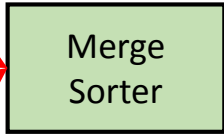


$\langle \text{key}, \text{val} \rangle \times N$

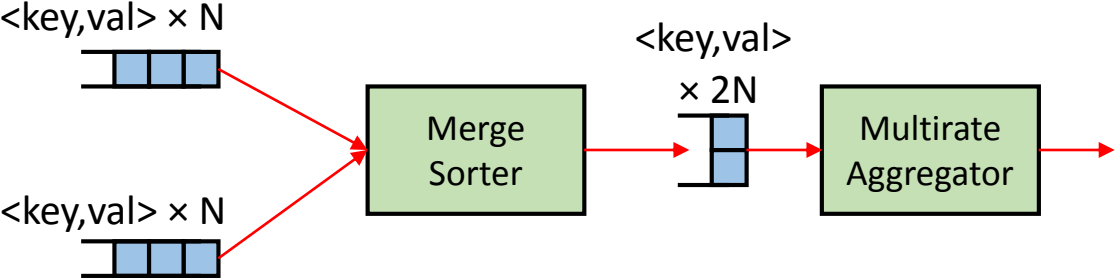
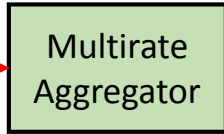


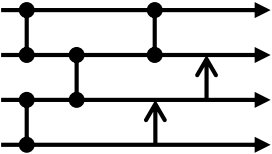
$\langle \text{key}, \text{val} \rangle \times N$





$\langle \text{key}, \text{val} \rangle$

$\times 2N$





 : Compare-And-Aggregate

 : Compare-And-Shift

