Appendix B: <u>Business Questions</u>

B.1   query1.tpl

Find customers who have returned items more than 20% more often than the average customer returns for a store in a given state for a given year.

Qualification Substitution Parameters:

- YEAR.01=2000
- STATE.01=TN

B.2   query2.tpl

Report the increase of weekly web and catalog sales from one year to the next year for each week. That is, compute the increase of Monday, Tuesday, ... Sunday sales from one year to the following.

Qualification Substitution Parameters:

- YEAR.01=2001

B.3   query3.tpl

Report the total extended sales price per item brand of a specific manufacturer for all sales in a specific month of the year.

Qualification Substitution Parameters:

- MONTH.01=11
- *MANUFACT* =128
- AGGC = s_ext_sales_price

B.4   query4.tpl

Find customers who spend more money via catalog than in stores. Identify preferred customers and their country of origin.

Qualification Substitution Parameters:

- YEAR.01=2001
- SELECTCONE.01=t_s_secyear.customer_id,t_s_secyear.customer_first_name,t_s_secyear.customer_last_name,t_s_secyear.c_preferred_cust_flag,t_s_secyear.c_birth_country,t_s_secyear.c_login,t_s_secyear.c_email_address

B.5   query5.tpl

Report sales, profit, return amount, and net loss in the store, catalog, and web channels for a 14-day window. Rollup results by sales channel and channel specific sales method (store for store sales, catalog page for catalog sales and web site for web sales)

Qualification Substitution Parameters:

- SALES_DATE.01=2000-08-23
- YEAR.01=2000

B.6 query6.tpl

List all the states with at least 10 customers who during a given month bought items with the price tag at least 20% higher than the average price of items in the same category.

Qualification Substitution Parameters:

- MONTH.01=1
- YEAR.01=2001

B.7 query7.tpl

Compute the average quantity, list price, discount, and sales price for promotional items sold in stores where the promotion is not offered by mail or a special event. Restrict the results to a specific gender, marital and educational status.

Qualification Substitution Parameters:

- YEAR.01=2000
- ES.01=College
- MS.01=S
- GEN.01=M

B.8 query8.tpl

Compute the net profit of stores located in 400 Metropolitan areas with more than 10 preferred customers.

Qualification Substitution Parameters:

ZIP.01=24128	ZIP.81=57834	ZIP.161=13354	ZIP.241=15734	ZIP.321=78668
ZIP.02=76232	ZIP.82=62878	ZIP.162=45375	ZIP.242=63435	ZIP.322=22245
ZIP.03=65084	ZIP.83=49130	ZIP.163=40558	ZIP.243=25733	ZIP.323=15798
ZIP.04=87816	ZIP.84=81096	ZIP.164=56458	ZIP.244=35474	ZIP.324=27156
ZIP.05=83926	ZIP.85=18840	ZIP.165=28286	ZIP.245=24676	ZIP.325=37930
ZIP.06=77556	ZIP.86=27700	ZIP.166=45266	ZIP.246=94627	ZIP.326=62971
ZIP.07=20548	ZIP.87=23470	ZIP.167=47305	ZIP.247=53535	ZIP.327=21337
ZIP.08=26231	ZIP.88=50412	ZIP.168=69399	ZIP.248=17879	ZIP.328=51622
ZIP.09=43848	ZIP.89=21195	ZIP.169=83921	ZIP.249=15559	ZIP.329=67853
ZIP.10=15126	ZIP.90=16021	ZIP.170=26233	ZIP.250=53268	ZIP.330=10567
ZIP.11=91137	ZIP.91=76107	ZIP.171=11101	ZIP.251=59166	ZIP.331=38415
ZIP.12=61265	ZIP.92=71954	ZIP.172=15371	ZIP.252=11928	ZIP.332=15455
ZIP.13=98294	ZIP.93=68309	ZIP.173=69913	ZIP.253=59402	ZIP.333=58263
ZIP.14=25782	ZIP.94=18119	ZIP.174=35942	ZIP.254=33282	ZIP.334=42029
ZIP.15=17920	ZIP.95=98359	ZIP.175=15882	ZIP.255=45721	ZIP.335=60279
ZIP.16=18426	ZIP.96=64544	ZIP.176=25631	ZIP.256=43933	ZIP.336=37125
ZIP.17=98235	ZIP.97=10336	ZIP.177=24610	ZIP.257=68101	ZIP.337=56240
ZIP.18=40081	ZIP.98=86379	ZIP.178=44165	ZIP.258=33515	ZIP.338=88190
ZIP.19=84093	ZIP.99=27068	ZIP.179=99076	ZIP.259=36634	ZIP.339=50308
ZIP.20=28577	ZIP.100=39736	ZIP.180=33786	ZIP.260=71286	ZIP.340=26859
ZIP.21=55565	ZIP.101=98569	ZIP.181=70738	ZIP.261=19736	ZIP.341=64457
ZIP.22=17183	ZIP.102=28915	ZIP.182=26653	ZIP.262=58058	ZIP.342=89091
ZIP.23=54601	ZIP.103=24206	ZIP.183=14328	ZIP.263=55253	ZIP.343=82136
ZIP.24=67897	ZIP.104=56529	ZIP.184=72305	ZIP.264=67473	ZIP.344=62377
ZIP.25=22752	ZIP.105=57647	ZIP.185=62496	ZIP.265=41918	ZIP.345=36233
ZIP.26=86284	ZIP.106=54917	ZIP.186=22152	ZIP.266=19515	ZIP.346=63837
ZIP.27=18376	ZIP.107=42961	ZIP.187=10144	ZIP.267=36495	ZIP.347=58078

