

Key

Value

key-1

100

uczestnik-1

Adam

uczestnik-2

Krzysztof

uczestnik-3

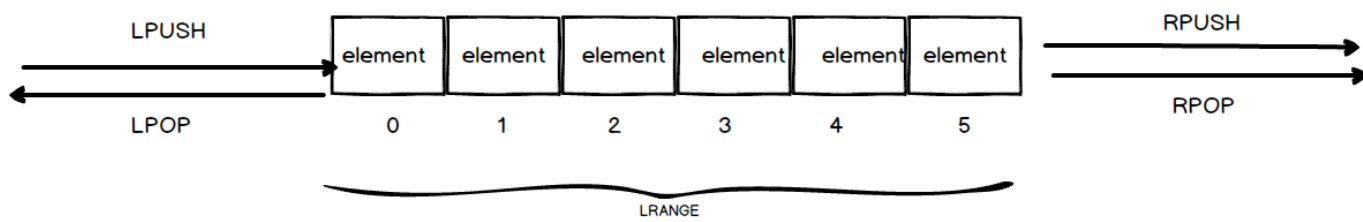
Marek

trener

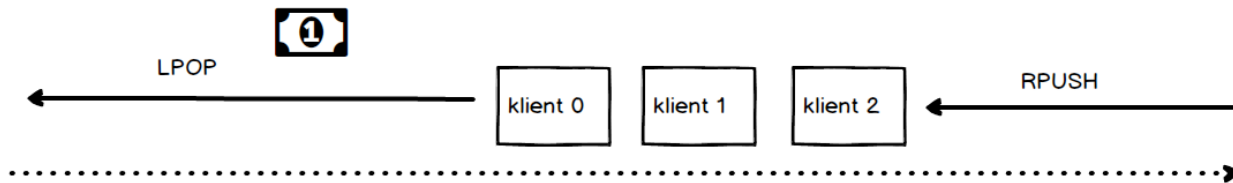
Marcin

key lista

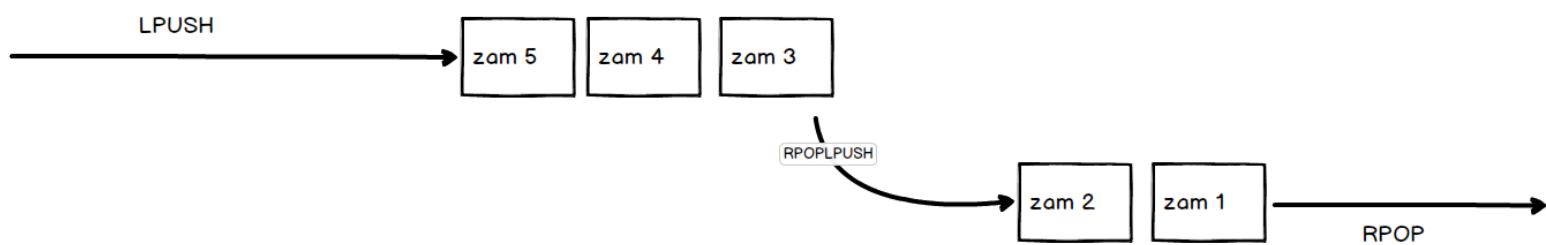
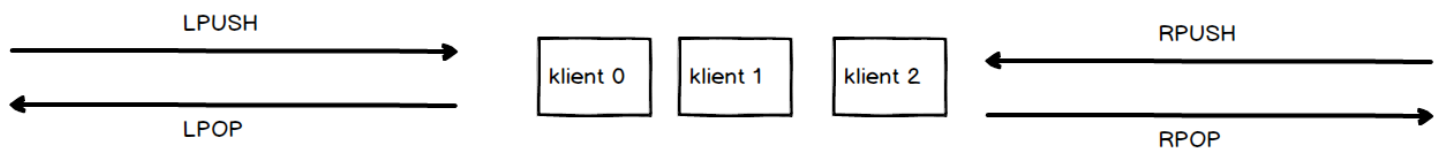
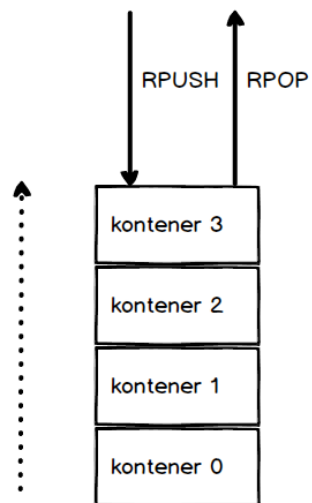
uczestnicy



