

# Grace Hash Join

Memory (M) = 10 pages

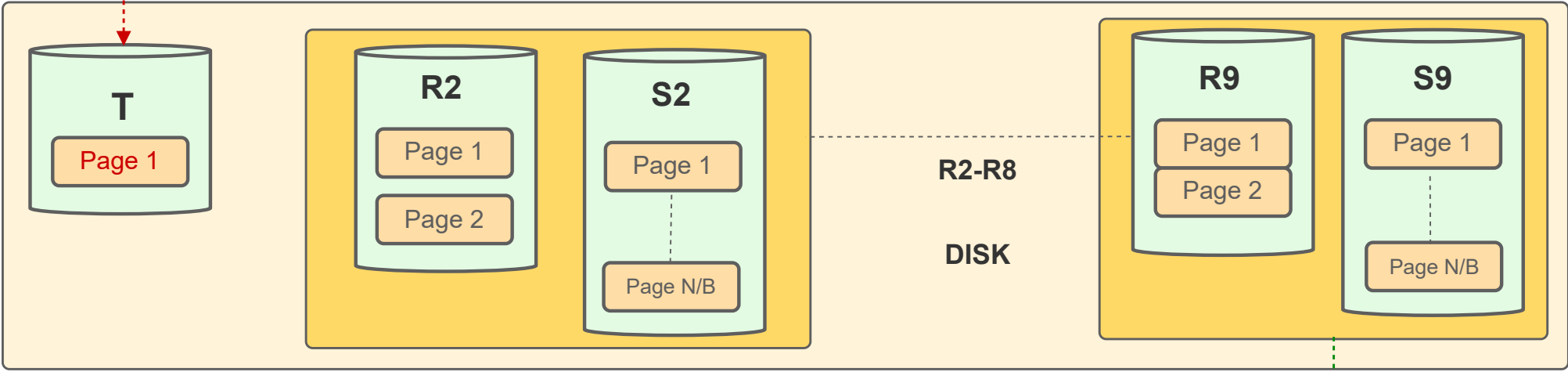
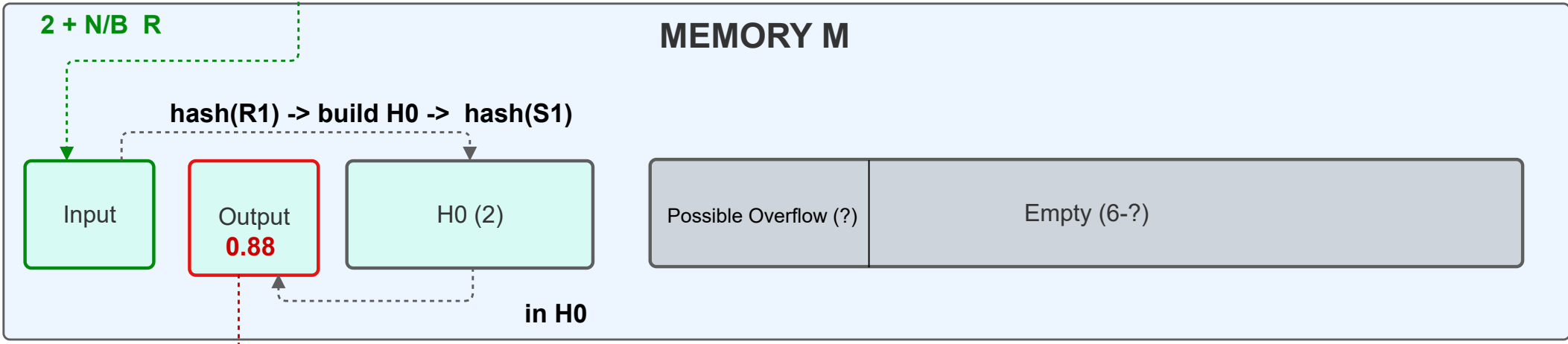
