```
nodeID(25) Filter ((isnotnull(i_item_sk#7) AND isnotnull(i_brand#15)) — nodeID(28) FileScan parquet tpcds_100_parquet.store_sales[ss_sold_date_sk#29,ss_item_sk#31,ss_store_sk#36,ss_sales_price#42]
nodeID(24) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, false] as bigint)),false), [plan_id=285] nodeID(27) Filter ((isnotnull(ss_item_sk#31) AND isnotnull(ss_store_sk#36)) nodeID(27) Filter ((isnotnull(ss_item_sk#31) AND isnotnull(ss_store_sk#36))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nodeID(31) FileScan parquet tpcds_100_parquet.date_dim[d_date_sk#52,d_year#58,d_moy#60]
                                                                                                                                                                                                                                           nodeID(23) BroadcastHashJoin [i_item_sk#7], [ss_item_sk#31], Inner, BuildLeft, false nodeID(30) Filter ((((d_year#58 = 1998) AND (d_moy#60 = 12))) OR ((d_year#58 = 2000) AND (d_year#58 = 2000) 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nodeID(52) FileScan parquet tpcds_100_parquet.item[i_item_sk#367,i_brand#375,i_category#379]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nodeID(51) Filter ((isnotnull(i_item_sk#367) AND isnotnull(i_brand#375)) nodeID(54) FileScan parquet tpcds_100_parquet.store_sales[ss_sold_date_sk#389,ss_item_sk#391,ss_store_sk#396,ss_sales_price#402]
                                                                                                                                                                                                                                       nodeID(22) Project [i_brand#15, i_category#19, ss_sold_date_sk#29, ss_store_sk#36, ss_sales_price#42] nodeID(29) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, false] as bigint)),false), [plan_id=289] nodeID(29) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, false] as bigint)), [plan_id=289]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nodeID(33) Filter ((isnotnull(s_store_sk#391) AND isnotnull(s_store_sk#391) AND isnotnull(s_store_name#85)) AND isnotnull(s_store_sk#391) AND isnotnull(s_st
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nodeID(78) FileScan parquet tpcds_100_parquet.item[i_item_sk#474,i_brand#482,i_category#486]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nodeID(21) BroadcastHashJoin [ss_sold_date_sk#29], [d_date_sk#52], Inner, BuildRight, false
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nodeID(20) Project [i_brand#15, i_category#19, ss_store_sk#36, ss_sales_price#42, d_year#58, d_moy#60] nodeID(32) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, false] as bigint)),false), [plan_id=293]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nodeID(56) Filter ((((d_year#418 = 1999) OR ((d_year#418 = 1998) AND (d_moy#420 = 12))) OR ((d_year#418 = 2000) AND (d_moy#420 = 1))) AND isnotnull(d_date_sk#412))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nodeID(77) Filter ((isnotnull(i_item_sk#474) AND isnotnull(i_brand#482)) — nodeID(80) FileScan parquet tpcds_100_parquet.store_sales[ss_sold_date_sk#498,ss_item_sk#498,ss_store_sk#503,ss_sales_price#509]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nodeID(49) BroadcastHashJoin [i_item_sk#367], [ss_item_sk#391], Inner, BuildLeft, false
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nodeID(19) BroadcastHashJoin [ss_store_sk#36], [s_store_sk#80], Inner, BuildRight, false
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      nodeID(79) Filter ((isnotnull(ss_store_sk#498) AND isnotnull(ss_store_sk#496)) AND isnotnull(ss_store_sk#498) AND isnotnull(
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nodeID(18) Project [i_brand#15, i_category#19, ss_sales_price#42, d_year#58, d_moy#60, s_store_name#85, s_company_name#97]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nodeID(47) BroadcastHashJoin [ss_sold_date_sk#389], [d_date_sk#412], Inner, BuildRight, false nodeID(59) Filter ((isnotnull(s_store_sk#440) AND isnotnull(s_store_name#445)) AND isnotnull(s_company_name#457))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nodeID(75) BroadcastHashJoin [i_item_sk#474], [ss_item_sk#498], Inner, BuildLeft, false