- ZIP.28=38607 ZIP.108=91110 ZIP.188=64147 ZIP.268=19430 ZIP.348=17043
- ZIP.29=45200 ZIP.109=63981 ZIP.189=48425 ZIP.269=22351 ZIP.349=30010
- ZIP.30=21756 ZIP.110=14922 ZIP.190=14663 ZIP.270=77191 ZIP.350=60099
- ZIP.31=29741 ZIP.111=36420 ZIP.191=21076 ZIP.271=91393 ZIP.351=28810
- ZIP.32=96765 ZIP.112=23006 ZIP.192=18799 ZIP.272=49156 ZIP.352=98025
- ZIP.33=23932 ZIP.113=67467 ZIP.193=30450 ZIP.273=50298 ZIP.353=29178
- ZIP.34=89360 ZIP.114=32754 ZIP.194=63089 ZIP.274=87501 ZIP.354=87343
- ZIP.35=29839 ZIP.115=30903 ZIP.195=81019 ZIP.275=18652 ZIP.355=73273
- ZIP.36=25989 ZIP.116=20260 ZIP.196=68893 ZIP.276=53179 ZIP.356=30469
- ZIP.37=28898 ZIP.117=31671 ZIP.197=24996 ZIP.277=18767 ZIP.357=64034
- ZIP.38=91068 ZIP.118=51798 ZIP.198=51200 ZIP.278=63193 ZIP.358=39516
- ZIP.39=72550 ZIP.119=72325 ZIP.199=51211 ZIP.279=23968 ZIP.359=86057
- ZIP.40=10390 ZIP.120=85816 ZIP.200=45692 ZIP.280=65164 ZIP.360=21309
- ZIP.41=18845 ZIP.121=68621 ZIP.201=92712 ZIP.281=68880 ZIP.361=90257
- ZIP.42=47770 ZIP.122=13955 ZIP.202=70466 ZIP.282=21286 ZIP.362=67875
- ZIP.43=82636 ZIP.123=36446 ZIP.203=79994 ZIP.283=72823 ZIP.363=40162
- ZIP.44=41367 ZIP.124=41766 ZIP.204=22437 ZIP.284=58470 ZIP.364=11356
- ZIP.45=76638 ZIP.125=68806 ZIP.205=25280 ZIP.285=67301 ZIP.365=73650
- ZIP.46=86198 ZIP.126=16725 ZIP.206=38935 ZIP.286=13394 ZIP.366=61810
- ZIP.47=81312 ZIP.127=15146 ZIP.207=71791 ZIP.287=31016 ZIP.367=72013
- ZIP.48=37126 ZIP.128=22744 ZIP.208=73134 ZIP.288=70372 ZIP.368=30431
- ZIP.49=39192 ZIP.129=35850 ZIP.209=56571 ZIP.289=67030 ZIP.369=22461
- ZIP.50=88424 ZIP.130=88086 ZIP.210=14060 ZIP.290=40604 ZIP.370=19512
- ZIP.51=72175 ZIP.131=51649 ZIP.211=19505 ZIP.291=24317 ZIP.371=13375
- ZIP.52=81426 ZIP.132=18270 ZIP.212=72425 ZIP.292=45748 ZIP.372=55307
- ZIP.53=53672 ZIP.133=52867 ZIP.213=56575 ZIP.293=39127 ZIP.373=30625
- ZIP.54=10445 ZIP.134=39972 ZIP.214=74351 ZIP.294=26065 ZIP.374=83849
- ZIP.55=42666 ZIP.135=96976 ZIP.215=68786 ZIP.295=77721 ZIP.375=68908
- ZIP.56=66864 ZIP.136=63792 ZIP.216=51650 ZIP.296=31029 ZIP.376=26689
- ZIP.57=66708 ZIP.137=11376 ZIP.217=20004 ZIP.297=31880 ZIP.377=96451
- ZIP.58=41248 ZIP.138=94898 ZIP.218=18383 ZIP.298=60576 ZIP.378=38193
- ZIP.59=48583 ZIP.139=13595 ZIP.219=76614 ZIP.299=24671 ZIP.379=46820
- ZIP.60=82276 ZIP.140=10516 ZIP.220=11634 ZIP.300=45549 ZIP.380=88885
- ZIP.61=18842 ZIP.141=90225 ZIP.221=18906 ZIP.301=13376 ZIP.381=84935
- ZIP.62=78890 ZIP.142=58943 ZIP.222=15765 ZIP.302=50016 ZIP.382=69035
- ZIP.63=49448 ZIP.143=39371 ZIP.223=41368 ZIP.303=33123 ZIP.383=83144
- ZIP.64=14089 ZIP.144=94945 ZIP.224=73241 ZIP.304=19769 ZIP.384=47537
- ZIP.65=38122 ZIP.145=28587 ZIP.225=76698 ZIP.305=22927 ZIP.385=56616
- ZIP.66=34425 ZIP.146=96576 ZIP.226=78567 ZIP.306=97789 ZIP.386=94983
- ZIP.67=79077 ZIP.147=57855 ZIP.227=97189 ZIP.307=46081 ZIP.387=48033
- ZIP.68=19849 ZIP.148=28488 ZIP.228=28545 ZIP.308=72151 ZIP.388=69952
- ZIP.69=43285 ZIP.149=26105 ZIP.229=76231 ZIP.309=15723 ZIP.389=25486
- ZIP.70=39861 ZIP.150=83933 ZIP.230=75691 ZIP.310=46136 ZIP.390=61547
- ZIP.71=66162 ZIP.151=25858 ZIP.231=22246 ZIP.311=51949 ZIP.391=27385
- ZIP.72=77610 ZIP.152=34322 ZIP.232=51061 ZIP.312=68100 ZIP.392=61860
- ZIP.73=13695 ZIP.153=44438 ZIP.233=90578 ZIP.313=96888 ZIP.393=58048
- ZIP.74=99543 ZIP.154=73171 ZIP.234=56691 ZIP.314=64528 ZIP.394=56910
- ZIP.75=83444 ZIP.155=30122 ZIP.235=68014 ZIP.315=14171 ZIP.395=16807
- ZIP.76=83041 ZIP.156=34102 ZIP.236=51103 ZIP.316=79777 ZIP.396=17871
- ZIP.77=12305 ZIP.157=22685 ZIP.237=94167 ZIP.317=28709 ZIP.397=35258
- ZIP.78=57665 ZIP.158=71256 ZIP.238=57047 ZIP.318=11489 ZIP.398=31387
- ZIP.79=68341 ZIP.159=78451 ZIP.239=14867 ZIP.319=25103 ZIP.399=35458

