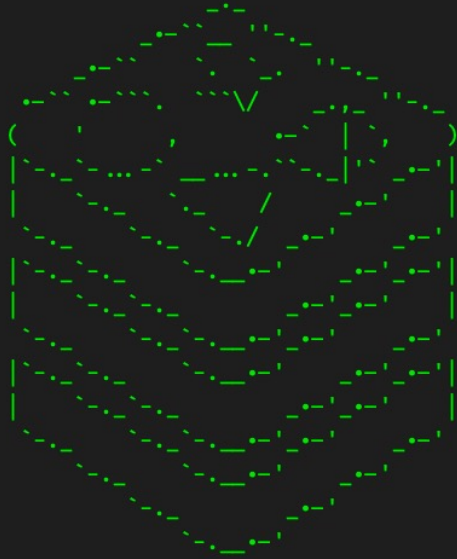


```
25627:C 22 Mar 2023 15:37:17.704 # o000o000o000o Redis is starting o000o000o000o
25627:C 22 Mar 2023 15:37:17.704 # Redis version=7.0.9, bits=64, commit=00000000, modified=0, pid=25627, just started
25627:C 22 Mar 2023 15:37:17.704 # Warning: no config file specified, using the default config. In order to specify a config file use redis-server /path/to/redis.conf
25627:M 22 Mar 2023 15:37:17.704 * Increased maximum number of open files to 10032 (it was originally set to 256).
25627:M 22 Mar 2023 15:37:17.704 * monotonic clock: POSIX clock_gettime
```



Redis 7.0.9 (00000000/0) 64 bit

Running in standalone mode  
Port: 6379  
PID: 25627

<https://redis.io>

# Memory First

## An Introduction to Redis

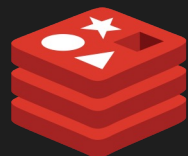
```
25627:M 22 Mar 2023 15:37:17.706 # WARNING: The TCP backlog setting of 511 cannot be enforced because kern.ipc.somaxconn is set to the lower value of 128.
25627:M 22 Mar 2023 15:37:17.706 # Server initialized
25627:M 22 Mar 2023 15:37:17.706 * Loading RDB produced by version 7.0.9
25627:M 22 Mar 2023 15:37:17.706 * RDB age 445 seconds
25627:M 22 Mar 2023 15:37:17.706 * RDB memory usage when created 1.04 Mb
25627:M 22 Mar 2023 15:37:17.706 * Done loading RDB, keys loaded: 0, keys expired: 0.
25627:M 22 Mar 2023 15:37:17.706 * DB loaded from disk: 0.000 seconds
25627:M 22 Mar 2023 15:37:17.706 * Ready to accept connections
```





# Guy Royse

## Developer Advocate



redis



@guyroyse



github.com/guyroyse



guy.dev

# What is Redis?



Cache

Key-value store

Message broker

It's a memory-first, NoSQL database.



## Memory First

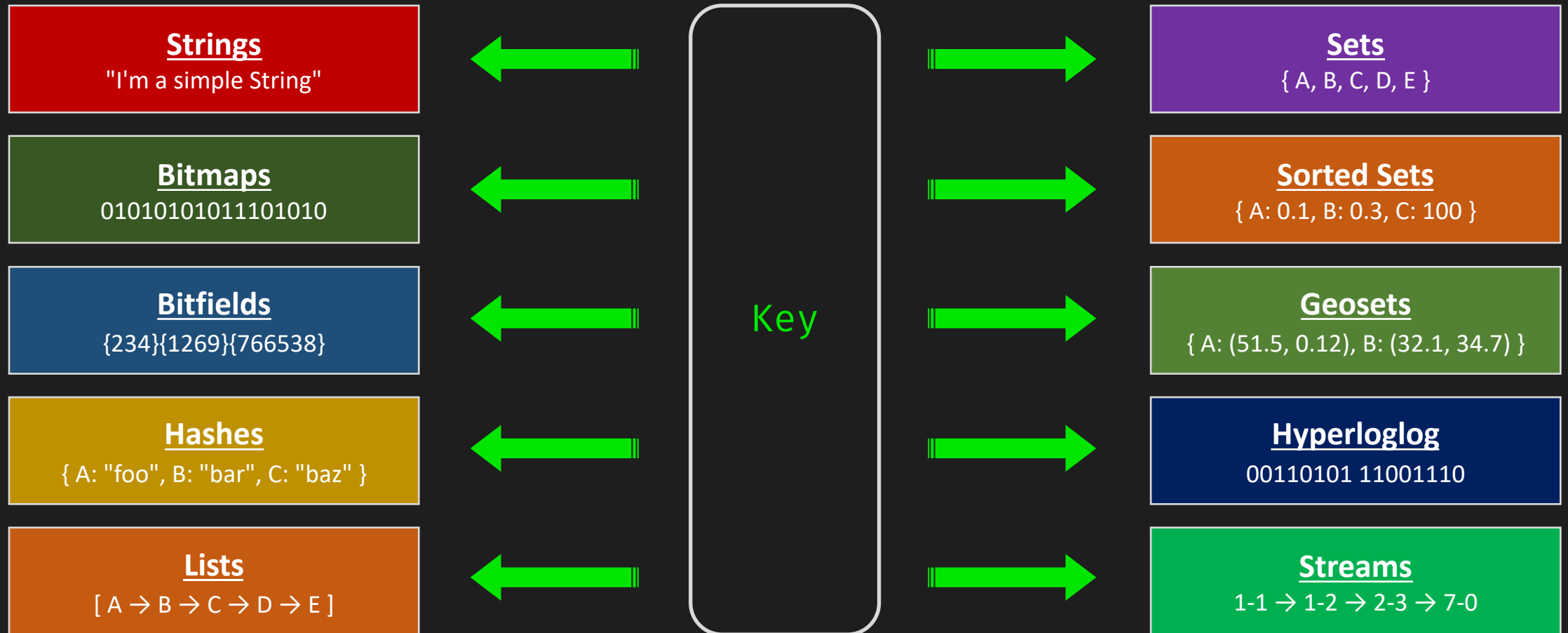
Everything is in  
memory so it's  
wicked fast.