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nodeID(82) Filter ((((d_year#525 = 1999) OR ((d_year#525 = 1998) AND (d_moy#527 = 12))) OR ((d_year#525 = 2000) AND (d_moy#527 = 1))) AND isnotnull(d_date_sk#519))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nodeID(74) Project [i_brand#482, i_category#486, ss_sold_date_sk#496, ss_store_sk#503, ss_sales_price#509] nodeID(81) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, false] as bigint)),false), [plan_id=340] nodeID(81) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, false] as bigint), [plan_id=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nodeID(46) Project [i_brand#375, i_category#379, ss_store_sk#396, ss_sales_price#402, d_year#418, d_moy#420] nodeID(58) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, false] as bigint)),false), [plan_id=316]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nodeID(17) HashAggregate(keys=[i_category#19, i_brand#15, s_store_name#85, s_company_name#97, d_year#58, d_moy#60], functions=[partial_sum(ss_sales_price#42)])
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      nodeID(45) BroadcastHashJoin [ss_store_sk#396], [s_store_sk#440], Inner, BuildRight, false
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nodeID(73) BroadcastHashJoin [ss_sold_date_sk#496], [d_date_sk#519], Inner, BuildRight, false
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nodeID(16) Exchange hashpartitioning(i_category#19, i_brand#15, s_store_name#85, s_company_name#97, d_year#58, d_moy#60, 200), ENSURE_REQUIREMENTS, [plan_id=298]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nodeID(85) Filter ((isnotnull(s_store_sk#547) AND isnotnull(s_store_name#552)) AND isnotnull(s_company_name#564))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nodeID(72) Project [i_brand#482, i_category#486, ss_store_sk#503, ss_sales_price#509, d_year#525, d_moy#527] nodeID(84) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, false] as bigint)), false), [plan_id=344]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nodeID(44) Project [i_brand#375, i_category#379, ss_sales_price#402, d_year#418, d_moy#420, s_store_name#445, s_company_name#457]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nodeID(15) HashAggregate(keys=[i_category#19, i_brand#15, s_store_name#85, s_company_name#97, d_year#58, d_moy#60], functions=[sum(ss_sales_price#42)])
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nodeID(14) Exchange hashpartitioning(i_category#19, i_brand#15, s_store_name#85, s_company_name#97, 200), ENSURE_REQUIREMENTS, [plan_id=301]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nodeID(43) HashAggregate(keys=[i_category#379, i_brand#375, s_store_name#445, s_company_name#457, d_year#418, d_moy#420], functions=[partial_sum(ss_sales_price#402)])
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nodeID(71) BroadcastHashJoin [ss_store_sk#503], [s_store_sk#547], Inner, BuildRight, false
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nodeID(13) Sort [i_category#19 ASC NULLS FIRST, i_brand#15 ASC NULLS FIRST, s_store_name#85 ASC NULLS FIRST, s_company_name#97 ASC NULLS FIRST, d_year#58 ASC NULLS FIRST, d_moy#60 ASC NULLS FIRST], false, 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nodeID(70) Project [i_brand#482, i_category#486, ss_sales_price#509, d_year#525, d_moy#527, s_store_name#552, s_company_name#564]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nodeID(42) Exchange hashpartitioning(i_category#379, i_brand#375, s_store_name#445, s_company_name#457, d_year#418, d_moy#420, 200), ENSURE_REQUIREMENTS, [plan_id=321]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nodeID(41) HashAggregate(keys=[i_category#379, i_brand#375, s_store_name#445, s_company_name#457, d_year#418, d_moy#420], functions=[sum(ss_sales_price#402)])
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nodeID(12) Window [rank(d_year#58, d_moy#60) windowspecdefinition(i_category#19, i_brand#15, s_store_name#85, s_company_name#97], [d_year#58 ASC NULLS FIRST, d_moy#60 ASC NUL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nodeID(69) HashAggregate(keys=[i_category#486, i_brand#482, s_store_name#552, s_company_name#564, d_year#525, d_moy#527], functions=[partial_sum(ss_sales_price#509)])
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nodeID(11) Filter (isnotnull(d_year#58) AND (d_year#58 = 1999))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nodeID(68) Exchange hashpartitioning(i_category#486, i_brand#482, s_store_name#552, s_company_name#564, d_year#525, d_moy#527, 200), ENSURE_REQUIREMENTS, [plan_id=349]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nodeID(40) Exchange hashpartitioning(i_category#379, i_brand#375, s_store_name#445, s_company_name#457, 200), ENSURE_REQUIREMENTS, [plan_id=324]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nodeID(67) HashAggregate(keys=[i_category#486, i_brand#482, s_store_name#552, s_company_name#564, d_year#525, d_moy#527], functions=[sum(ss_sales_price#509)])