- ZIP.80=25003   ZIP.160=54364   ZIP.240=73520   ZIP.320=32213   ZIP.400=35576
- QOY.01=2
- YEAR.01=1998

B.9   query9.tpl

Categorize store sales transactions into 5 buckets according to the number of items sold. Each bucket contains the average discount amount, sales price, list price, tax, net paid, paid price including tax, or net profit..

Qualification Substitution Parameters:

- *AGGCTHEN*.01= *ss_ext_discount_amt*
- *AGGCELSE*.01= *ss_net_paid*
- *RC*.01=*74129*
- *RC*.02=*122840*
- *RC*.03=*56580*
- *RC*.04=*10097*
- *RC*.05=*165306*

B.10   query10.tpl

Count the customers with the same gender, marital status, education status, purchase estimate, credit rating, dependent count, employed dependent count and college dependent count who live in certain counties and who have purchased from both stores and another sales channel during a three month time period of a given year.

Qualification Substitution Parameters:

- YEAR.01 = 2002
- MONTH.01 = 1
- COUNTY.01 = Rush County
- COUNTY.02 = Toole County
- COUNTY.03 = Jefferson County
- COUNTY.04 = Dona Ana County
- COUNTY.05 = La Porte County

B.11   query11.tpl

Find customers whose increase in spending was large over the web than in stores this year compared to last year.

Qualification Substitution Parameters:

- YEAR.01 = 2001
- SELECTONE = t_s_secyear.customer_id,t_s_secyear.customer_first_name, t_s_secyear.customer_last_name, t_s_secyear.c_preferred_cust_flag, t_s_secyear.c_birth_country, t_s_secyear.c_login, t_s_secyear.c_email_address

B.12   query12.tpl

Compute the revenue ratios across item classes: For each item in a list of given categories, during a 30 day time period, sold through the web channel compute the ratio of sales of that item to the sum of all of the sales in that item's class.

Qualification Substitution Parameters

- CATEGORY.01 = Sports

- CATEGORY.02 = Books
- CATEGORY.03 = Home
- SDATE.01 = 1999-02-22
- YEAR.01 = 1999

B.13   query13.tpl

Calculate the average sales quantity, average sales price, average wholesale cost, total wholesale cost for store sales of different customer types (e.g., based on marital status, education status) including their household demographics, sales price and different combinations of state and sales profit for a given year.

Qualification Substitution Parameters:

- YEAR.01 = 2001
- STATE.01 = TX
- STATE.02 = OH
- STATE.03 = TX
- STATE.04 = OR
- STATE.05 = NM
- STATE.06 = KY
- STATE.07 = VA
- STATE.08 = TX
- STATE.09 = MS
- ES.01 = Advanced Degree
- ES.02 = College
- ES.03 = 2 yr Degree
- MS.01 = M
- MS.02 = S
- MS.03 = W

B.14   query14.tpl)

This query contains multiple iterations:

Iteration 1: First identify items in the same brand, class and category that are sold in all three sales channels in two consecutive years. Then compute the average sales (quantity*list price) across all sales of all three sales channels in the same three years (average sales). Finally, compute the total sales and the total number of sales rolled up for each channel, brand, class and category. Only consider sales of cross channel sales that had sales larger than the average sale.

Iteration 2: Based on the previous query compare December store sales.

Qualification Substitution Parameters:

- DAY.01 = 11
- YEAR.01 = 1999

B.15   query15.tpl

Report the total catalog sales for customers in selected geographical regions or who made large purchases for a given year and quarter.

Qualification Substitution Parameters:

- QOY.01 = 2
- YEAR.01 = 2001

B.16   query16.tpl

Report number of orders, total shipping costs and profits from catalog sales of particular counties and states for a given 60 day period for non-returned sales filled from an alternate warehouse.

Qualification Substitution Parameters:

- COUNTY_E.01 = Williamson County
- COUNTY_D.01 = Williamson County
- COUNTY_C.01 = Williamson County
- COUNTY_B.01 = Williamson County
- COUNTY_A.01 = Williamson County
- STATE.01 = GA
- MONTH.01 = 2
- YEAR.01 = 2002

B.17   query17.tpl

Analyze, for each state, all items that were sold in stores in a particular quarter and returned in the next three quarters and then re-purchased by the customer through the catalog channel in the three following quarters.

Qualification Substitution Parameters:

- YEAR.01 = 2001

B.18   query18.tpl

Compute, for each county, the average quantity, list price, coupon amount, sales price, net profit, age, and number of dependents for all items purchased through catalog sales in a given year by customers who were born in a given list of six months and living in a given list of seven states and who also belong to a given gender and education demographic.

Qualification Substitution Parameters:

- MONTH.01 = 1
- MONTH.02 = 6
- MONTH.03 = 8
- MONTH.04 = 9
- MONTH.05 = 12
- MONTH.06 = 2
- STATE.01 = MS
- STATE.02 = IN
- STATE.03 = ND
- STATE.04 = OK
- STATE.05 = NM
- STATE.06 = VA
- STATE.07 = MS
- ES.01 = Unknown
- GEN.01 = F
- YEAR.01 = 1998

B.19   query19.tpl

Select the top 10 revenue generating products bought by out of zip code customers for a given year, month and manager. Qualification Substitution Parameters

- MANAGER.01 = 8

- MONTH.01 = 11
- YEAR.01 = 1998

B.20 query20.tpl

Compute the total revenue and the ratio of total revenue to revenue by item class for specified item categories and time periods.

