```
┌─────────────────────────────────────────────────────────────────────────┐          ┌─────────────────────────────────────────────────────────────────────────┐
│ Broadcast stage(end_node_id 13): date_dim,10000FileScan->Filter->Project->BroadcastExchange │          │ Broadcast stage(end_node_id 25): date_dim,10000FileScan->Filter->Project->BroadcastExchange │
└─────────────────────────────────────────────────────────────────────────┘          └─────────────────────────────────────────────────────────────────────────┘
                              │                                                                                            │
                              ▼                                                                                            ▼
┌───────────────────────────────────────────────────────────────────────────────────────┐  ┌───────────────────────────────────────────────────────────────────────────────────────────┐
│ First stage (end_node_id 7): File Scan store_sales,9130.4FileScan->Filter->BroadcastHashJoin->Project->HashAggregate->ExchangeHashpartitioning │  │ First stage (end_node_id 19): File Scan catalog_sales,4967.6FileScan->Filter->BroadcastHashJoin->Project->HashAggregate->ExchangeHashpartitioning │
└───────────────────────────────────────────────────────────────────────────────────────┘  └───────────────────────────────────────────────────────────────────────────────────────────┘
```

NormalStage (end_node_id 1): length of beginNodesToChains is 2
[2,0,2,4,2,2,0,0]
Chain 0 is : HashAggregate(keys=[ss_customer_sk#10, ss_item_sk#9], functions=[])
HashAggregate->Sort->SortMergeJoin->Project->HashAggregate->ExchangeSinglePartition
Chain 1 is : HashAggregate(keys=[cs_bill_customer_sk#61, cs_item_sk#73], functions=[])
HashAggregate->Sort->SortMergeJoin->Project->HashAggregate->ExchangeSinglePartition

NormalStage (end_node_id 0): length of beginNodesToChains is 1
[1,0,0,0,0,0,0,0]
Chain 0 is :
Error