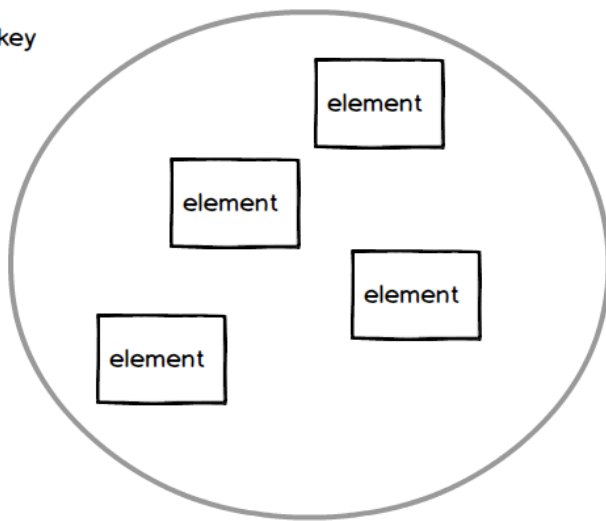
Kolejka (Queue) FIFO



Kolejka (Stos) LIFO



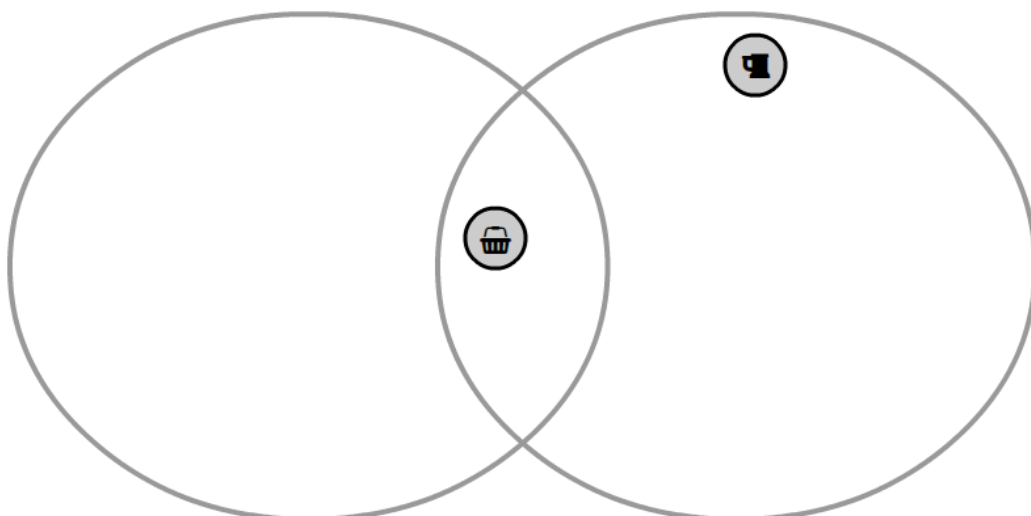
key



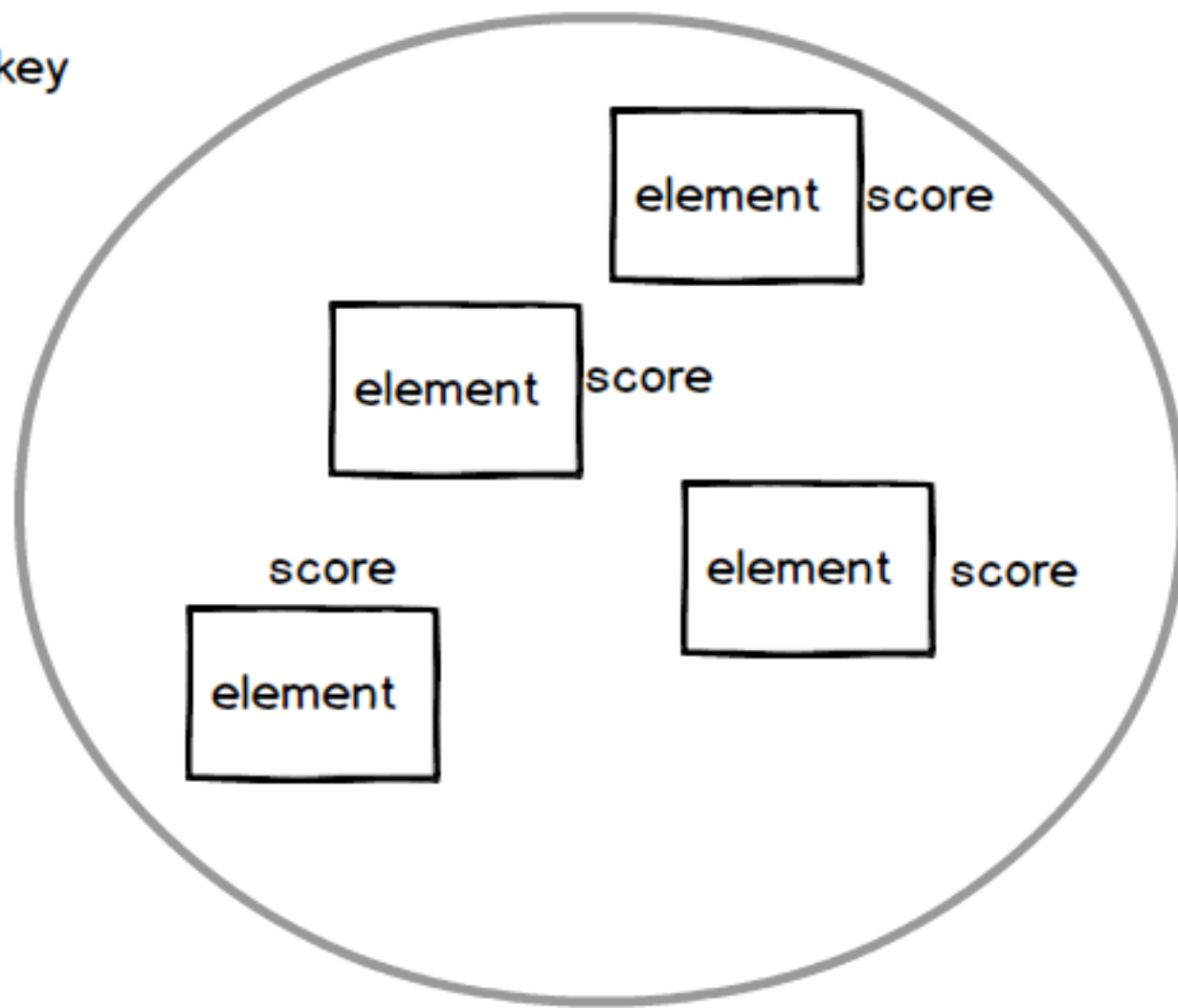
<i>w przygotowaniu</i>	<i>do wydania</i>
1	3
2	4
5	