Qualification Substitution Parameters:

- CATEGORY.01 = Sports
- CATEGORY.02 = Books
- CATEGORY.03 = Home
- SDATE.01 = 1999-02-22
- YEAR.01 = 1999

B.21 query21.tpl

For all items whose price was changed on a given date, compute the percentage change in inventory between the 30-day period BEFORE the price change and the 30-day period AFTER the change. Group this information by warehouse.

Qualification Substitution Parameters:

- SALES_DATE.01 = 2000-03-11
- YEAR.01 = 2000

B.22 query22.tpl

For each product name, brand, class, category, calculate the average quantity on hand. Rollup data by product name, brand, class and category.

Qualification Substitution Parameters:

- DMS.01 = 1176

B.23 query23.tpl

This query contains multiple, related iterations:

Find frequently sold items that are items that were sold more than 4 times per day in four consecutive years. Compute the maximum store sales made by any given customer in a period of four consecutive years (same as above). Compute the best store customers as those that are in the 5th percentile of sales. Finally, compute the total sales of sales in March made by our best customers buying our most frequent items

Qualification Substitution Parameters:

- MONTH.01 = 2
- YEAR.01 = 2000
- TOPPERCENT=50

B.24   query24.tpl

This query contains multiple, related iterations:

Iteration 1: Calculate the total specified monetary value of items in a specific color for store sales transactions by customer name and store, in a specific market, from customers who currently live in their birth countries and in the neighborhood of the store, and list only those customers for whom the total specified monetary value is greater than 5% of the average value

 Iteration 2: Calculate the total specified monetary value of items in a specific color and specific size for store sales transactions by customer name and store, in a specific market, from customers who currently live in their birth countries and in the neighborhood of the store, and list only those customers for whom the total specified monetary value is greater than 5% of the average value

Qualification Substitution Parameters:

- MARKET = 8
- COLOR.1 = orange
- COLOR.2 = chiffon
- AMOUNTONE = ss_net_paid

B.25   query25.tpl

Get all items that were

- sold in stores in a particular month and year and
- returned in the next three quarters
- re-purchased by the customer through the catalog channel in the six following months.

For these items, compute the sum of net profit of store sales, net loss of store loss and net profit of catalog . Group this information by item and store.

Qualification Substitution Parameters:

- MONTH.01 = 4
- YEAR.01 = 2001
- AGG.01 = sum

B.26   query26.tpl

Computes the average quantity, list price, discount, sales price for promotional items sold through the catalog channel where the promotion was not offered by mail or in an event for given gender, marital status and educational status.

Qualification Substitution Parameters:

- YEAR.01 = 2000
- ES.01 = College
- MS.01 = S
- GEN.01 = M

B.27   query27.tpl

For all items sold in stores located in six states during a given year, find the average quantity, average list price, average list sales price, average coupon amount for a given gender, marital status, education and customer demographic.

Qualification Substitution Parameters:

- STATE_F.01 = TN
- STATE_E.01 = TN
- STATE_D.01 = TN
- STATE_C.01 = TN
- STATE_B.01 = TN
- STATE_A.01 = TN
- ES.01 = College
- MS.01 = S
- GEN.01 = M
- YEAR.01 = 2002

B.28   query28.tpl

Calculate the average list price, number of non empty (null) list prices and number of distinct list prices of six different sales buckets of the store sales channel. Each bucket is defined by a range of distinct items and information about list price, coupon amount and wholesale cost.

Qualification Substitution Parameters:

- WHOLESALECOST.01=57
- WHOLESALECOST.02=31
- WHOLESALECOST.03=79
- WHOLESALECOST.04=38
- WHOLESALECOST.05=17
- WHOLESALECOST.06=7
- COUPONAMT.01=459
- COUPONAMT.02=2323
- COUPONAMT.03=12214
- COUPONAMT.04=6071
- COUPONAMT.05=836
- COUPONAMT.06=7326
- LISTPRICE.01=8
- LISTPRICE.02=90
- LISTPRICE.03=142
- LISTPRICE.04=135
- LISTPRICE.05=122
- LISTPRICE.06=154

B.29   query29.tpl

Get all items that were sold in stores in a specific month and year and which were returned in the next six months of the same year and re-purchased by the returning customer afterwards through the catalog sales channel in the following three years.

For those these items, compute the total quantity sold through the store, the quantity returned and the quantity purchased through the catalog. Group this information by item and store.

Qualification Substitution Parameters:

- MONTH.01 = 9
- YEAR.01 = 1999
- AGG.01 = 29

B.30   query30.tpl

Find customers and their detailed customer data who have returned items, which they bought on the web, for an amount that is 20% higher than the average amount a customer returns in a given state in a given time period across all items. Order the output by customer data.

Qualification Substitution Parameters:

- YEAR.01 = 2002
- STATE.01 = GA

B.31   query31.tpl

List the top five counties where the percentage growth in web sales is consistently higher compared to the percentage growth in store sales in the first three consecutive quarters for a given year.

Qualification Substitution Parameters:

- YEAR.01 = 2000
- AGG.01 = ss1.ca_county

B.32   query32.tpl

Compute the total discounted amount for a particular manufacturer in a particular 90 day period for catalog sales whose discounts exceeded the average discount by at least 30%.

Qualification Substitution Parameters:

- CSDATE.01 = 2000-01-27
- YEAR.01 = 2000
- IMID.01 = 977

B.33   query33.tpl

What is the monthly sales figure based on extended price for a specific month in a specific year, for manufacturers in a specific category in a given time zone. Group sales by manufacturer identifier and sort output by sales amount, by channel, and give Total sales.

