

Redis:

Swiss Army Knife

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Key-Value store
with SMARTS and
SPEED

SMARTS

Data Structure Server




wtf?

Value can be a **String**,
List, **Set**, **Hash**, etc

SPEED

1 mil keys ~ 100MB



In-memory, **atomic** ops

50k-100k req/sec

Basics

SET key value

GET key

Best Practice for keys:
“users:123:orders”

Only ~120 more commands to learn!

Basics

```
redis> GET foo
```

```
(nil)
```

```
redis> SET foo "bar"
```

```
OK
```

```
redis> GET foo
```

```
"bar"
```

Recipes

SET + GET = Cache

Binary safe \Rightarrow JPEGs
Serialized obj

Lists

LPUSH key value

LPOP key

Protip:
Swap 'R' for 'L'

LRANGE key start stop

LLEN key

and more...

Lists

```
redis> LPUSH mylist "hi"
```

```
(integer) 1
```

Length after push

```
redis> LPUSH mylist "bye"
```

```
(integer) 2
```

```
redis> LRANGE mylist 0 -1
```

1) "hi"

2) "bye"

whole list

List Recipes

LPUSH + LPOP = Stack

LPUSH + RPOP = Queue

LPUSH + LTRIM = Capped
Collection

LPUSH + BRPOP = Realtime
Message
Queue

Sets

SADD key value

SMEMBERS key

SUNION key key2

SINTER key key2

and more...

Sets

```
redis> SADD myset "hello"
```

```
(integer) 1
```

```
redis> SADD myset "hello"
```

Unique items only

```
(integer) 1
```

```
redis> SMEMBERS myset
```

```
1) "hello"
```

Set Recipes

SADD = Tagging

SPOP = Random item

SADD + SINTER = Social Graph

More advanced...

Sorted Sets = Set w/ score

Hashes

HSET key field value

HGET key field

and more...

Hashes

```
redis> HSET user:1 name matt
```

```
(integer) 1
```

```
redis> HGET user:1 name
```

```
"matt"
```

Kind of boring - but this is how you do traditional "objects"

Expiry

EXPIRE key seconds

```
redis> SET foo bar
```

```
redis> EXPIRE foo 2
```

**** Wait 2 seconds ****

```
redis> GET foo
```

```
(nil)
```


Expiry Recipes

SET + EXPIRE = Sessions

SET + EXPIRE = Invalidate
Cache

INC + EXPIRE = Rate
Limiting

DEMO TIME

Let's see some code

<https://github.com/swanson/redis-demos>

Questions?

<http://redis.io/>

Good reads

<http://blog.mjrusso.com/2010/10/17/redis-from-the-ground-up.html>

<http://simonwillison.net/static/2010/redis-tutorial/>

<http://www.scribd.com/doc/33531219/Redis-Presentation>