

Solution to Module 4

1.

BQ1

```
SELECT W_Location_D.Location_Id, Location_Name,
       W_Sales_Class_D.Sales_Class_Id, Sales_Class_Desc,
       Base_Price, Time_Year, Time_Month,
       SUM ( QUANTITY_ORDERED ) AS Sum_Job_Qty,
       SUM ( QUANTITY_ORDERED * Unit_Price ) AS Sum_Job_Amount
FROM W_JOB_F, W_Location_D, W_TIME_D, W_Sales_Class_D
WHERE W_Location_D.Location_Id = W_Job_F.Location_Id
AND W_JOB_F.CONTRACT_DATE = W_TIME_D.Time_Id
AND W_Job_F.Sales_Class_Id = W_Sales_Class_D.Sales_Class_Id
GROUP BY W_Location_D.Location_Id, Location_Name,
         W_Sales_Class_D.Sales_Class_Id, Sales_Class_Desc,
         Base_Price, Time_Year, Time_Month;
```

BQ2

```
SELECT W_Sub_Job_F.Job_Id,
       W_Location_D.LOCATION_ID, W_LOCATION_D.LOCATION_NAME,
       Quantity_Ordered, Unit_Price,
       W_TIME_D.TIME_YEAR, W_TIME_D.TIME_MONTH,
       SUM (Invoice_Quantity) AS SumInvoiceQty,
       SUM (Invoice_Amount) AS SumInvoiceAmt
FROM W_Job_Shipment_F, W_Sub_Job_F, W_Location_D, W_Time_D,
     W_InvoiceLine_F, W_Job_F
WHERE W_Sub_Job_F.Sub_Job_Id = W_Job_Shipment_F.Sub_Job_Id
AND W_Job_Shipment_F.Invoice_Id = W_InvoiceLine_F.Invoice_Id
AND W_Time_D.Time_Id = Contract_Date
AND W_Location_D.Location_Id = W_InvoiceLine_F.Location_Id
AND W_Job_F.Job_Id = W_Sub_Job_F.Job_Id
GROUP BY W_Sub_Job_F.Job_Id, W_Location_D.Location_Id,
         W_LOCATION_D.LOCATION_NAME, Quantity_Ordered, Unit_Price,
         W_Time_D.Time_Year, W_Time_D.Time_Month;
```

-- CREATE VIEW statement

```
CREATE VIEW LocRevenueSummary AS
SELECT W_Sub_Job_F.Job_Id,
       W_Location_D.LOCATION_ID, W_LOCATION_D.LOCATION_NAME,
       Quantity_Ordered, Unit_Price,
       W_TIME_D.TIME_YEAR, W_TIME_D.TIME_MONTH,
       SUM (Invoice_Quantity) AS SumInvoiceQty,
       SUM (Invoice_Amount) AS SumInvoiceAmt
FROM W_Job_Shipment_F, W_Sub_Job_F, W_Location_D, W_Time_D,
     W_InvoiceLine_F, W_Job_F
```

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WHERE W_Sub_Job_F.Sub_Job_Id = W_Job_Shipment_F.Sub_Job_Id
AND W_Job_Shipment_F.Invoice_Id = W_InvoiceLine_F.Invoice_Id
AND W_Time_D.Time_Id = Contract_Date
AND W_Location_D.Location_Id = W_InvoiceLine_F.Location_Id
AND W_Job_F.Job_Id = W_Sub_Job_F.Job_Id
GROUP BY W_Sub_Job_F.Job_Id, W_Location_D.Location_Id,
        W_LOCATION_D.LOCATION_NAME, Quantity_Ordered, Unit_Price,
        W_Time_D.Time_Year, W_Time_D.Time_Month;

```

BQ3