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nodeID(10) Window [avg(_w0#124) windowspecdefinition(i_category#19, i_brand#15, s_store_name#85, s_company_name#97, d_year#58] i_category#19, i_brand#15, s_store_name#85, s_company_name#97, d_year#58]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nodeID(39) Sort [i_category#379 ASC NULLS FIRST, i_brand#375 ASC NULLS FIRST, s_store_name#445 ASC NULLS FIRST, s_company_name#457 ASC NULLS FIRST, d_year#418 ASC NULLS FIRST, d_moy#420 ASC NULLS FIRST], false, 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nodeID(9) \ Filter \ ((isnotnull(avg\_monthly\_sales\#1) \ AND \ (avg\_monthly\_sales\#1 > 0.0)) \ AND \ CASE \ WHEN \ (avg\_monthly\_sales\#1 > 0.0) \ THEN \ ((abs((sum\_sales\#0 - avg\_monthly\_sales\#1)) / avg\_monthly\_sales\#1) > 0.1) \ END)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nodeID(38) Window [rank(d_year#418, d_moy#420) windowspecdefinition(i_category#379, i_brand#375, s_store_name#445, s_company_name#457, d_moy#420 ASC NULLS FIRST, d_moy#420 ASC NULLS F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nodeID(66) Exchange hashpartitioning(i_category#486, i_brand#482, s_store_name#552, s_company_name#564, 200), ENSURE_REQUIREMENTS, [plan_id=352]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nodeID(8) Project [i_category#19, i_brand#15, s_store_name#85, s_company_name#97, d_year#58, d_moy#60, sum_sales#0, avg_monthly_sales#1, rn#2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nodeID(37) Project [i_category#379, i_brand#375, s_store_name#445, s_company_name#457, sum_sales#0 AS sum_sales#131, rn#473]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nodeID(65) Sort [i_category#486 ASC NULLS FIRST, i_brand#482 ASC NULLS FIRST, s_store_name#552 ASC NULLS FIRST, s_company_name#564 ASC NULLS FIRST, d_year#525 ASC NULLS FIRST, d_moy#527 ASC NULLS FIRST], false, 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nodeID(7) Exchange hashpartitioning(i_category#19, i_brand#15, s_store_name#85, s_company_name#97, rn#2, 200), ENSURE_REQUIREMENTS, [plan_id=330]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nodeID(36) Exchange hashpartitioning(i_category#379, i_brand#375, s_store_name#445, s_company_name#457, (rn#473 + 1), 200), ENSURE_REQUIREMENTS, [plan_id=331]
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nodeID(6) Sort [i_category#19 ASC NULLS FIRST, i_brand#15 ASC NULLS FIRST, s_store_name#85 ASC NULLS FIRST, s_company_name#97 ASC NULLS FIRST, rn#2 ASC NULLS FIRST], false, 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nodeID(35) Sort [i_category#379 ASC NULLS FIRST, i_brand#375 ASC NULLS FIRST, s_store_name#445 ASC NULLS FIRST, s_company_name#457 ASC NULLS FIRST, (rn#473 + 1) ASC NULLS FIRST], false, 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nodeID(5) SortMergeJoin [i_category#19, i_brand#15, s_store_name#85, s_company_name#97, rn#2], [i_category#379, i_brand#375, s_store_name#445, s_company_name#457, (rn#473 + 1)], Inner
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nodeID(4) Project [i_category#19, i_brand#15, s_store_name#85, s_company_name#97, d_year#58, d_moy#60, sum_sales#0, avg_monthly_sales#1, rn#2, sum_sales#131]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nodeID(61) Sort [i_category#486 ASC NULLS FIRST, i_brand#482 ASC NULLS FIRST, s_store_name#552 ASC NULLS FIRST, s_company_name#564 ASC NULLS FIRST, (rn#580 - 1) ASC NULLS FIRST], false, 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nodeID(3) SortMergeJoin [i_category#19, i_brand#15, s_store_name#85, s_company_name#97, rn#2], [i_category#486, i_brand#482, s_store_name#552, s_company_name#564, (rn#580 - 1)], Inner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nodeID(2) Project [i_category#19, i_brand#15, s_store_name#85, s_company_name#97, d_year#58, d_moy#60, avg_monthly_sales#1, sum_sales#0, sum_sales#131 AS psum#3, sum_sales#140 AS nsum#4]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nodeID(1) TakeOrderedAndProject(limit=100, orderBy=[(sum_sales#0 - avg_monthly_sales#1) ASC NULLS FIRST,s_store_name#85,s_company_name#97,d_year#58,d_moy#60,avg_monthly_sales#1,sum_sales#0,psum#3,nsum#4])
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nodeID(26) FileScan parquet tpcds_100_parquet.item[i_item_sk#7,i_brand#15,i_category#19]