**Problem 2:**

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| **Data Source** | **Measures** | **Aggregation Properties** |
| Invoice | Invoice\_Amount |  |
| Job | Number\_Of\_SubJobs  Unit\_Price  Quantity\_Ordered  Quotation\_Amount  Quotation\_Ordered | Additive  Non- Additive  Additive  Additive  Additive |
| Sub Job | Cost\_Labor  Cost\_Material  Cost\_Overhead  Quantity\_Produced | Additive  Additive  Additive  Additive |
| Shipment | Actual\_Quantity  Requested\_Quantity  Boxes  Quantity\_Per\_Box  Quantity\_Per\_PartialBox | Additive  Additive  Additive  Additive  Additive |
| Financial Sales Summary | Actual\_Units  Actual\_Amount  Forecast\_Units  Forecast\_Amounts | Additive  Additive  Additive  Additive |
| Financial Cost Summary | Actual\_Labor\_Cost  Actual\_Material\_Cost  Actual\_Machinery\_Cost  Actual\_Overhead\_Cost  Budget\_Units  Budget\_Labor\_Cost  Budget\_Material\_Cost  Budget\_Machinery\_Cost  Budget\_Overhead\_Cost | Additive  Additive  Additive  Additive  Additive  Additive  Additive  Additive  Additive |
| Lead File | Quote\_Quantity  Quote\_Price  Quote\_Value | Additive  Additive  Additive |

|  |  |  |
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| **Cube** | **Dimensions** | **Measures** |
| Invoice | Time,Customer,  Customer\_Location, Location, Machine\_Type, Sales\_Agent, Sales\_Class | Invoice\_Amount |
| Job | Time, Customer  Customer\_Location  Location, Machine\_Type  Sales\_Agent, Sales\_Class | Number\_Of\_SubJobs  Unit\_Price  Quantity\_Ordered  Quotation\_Amount  Quotation\_Ordered |
| Sub Job | Time, Customer  Customer\_Location  Location, Machine  Sales\_Agent, Sales\_Class | Cost\_Labor  Cost\_Material  Cost\_Overhead  Qunatity\_Produced |
| Shipment | Time,Customer,  Customer\_Location,  Location,Machine\_Type, Sales\_Agent,Sales\_Class | Actual\_Quantity  Requested\_Quantity  Boxes  Quantity\_Per\_Box  Quantity\_Per\_PartialBox |
| Financial Sales Summary | Time,Customer,  Customer\_Location,  Location,Machine\_Type, Sales\_Agent,Sales\_Class | Actual\_Units  Actual\_Amount  Forecast\_Units  Forecast\_Amounts |
| Financial Cost Summary | Time,Customer,  Customer\_Location,  Location,Machine\_Type, Sales\_Agent,Sales\_Class | Actual\_Labor\_Cost  Actual\_Material\_Cost  Actual\_Machinery\_Cost  Actual\_Overhead\_Cost  Budget\_Units  Budget\_Labor\_Cost  Budget\_Material\_Cost  Budget\_Machinery\_Cost  Budget\_Overhead\_Cost |
| Lead File | Customer\_Location  Location, Machine\_Type  Sales\_Agent, Sales\_Class | Quote\_Quantity  Quote\_Price  Quote\_Value |