



44



45

tail/

write

head/

read

2^2 capacity = 4 = 100b

capacity - 1 = 3 = 011b

++taiil=4

index = tail & 0101b

==== 0000b



A large, solid orange circle serves as the background for the entire image.

46













6















5







3



U





































`size = tail - head`

`5 - 2 = 3`

`= FULL`

$2^2 \text{ capacity} = 4 = 100b$

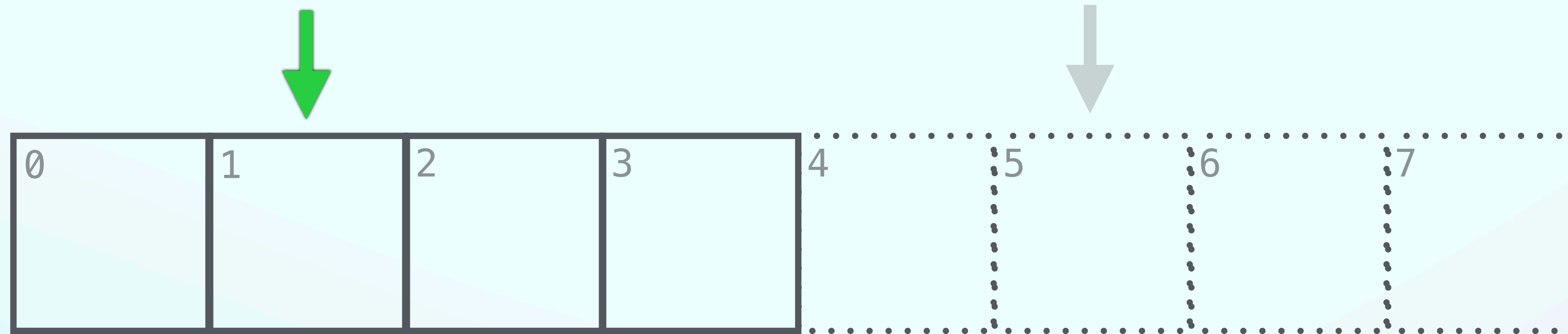
$\text{capacity} - 1 = 3 = 011b$

$++\text{tail} = 4$

$\text{index} = \text{tail} \& 011b$

$= 0000b$

tail/
write



head/
read



H

0 = EMPTY

Optimisations

Monotonic head/tail counters