

- **BQ1**

```
SELECT W_JOB_F.Location_ID,Location_Name, W_SALES_CLASS_D.Sales_class_id,
Sales_Class_Desc, Time_Year,Time_Month,Base_price, SUM(Quantity_Ordered) AS SUMQTY,
SUM(Quantity_Ordered*Unit_Price) AS Job_Amount
```

```
FROM W_JOB_F, W_LOCATION_D, W_SALES_CLASS_D, W_TIME_D
```

```
WHERE W_JOB_F.Location_ID = W_LOCATION_D.Location_ID AND
W_JOB_F.Sales_class_id = W_SALES_CLASS_D.Sales_class_id AND W_TIME_D.Time_id =
W_JOB_F.Contract_date
```

```
GROUP BY W_JOB_F.Location_ID, Location_Name,W_SALES_CLASS_D.Sales_class_id,
Sales_Class_Desc,Time_Year, Time_Month,Base_price;
```

LOCATION_ID	LOCATION_NAME	SALES_CLASS_ID	SALES_CLASS_DESC	TIME_YEAR	TIME_MONTH	BASE_PRICE	SUMQTY	JOB_AMOUNT
1	Montreal	1	Debit Smart	2013	11	1.6	548400	844536
2	Denver	4	Credit NoSmart	2014	3	0.8	1024500	801013
3	Seattle	3	Debit NoSmart	2014	5	0.8	2409400	1770192
4	Montreal	4	Credit NoSmart	2014	9	0.8	2291200	1715105
5	Toronto	5	Prepaid NoSmart	2014	10	0.8	162000	142780
6	Los Angeles	2	Credit Smart	2014	4	1.6	2203000	3314840
7	London	2	Credit Smart	2014	11	1.6	503100	774774
8	Birmingham	5	Prepaid NoSmart	2014	4	0.8	1936100	1434194
9	Chicago	5	Prepaid NoSmart	2013	12	0.8	1431100	1075538
10	Toronto	4	Credit NoSmart	2013	6	0.8	147600	116504
11	Birmingham	5	Prepaid NoSmart	2014	1	0.8	1046200	802754
12	Birmingham	1	Debit Smart	2013	7	1.6	951200	1426800
13	Atlanta	3	Debit NoSmart	2013	6	0.8	412500	321750
14	Montreal	6	Loyalty NoSmart	2013	11	1.6	119300	95440
15	Denver	5	Prepaid NoSmart	2014	7	0.8	587300	452221
16	Montreal	1	Debit Smart	2015	1	1.6	873000	1309500
17	Los Angeles	1	Debit Smart	2013	5	1.6	1220500	1881901
18	Birmingham	2	Credit Smart	2013	12	1.6	1617900	2436318
19	Seattle	1	Debit Smart	2014	11	1.6	408100	632555
20	Seattle	3	Debit NoSmart	2013	3	0.8	1356200	999026
21	Denver	1	Debit Smart	2013	7	1.6	135500	216800
22	Chicago	2	Credit Smart	2014	12	1.6	631900	947850
23	Seattle	2	Credit Smart	2014	2	1.6	3179400	4889051
24	Denver	5	Prepaid NoSmart	2013	10	0.8	377100	294138
25	New York	6	Loyalty NoSmart	2015	2	0.8	303100	236418
26	Seattle	2	Credit Smart	2014	10	1.6	748200	1114818
27	Dallas	3	Debit NoSmart	2013	8	0.8	2070500	1532170
28	Vancouver	4	Credit NoSmart	2015	1	0.8	584000	455988
29	London	3	Debit NoSmart	2014	6	0.8	418100	326118
30	New York	4	Credit NoSmart	2015	1	0.8	1696500	1288550
31	Toronto	3	Debit NoSmart	2013	4	0.8	289300	229128
32	Denver	6	Loyalty NoSmart	2015	1	0.8	748400	561300
33	New York	5	Prepaid NoSmart	2013	6	0.8	864900	640026
34	Seattle	2	Credit Smart	2014	6	1.6	130200	205716
35	Denver	4	Credit NoSmart	2015	2	1.6	1680100	1244277
36	London	5	Prepaid NoSmart	2013	11	0.8	2337700	1761140
37	Denver	5	Prepaid NoSmart	2014	12	0.8	2859000	2116013
38	Atlanta	4	Credit NoSmart	2013	7	0.8	1320100	934056