oczekujący

obsłużony



key



Key

trainer

firstname: Marcin

lastname: Sulecki

department: IT

uczestnik:1

firstname: Adam

id-session: 13242423

points: 1

uczestnik:2

firstname: Marek

id-session: 13242423

points: 0

uczestnik:3

firstname: Krzysztof

id-session: 13242423

points: 2

Key

000000011

76543210

2 + 1 = 3

1 * 2^0 = 1

1 * 2^1 = 2

0...9 A..F

Key

0000000101

76543210

1 + 4 = 5

1 * 2^0 = 1

0 * 2^1 = 0

1 * 2^2 = 4

Key

001111111

76543210

256 128 64 32 16 8 4 2 1

255

FF 01

1 bajt = 8 bitów

Key

0101000010

76543210

256 128 64 32 16 8 4 2 1

321

1 bajt = 8 bitów

Key

0000001011

76543210

256 128 64 32 16 8 4 2 1

offset

Key

000000011

76543210

3

OR (suma logiczna)

Key

0000000101

76543210

5

Key

0000000111

76543210

7

Key

000000011

76543210

3

AND (iloczyn logiczny)

Key

0000000101

76543210

5

Key

000000001

76543210

1

Read

Write

Execute

Jarek

210

421 = 7

Execute

AND

Write

Read

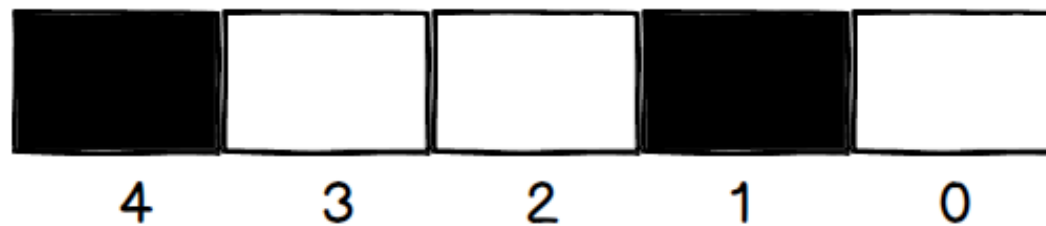
Write

Read

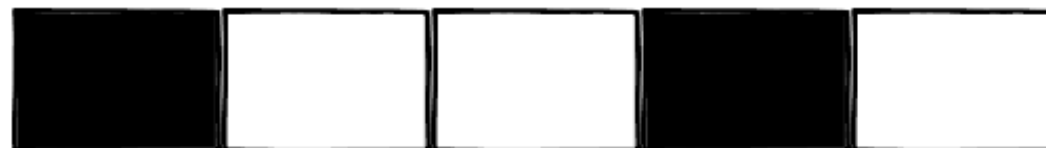
AND

uzytkownicy 0 ... n

article:1



article:2

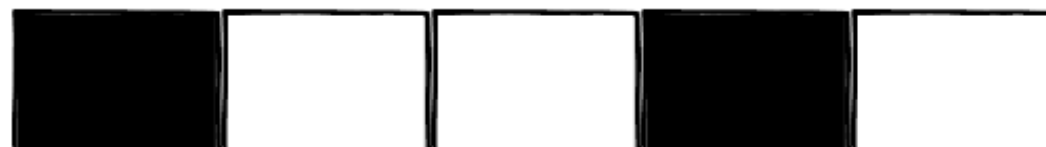


article:3

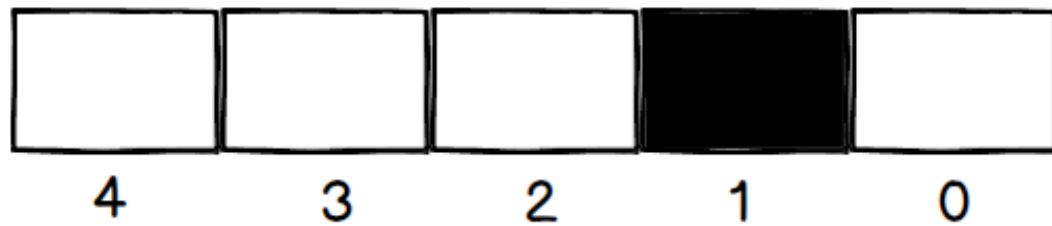
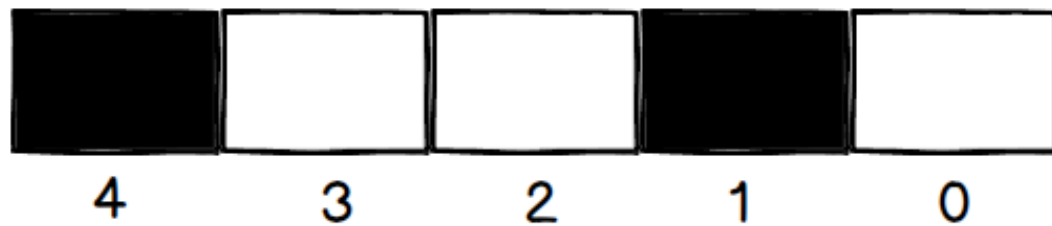
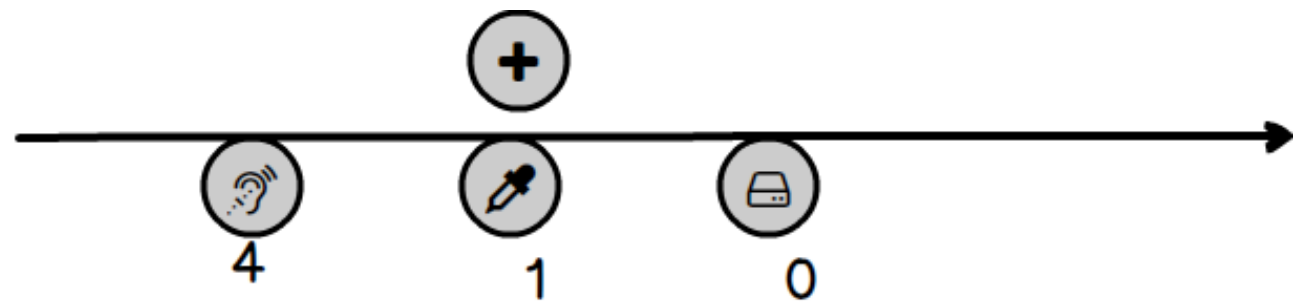


