZE   sizeof(uintptr_t)//4
#define DATA_FILE     "dataTest.tsv"
```