- **BQ2**

```
SELECT W_JOB_F.JOB_ID, W_JOB_F.Location_ID, W_Location_D.Location_Name,
Unit_Price, Quantity_Ordered, Time_Year, Time_Month, SUM(Invoice_Amount) AS
SUMINVAMT, SUM(Invoice_Quantity) AS SUMINVQTY
```

```
FROM W_JOB_F, W_LOCATION_D, W_TIME_D, W_INVOICELINE_F, W_SUB_JOB_F,
W_JOB_SHIPMENT_F
```

```
WHERE W_JOB_F.Location_ID = W_LOCATION_D.Location_ID AND W_TIME_D.Time_id =
W_JOB_F.Contract_date AND W_Job_Shipment_F.Invoice_Id = W_InvoiceLine_F.Invoice_Id
AND W_JOB_F.Job_Id = W_SUB_JOB_F.Job_Id AND W_JOB_SHIPMENT_F.Sub_Job_Id =
W_Sub_Job_F.Sub_Job_Id
```

```
GROUP BY W_JOB_F.JOB_ID, W_JOB_F.Location_ID, W_Location_D.Location_Name,
Unit_Price, Quantity_Ordered, Time_Year, Time_Month;
```

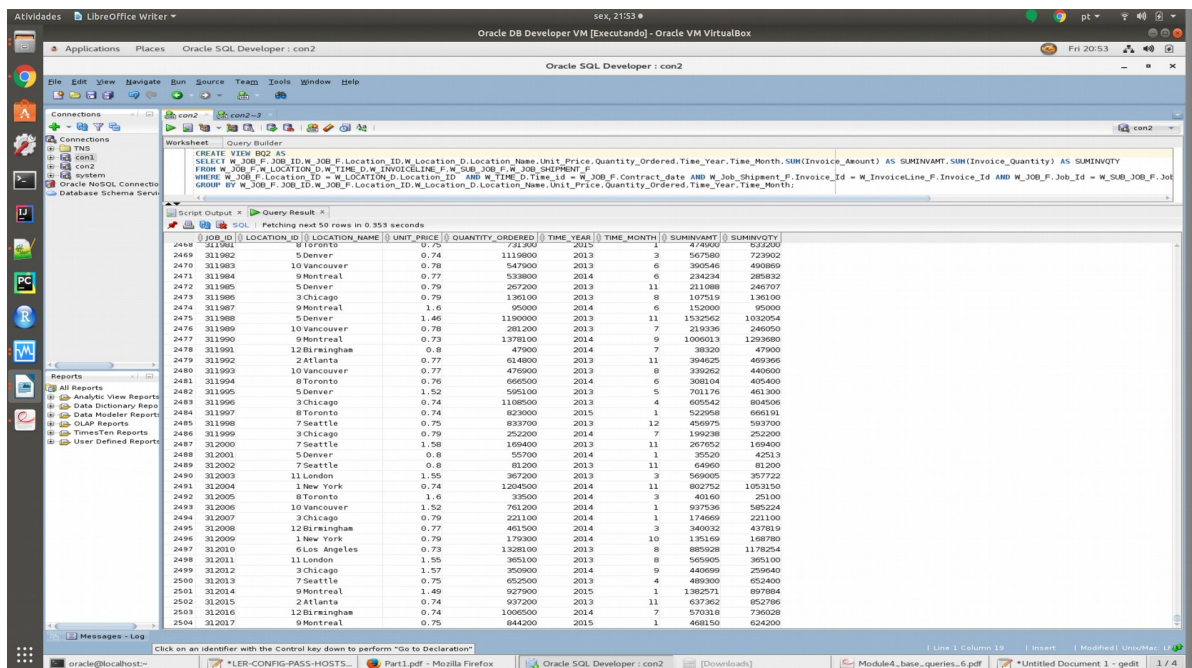
## CREATE VIEW BQ2 AS

```
SELECT W_JOB_F.JOB_ID, W_JOB_F.Location_ID, W_Location_D.Location_Name,  
Unit_Price, Quantity_Ordered, Time_Year, Time_Month, SUM(Invoice_Amount) AS  
SUMINVAMT, SUM(Invoice_Quantity) AS SUMINVQTY
```

```
FROM W_JOB_F, W_LOCATION_D, W_TIME_D, W_INVOICELINE_F, W_SUB_JOB_F,  
W_JOB_SHIPMENT_F
```

```
WHERE W_JOB_F.Location_ID = W_LOCATION_D.Location_ID AND W_TIME_D.Time_id =  
W_JOB_F.Contract_date AND W_Job_Shipment_F.Invoice_Id = W_InvoiceLine_F.Invoice_Id  
AND W_JOB_F.Job_Id = W_SUB_JOB_F.Job_Id AND W_JOB_SHIPMENT_F.Sub_Job_Id =  
W_Sub_Job_F.Sub_Job_Id
```

```
GROUP BY W_JOB_F.JOB_ID, W_JOB_F.Location_ID, W_Location_D.Location_Name,  
Unit_Price, Quantity_Ordered, Time_Year, Time_Month;
```