Qualification Substitution Parameters:

- CATEGORY.01 = Electronics
- GMT.01 = -5
- MONTH.01 = 5
- YEAR.01 = 1998

B.34   query34.tpl

Display all customers with specific buy potentials and whose dependent count to vehicle count ratio is larger than 1.2, who in three consecutive years made purchases with between 15 and 20 items in the beginning or the end of each month in stores located in 8 counties.

Qualification Substitution Parameters:

- COUNTY_H.01 = Williamson County
- COUNTY_G.01 = Williamson County
- COUNTY_F.01 = Williamson County
- COUNTY_E.01 = Williamson County
- COUNTY_D.01 = Williamson County
- COUNTY_C.01 = Williamson County
- COUNTY_B.01 = Williamson County
- COUNTY_A.01 = Williamson County
- YEAR.01 = 1999
- BPTWO.01 = unknown
- BPONE.01 = >10000

B.35   query35.tpl

For each of the customers living in the same state, having the same gender and marital status who have purchased from stores and from either the catalog or the web during a given year, display the following:

- state, gender, marital status, count of customers

- min, max, avg, count distinct of the customer's dependent count

- min, max, avg, count distinct of the customer's employed dependent count

- min, max, avg, count distinct of the customer's dependents in college count

Display / calculate the "count of customers" multiple times to emulate a potential reporting tool scenario.

Qualification Substitution Parameters:

YEAR.01 = 2002
AGGONE = min
AGGTWO = max
AGGTHREE = avg

B.36   query36.tpl

Compute store sales gross profit margin ranking for items in a given year for a given list of states.\

Qualification Substitution Parameters:

- STATE_H.01 = TN
- STATE_G.01 = TN
- STATE_F.01 = TN
- STATE_E.01 = TN
- STATE_D.01 = TN
- STATE_C.01 = TN
- STATE_B.01 = TN
- STATE_A.01 = TN
- YEAR.01 = 2001

B.37 query37.tpl

List all items and current prices sold through the catalog channel from certain manufacturers in a given $30 price range and consistently had a quantity between 100 and 500 on hand in a 60-day period.

Qualification Substitution Parameters:

- PRICE.01 = 68
- MANUFACT_ID.01 = 677
- MANUFACT_ID.02 = 940
- MANUFACT_ID.03 = 694
- MANUFACT_ID.04 = 808
- INVDATE.01 = 2000-02-01

B.38 query38.tpl

Display count of customers with purchases from all 3 channels in a given year.

Qualification Substitution Parameters:

- DMS.01 = 1176

B.39 query39.tpl

This query contains multiple, related iterations:

Iteration 1: Calculate the coefficient of variation and mean of every item and warehouse of two consecutive months

Iteration 2: Find items that had a coefficient of variation in the first months of 1.5 or large

Qualification Substitution Parameters:

- YEAR.01 = 2001
- MONTH.01 = 1

B.40 query40.tpl

Compute the impact of an item price change on the sales by computing the total sales for items in a 30 day period before and after the price change. Group the items by location of warehouse where they were delivered from.

Qualification Substitution Parameters

- SALES_DATE.01 = 2000-03-11
- YEAR.01 = 2000

B.41 query41.tpl

How many items do we carry with specific combinations of color, units, size and category.

Qualification Substitution Parameters

- MANUFACT.01 = 738
- SIZE.01 = medium
- SIZE.02 = extra large
- SIZE.03 = N/A
- SIZE.04 = small
- SIZE.05 = petite

- SIZE.06 = large
- UNIT.01 = Ounce
- UNIT.02 = Oz
- UNIT.03 = Bunch
- UNIT.04 = Ton
- UNIT.05 = N/A
- UNIT.06 = Dozen
- UNIT.07 = Box
- UNIT.08 = Pound
- UNIT.09 = Pallet
- UNIT.10 = Gross
- UNIT.11 = Cup
- UNIT.12 = Dram
- UNIT.13 = Each
- UNIT.14 = Tbl
- UNIT.15 = Lb
- UNIT.16 = Bundle
- COLOR.01 = powder
- COLOR.02 = khaki
- COLOR.03 = brown
- COLOR.04 = honeydew
- COLOR.05 = floral
- COLOR.06 = deep
- COLOR.07 = light
- COLOR.08 = cornflower
- COLOR.09 = midnight
- COLOR.10 = snow
- COLOR.11 = cyan
- COLOR.12 = papaya
- COLOR.13 = orange
- COLOR.14 = frosted
- COLOR.15 = forest
- COLOR.16 = ghost

B.42 query42.tpl

For each item and a specific year and month calculate the sum of the extended sales price of store transactions.

Qualification Substitution Parameters:

- MONTH.01 = 11
- YEAR.01 = 2000

B.43 query43.tpl

Report the sum of all sales from Sunday to Saturday for stores in a given data range by stores.

Qualification Substitution Parameters:

- YEAR.01 = 2000
- GMT.01 = -5

B.44   query44.tpl

List the best and worst performing products measured by net profit.

Qualification Substitution Parameters:

- NULLCOLSS.01 = ss_addr_sk
- STORE.01 = 4

B.45   query45.tpl

Report the total web sales for customers in specific zip codes, cities, counties or states, or specific items for a given year and quarter. .

Qualification Substitution Parameters:

- QOY.01 = 2
- YEAR.01 = 2001
- GBOBC = ca_city

B.46   query46.tpl

Compute the per-customer coupon amount and net profit of all "out of town" customers buying from stores located in 5 cities on weekends in three consecutive years. The customers need to fit the profile of having a specific dependent count and vehicle count. For all these customers print the city they lived in at the time of purchase, the city in which the store is located, the coupon amount and net profit

Qualification Substitution Parameters:

- CITY_E.01 = Fairview
- CITY_D.01 = Fairview
- CITY_C.01 = Fairview
- CITY_B.01 = Midway
- CITY_A.01 = Fairview
- VEHCNT.01 = 3
- YEAR.01 = 1999
- DEPCNT.01 = 4

B.47   query47.tpl

Find the item brands and categories for each store and company, the monthly sales figures for a specified year, where the monthly sales figure deviated more than 10% of the average monthly sales for the year, sorted by deviation and store. Report deviation of sales from the previous and the following monthly sales.

