

1. *Journal of the American Medical Association*, 2000; 284: 2689-2695.

1. *Journal of the American Medical Association*, 2000; 283: 2686-2692.

Abstract

1885

SET

BLOB

ENUM

CHAR

TEXT

VARCHAR

Storage mechanism

Locking levels

Indexing

Capabilities and functions.

TIMESTAMP

Zero

UPDATE

CURRENT_TIMESTAMP

Show status

Bytes*received*

Bytessent

Com

Handler

Sort_*

Show session status like ' Select' ; Show profiles SET

profiling=1; Show profiles\G Show profile;

LIKE REGEXP

^

SELECT * FROM <tablename> **WHERE** * REGEXP "**^b**";

SELECT * FROM <tablename> **WHERE** * **LIKE** "**%b**";

BLOB

BLOB

BLOB

- TINYBLOB
- BLOB
- MEDIUMBLOB

- **LONGBLOB**

TEXT

TEXT

BLOB

TEXT

- TINYTEXT
- TEXT
- MEDIUMTEXT
- LONGTEXT

BLOB

BLOB

TEXT

BLOB

TEXT



BEFORE INSERT

AFTER INSERT

BEFORE UPDATE

AFTER UPDATE

BEFORE DELETE and

AFTER DELETE

- Abs num
- floor num
- ceil num

-
- insert (s1,index,length,s2)
 - S1

- s2
 - Index , 1
 - Length
 - upper str ucase str
 - lower str lcase str
 - left str length str length
 - right str length str length
 - substring str index length str index
 - length index 1
 - reverse str str
-

- curdate current_date()
- curtime current_time()
- now
- datediff d1 d2 d1 d2
- adddate date num date num
- subdate date num date num

-
- Count
 - sum
 - avg
 - Max min

MyISAM InnoDB

- - NULL NULL , NOT
NULL 0 -1

- MySQL

cpu I/O

.

-

-

MySQL

UTF-

8

- $_$ *count(mycol)* *count()**

-

- MySQL

()

MySQL

-

- UNION

UNION

- UNION ALL

UNION ALL

UNION ALL UNION

UNION ALL

alter table tableName **add** 索引（索引字段）

primary key

unique

fulltext

index

index index_name

: BDB

: MyISAM :

INNODB

- MyISAM mysql

MyISAM MyISAM MyISAM

- MyISAM

- MyISAM varchar text BLOB

MyISAM

optimize table

- MyISAM myisamchk

MyISAM

- MyISAM Merge MyISAM

MyISAM

- InnoDB InnoDB MyISAM

- memory(heap)

- archive select insert
- Desc[ribe] tablename
- show engines

•

mysqldump -u 用户名 -p 数据库名 > 导出的文件名

•

mysqldump -u 用户名 -p 数据库名 表名> 导出的文件名

•

mysqldump -u dbuser -p -d --add-drop-table
dbname >d:/dbname_db.sql

-d --add-drop-table create drop table

truncate

drop>truncate>delete

key-value

2.

