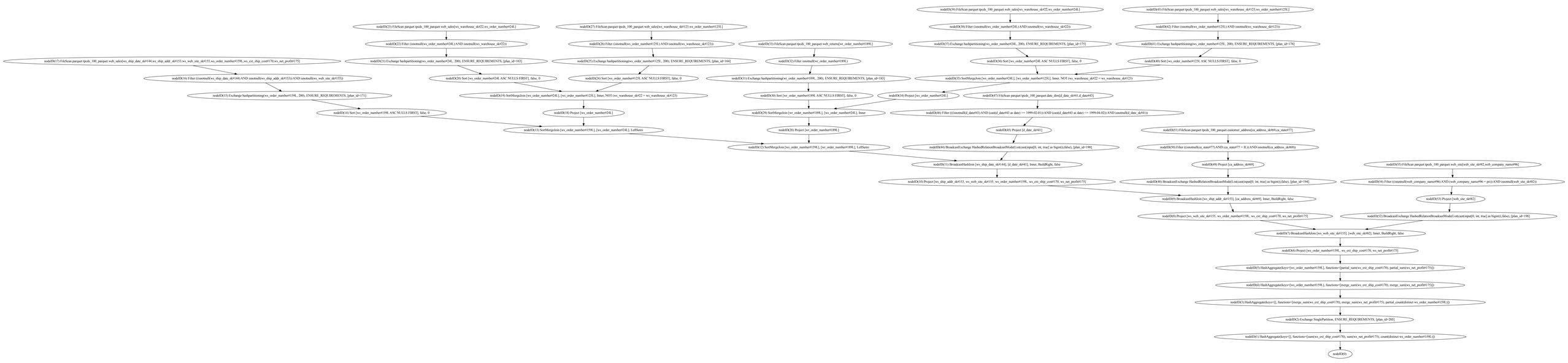
node(E0) HashAggregate(keys=[], functions=[sum(ws_ext_ship_cost#170), sum(ws_net_profit#175), count(distinct ws_order_number#159L)])
node(E1) HashAggregate(keys=[], functions=[sum(ws_ext_ship_cost#170), sum(ws_net_profit#175), count(distinct ws_order_number#159L)])
node(E2) Exchange SinglePartition, ENSURE_REQUIREMENTS, [plan_id=205]
node(E3) HashAggregate(keys=[], functions=[merge_sum(ws_ext_ship_cost#170), merge_sum(ws_net_profit#175), partial_count(distinct ws_order_number#159L)])
node(E4) HashAggregate(keys=[ws_order_number#159L], functions=[merge_sum(ws_ext_ship_cost#170), merge_sum(ws_net_profit#175)])
node(E5) HashAggregate(keys=[ws_order_number#159L], functions=[partial_sum(ws_ext_ship_cost#170), partial_sum(ws_net_profit#175)])
node(E6) Project [ws_order_number#159L, ws_ext_ship_cost#170, ws_net_profit#175]
node(E7) BroadcastHashJoin [ws_web_site_sk#155], [web_site_sk#82], Inner, BuildRight, false
node(E8) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, true] as bigint)),false), [plan_id=198]
node(E9) BroadcastHashJoin [ws_ship_addr_sk#153], [ca_address_sk#69], Inner, BuildRight, false
node(E10) Project [ws_ship_addr_sk#153, ws_web_site_sk#155, ws_order_number#159L, ws_ext_ship_cost#170, ws_net_profit#175]
node(E11) BroadcastHashJoin [ws_ship_date_sk#144], [d_date_sk#41], Inner, BuildRight, false
node(E12) SortMergeJoin [ws_order_number#159L], [wr_order_number#189L], LeftSemi
node(E13) SortMergeJoin [ws_order_number#159L], [ws_order_number#24L], LeftSemi
node(E14) Sort [ws_order_number#159L ASC NULLS FIRST], false, 0
node(E15) Exchange hashpartitioning(ws_order_number#159L, 200), ENSURE_REQUIREMENTS, [plan_id=171]
node(E16) Filter ((isnotnull(ws_ship_date_sk#144) AND isnotnull(ws_ship_addr_sk#153)) AND isnotnull(ws_web_site_sk#155))
node(E17) FileScan parquet tpcds_100_parquet.web_sales[ws_ship_date_sk#144,ws_ship_addr_sk#153,ws_web_site_sk#155,ws_order_number#159L,ws_ext_ship_cost#170,ws_net_profit#175]
node(E18) Project [ws_order_number#24L]
node(E19) SortMergeJoin [ws_order_number#24L], [ws_order_number#125L], Inner, NOT (ws_warehouse_sk#22 = ws_warehouse_sk#123)
node(E20) Sort [ws_order_number#24L ASC NULLS FIRST], false, 0
node(E21) Exchange hashpartitioning(ws_order_number#24L, 200), ENSURE_REQUIREMENTS, [plan_id=163]
node(E22) Filter (isnotnull(ws_order_number#24L) AND isnotnull(ws_warehouse_sk#22))
node(E23) FileScan parquet tpcds_100_parquet.web_sales[ws_warehouse_sk#22,ws_order_number#24L]
node(E24) Sort [ws_order_number#125L ASC NULLS FIRST], false, 0