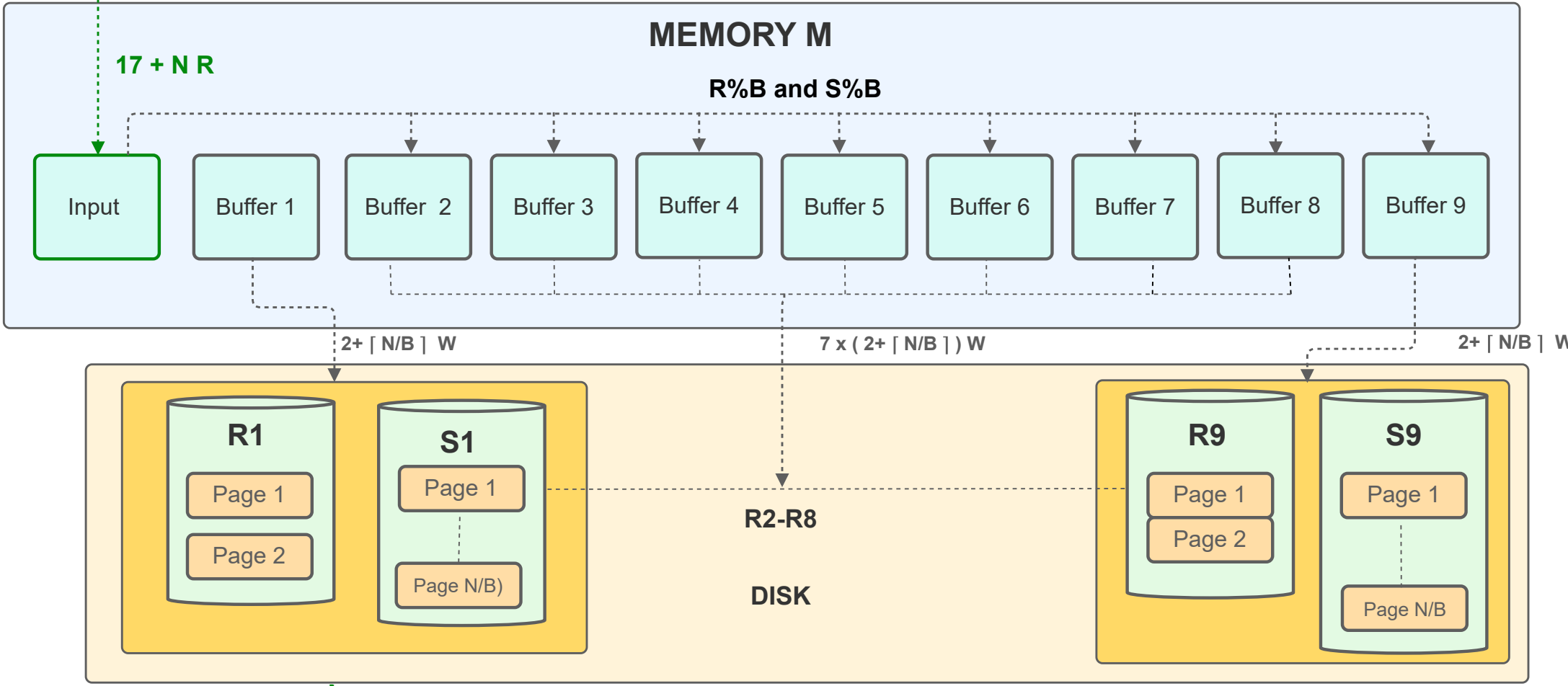
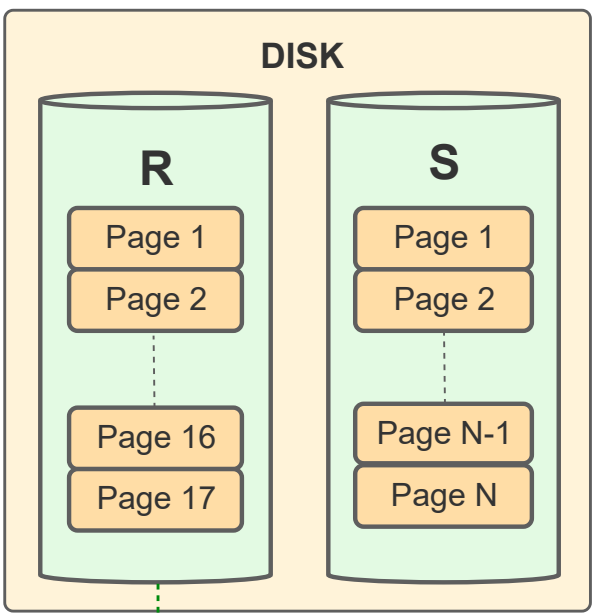
Table size max = M-(input, output) = 8

