

REDIS

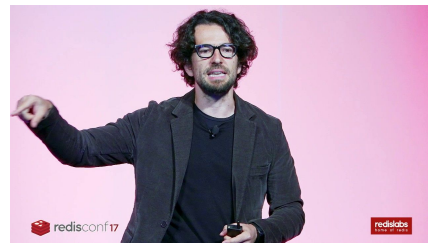
Data Structure NoSQL DB (key-value)

REMOTE DICTIONARY SERVER



HISTORIA Y DATOS

- ▶ Desarrollada por Salvatore Sanfilippo en **2010**
- ▶ Patrocinada por VMWare/Pivotal hasta **2015**
- ▶ No1 en **Key-Value**, No4 en **NoSQL**
- ▶ **In-Memory** database, escribe a disco cada 2 segundos*
- ▶ Replicación, Clustering nativo.
- ▶ Muy rápida gracias, en parte, a no guardar datos a disco en cada write.



DATA STRUCTURES???

QUE PODEMOS GUARDAR EN REDIS?

Data Type	Description	Example command
<i>Strings</i>	A string is a binary safe value that had a maximum length of 512 Megabytes.	SET [key] [value]
<i>Lists</i>	A list of strings sorted by insertion order.	LPUSH [list] [value]
<i>Sets</i>	A set is a an unordered collection of strings.	SADD [set] [value1] [value2] [value3]
<i>Hashes</i>	A collection of key value pairs.	HMSET [hash] [key] [value] [key2] [value2]
<i>Sorted Sets</i>	Sorted sets are similar to the sets data types but each have a user defined score.	ZADD [set] [score] [value]
<i>Bitmaps</i>	Bitmaps may also be known as bit arrays. Bitmaps are great for saving space when storing information.	SETBIT [key] [bit number] [value]

UNA WEB ENTERA EN REDIS?

Es posible gracias a los
data types

Keys		Values	
page:index.html	→	<html><head>[...]	← String
login_count	→	7464	
users_logged_in_today	→	{ 1, 2, 3, 4, 5 }	← Set
latest_post_ids	→	[201, 204, 209,...]	← List
user:123:session	→	time => 10927353 username => joe	← Hash
users_and_scores	→	joe ~ 1.3483 bert ~ 93.4 fred ~ 283.22 chris ~ 23774.17	← Sorted (scored) Set

ARQUITECTURAS POSIBLES DE REDIS

Simple Database



Master

HA Database



Master



Slave

Clustered Database



M1



M2



Mn

HA Clustered Database



M1



S1



M2



S2

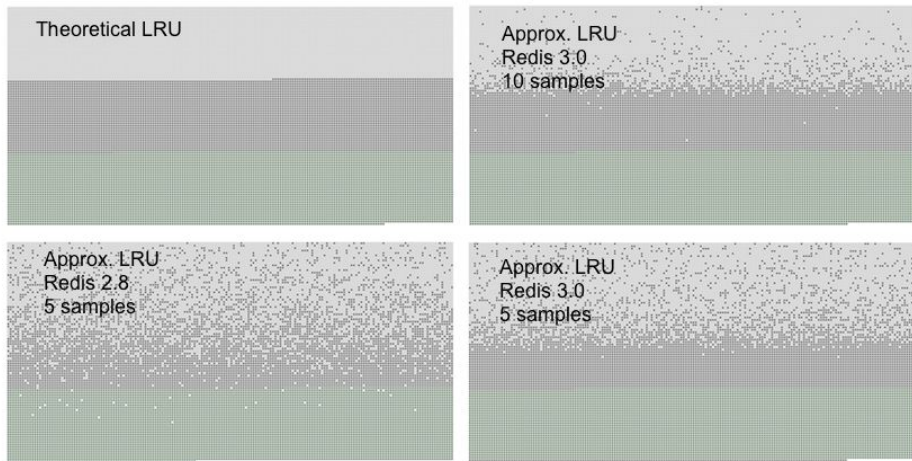


Mn



Sn

CONFIGURANDO EL ÍNDICE DE KEYS



- `maxmemory 128mb`
- `maxmemory-policy allkeys-lru`
- `lfu-log-factor 10`
- `lfu-decay-time 1`