Broadcast stage(end\_node\_id 15): item, 10000FileScan->Filter->Project->BroadcastExchange Broadcast stage(end\_node\_id\_21): date\_dim,10000FileScan->Filter->Project->BroadcastExchange First stage (end node id 7): File Scan store sales, 12173.9FileScan->Filter->BroadcastHashJoin->Project->BroadcastHashJoin->Project->BroadcastHashJoin->Project->HashAggregate->ExchangeHashpartitioning NormalStage (end node id 5): length of beginNodesToChains is 1 [1,0,0,1,0,0,0,0]Chain 0 is: HashAggregate(keys=[i\_manager\_id#22, d\_moy#55], functions=[sum(ss\_sales\_price#37)]) HashAggregate->ExchangeHashpartitioning NormalStage (end\_node\_id 0): length of beginNodesToChains is 1 [1,0,1,0,1,0,1,0] Chain 0 is : Sort [i manager id#22 ASC NULLS FIRST], false, 0 Sort->Empty->Filter->Project->TakeOrderedAndProject

Broadcast stage(end\_node\_id 25): store,10000FileScan->Filter->BroadcastExchange