**Module 2 – Assignment 2**

In the below table for Aggregation properties column,

A -> Additive measure

N -> Non-additive measure

|  |  |  |
| --- | --- | --- |
| **Data Source** | **Measures** | **Aggregation Properties** |
| ERP invoice | Invoice\_Amount | A |
|  | Invoice\_Quantity | A |
| ERP job | Number of subjobs | A |
|  | Unit\_Price | N |
|  | Quantity\_Ordered | A |
|  | Quotation\_Amount | A |
|  | Quotation\_Ordered | A |
| Lead file | Quote\_Qty | A |
|  | Quote\_Price | N |
|  | Quote\_Value | A |
| Sales Summary | Actual\_units | A |
|  | Actual\_Labor\_Cost | A |
|  | Forecast\_units | A |
|  | Forecast\_Amount | A |
| Cost Summary | Actual\_Units | A |
|  | Actual\_Labor\_Cost | A |
|  | Actual\_Material\_Cost | A |
|  | Actual\_Machine\_Cost | A |
|  | Actual\_Overhead\_Cost | A |
|  | Budget\_Units | A |
|  | Budget\_Labor\_Cost | A |
|  | Budget\_Material\_Cost | A |
|  | Budget\_Machine\_Cost | A |
|  | Budget\_Overhead\_Cost | A |

**Cubes:**

What are job revenue trends by location over time?

|  |  |  |
| --- | --- | --- |
| **Cube** | **Dimension** | **Measures** |
| JobsRevenue | **-** | **-** |
| Job\_Id | **Time** | **Quotation\_Amount** |
|  | **Location** |  |

What are sales agent productivity from leads to jobs over time?

|  |  |  |
| --- | --- | --- |
| **Cube** | **Dimension** | **Measures** |
| Leads2Jobs | **-** | **-** |
| Job\_Id | SalesAgent | **Quote\_Price** |
|  |  | Quote\_Value |
|  |  | Number\_Of\_Subjobs |
|  |  | Unit\_Price |
|  |  | Quantity\_Ordered |
|  |  | Quotation\_Amount |
|  |  | Quotation\_Ordered |
| Lead\_Id | Time | **Quote\_Qty** |

What are production trends for jobs (time to subjob production) for entities over time?

What are shipment trends for jobs (contract time to shipment) for entities over time as compared to shipment promised dates and first shipping dates?

|  |  |  |
| --- | --- | --- |
| **Cube** | **Dimension** | **Measures** |
| Invoice | **-** | **-** |
| Invoice\_Id | Time | Invoice\_Amount |
|  | Location | Invoice\_Quantity |
|  | Customer |  |
|  | SalesClass |  |

|  |  |  |
| --- | --- | --- |
| **Cube** | **Dimension** | **Measures** |
| Jobs2SubJobs2Shipme  nts | **-** | **-** |
| JOb\_Id | Time | Number\_Of\_Subjobs |
| SubJob\_Id | Customer | Unit\_Price |
| Shipment\_Id | Location | Quantity\_Ordered |
|  | SalesClass | Quotation\_Amount |
|  |  | Quotation\_Ordered |
|  |  | Boxes |
|  |  | Quantity\_Per\_Box |
|  |  | Quantity\_Per\_Partial\_Box |
|  |  | Shipment\_Amount |
|  |  | Actual\_Ship\_Date |
|  |  | Requested\_Ship\_Date |
|  |  | Cost\_Labor |
|  |  | Cost\_Material |
|  |  | Cost\_Overhead |
|  |  | Machine\_Hours |
|  |  | Quantity\_Produced |
|  |  | Sub\_Job\_Amount |

What are the gross margins for a location?

How much does a location’s gross margin vary from its forecast/budget by month?

What products are the most difficult to budget or forecast?

What products and locations are the most profitable over time?

|  |  |  |
| --- | --- | --- |
| **Cube** | **Dimension** | **Measures** |
| Sales2Costs | **-** | **-** |
| Summary\_Sales\_Id | Time | Actual\_Units |
| Summary\_Cost\_Id | Location | Actual\_Amount |
|  | SalesClass | Forecast\_Units |
|  |  | Budget\_Material\_Cost |
|  |  | Budget\_Machine\_Cost |
|  |  | Budget\_Overhead\_Cost |
|  |  | Quantity\_Produced |
|  |  | Forecast\_Amount |
|  |  | Actual\_Units |
|  |  | Actual\_Labor\_Cost |
|  |  | Actual\_Material\_Cost |
|  |  | Actual\_Machine\_Cost |
|  |  | Actual\_Overhead\_Cost |
|  |  | Budget\_Units |
|  |  | Budget\_Labor\_Cost |