**Problem set 1:**

**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;**

Result: 1705 rows



**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**

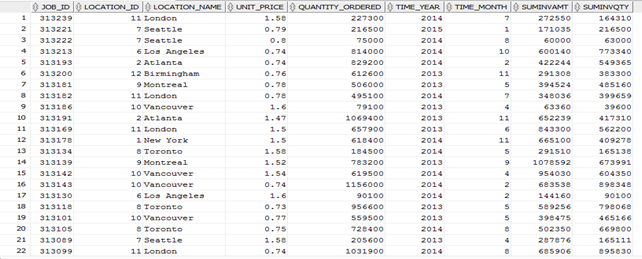
**,Unit\_Price**

**,Quantity\_Ordered**

**,Time\_Year**

**,Time\_Month;**

Result: 2504 rows



**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**

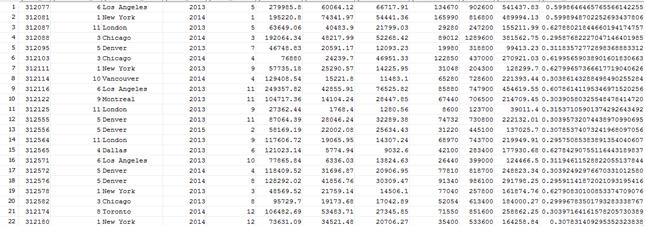
**,Location\_Name**

**,Time\_Year**

**,Time\_Month**

**);**

Result: 2527 rows



**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**

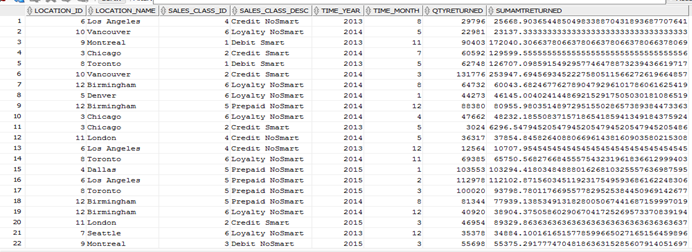
**,W\_InvoiceLine\_F.Sales\_Class\_Id**

**,Sales\_Class\_Desc**

**,Time\_Year**

**,Time\_Month;**

Result: 1159 rows



**BQ5**

**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;**

**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**

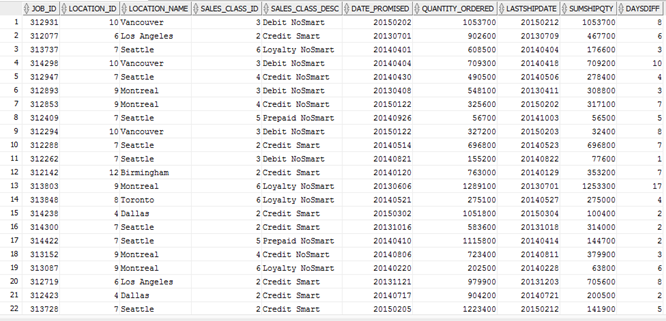
**,Date\_Promised**

**,Quantity\_Ordered**

**)**

**WHERE LastShipDate > Date\_Promised;**

Result: 71 rows



**BQ6**

**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;**

**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;**

Result: 87 rows

