TU Hotels

The processes, and hence the identity of the fact tables:

1. Sales
2. Cost
3. Revenue
4. Customers
5. Distribution channels
6. Geographic locations
7. Product
8. Segment profitablitiy

Identities of Fact Table:

Base Fact Table:

* 1. Product\_key
  2. Time\_key
  3. Location\_key
  4. Market\_Segment\_key

Quarterly Aggregated table:

* + 1. Product\_key
    2. Quarterley\_key
    3. Location\_key
    4. Market\_segment\_key

Month Aggregated table:

* + 1. Product\_key
    2. Month\_key
    3. Location\_key
    4. Market\_segment\_key

Yearly Aggregated table:

* + 1. Product\_key
    2. Year\_key
    3. Location\_key
    4. Market\_segment\_key

Customer Fact Table:

1. Customer\_key
2. Product\_key
3. Location\_key
4. Market\_Segment\_key
5. Time\_key

Sales Fact Table:

1. Product\_key
2. Distribution\_chanel
3. Location\_key
4. Time\_key

Profitable\_Segemnt Aggregated fact table:

1. Segment\_key
2. Profit key
3. Time\_key
4. Total\_Sales

Distribution Channel Agg Fact table:

1. Sales\_key
2. Ditributed Channels key
3. Customers key
4. Location Key
5. Time\_key

Seasonal\_Variance Agg Fact Table:

1. Seasonal sales
2. Location\_key
3. Market\_Segement Key
4. Year\_Key

2. The grain of each fact table:

* Base (Product, Month, City, Hotel or café)
* Customer(cust by sale, cust by hotel/café,City,month)
* Sales()
* Distributed Channel agg
* Seasonal var
* Profit\_Segment agg
* Quarter
* Month
* Year

3. Dimensions:

**Base Fact Table**: Product key, Time key , Location key, Market Segment key

**Quarterly Aggregated Table**: Product key, Quarterley key, Location key, Market segment key

**Month Aggregated table**: Product key Month key Location key Market segment key

**Yearly Aggregated table:** Product key**,** Year keyLocation keyMarket segment key

**Customer Fact Table:** Customer key,Product key, Location keyMarket Segment key **,**Time key

**Sales Fact Table:** Product key **,**Distribution chanel,Location key,Time key

**Profitable\_Segemnt Aggregated fact table:** Segment\_key,Gross profit key**,**Time key**,** Total Sales

**Distribution Channel Agg Fact table**: Sales key, Direct sales profit, Catalog sales profit, Online Internet sales profit, Customers key, Location Key, Time key

**Seasonal\_Variance Agg Fact Table:** Seasonal sales, Location key, Market Segement Key, Year Key

**4. The facts, including pre-calculated facts:**

The major facts and pre calculated facts are

1. Total Quantity sold
2. Profit wise products
3. Total Yearly sales
4. Margin percentage
5. Percentage sales for distribution channels
6. Seasonal sales patterns per product
7. Yearly seasonal sales

**5. The dimension attributes with complete descriptions and proper terminology:**

* Product
  + Product Key primary key
  + SKU Number It is SKU number of production
  + SKU Desc It is description
  + Product Class It is type of product category
  + Price It is price of product
  + Brand It is brand of product
* Time
  + Time key Primary key
  + Year
  + Month
  + Day
* Location
  + Location Key primary key
  + Country The country in which Hotel is located
  + City it is name of city
  + ZIP Code It is Zip code of city
  + Phone number
* Market Segment
  + Hotel ID
  + Hotel Desc
  + Hotel Sales
  + Café
  + Café Desc
  + Café Sales
* Customer Dimension:
  + Customer\_ID
  + Customer Name
  + Customer SSN
  + Cutomer Phone
  + Customer Region
* Quarterly
  + Quarter\_key
  + Quarter
  + Year\_key
* Yearly
  + Year\_key
  + Year
* Week Dimension
  + Week\_key
  + Week
  + Month\_key
* Month Dimension:
  + Month key
  + Month
  + Year key
* Sales Dimension
  + Sales key primary key
  + Hotel\_Sale
  + Café\_Sale
  + Location key
* Sessional Dimension:
  + Sessional key
  + Sessional sales
  + Year key
  + (IDK----------------------------------------------if there is need for this)
* Profit Dimension:
  + Profit key
  + Gross Profit of sales
  + Sale key
  + Profit Desc
* Distributed Channels:
  + Distributed channel key
  + Distributed Channel Desc Sales(internet,cat,Direct)
  + Location key
  + Profit key

**6. How to track slowly changing dimensions:**

We will track slowly changing Dimensions by the Type TWO approach where we generate a new account record every time a meaningful account attribute changes.

1. **The historical duration of the database:**

The historical duration of the database is 7 to 8 years approximately however it varies according to the type of Database and under certain requirements and constraints.

**8. The urgency with which the data is extracted and loaded into the data warehouse:**

The urgency with which the data is extracted and loaded into the data ware is daily that for 24/7 data ware houses mostly