

**Database Performance:** Experiment of mysql database performance inserting 5 billions (500000000) numeric data in the table.

**PC configuration:** Processor- Intel(R) Core(TM) i5-4200M CPU @2.50 GHz 2.50 GHz, RAM-8GB , 64-bit Operating System( Windows 10)

Time for generating 5 billions numeric data stored in a text file using c programming. the file size is 477331 KB.

Number generating time: 63.050 s

E:\Education\db\_per\number.exe

```
Process returned 0 (0x0)   execution time : 63.050 s
Press any key to continue.
```

Inserting time to load data from file to database: 11min 26.96 sec

```
mysql> LOAD DATA LOCAL INFILE 'tmp/file.txt' INTO TABLE performance_table LINES TERMINATED BY '\n';
Query OK, 50000000 rows affected, 65535 warnings (11 min 26.96 sec)
Records: 50000000 Deleted: 0 Skipped: 0 Warnings: 50000000
```

Query time before indexing: 39.07 sec

```
mysql> select * from performance_table where id=20000000;
+-----+
| id      |
+-----+
| 20000000 |
+-----+
1 row in set (1 min 39.07 sec)
```

Add indexing time for the table: 23 min 0.11 sec

```
mysql> alter table performance_table add index(id);
Query OK, 0 rows affected (23 min 0.11 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

Query time after indexing: 0.00 sec

```
mysql> select * from performance_table where id=20000000;
+-----+
| id      |
+-----+
| 20000000 |
+-----+
1 row in set (0.00 sec)
```

NB: The table size is 1.5 GB

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