Broadcast stage(end node id 27): customer address, 10000FileScan->Filter->BroadcastExchange Broadcast stage(end node id 23): date dim,10000FileScan->Filter->Project->BroadcastExchange First stage (end node id 15): File Scan catalog returns,0FileScan->Filter->BroadcastHashJoin->Project->BroadcastHashJoin->Project->HashAggregate->ExchangeHashpartitioning NormalStage (end node id 12): length of beginNodesToChains is 1 [1,0,0,1,0,0,1,0]Chain 0 is : HashAggregate(keys=[cr_returning_customer_sk#11, ca_state#67], functions=[sum(cr_return_amt_inc_tax#24)])
HashAggregate->Filter->ExchangeHashpartitioning First stage (end node id 52): File Scan customer,4425.0FileScan->Filter->ExchangeHashpartitioning NormalStage (end node id 4): length of beginNodesToChains is 2 Chain 0 is: Sort [ctr customer sk#1 ASC NULLS FIRST], false, 0 First stage (end node id 56): File Scan customer address,0FileScan->Filter->ExchangeHashpartitioning Sort->SortMergeJoin->Project->ExchangeHashpartitioning Chain 1 is: Sort [c customer sk#72 ASC NULLS FIRST], false, 0 Sort->SortMergeJoin->Project->ExchangeHashpartitioning NormalStage (end node id 0): length of beginNodesToChains is 2 [2,0,2,0,2,2,0,0] Chain 0 is : Sort [c current addr sk#76 ASC NULLS FIRST], false, 0 Sort->SortMergeJoin->Project->TakeOrderedAndProject Chain 1 is: Sort [ca address sk#90 ASC NULLS FIRST], false, 0

Broadcast stage(end node id 44): date dim,10000FileScan->Filter->Project->BroadcastExchange

Broadcast stage(end node id 48): customer address, 10000FileScan->Filter->BroadcastExchange

First stage (end_node_id 36): File Scan catalog_returns,0FileScan->Filter->BroadcastHashJoin->Project->BroadcastHashJoin->Project->HashAggregate->ExchangeHashpartitioning

NormalStage (end node id 33): length of beginNodesToChains is 1 [1,0,0,2,0,0,0,0]

Chain 0 is: HashAggregate(keys=[cr returning customer sk#11, ca state#67], functions=[sum(cr return amt inc tax#24)]) HashAggregate->HashAggregate->ExchangeHashpartitioning

NormalStage (end node id 8): length of beginNodesToChains is 2 [2,0,2,1,2,2,1,0]

Chain 0 is : HashAggregate(keys=[ctr state#2], functions=[avg(ctr total return#3)]) HashAggregate->Filter->Sort->SortMergeJoin->Project->ExchangeHashpartitioning Chain 1 is: Sort [ctr state#2 ASC NULLS FIRST], false, 0

Sort->SortMergeJoin->Project->ExchangeHashpartitioning

Sort->SortMergeJoin->Project->TakeOrderedAndProject