# **Databases Load Testing Tool**

## Yu Ma

#### Motivation:

Since database now play an important role in software engineering, finding a good database could be a crucial step in a project. Our team implement a database load testing tool which could help people find the database that best fit for their project quickly and easily.

## **Functions:**

Our loading testing tool mainly has two functions: write speed test and read speed test. To achieve write speed test, we get the amount of data that user want to create and then create random data. Each data writing time will be recorded and then we will give the result of each data writing time, average time and throughput. To achieve read speed test, we will execute the query statement input by users and make several cycles according to user's input. Every query time will be recorded and then we will give the result of each query time, average time and throughput.

### Features:

- 1. Our databases loading testing tool is 100% Java, so it has high portability. The only thing you need to run it is JRE. 2. Our databases loading testing tool has high accuracy when testing. We split all program that would influence the test of read and write speed, even the console output.
- 3. Our databases loading testing tool has friendly user interface, which makes it easy to use.

#### User manual:

To do the write speed test, user need to input their name of driver class of databases, the URL of databases, username of database and password of database. Then user need to input the table name of the table they want to create, the attributes' name, the attributes' type, the attributes' size,

examples of attributes and then add them. Finally user need to input the primary key of the table.

To do the read speed test, user need to input their name of driver class of databases, the URL of databases, username of database and password of database. Then user need to input the queries they want to execute and add them. Finally user need to input the loop number they want when execute.