AND

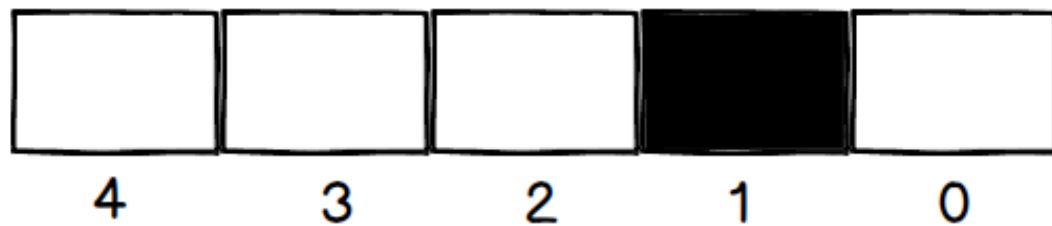
readall



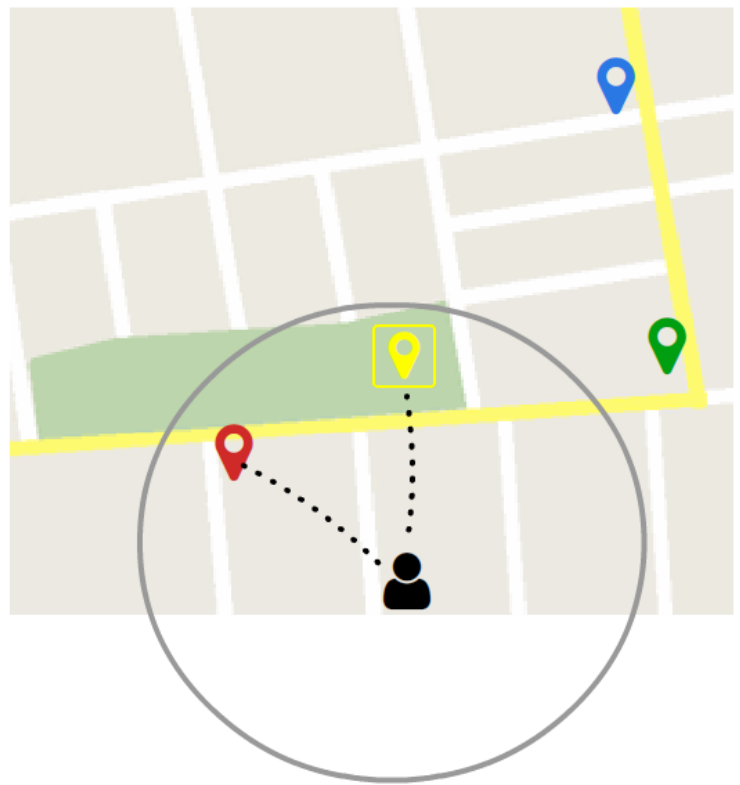
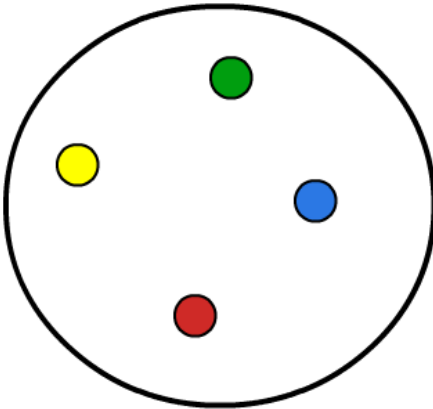
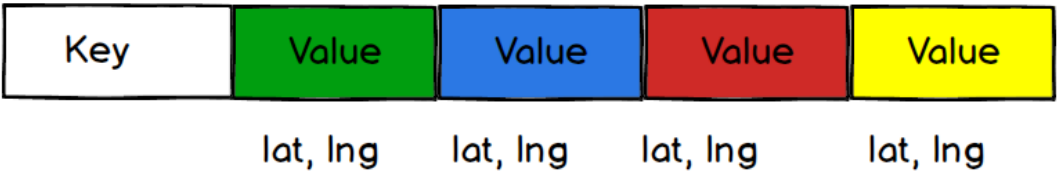
stanowiska