The screenshot shows the Oracle SQL Developer interface. The 'Script Output' window displays the query results for the BQ2 view. The query is a SELECT statement with columns: JOB\_ID, LOCATION\_ID, LOCATION\_NAME, UNIT\_PRICE, QUANTITY\_ORDERED, TIME\_YEAR, TIME\_MONTH, SUMINVAMT, and SUMINVQTY. The results are grouped by JOB\_ID and LOCATION\_ID. The data shows various jobs across different locations, with their respective unit prices, quantities ordered, and the sum of invoice amounts and quantities.

JOB_ID	LOCATION_ID	LOCATION_NAME	UNIT PRICE	QUANTITY ORDERED	TIME_YEAR	TIME_MONTH	SUMINVAMT	SUMINVQTY
2469	311981	9 Toronto	0.75	741800	2013	1	476690	1526206
2469	311982	5 Denver	0.74	1119800	2013	3	567580	723902
2470	311983	10 Vancouver	0.78	547900	2013	6	390546	490889
2471	311984	9 Montreal	0.77	538800	2014	6	234234	289532
2472	311985	5 Denver	0.79	267200	2013	11	211088	246707
2473	311986	3 Chicago	0.79	136100	2013	8	107519	136100
2474	311987	9 Montreal	1.6	95000	2014	6	152000	95000
2475	311988	5 Denver	1.46	1190000	2013	11	1532562	1032054
2476	311989	10 Vancouver	0.78	281200	2013	7	219336	240050
2477	311990	9 Montreal	0.73	1378100	2014	9	1006013	1293660
2478	311991	12 Birmingham	0.8	47900	2014	7	38320	47900
2479	311992	2 Atlanta	0.77	614800	2013	11	394825	469396
2480	311993	10 Vancouver	0.77	476900	2013	8	339262	440600
2481	311994	8 Toronto	0.76	666500	2014	6	308104	405400
2482	311995	5 Denver	1.52	595100	2013	5	701176	461300
2483	311996	3 Chicago	0.74	1108500	2013	4	605542	804506
2484	311997	8 Toronto	0.74	823000	2015	1	522958	666191
2485	311998	7 Seattle	0.75	833700	2013	12	456975	593700
2486	311999	3 Chicago	0.79	252200	2014	7	199238	252200
2487	312000	7 Seattle	1.58	169400	2013	11	267652	169400
2488	312001	5 Denver	0.8	55700	2014	1	36520	42513
2489	312002	7 Seattle	0.8	81200	2013	11	64960	81200
2490	312003	11 London	1.55	367200	2013	3	569005	357722
2491	312004	1 New York	0.74	1204500	2014	11	892752	1053150
2492	312005	8 Toronto	1.6	33500	2014	3	40160	25100
2493	312006	10 Vancouver	1.52	761200	2014	1	937536	585224
2494	312007	3 Chicago	0.79	221100	2014	1	174669	221100
2495	312008	12 Birmingham	0.77	461500	2014	3	340032	437819
2496	312009	1 New York	0.79	179300	2014	10	135169	168780
2497	312010	6 Los Angeles	0.73	1338100	2013	8	885928	1176244
2498	312011	11 London	1.55	365100	2013	8	565905	365100
2499	312012	3 Chicago	1.57	359000	2014	9	440699	259640
2500	312013	7 Seattle	0.75	652000	2013	4	489300	652000
2501	312014	9 Montreal	1.49	927900	2015	1	1382571	897884
2502	312015	2 Atlanta	0.74	937200	2013	11	637362	952786
2503	312016	12 Birmingham	0.74	1006500	2014	7	570318	736028
2504	312017	9 Montreal	0.75	844200	2015	1	468150	624200