strings map list sets sorted sets

- Redis in-memory

- Redis Memcached

- key/value Redis

- Redis

- Redis k/v list set zset

hash

- Redis master-slave

- Redis

Redis key-value Memcached

value string

lists sets zsets

push/pop add/remove

Redis - / TCP

Socket

Redis Redis

Redis key

Redis

key

set

Redis

set

key

Redis

rdb/aof

Redis

resharding

Redis

ID 0 10000

R0 ID 10001 20000

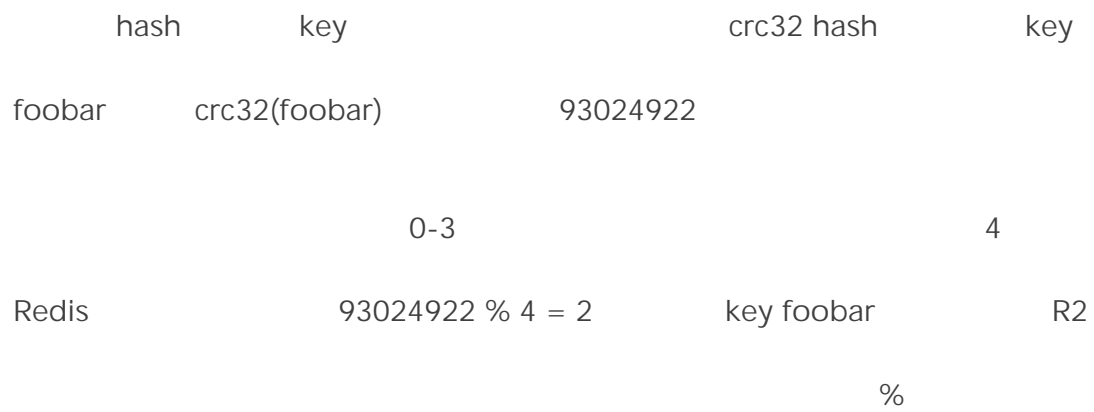
R1

Redis

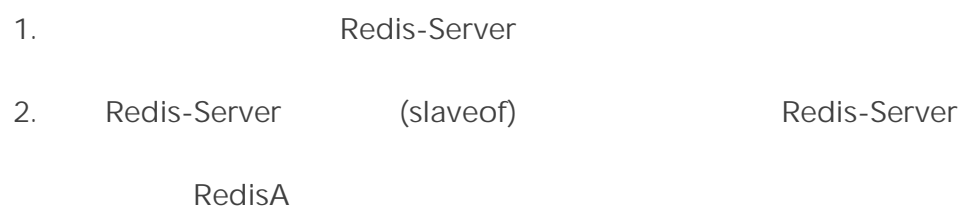
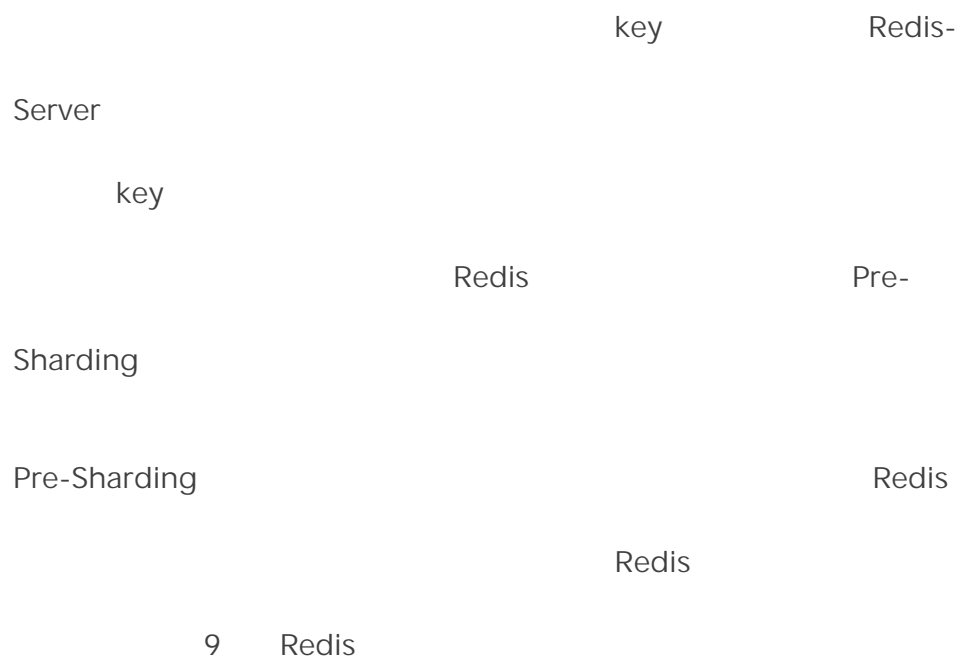
hash

key

object_name:



1.



3. (Replication) RedisA

IP Redis-Server IP

4. RedisA

Redis-Server

Prd-Sharding

Redis

2.

Redis

Redis-

Server

Redis-Server

IP

IP

IP

slaveof no

one

slaveof IP PORT

(NoSql),Mongo DB

(OO),

Mongo DB

Document

Mongo DB

SQL ,

CRUD .

Python PHP Ruby Java C C# Javascript Perl C++

Erlang .NET

BSON

JSON

JSON

Mongo

JSON

Mongo

Mongo

Mongo

-

Mongo

Mongo

Mongo

Mongo

Mongo

MapReduce

JSON

Mongo

BSON

mongodb

memcached

mongodb

memcached

Redis

tcp

1.

Redis

memcache

mongodb

2.

memcache

Redis

Redis

IO

mongodb

3.

Redis 2.0

VM

key value

memcache

memcache , LRU

mongoDB VM

4.

Redis

,
sharding, hash
Redis

Memcache

hash

mongoDB master-slave,replicaset paxos

,auto sharding

5.

Redis AOF

aof

memcache ,

MongoDB 1.8 binlog

6.

Memcache

cas

Redis

mongoDB

7.

mongoDB

(mapreduce),

8.

Redis

memcache

;

sharding

MongoDB:

1.

C

10

/ 20

2.

Copy-on-write

save 300 10

(Append-only file aof)

3.

4. -- Slave 21

Amazon 10G key set

5. Redis

web2.0

Sharding