Qualification Substitution Parameters

- YEAR.01 = 1999
- SELECTONE = v1.i_category, v1.i_brand, v1.s_store_name, v1.s_company_name
- SELECTTWO = ,v1.d_year, v1.d_moy

B.48   query48.tpl

Calculate the total sales by different types of customers (e.g., based on marital status, education status), sales price and different combinations of state and sales profit.

Qualification Substitution Parameters:

- YEAR.01 = 2000
- MS.01 = M

- ES.01 = Advanced Degree
- STATE.01 = TX
- STATE.02 = OH
- STATE.03 = TX
- STATE.04 = OR
- STATE.05 = MN
- STATE.06 = KY
- STATE.07 = VA
- STATE.08 = TX
- STATE.09 = MS

B.49   Query49.tpl

Report the top 10 worst return ratios (sales to returns) of all items for each channel by quantity and currency sorted by ratio. Quantity ratio is defined as total number of sales to total number of returns. Currency ratio is defined as sum of return amount to sum of net paid.

Qualification Substitution Parameters:

- MONTH.01 = 12
- YEAR.01 = 2001

B.50   query50.tpl

For each store count the number of items in a specified month that were returned after 30, 60, 90, 120 and more than 120 days from the day of purchase.

Qualification Substitution Parameters:

- MONTH.01 = 8
- YEAR.01 = 2001

B.51   query51.tpl

Compute the count of store sales resulting from promotions, the count of all store sales and their ratio for specific categories in a particular time zone and for a given year and month.

Qualification Substitution Parameters:

- DMS.01 = 1176

B.52   query52.tpl

Report the total of extended sales price for all items of a specific brand in a specific year and month.

Qualification Substitution Parameters

- MONTH.01=11
- YEAR.01=2000

B.53   query53.tpl

Find the ID, quarterly sales and yearly sales of those manufacturers who produce items with specific characteristics and whose average monthly sales are larger than 10% of their monthly sales.

Qualification Substitution Parameters:

- DMS.01 = 1176

B.54 query54.tpl

Find all customers who purchased items of a given category and class on the web or through catalog in a given month and year that was followed by an in-store purchase at a store near their residence in the three consecutive months. Calculate a histogram of the revenue by these customers in $50 segments showing the number of customers in each of these revenue generated segments.

Qualification Substitution Parameters:

- CLASS.01 = maternity
- CATEGORY.01 = Women
- MONTH.01 = 12
- YEAR.01 = 1998

B.55 query55.tpl

For a given year, month and store manager calculate the total store sales of any combination all brands.

Qualification Substitution Parameters:

- MANAGER.01 = 28
- MONTH.01 = 11
- YEAR.01 = 1999

B.56 query56.tpl

Compute the monthly sales amount for a specific month in a specific year, for items with three specific colors across all sales channels. Only consider sales of customers residing in a specific time zone. Group sales by item and sort output by sales amount.

Qualification Substitution Parameters:

- COLOR.01 = slate
- COLOR.02 = blanched
- COLOR.03 = burnished
- GMT.01 = -5
- MONTH.01 = 2
- YEAR.01 = 2001

B.57 query57.tpl

Find the item brands and categories for each call center and their monthly sales figures for a specified year, where the monthly sales figure deviated more than 10% of the average monthly sales for the year, sorted by deviation and call center. Report the sales deviation from the previous and following month.

Qualification Substitution Parameters:

- YEAR.01 = 1999
- SELECTONE = v1.i_category, v1.i_brand, v1.cc_name
- SELECTTWO = ,v1.d_year, v1.d_moy

B.58 query58.tpl

Retrieve the items generating the highest revenue and which had a revenue that was approximately equivalent across all of store, catalog and web within the week ending a given date.

Qualification Substitution Parameters:

- SALES_DATE.01 = 2000-01-03

B.59 query59.tpl

Report the increase of weekly store sales from one year to the next year for each store and day of the week.

Qualification Substitution Parameters:

- DMS.01 = 1212

B.60 query60.tpl

What is the monthly sales amount for a specific month in a specific year, for items in a specific category, purchased by customers residing in a specific time zone. Group sales by item and sort output by sales amount.

Qualification Substitution Parameters:

- CATEGORY.01 = Music
- GMT.01 = -5
- MONTH.01 = 9

B.61 query61.tpl

Find the ratio of items sold with and without promotions in a given month and year. Only items in certain categories sold to customers living in a specific time zone are considered.

Qualification Substitution Parameters:

- GMT.01 = -5
- CATEGORY.01 = Jewelry
- MONTH.01 = 11
- YEAR.01 = 1998

B.62 query62.tpl

For web sales, create a report showing the counts of orders shipped within 30 days, from 31 to 60 days, from 61 to 90 days, from 91 to 120 days and over 120 days within a given year, grouped by warehouse, shipping mode and web site.

Qualification Substitution Parameters:

- DMS.01 = 1200

B.63 query63.tpl

For a given year calculate the monthly sales of items of specific categories, classes and brands that were sold in stores and group the results by store manager. Additionally, for every month and manager print the yearly average sales of those items.

Qualification Substitution Parameters:

- DMS.01 = 1176

B.64 query64.tpl

Find those stores that sold more cross-sales items from one year to another. Cross-sale items are items that are sold over the Internet, by catalog and in store.