## • BQ3

## CREATE VIEW BQ3 AS

```
SELECT JOB_ID, Location_ID, Location_Name, Time_Year, Time_Month, SUMLABOUR,  
SUMMATERIAL, SUMOVERHEAD, SUMMACHINE, SUMQTY, TOTALCOST, TOTALCOST/  
SUMQTY AS UNIT_PRICE
```

```
FROM ( SELECT W_SUB_JOB_F.JOB_ID, W_SUB_JOB_F.Location_ID, Location_Name,  
Time_Year, Time_Month, SUM(Cost_Labor) AS SUMLABOUR, SUM(Cost_Material) AS  
SUMMATERIAL, SUM(Cost_Overhead) AS SUMOVERHEAD,  
SUM(Machine_Hours*Rate_per_hour) AS SUMMACHINE, SUM(Quantity_produced) AS  
SUMQTY, SUM(Cost_Labor+Cost_Material+Cost_Overhead+Machine_Hours*Rate_per_hour)  
AS TOTALCOST
```

```
FROM W_SUB_JOB_F, W_JOB_F, W_TIME_D, W_LOCATION_D,  
W_MACHINE_TYPE_D
```

**WHERE** W\_SUB\_JOB\_F.Job\_id = W\_JOB\_F.Job\_id AND W\_location\_d.location\_id = W\_SUB\_JOB\_F.Location\_id AND W\_Time\_D.Time\_id = W\_Job\_F.Contract\_Date AND W\_SUB\_JOB\_F.Machine\_Type\_id = W\_Machine\_Type\_D.Machine\_Type\_ID  
**GROUP BY** W\_SUB\_JOB\_F.JOB\_ID, W\_SUB\_JOB\_F.Location\_ID, Location\_Name, Time\_Year, Time\_Month);

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Oracle SQL Developer : con2

Script Output : Task completed in 0.087 seconds

2,527 rows selected.

View B03 created.

JOB_ID	LOCATION_ID	LOCATION_NAME	TIME_YEAR	TIME_MONTH	SUPLABOUR	SUMMATERIAL	SUMOVERHEAD	SUMMACHINE	SUMQTY	TOTALCOST	UNIT_PRICE
312933	12	Birmingham	2014	8	134219.4	31836.71	24331.59	27032	724800	217419.7	299971992
312833	6	Los Angeles	2014	12	51806.04	14479.32	11376.6	10500	301900	94161.96	311897847
312840	2	Atlanta	2014	2	233992.25	71567.16	66567.54	119862	840000	494018.95	587977803
312951	11	London	2014	5	333376.4	57277.75	40486.43	102610	914000	533752.58	583974376
312797	9	Montreal	2013	11	134111.81	35714.43	20189.71	81074	862100	289680.95	291806069
312798	6	Los Angeles	2013	6	310575.6	37636.64	74463.81	162330	975400	585206.05	599905194
312820	6	Los Angeles	2013	4	189527.24	36665.39	48075.93	54674	1278100	361642.56	291850526
312707	10	Vancouver	2013	5	70905.12	16884.49	14131.38	29562	418800	136862.95	311881735
312772	12	Birmingham	2014	3	181529.04	9980.8	13625.79	69580	448000	275615.57	615936327
312702	7	Seattle	2014	2	131736.84	24762.46	41970.55	43480	599600	222231.95	619720719
312796	6	Denver	2014	6	151114.24	7636.39	7020.76	15700	131200	41980.42	519072713
312729	12	Birmingham	2014	2	18172.21	11033.67	16559.5	10880	106300	62636.38	315866768
312724	9	Montreal	2013	8	143219.01	32756.3	26450.61	52460	866400	256875.52	256862685
312734	1	New York	2014	1	201699.6	72143.22	66731.36	157478	930200	498074.18	599944808
312745	1	New York	2014	11	106869	30064.26	31865.52	57860	755000	226693.78	256860521
312750	7	Seattle	2013	3	154268.21	16507.29	14957.57	56940	389000	242673.07	627710953
312704	6	Los Angeles	2014	10	272239.97	46163.53	40148.86	61570	687100	423131.58	615851521
312712	9	Montreal	2013	8	30383.18	4842.56	8322.44	29270	233600	72628.18	311764469