```

SELECT W_Sub_Job_F.Job_Id,
       W_Location_D.LOCATION_ID ,W_LOCATION_D.LOCATION_NAME,
       W_TIME_D.TIME_YEAR, W_TIME_D.TIME_MONTH,
       SUM(Cost_Labor) AS SumLaborCosts,
       SUM(Cost_Material) AS SumMaterialCosts,
       SUM(Cost_Overhead) AS SumOvrhdCosts,
       SUM(Machine_Hours * Rate_Per_Hour) AS SumMachineCosts,
       SUM(Quantity_Produced) AS SumQtyProduced,
       SUM(Cost_Labor + Cost_Material + Cost_Overhead +
           (Machine_Hours * Rate_Per_Hour) ) AS TotalCosts,
       SUM( Cost_Labor + Cost_Material + Cost_Overhead + (Machine_Hours *
           Rate_Per_Hour) ) / SUM(Quantity_Produced) AS UnitCosts
FROM W_Job_F, W_Sub_Job_F, W_Location_D, W_Time_D, W_Machine_Type_D
WHERE W_Job_F.Location_Id = W_Location_D.Location_Id
AND W_Sub_Job_F.Machine_Type_Id = W_Machine_Type_D.Machine_Type_Id
AND W_Time_D.Time_Id = Contract_Date
AND W_Job_F.Job_Id = W_Sub_Job_F.Job_Id
GROUP BY W_Sub_Job_F.Job_Id, W_Location_D.LOCATION_ID,
        W_LOCATION_D.LOCATION_NAME, W_TIME_D.TIME_YEAR,
        W_TIME_D.TIME_MONTH;

```

-- CREATE VIEW statement

```

CREATE VIEW LocCostSummary AS
SELECT W_Sub_Job_F.Job_Id,
       W_Location_D.LOCATION_ID ,W_LOCATION_D.LOCATION NAME,
       W_TIME_D.TIME_YEAR, W_TIME_D.TIME_MONTH,
       SUM(Cost_Labor) AS SumLaborCosts,
       SUM(Cost_Material) AS SumMaterialCosts,
       SUM(Cost_Overhead) AS SumOvrhdCosts,
       SUM(Machine_Hours * Rate_Per_Hour) AS SumMachineCosts,
       SUM(Quantity_Produced) AS SumQtyProduced,
       SUM(Cost_Labor + Cost_Material + Cost_Overhead +
           (Machine_Hours * Rate_Per_Hour) ) AS TotalCosts,
       SUM( Cost_Labor + Cost_Material + Cost_Overhead + (Machine_Hours *
           Rate_Per_Hour) ) / SUM(Quantity_Produced) AS UnitCosts
FROM W_Job_F, W_Sub_Job_F, W_Location_D, W_Time_D, W_Machine_Type_D
WHERE W_Job_F.Location_Id = W_Location_D.Location_Id
AND W_Sub_Job_F.Machine_Type_Id = W_Machine_Type_D.Machine_Type_Id

```

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AND W_Time_D.Time_Id = Contract_Date
AND W_Job_F.Job_Id = W_Sub_Job_F.Job_Id
GROUP BY W_Sub_Job_F.Job_Id, W_Location_D.LOCATION_ID,
        W_LOCATION_D.LOCATION_NAME, W_TIME_D.TIME_YEAR,
        W_TIME_D.TIME_MONTH;

```

BQ4

```

SELECT
W_Location_D.Location_Id, Location_Name,
W_Sales_Class_D.Sales_Class_Id, Sales_Class_Desc,
Time_Year, Time_Month,
SUM ( quantity_shipped - invoice_quantity ) as SumReturnQty,
SUM ( (quantity_shipped - invoice_quantity) *
      (invoice_amount/invoice_quantity) ) AS SumReturnAmt
FROM W_INVOICELINE_F INNER JOIN W_TIME_D
  ON W_INVOICELINE_F.INVOICE_SENT_DATE = W_TIME_D.TIME_ID
  INNER JOIN W_Location_D
    ON W_INVOICELINE_F.Location_Id = W_Location_D.Location_Id
  INNER JOIN W_Sales_Class_D
    ON W_INVOICELINE_F.Sales_Class_Id = W_Sales_Class_D.Sales_Class_Id
WHERE quantity_shipped > invoice_quantity
GROUP BY W_Location_D.Location_Id, Location_Name,
        W_Sales_Class_D.Sales_Class_Id, Sales_Class_Desc, Time_Year, Time_Month;