Qualification Substitution Parameters:

- YEAR.01 = 1999
- PRICE.01 = 64

- COLOR.01 = purple
- COLOR.02 = burlywood
- COLOR.03 = indian
- COLOR.04 = spring
- COLOR.05 = floral
- COLOR.06 = medium

B.65   query65.tpl

In a given period, for each store, report the list of items with revenue less than 10% the average revenue for all the items in that store.

Qualification Substitution Parameters:

- YEAR.01 = 2000
- DMS.01 = 1176

B.66   query66.tpl

Compute web and catalog sales and profits by warehouse. Report results by month for a given year during a given 8-hour period.

Qualification Substitution Parameters

- SALESTWO.01 = cs_sales_price
- SALESONE.01 = ws_ext_sales_price
- NETTWO.01 = cs_net_paid_inc_tax
- NETONE.01 = ws_net_paid
- SMC.01 = DHL
- SMC.02 = BARIAN
- TIMEONE.01 = 30838
- YEAR.01 = 2001

B.67   query67.tpl

Find top 100 stores for each category based on store sales in a specific year.

Qualification Substitution Parameters:

- DMS.01 = 1176

B.68   query68.tpl

Compute the per customer extended sales price, extended list price and extended tax for "out of town" shoppers buying from stores located in two cities in the first two days of each month of three consecutive years. Only consider customers with specific dependent and vehicle counts.

Qualification Substitution Parameters:

- CITY_B.01 = Midway
- CITY_A.01 = Fairview
- VEHCNT.01 = 3
- YEAR.01 = 1999
- DEPCNT.01 = 4

B.69 query69.tpl

Count the customers with the same gender, marital status, education status, education status, purchase estimate and credit rating who live in certain states and who have purchased from stores but neither form the catalog nor from the web during a two month time period of a given year.

Qualification Substitution Parameters:

- STATE.01 = KY
- STATE.02 = GA
- STATE.03 = NM
- YEAR.01 = 2001
- MONTH.01 = 4

B.70 query70.tpl

Compute store sales net profit ranking by state and county for a given year and determine the five most profitable states.

Qualification Substitution Parameters:

- DMS.01 = 1176

B.71 query71.tpl

Select the top 10 revenue generating products, sold during breakfast or dinner time for one month managed by a given manager across all three sales channels.

Qualification Substitution Parameters:

- MANAGER.01 = 1
- MONTH.01 = 11
- YEAR.01 = 1999

B.72 query72.tpl

For each item, warehouse and week combination count the number of sales with and without promotion.

Qualification Substitution Parameters:

- BP.01 = >10000
- MS.01 = D
- YEAR.01 = 1999

B.73 query73.tpl

Count the number of customers with specific buy potentials and whose dependent count to vehicle count ratio is larger than 1 and who in three consecutive years bought in stores located in 4 counties between 1 and 5 items in one purchase. Only purchases in the first 2 days of the months are considered.

Qualification Substitution Parameters:

- COUNTY_H.01 = Williamson County
- COUNTY_G.01 = Williamson County
- COUNTY_F.01 = Williamson County
- COUNTY_E.01 = Williamson County
- COUNTY_D.01 = Williamson County
- COUNTY_C.01 = Williamson County
- COUNTY_B.01 = Williamson County

- COUNTY_A.01 = Williamson County
- YEAR.01 = 1999
- BPTWO.01 = unknown
- BPONE.01 = >10000

B.74   query74.tpl

Display customers with both store and web sales in consecutive years for whom the increase in web sales exceeds the increase in store sales for a specified year.

Qualification Substitution Parameters:

- YEAR.01 = 2001
- AGGONE.01 = sum
- ORDERC.01 = 1 1 1

B.75   query75.tpl

For two consecutive years track the sales of items by brand, class and category.

Qualification Substitution Parameters:

- CATEGORY.01 = Books
- YEAR.02 = 2002

B.76   query76.tpl

Computes the average quantity, list price, discount, sales price for promotional items sold through the web channel where the promotion is not offered by mail or in an event for given gender, marital status and educational status.

Qualification Substitution Parameters:

- NULLCOLCS01 = cs_ship_addr_sk
- NULLCOLWS.01 = ws_ship_customer_sk
- NULLCOLSS.01 = ss_store_sk

B.77   query77.tpl

Report the total sales, returns and profit for all three sales channels for a given 30 day period. Roll up the results by channel and a unique channel location identifier, and limit output to first 100 rows.

Qualification Substitution Parameters:

- SALES_DATE.01 = 2000-08-23

B.78   query78.tpl

Report the top 100 customer / item combinations having the highest ratio of store channel sales to all other channel sales (minimum 2 to 1 ratio), for combinations with at least one store sale and one other channel sale. Order the output by highest ratio.

Qualification Substitution Parameters:

- YEAR.01 = 2000

B.79   query79.tpl

Compute the per customer coupon amount and net profit of Monday shoppers. Only purchases of three consecutive years made on Mondays in large stores by customers with a certain dependent count and with a large vehicle count are considered.

Qualification Substitution Parameters:

- VEHCNT.01 = 2
- YEAR.01 = 1999
- DEPCNT.01 = 6

B.80   query80.tpl

Report extended sales, extended net profit and returns in the store, catalog, and web channels for a 30 day window for items with prices larger than $50 not promoted on television, rollup results by sales channel and channel specific sales means (store for store sales, catalog page for catalog sales and web site for web sales)

Qualification Substitution Parameters:

- SALES_DATE.01 = 2000-08-23

B.81   query81.tpl

Find customers and their detailed customer data who have returned items bought from the catalog more than 20 percent the average customer returns for customers in a given state in a given time period. Order output by customer data.

Qualification Substitution Parameters:

- YEAR.01 = 2000
- STATE.01 = GA

B.82   query82.tpl

- Find customers who tend to spend more money (net-paid) on-line than in stores.