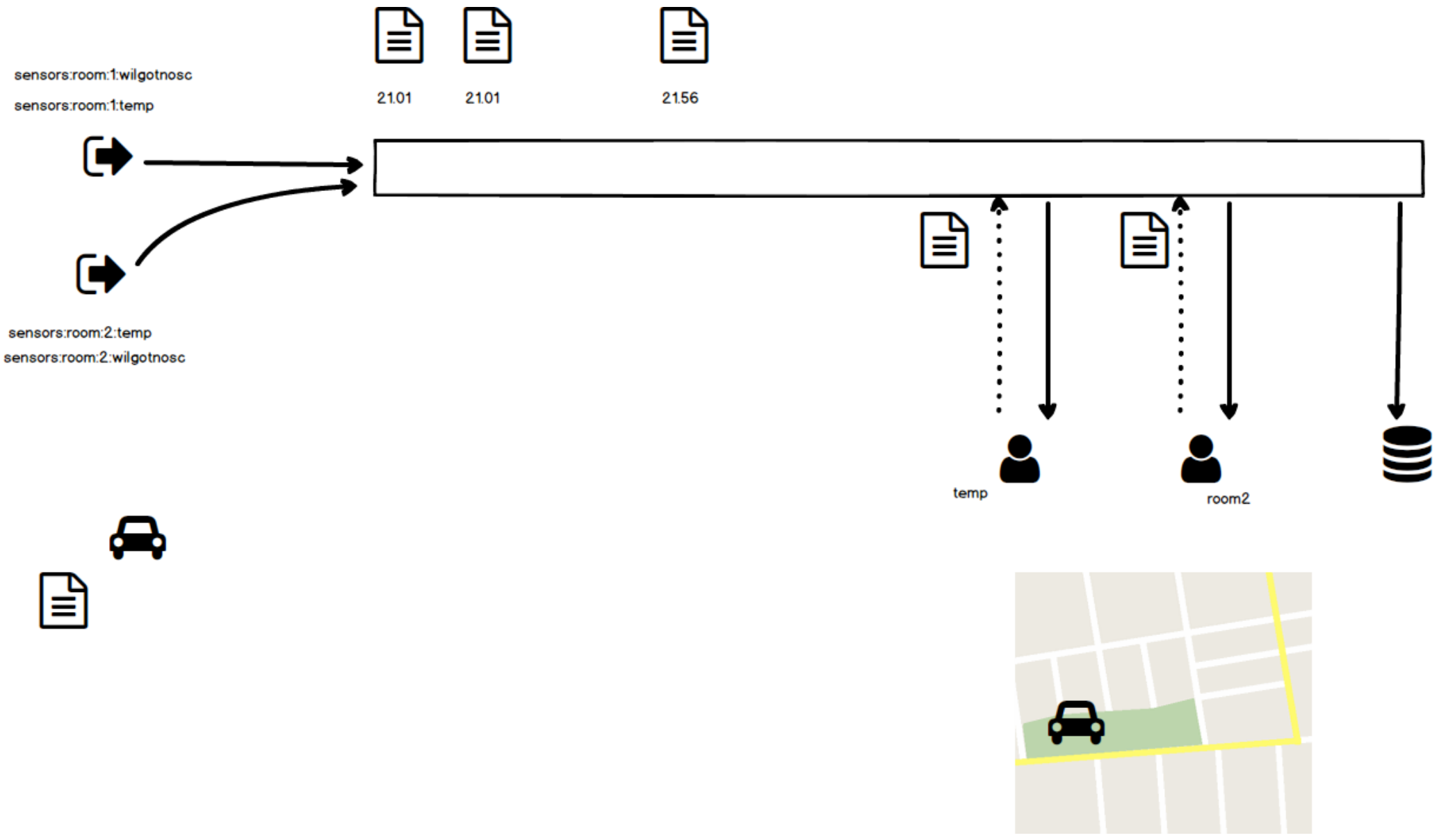


AND

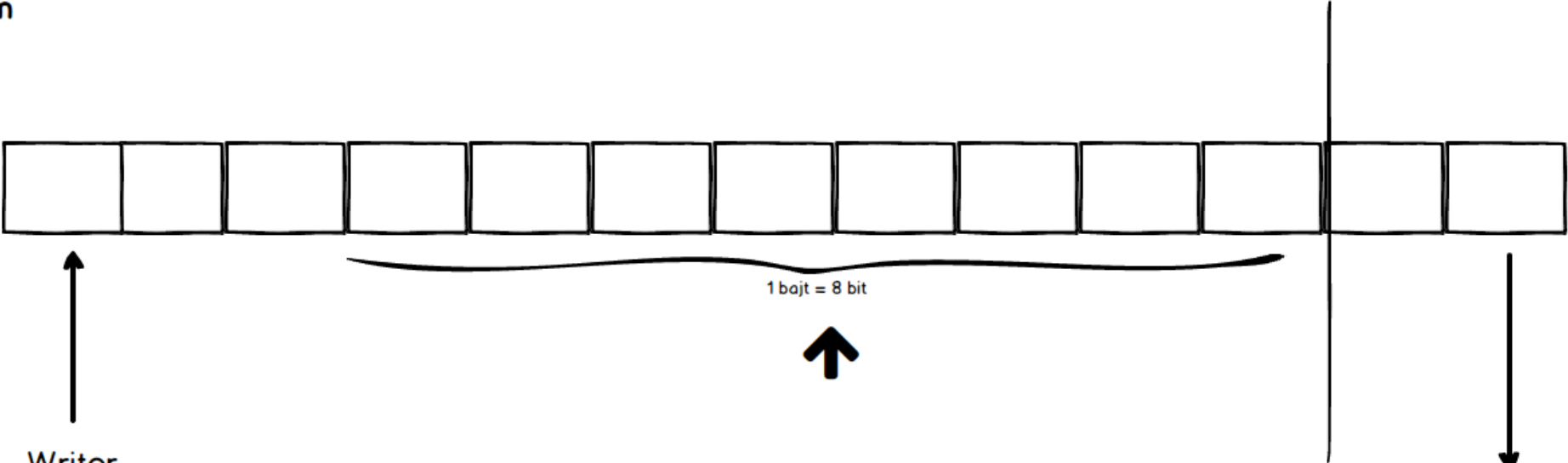


Geo



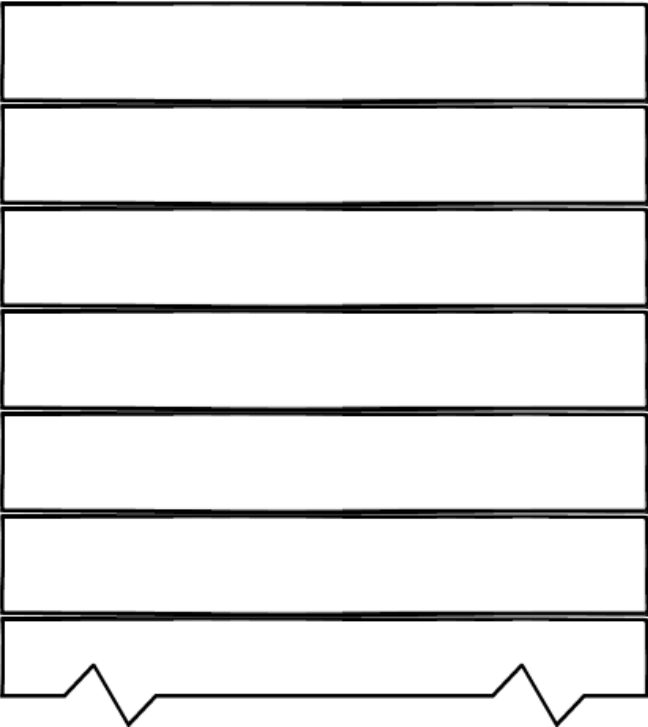


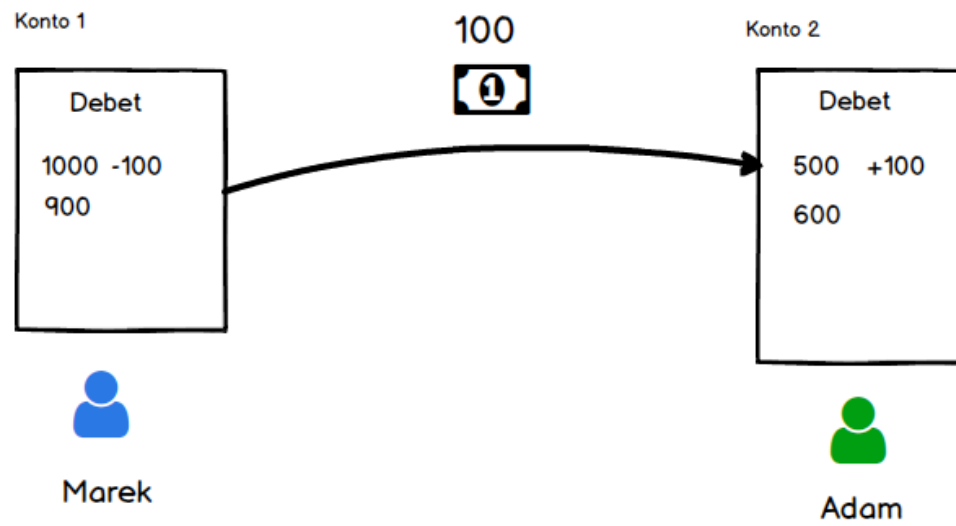
Stream



Writer

Reader





GET

SET

INCRBY

DECRBY

String

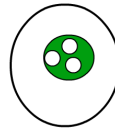