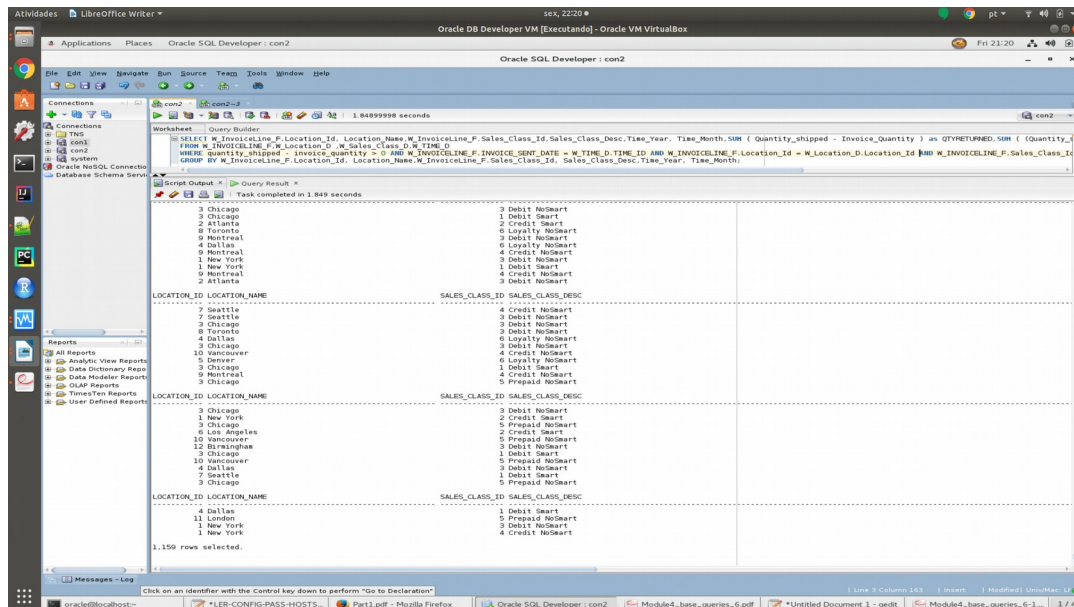
## • BQ4

**SELECT** W\_InvoiceLine\_F.Location\_Id, Location\_Name, W\_InvoiceLine\_F.Sales\_Class\_Id, Sales\_Class\_Desc, Time\_Year, Time\_Month, SUM ( Quantity\_shipped - Invoice\_Quantity ) as QTYRETURNED, SUM ( ( Quantity\_shipped - Invoice\_quantity ) \* (Invoice\_amount/Invoice\_quantity) ) AS SUMAMTRETURNED

**FROM** W\_INVOICELINE\_F, W\_Location\_D, W\_Sales\_Class\_D, W\_TIME\_D

**WHERE** quantity\_shipped - invoice\_quantity > 0 AND W\_INVOICELINE\_F.INVOICE\_SENT\_DATE = W\_TIME\_D.TIME\_ID AND W\_INVOICELINE\_F.Location\_Id = W\_Location\_D.Location\_Id AND W\_INVOICELINE\_F.Sales\_Class\_Id = W\_Sales\_Class\_D.Sales\_Class\_Id

**GROUP BY** W\_InvoiceLine\_F.Location\_Id, Location\_Name, W\_InvoiceLine\_F.Sales\_Class\_Id, Sales\_Class\_Desc, Time\_Year, Time\_Month;



## • BQ5

**CREATE VIEW BQ5 AS**

**SELECT** Job\_id, Location\_ID, Location\_Name, Sales\_class\_id, sales\_class\_desc, Date\_Promised, Quantity\_Ordered, LastShipDate, SUMSHIPQTY, getBusDaysDiff(LastShipDate, Date\_Promised) AS DaysDiff