Qualification Substitution Parameters

- MANUFACT_ID.01 = 129
- MANUFACT_ID.02 = 270
- MANUFACT_ID.03 = 821
- MANUFACT_ID.04 = 423
- INVDATE.01 = 2000-05-25
- PRICE.01 = 62

B.83   query83.tpl

Retrieve the items with the highest number of returns where the number of returns was approximately equivalent across all store, catalog and web channels (within a tolerance of +/- 10%), within the week ending a given date.

Qualification Substitution Parameters

- RETURNED_DATE_THREE.01 = 2000-11-17
- RETURNED_DATE_TWO.01 = 2000-09-27
- RETURNED_DATE_ONE.01 = 2000-06-30

B.84   query84.tpl

List all customers living in a specified city, with an income between 2 values.

Qualification Substitution Parameters

- INCOME.01 = 38128
- CITY.01 = Edgewood

B.85   query85.tpl

For all web return reason calculate the average sales, average refunded cash and average return fee by different combinations of customer and sales types (e.g., based on marital status, education status, state and sales profit).

Qualification Substitution Parameters:

- YEAR.01 = 2000
- STATE.01 = IN
- STATE.02 = OH
- STATE.03 = NJ
- STATE.04 = WI
- STATE.05 = CT
- STATE.06 = KY
- STATE.07 = LA
- STATE.08 = IA
- STATE.09 = AR
- ES.01 = Advanced Degree
- ES.02 = College
- ES.03 = 2 yr Degree
- MS.01 = M
- MS.02 = S
- MS.03 = W

B.86   query86.tpl

Rollup the web sales for a given year by category and class, and rank the sales among peers within the parent, for each group compute sum of sales, location with the hierarchy and rank within the group.

Qualification Substitution Parameters:

- DMS.01 = 1176

B.87   query87.tpl

Count how many customers have ordered on the same day items on the web and the catalog and on the same day have bought items in a store.

Qualification Substitution Parameters:

- DMS.01 = 1176

B.88   query88.tpl

How many items do we sell between pacific times of a day in certain stores to customers with one dependent count and 2 or less vehicles registered or 2 dependents with 4 or fewer vehicles registered or 3 dependents and five or less vehicles registered. In one row break the counts into sells from 8:30 to 9, 9 to 9:30, 9:30 to 10 ... 12 to 12:30

Qualification Substitution Parameters:

- STORE.01=Unknown
- HOUR.01=4
- HOUR.02=2
- HOUR.03=0

B.89   query89.tpl

Within a year list all month and combination of item categories, classes and brands that have had monthly sales larger than 0.1 percent of the total yearly sales.

Qualification Substitution Parameters:

- CLASS_F.01 = dresses
- CAT_F.01 = Women
- CLASS_E.01 = birdal
- CAT_E.01 = Jewelry
- CLASS_D.01 = shirts
- CAT_D.01 = Men
- CLASS_C.01 = football
- CAT_C.01 = Sports
- CLASS_B.01 = stereo
- CAT_B.01 = Electronics
- CLASS_A.01 = computers
- CAT_A.01 = Books
- YEAR.01 = 1999

B.90   query90.tpl

What is the ratio between the number of items sold over the internet in the morning (8 to 9am) to the number of items sold in the evening (7 to 8pm) of customers with a specified number of dependents. Consider only websites with a high amount of content.

Qualification Substitution Parameters:

- HOUR_PM.01 = 19
- HOUR_AM.01 = 8
- DEPCNT.01 = 6

B.91   query91.tpl

Display total returns of catalog sales by call center and manager in a particular month for male customers of unknown education or female customers with advanced degrees with a specified buy potential and from a particular time zone.

Qualification Substitution Parameters:

- YEAR.01 = 1998
- MONTH.01 = 11

- BUY_POTENTIAL.01 = Unknown
- GMT.01 = -7

B.92   query92.tpl

Compute the total discount on web sales of items from a given manufacturer over a particular 90 day period for sales whose discount exceeded 30% over the average discount of items from that manufacturer in that period of time.

Qualification Substitution Parameters:

- IMID.01 = 350
- WSDATE.01 = 2000-01-27

B.93   query93.tpl

For a given merchandise return reason, report on customers' total cost of purchases minus the cost of returned items. Limit the output to the 100 customers with the highest value of total purchases.

Qualification Substitution Parameters:

- Reason= reason 28

B.94   query94.tpl

Produce a count of web sales and total shipping cost and net profit in a given 60 day period to customers in a given state from a named web site for non returned orders shipped from more than one warehouse.

Qualification Substitution Parameters:

- YEAR.01 = 1999
- MONTH.01 = 2
- STATE.01 = IL

B.95   query95.tpl

Produce a count of web sales and total shipping cost and net profit in a given 60 day period to customers in a given state from a named web site for returned orders shipped from more than one warehouse.

Qualification Substitution Parameters:

- STATE.01=IL
- MONTH.01=2
- YEAR.01=1999

B.96   query96.tpl

Compute a count of sales from a named store to customers with a given number of dependents made in a specified half hour period of the day.

Qualification Substitution Parameters:

- HOUR.01 = 20
- DEPCNT.01 = 7

B.97   query97.tpl

Generate counts of promotional sales and total sales, and their ratio from the web channel for a particular item category and month to customers in a given time zone.

Qualification Substitution Parameters:

- YEAR.01 = 2000

B.98   query98.tpl

Report on items sold in a given 30 day period, belonging to the specified category.

Qualification Substitution Parameters

- YEAR.01 = 1999
- SDATE.01 = 1999-02-22
- CATEGORY.01 = Sports
- CATEGORY.02 = Books
- CATEGORY.03 = Home

B.99   query99.tpl

For catalog sales, create a report showing the counts of orders shipped within 30 days, from 31 to 60 days, from 61 to 90 days, from 91 to 120 days and over 120 days within a given year, grouped by warehouse, call center and shipping mode.

Qualification Substitution Parameters

- DMS.01 = 1200