```

BQ5

```

SELECT W_JOB_F.job_ID,
W_JOB_F.SALES_CLASS_ID, Sales_Class_Desc,
W_JOB_F.LOCATION_ID, Location_Name,
Date_Promised, Last_Shipment_Date,
QUANTITY_ORDERED, SumDelayShipQty,
GetBusDaysDiff ( date_promised, Last_Shipment_Date ) AS BusDaysDiff
FROM W_JOB_F , W_Location_D, W_Sales_Class_D,
(
  SELECT W_SUB_JOB_F.JOB_ID,
    MAX(actual_ship_Date) AS Last_Shipment_Date,
    SUM ( actual_Quantity ) AS SumDelayShipQty
  FROM W_JOB_SHIPMENT_F, W_SUB_JOB_F, W_Job_F
  WHERE 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
    AND Actual_Ship_Date > Date_Promised
  GROUP BY W_SUB_JOB_F.JOB_ID
) X1
WHERE date_promised < X1.Last_Shipment_Date
  AND W_JOB_F.JOB_ID = X1.Job_Id
  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;

```

-- CREATE VIEW statement

```

CREATE VIEW LastShipmentDelays AS
SELECT W_JOB_F.job_ID ,
       W_JOB_F.SALES_CLASS_ID, Sales_Class_Desc,
       W_JOB_F.LOCATION_ID, Location_Name,
       Date_Promised, Last_Shipment_Date,
       QUANTITY_ORDERED, SumDelayShipQty,
       GetBusDaysDiff ( date_promised, Last_Shipment_Date ) AS BusDaysDiff
FROM W_JOB_F , W_Location_D, W_Sales_Class_D,
(
  SELECT W_SUB_JOB_F.JOB_ID,
         MAX(actual_ship_Date) AS Last_Shipment_Date,
         SUM ( actual_Quantity ) AS SumDelayShipQty
  FROM W_JOB_SHIPMENT_F, W_SUB_JOB_F, W_Job_F
  WHERE 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
        AND Actual_Ship_Date > Date_Promised
  GROUP BY W_SUB_JOB_F.JOB_ID
) X1
WHERE date_promised < X1.Last_Shipment_Date
      AND W_JOB_F.JOB_ID = X1.Job_Id
      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;

```

BQ6

```

SELECT W_JOB_F.job_ID,
       W_JOB_F.SALES_CLASS_ID, Sales_Class_Desc,
       W_JOB_F.LOCATION_ID, Location_Name,
       Date_Ship_By,
       FirstShipDate,
       GetBusDaysDiff ( date_ship_By, FirstShipDate ) AS BusDaysDiff
FROM W_JOB_F, W_Location_D, W_Sales_Class_D,
(
  SELECT W_SUB_JOB_F.JOB_ID, MIN(actual_ship_Date) as FirstShipDate
  FROM W_JOB_SHIPMENT_F, W_SUB_JOB_F
  WHERE W_SUB_JOB_F.SUB_JOB_ID = W_JOB_SHIPMENT_F.SUB_JOB_ID
  GROUP BY W_SUB_JOB_F.JOB_ID
) X1
WHERE date_ship_By < X1.FirstShipDate
      AND W_JOB_F.JOB_ID = X1.Job_Id
      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;

```

-- CREATE VIEW statement

```

CREATE VIEW FirstShipmentDelays AS
SELECT W_JOB_F.job_ID,
       W_JOB_F.SALES_CLASS_ID, Sales_Class_Desc,
       W_JOB_F.LOCATION_ID, Location_Name,
       Date_Ship_By,
       FirstShipDate,
       GetBusDaysDiff ( date_ship_By, FirstShipDate ) AS BusDaysDiff

```

```
FROM W_JOB_F , W_Location_D, W_Sales_Class_D,  
  (SELECT W_SUB_JOB_F.JOB_ID, MIN(actual_ship_Date) as FirstShipDate  
    FROM W_JOB_SHIPMENT_F, W_SUB_JOB_F  
   WHERE W_SUB_JOB_F.SUB_JOB_ID = W_JOB_SHIPMENT_F.SUB_JOB_ID  
   GROUP BY W_SUB_JOB_F.JOB_ID  
  ) X1  
WHERE date_ship_By < X1.FirstShipDate AND W_JOB_F.JOB_ID = X1.Job_Id  
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;
```