nodeID(28) FileScan parquet tpcds_100_parquet.store_returns[sr_returned_date_sk#26,sr_item_sk#28,sr_customer_sk#29,sr_ticket_number#35L,sr_return_quantity#36] nodeID(24) FileScan parquet tpcds_100_parquet.store_sales[ss_sold_date_sk#3,ss_item_sk#5,ss_customer_sk#6,ss_store_sk#10,ss_ticket_number#12L,ss_quantity#13] nodeID(27) Filter (((isnotnull(sr_customer_sk#29) AND isnotnull(sr_item_sk#28)) AND isnotnull(sr_ticket_number#35L)) AND isnotnull(sr_returned_date_sk#26)) nodeID(23) Filter ((((isnotnull(ss_customer_sk#6) AND isnotnull(ss_item_sk#5)) AND isnotnull(ss_ticket_number#12L)) AND isnotnull(ss_sold_date_sk#3)) AND isnotnull(ss_store_sk#10)) nodeID(22) Exchange hashpartitioning(ss_customer_sk#6, ss_item_sk#5, ss_ticket_number#12L, 200), ENSURE_REQUIREMENTS, [plan_id=151] nodeID(26) Exchange hashpartitioning(sr_customer_sk#29, sr_item_sk#28, sr_ticket_number#35L, 200), ENSURE_REQUIREMENTS, [plan_id=152] nodeID(21) Sort [ss_customer_sk#6 ASC NULLS FIRST, ss_item_sk#5 ASC NULLS FIRST, ss_ticket_number#12L ASC NULLS FIRST], false, 0 nodeID(25) Sort [sr_customer_sk#29 ASC NULLS FIRST, sr_item_sk#28 ASC NULLS FIRST, sr_ticket_number#35L ASC NULLS FIRST], false, 0 nodeID(20) SortMergeJoin [ss_customer_sk#6, ss_item_sk#5, ss_item_sk#49,cs_item_sk#29, sr_item_sk#29, sr_item_sk#29, sr_item_sk#29, sr_item_sk#29, sr_item_sk#29, sr_item_sk#49,cs_item_ nodeID(19) Project [ss_sold_date_sk#3, ss_item_sk#49) AND isnotnull(cs_item_sk#49) AND isnotnull(cs_sold_date_sk#26, sr_item_sk#28, sr_customer_sk#29, sr_return_quantity#36] nodeID(31) Filter ((isnotnull(cs_item_sk#49) AND isnotnull(cs_sold_date_sk#46)) AND isnotnull(cs_sold_date_sk#46)) nodeID(18) Exchange hashpartitioning(sr_customer_sk#29, sr_item_sk#28, 200), ENSURE_REQUIREMENTS, [plan_id=159] nodeID(30) Exchange hashpartitioning(cs_bill_customer_sk#49, cs_item_sk#61, 200), ENSURE_REQUIREMENTS, [plan_id=160] nodeID(36) FileScan parquet tpcds_100_parquet.date_dim[d_date_sk#80,d_year#86,d_moy#88] nodeID(17) Sort [sr_customer_sk#29 ASC NULLS FIRST, sr_item_sk#28 ASC NULLS FIRST], false, 0 nodeID(35) Filter ((((isnotnull(d_moy#88) AND isnotnull(d_year#86)) AND (d_moy#88 = 9)) AND (d_year#86 = 1999)) AND isnotnull(d_date_sk#80)) nodeID(29) Sort [cs_bill_customer_sk#49 ASC NULLS FIRST, cs_item_sk#61 ASC NULLS FIRST], false, 0 nodeID(40) FileScan parquet tpcds_100_parquet.date_dim[d_date_sk#159,d_year#165,d_moy#167] nodeID(16) SortMergeJoin [sr_customer_sk#29, sr_item_sk#28], [cs_bill_customer_sk#49, cs_item_sk#61], Inner nodeID(34) Project [d_date_sk#80] nodeID(15) Project [ss_sold_date_sk#3, ss_item_sk#5, ss_store_sk#10, ss_quantity#13, sr_return_quantity#36, cs_sold_date_sk#46, cs_quantity#64] nodeID(39) Filter (((((isnotnull(d_moy#167 >= 9)) AND (d_moy#167 >= 12)) AND (d_moy#167 > nodeID(14) BroadcastHashJoin [ss_sold_date_sk#3], [d_date_sk#80], Inner, BuildRight, false nodeID(44) FileScan parquet tpcds_100_parquet.date_dim[d_date_sk#187,d_year#193] nodeID(38) Project [d_date_sk#159] nodeID(13) Project [ss_item_sk#5, ss_store_sk#10, ss_quantity#13, sr_returned_date_sk#26, sr_return_quantity#36, cs_sold_date_sk#46, cs_quantity#64] nodeID(37) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, true] as bigint)), false), [plan_id=170] nodeID(43) Filter (d_year#193 IN (1999,2000,2001) AND isnotnull(d_date_sk#187)) nodeID(12) BroadcastHashJoin [sr_returned_date_sk#26], [d_date_sk#159], Inner, BuildRight, false nodeID(42) Project [d_date_sk#187] nodeID(11) Project [ss_item_sk#5, ss_store_sk#10, ss_quantity#13, sr_return_quantity#36, cs_sold_date_sk#46, cs_quantity#64] nodeID(41) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, true] as bigint)), false), [plan_id=174] nodeID(41) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, true] as bigint)), false), [plan_id=174] nodeID(41) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, true] as bigint)), false), [plan_id=174] nodeID(41) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, true] as bigint)), false), [plan_id=174] nodeID(41) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, true] as bigint)), false), [plan_id=174] nodeID(41) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, true] as bigint)), false), [plan_id=174] nodeID(41) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, true] as bigint)), false), [plan_id=174] nodeID(41) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, true] as bigint)), false), [plan_id=174] nodeID(41) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, true] as bigint)), false), [plan_id=174] nodeID(41) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, true] as bigint)), false), [plan_id=174] nodeID(41) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, true] as bigint)), false), [plan_id=174] nodeID(41) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, true] as bigint)), false), [plan_id=174] nodeID(41) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, true] as bigint)), false), [plan_id=174] nodeID(41) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, true] as bigint)), false), [plan_id=174] nodeID(41) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, true] as bigint)), [plan_id=174] nodeID(41) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, true] as bigint), nodeID(10) BroadcastHashJoin [cs_sold_date_sk#46], [d_date_sk#187], Inner, BuildRight, false nodeID(46) Filter isnotnull(s_store_sk#108) nodeID(50) FileScan parquet tpcds_100_parquet.item[i_item_sk#137,i_item_id#138,i_item_desc#141] nodeID(9) Project [ss_item_sk#5, ss_store_sk#10, ss_quantity#13, sr_return_quantity#36, cs_quantity#64] nodeID(45) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, false] as bigint)),false), [plan_id=178] nodeID(8) BroadcastHashJoin [ss_store_sk#10], [s_store_sk#108], Inner, BuildRight, false nodeID(49) Filter isnotnull(i_item_sk#137) nodeID(7) Project [ss_item_sk#5, ss_quantity#13, sr_return_quantity#36, cs_quantity#64, s_store_id#109, s_store_name#113] nodeID(48) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, false] as bigint)),false), [plan_id=182] nodeID(6) BroadcastHashJoin [ss_item_sk#5], [i_item_sk#137], Inner, BuildRight, false nodeID(5) Project [ss_quantity#13, sr_return_quantity#36, cs_quantity#64, s_store_id#109, s_store_name#113, i_item_id#138, i_item_desc#141] nodeID(4) HashAggregate(keys=[i_item_id#138, i_item_desc#141, s_store_id#109, s_store_name#113], functions=[partial_sum(ss_quantity#13), partial_sum(sr_return_quantity#36), partial_sum(cs_quantity#64)]) nodeID(3) Exchange hashpartitioning(i_item_id#138, i_item_desc#141, s_store_id#109, s_store_name#113, 200), ENSURE_REQUIREMENTS, [plan_id=187] nodeID(2) HashAggregate(keys=[i_item_id#138, i_item_desc#141, s_store_id#109, s_store_name#113], functions=[sum(ss_quantity#13), sum(sr_return_quantity#36), sum(cs_quantity#64)]) nodeID(1) TakeOrderedAndProject(limit=100, orderBy=[i_item_id#138 ASC NULLS FIRST,i_item_desc#141 ASC NULLS FIRST,s_store_id#109,s_store_name#113,store_sales_quantity#0L,store_returns_quantity#1L,catalog_sales_quantity#2L])