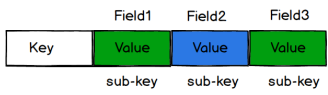


SET key value

GET key

APPEND key value

Hash



HSET key field value [field value ...]

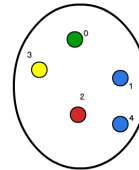
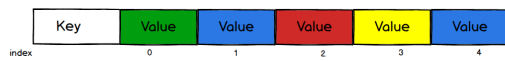
HGET key field

HGETALL key

HKEYS key

HVALS key

List



LPUSH key value / RPUSH key value

LPOP key value / RPOP key value

Set

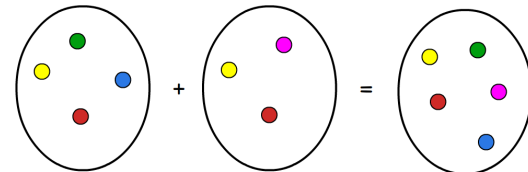


SADD key value

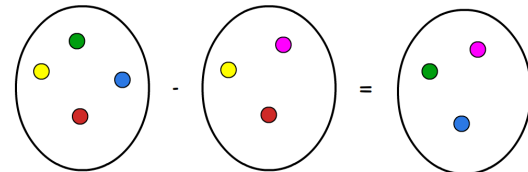
SREM key

SPOP

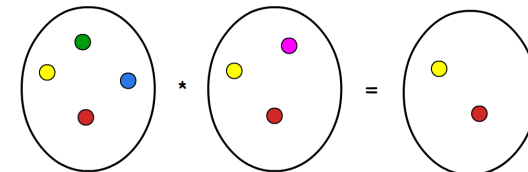
SRANDMEMBER



SUNION / SUNIONSTORE

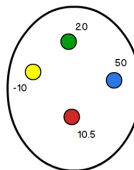
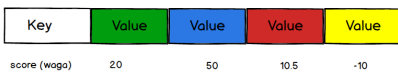