## NoSQL

Serves up data  
structures that we  
know and love.

## Database

Persistable  
Clusterable  
Replicable



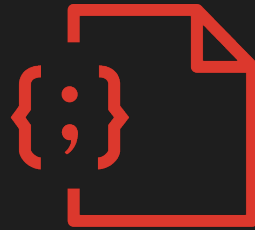
# Redis is Extensible



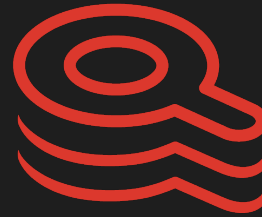
Modules

New data structures

New commands



JSON



Search

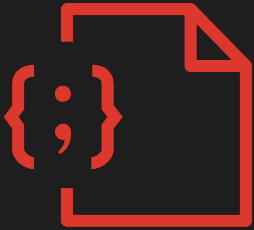


Bloom

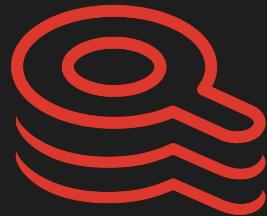
# redis stack



**Redis**



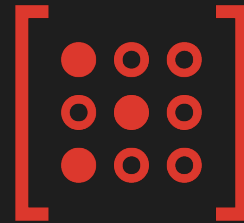
**JSON**



**Search**



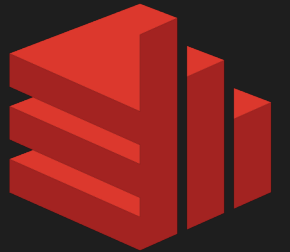
**Bloom**



**Graph**



**Time Series**



**Redis Insight**

```
docker run -d --name redis-stack \  
  -p 6379:6379 -p 8001:8001 \  
  redis/redis-stack:latest
```

# Talking to Redis



PING

TIME

FLUSHALL

PONG

1) "1679598546"

2) "805638"

OK



# RESP: The Wire Protocol

SET motd Greetings!

\*3\r\n  
\$3\r\n  
SET\r\n  
\$4\r\n  
motd\r\n  
\$10\r\n  
Greetings!\r\n

OK

+OK\r\n

GET motd

\*2\r\n  
\$3\r\n  
GET\r\n  
\$4\r\n  
motd\r\n

"Greetings!"

\$10\r\n  
Greetings!\r\n

**Demo**



## Code & Slides

<https://github.com/guyroyse/memory-first>

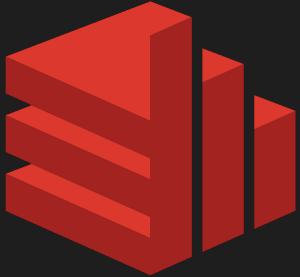
**Questions?**

# Check Out Our Stuff



**Redis**

<https://redis.io>



**Redis Insight**

<https://redis.com/redisinsight>



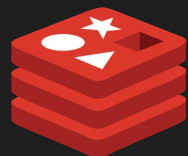
**Redis Discord Server**

<https://discord.gg/redis>



# Guy Royse

## Developer Advocate



redis



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guy.dev



redis