**FROM** (SELECT W\_JOB\_F.Job\_id, W\_JOB\_F.Location\_ID, Location\_Name, W\_JOB\_F.Sales\_class\_id, sales\_class\_desc, Date\_Promised, Quantity\_Ordered, MAX(Actual\_Ship\_Date) AS LastShipDate, SUM(Actual\_Quantity) AS SUMSHIPQTY

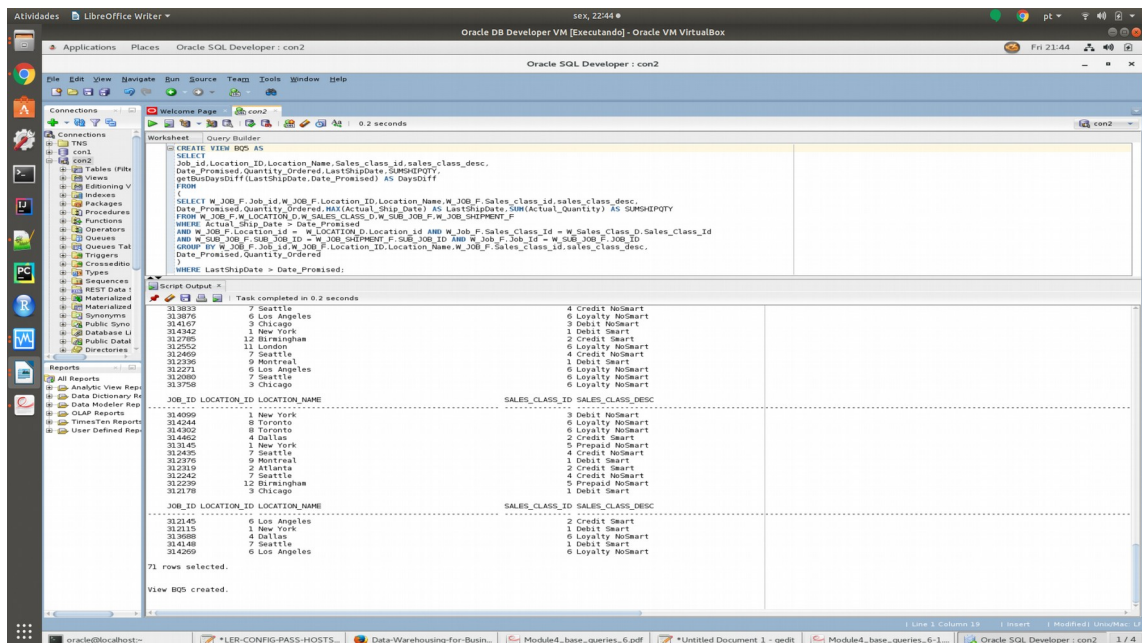
**FROM** W\_JOB\_F, W\_LOCATION\_D, W\_SALES\_CLASS\_D, W\_SUB\_JOB\_F, W\_JOB\_SHIPMENT\_F

**WHERE** Actual\_Ship\_Date > Date\_Promised AND W\_JOB\_F.Location\_id = W\_LOCATION\_D.Location\_id AND W\_Job\_F.Sales\_Class\_Id = W\_Sales\_Class\_D.Sales\_Class\_Id AND W\_SUB\_JOB\_F.SUB\_JOB\_ID = W\_JOB\_SHIPMENT\_F.SUB\_JOB\_ID AND W\_Job\_F.Job\_Id = W\_SUB\_JOB\_F.JOB\_ID

**GROUP BY** W\_JOB\_F.Job\_id, W\_JOB\_F.Location\_ID, Location\_Name, W\_JOB\_F.Sales\_class\_id, sales\_class\_desc, Date\_Promised, Quantity\_Ordered)

**WHERE** LastShipDate > Date\_Promised;





## • BQ6

**CREATE VIEW BQ6 AS**

**SELECT** Job\_id, Location\_ID, Location\_Name, Sales\_class\_id, sales\_class\_desc, Date\_Ship\_By, FirstShipDate, getBusDaysDiff(FirstShipDate, Date\_Ship\_By) AS DaysDiff

**FROM** (SELECT W\_JOB\_F.Job\_id, W\_JOB\_F.Location\_ID, Location\_Name, W\_JOB\_F.Sales\_class\_id, sales\_class\_desc, Date\_Ship\_By, MIN(Actual\_Ship\_Date) AS FirstShipDate