node(E25) Exchange hashpartitioning(ws_order_number#125L, 200), ENSURE_REQUIREMENTS, [plan_id=164]
node(E26) Filter (isnotnull(ws_order_number#125L) AND isnotnull(ws_warehouse_sk#123))
node(E27) FileScan parquet tpcds_100_parquet.web_sales[ws_warehouse_sk#123,ws_order_number#125L]
node(E28) Project [wr_order_number#189L]
node(E29) SortMergeJoin [wr_order_number#189L], [ws_order_number#24L], Inner
node(E30) Sort [wr_order_number#189L ASC NULLS FIRST], false, 0
node(E31) Exchange hashpartitioning(wr_order_number#189L, 200), ENSURE_REQUIREMENTS, [plan_id=181]
node(E32) Filter isnotnull(wr_order_number#189L)
node(E33) FileScan parquet tpcds_100_parquet.web_returns[wr_order_number#189L]
node(E34) Project [ws_order_number#24L]
node(E35) SortMergeJoin [ws_order_number#24L], [ws_order_number#125L], Inner, NOT (ws_warehouse_sk#22 = ws_warehouse_sk#123)
node(E36) Sort [ws_order_number#24L ASC NULLS FIRST], false, 0
node(E37) Exchange hashpartitioning(ws_order_number#24L, 200), ENSURE_REQUIREMENTS, [plan_id=175]
node(E38) Filter (isnotnull(ws_order_number#24L) AND isnotnull(ws_warehouse_sk#22))
node(E39) FileScan parquet tpcds_100_parquet.web_sales[ws_warehouse_sk#22,ws_order_number#24L]
node(E40) Sort [ws_order_number#125L ASC NULLS FIRST], false, 0
node(E41) Exchange hashpartitioning(ws_order_number#125L, 200), ENSURE_REQUIREMENTS, [plan_id=176]
node(E42) Filter (isnotnull(ws_order_number#125L) AND isnotnull(ws_warehouse_sk#123))
node(E43) FileScan parquet tpcds_100_parquet.web_sales[ws_warehouse_sk#123,ws_order_number#125L]
node(E44) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, true] as bigint)),false), [plan_id=190]
node(E45) Project [d_date_sk#41]
node(E46) Filter ((isnotnull(d_date#43) AND (cast(d_date#43 as date) >= 1999-02-01)) AND (cast(d_date#43 as date) <= 1999-04-02)) AND isnotnull(d_date_sk#41))
node(E47) FileScan parquet tpcds_100_parquet.date_dim[d_date_sk#41,d_date#43]
node(E48) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, true] as bigint)),false), [plan_id=194]
node(E49) Project [ca_address_sk#69]
node(E50) Filter ((isnotnull(ca_state#77) AND (ca_state#77 = IL)) AND isnotnull(ca_address_sk#69))
node(E51) FileScan parquet tpcds_100_parquet.customer_address[ca_address_sk#69,ca_state#77]
node(E52) BroadcastExchange HashedRelationBroadcastMode(List(cast(input[0, int, true] as bigint)),false), [plan_id=198]
node(E53) Project [web_site_sk#82]
node(E54) Filter ((isnotnull(web_company_name#96) AND (web_company_name#96 = pri)) AND isnotnull(web_site_sk#82))
node(E55) FileScan parquet tpcds_100_parquet.web_site[web_site_sk#82,web_company_name#96]