**Solution for Problem3 of Module 2 Assignment**

**For Each Cube(Coarser and Fine) (Calcaulated)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Cube** | **Grain** | **Unadjusted Size** | **Fact Table(Size)** | **Sparsity**  **(1 - Fact/Unadj.)** |
| Sales (Financial) (Coarser) | Time:Week:52 | 52 | 60 | -.15 |
| Sales (Financial) (Finer) | Time: Day: 365 | 365 | 60 | 0.836 |
| Cost (Coarser) | Time:Week:52  MachineType:10 | 52\*10 | 600 | -.1538 |
| Cost) (Finer) | Time: Day: 365  MachineType:10 | 365\*10 | 600 | 0.8356 |
| Lead(Coarser) | Customer(Zip Code):300  Sales\_Agent:50  Time:Month: 12, Week:52 | 300\*50\*12  300\*50\*52 | 250000  250000 | -.3888  0.6794 |
| Lead (Finer) | Customer: 3000  Sales\_Agent,:50  Time:Day: 365 | 3000\*50\*365 | 250000 | 0.954 |
| Job(Coarser) | Customer(Zip Code):300  Time:Month:12, Week:52  ,Sales\_Agent:50 | 300\*12\*50  300\*52\*50 | 50000  50000 | 0.7222  0.9358 |
| Job ) (Finer) | Customer,:3000  Time:Day:365  ,Sales\_Agent:50 | 3000\*365\*50 | 50000 | 0.999 |
| SubJob(Coarser) | Customer(Zip Code): 300  MachineType: 10  Time:Week:52 | 300\*10\*52 | 5\*50000 | -0.60 |
| SubJob (Finer) | Customer:3000  MachineType,:10  Time:Day:365 | 3000\*10\*365 | 5\*50000 | 0.977 |
| Shipment(Coarser) | CustLocation(ZipCode):500,  Time:Month:12, Week:52 | 500\*12  500\*52 | 2500000 | -Value |
| Shipment ) (Finer) | CustLocation: 10,000  Time:Day:365 | 10000\*365 | 2500000 | 0.315 |
| Invoice(Coarser) | Customer(Zip Code):300  Time:Month:12, Week:52 | 300\*12  300\*52 | 250000  250000 | -Value |
| Invoice (Finer) | Customer,:3000  Time:Day:365 | 3000\*365 | 250000 | 0.771689 |