**FROM** W\_JOB\_F, W\_LOCATION\_D, W\_SALES\_CLASS\_D, W\_SUB\_JOB\_F, W\_JOB\_SHIPMENT\_F

**WHERE** W\_JOB\_F.Location\_id = W\_LOCATION\_D.Location\_id AND W\_Job\_F.Sales\_Class\_Id = W\_Sales\_Class\_D.Sales\_Class\_Id AND W\_SUB\_JOB\_F.SUB\_JOB\_ID = W\_JOB\_SHIPMENT\_F.SUB\_JOB\_ID AND W\_Job\_F.Job\_Id = W\_SUB\_JOB\_F.JOB\_ID

**GROUP BY** W\_JOB\_F.Job\_id, W\_JOB\_F.Location\_ID, Location\_Name, W\_JOB\_F.Sales\_class\_id, sales\_class\_desc, Date\_Ship\_By)

**WHERE** FirstShipDate > Date\_Ship\_By;

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Oracle SQL Developer : con2

Connections: con2

Script Output: Task completed in 0.59 seconds

```
CREATE VIEW BQS AS
SELECT Job_id, Location_ID, Location_Name, Sales_class_id, sales_class_desc, Date_Ship_By, FirstShipDate, getBusDaysDiff(FirstShipDate, Date_Ship_By) AS DayoDiff
FROM W_JOB_F, W_LOCATION_D, W_SALES_CLASS_D, W_SUB_JOB_F, W_SHIPMENT_F
WHERE W_JOB_F.Location_ID = W_LOCATION_D.Location_ID AND W_JOB_F.Sales_Class_Id = W_SALES_CLASS_D.Sales_Class_Id AND W_SUB_JOB_F.SUB_JOB_ID = W_SHIPMENT_F.SUB_JOB_ID AND W_JOB_F.Job_Id = W_SUB_J
GROUP BY W_JOB_F.Job_id, W_JOB_F.Location_ID, Location_Name, W_JOB_F.Sales_class_id, sales_class_desc, Date_Ship_By,
WHERE FirstShipDate > Date_Ship_By;
```

JOB_ID	LOCATION_ID	LOCATION_NAME	SALES_CLASS_ID	SALES_CLASS_DESC
313067	9	Montreal	6	Loyalty NoSmart
312947	7	Seattle	4	Credit NoSmart
312956	9	Montreal	4	Credit NoSmart
312735	12	Birmingham	3	Debit NoSmart
312634	5	Denver	2	Credit Smart
312587	9	Montreal	3	Debit NoSmart
312459	7	Seattle	3	Prepaid NoSmart
312294	10	Vancouver	3	Debit NoSmart
312288	7	Seattle	2	Credit Smart
317736	8	Toronto	6	Loyalty NoSmart
313803	9	Montreal	6	Loyalty NoSmart
313931	4	Dallas	4	Credit NoSmart
314167	3	Chicago	3	Debit NoSmart
314300	7	Seattle	2	Credit Smart
314347	8	Toronto	6	Loyalty NoSmart
313071	10	Vancouver	3	Debit NoSmart
312853	9	Montreal	4	Credit NoSmart
312859	6	Los Angeles	6	Loyalty NoSmart
312450	4	Dallas	4	Credit NoSmart
312435	7	Seattle	4	Credit NoSmart
312242	7	Seattle	4	Credit NoSmart
312249	2	Atlanta	3	Debit NoSmart
312044	7	Seattle	6	Loyalty NoSmart
313313	12	Birmingham	6	Loyalty NoSmart
313595	6	Los Angeles	6	Loyalty NoSmart
314462	4	Dallas	2	Credit Smart
313145	1	New York	5	Prepaid NoSmart
312893	9	Montreal	3	Debit NoSmart
312785	12	Birmingham	2	Credit Smart
312552	11	London	6	Loyalty NoSmart
312469	7	Seattle	4	Credit NoSmart
312320	8	Toronto	6	Loyalty NoSmart
312115	1	New York	1	Debit Smart
312027	7	Seattle	6	Loyalty NoSmart
313848	8	Toronto	6	Loyalty NoSmart
314298	10	Vancouver	3	Debit NoSmart

87 rows selected.