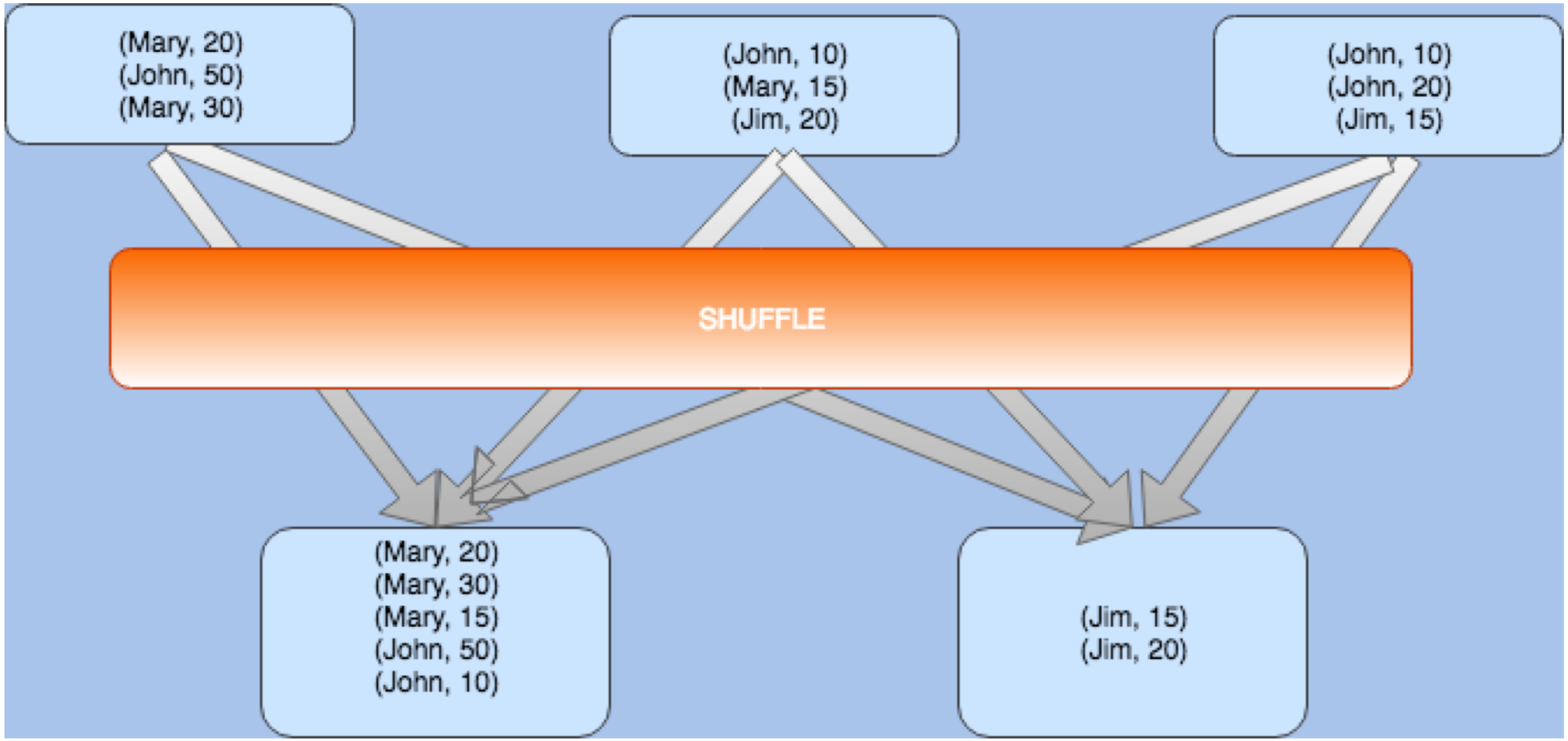
Shuffling

GroupBy Shuffle

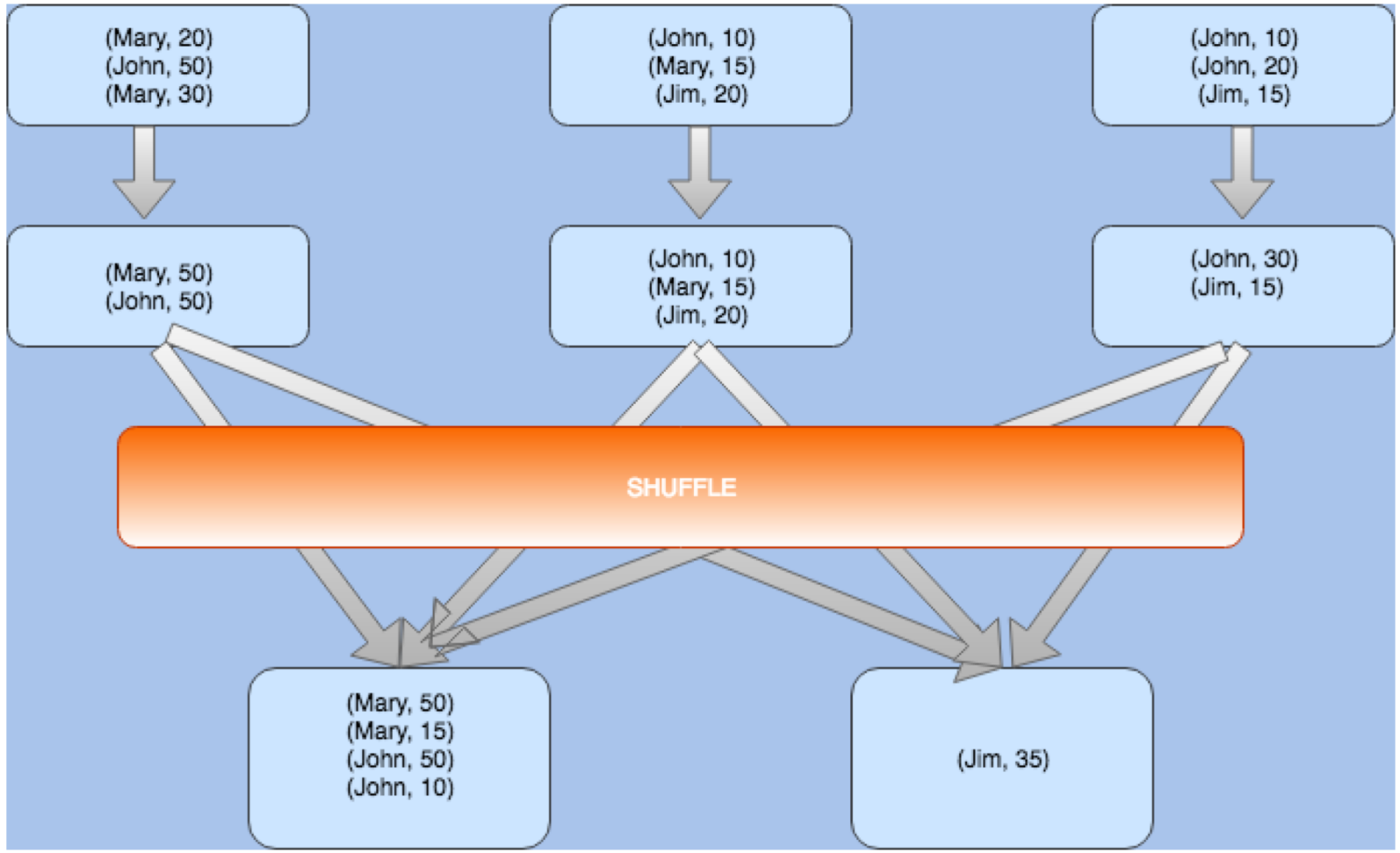
- Does not aggregate data before moving it across the network
- Increased latency

GroupBy Shuffle



ReduceBy Shuffle

- Aggregates (reduces) data on worker before shuffle
- Should be the preferred over GroupBY


(Mary, 20)
(John, 50)
(Mary, 30)
(John, 10)
(Mary, 15)
(Jim, 20)
(John, 10)
(John, 20)
(Jim, 15)
(Mary, 50)
(John, 50)
(John, 10)
(Mary, 15)
(Jim, 20)
(John, 30)
(Jim, 15)
SHUFFLE
(Mary, 50)
(Mary, 15)
(John, 50)
(John, 10)
(Jim, 35)

Hash Partitioning

By default, Spark uses hash partitioning to determine which key-value pair should be sent to which machine.

…. How to decide what to use for buckets ……