Numbers of partitions (B) = M-1 = 9

Partition size R = PageR(17)/B = 1.88 = 2 pages

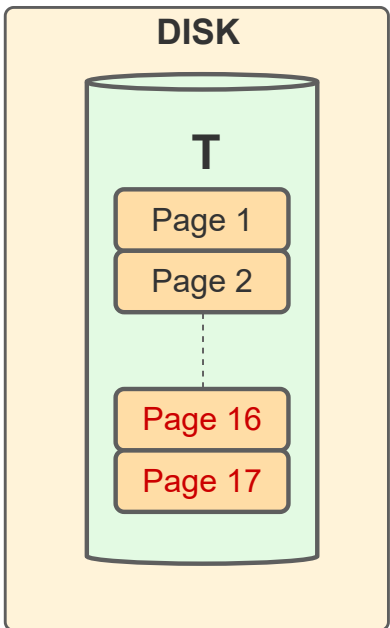
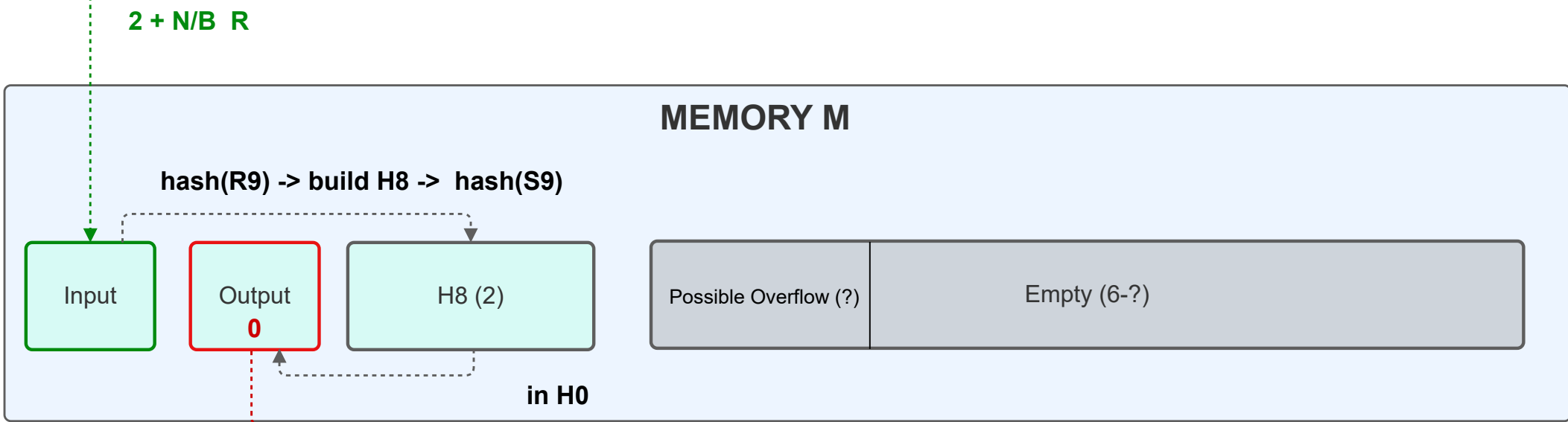
Partition size S =  $\lceil \text{PageS}(N)/B \rceil$  pages

We assume selectivity=1 and hash functions equally distribute data.



## PROBE 2-8

$7 \times (2 + \lceil N/B \rceil) R$  |  $14 W$



Reading =  $(17 + N) + 9 \times 2 + \lceil N/B \rceil = 17 + N + 18 + N$   
Writing =  $9 \times 2 + \lceil N/B \rceil + 1 + 8 \times 2 = 17 + 18 + N$

Si  $N \% B \neq 0$   
+ 9 (?)  
+ 9 (?)

BUILD

PROBE 1

PROBE 9