SDIFF / SDIFFSTORE



SINTER / SINTERSTORE

Sorted Set

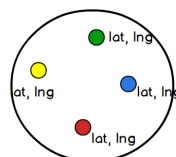
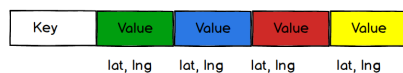


ZADD key score value

ZREM key

ZRANGEBYSCORE

Geo

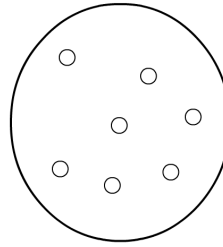


$O(1)$

$O(\log N)$

$O(N)$

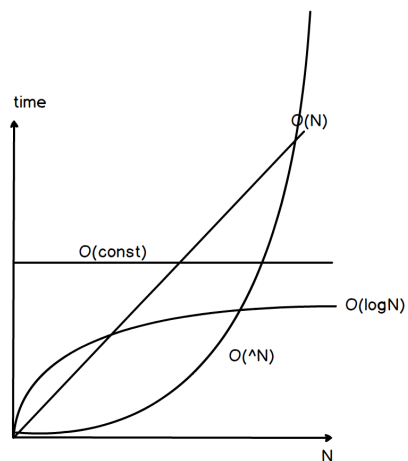
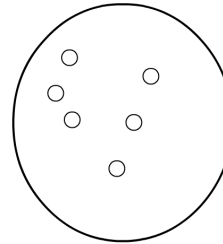
```
for(int i=0; i<lenght; i++)  
    akumalotor = akumulator + element[i]
```

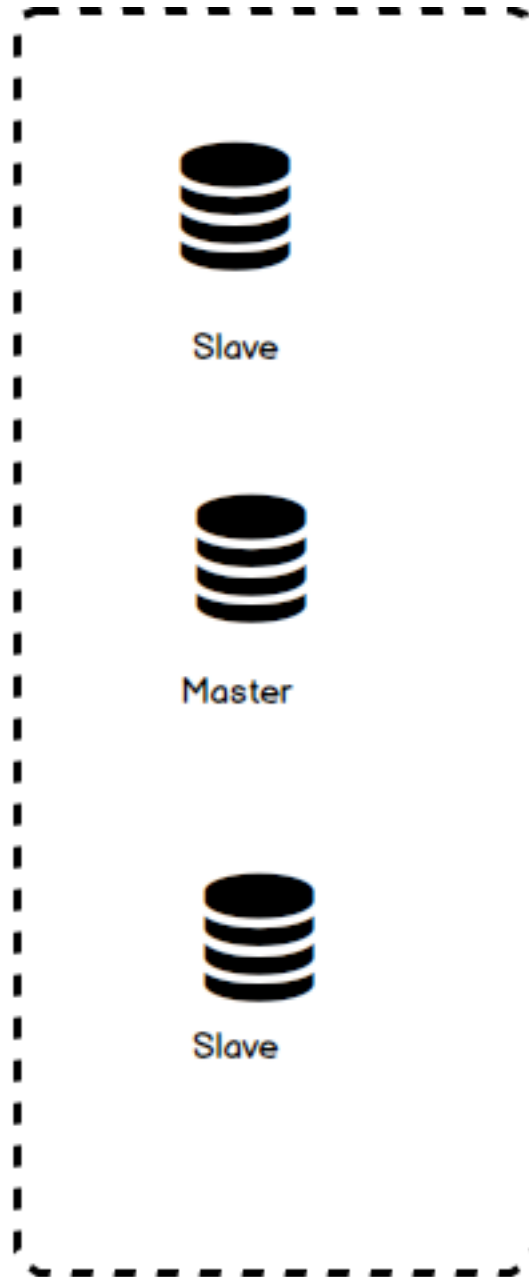


$O(N^2)$

```
for(int i=0; i<lenght; i++)  
    for(int j=0; j<lenght; j++)  
        akumalotor = akumulator + element[i,j]
```

$O(^N N)$





Slave



Master



Slave

cluster

szablon

konkretny produkt

5000

Visual Studio

Image - MyApp

expose 5000

uruchom bash + my-app

my-app.js

node.js

linux-kit:2.000



Dockerfile

docker build

Container - # 1- MyApp

Container - # 2 - MyApp

Volume (Wolumen)



plik.txt

network



docker-compose.yaml

docker-compose up

docker-compose down

