SELECT table\_name, table\_rows

FROM INFORMATION\_SCHEMA.TABLES

WHERE TABLE\_SCHEMA = 'aw';

Table

Description automatically generated

2,

SELECT table\_name, column\_name

FROM INFORMATION\_SCHEMA.COLUMNS

WHERE column\_key = 'PRI';

Text, table

Description automatically generated

3,

Dim represent all dimension table names. Fact represent all fact table name.

4. we use recursion relationship in table because. It can help us find the superior of any employee and we can get the hierarchal structure of the entire company.

5, Mountain, road, touring bikes

6, use aw;

SELECT SUM(a.UnitPrice) AS 'Total Money', b.CalendarYear, c.EnglishProductSubcategoryName

FROM FactInternetSales a, DimTime b, DimProductSubcategory c, DimProduct d

WHERE a.ProductKey = d.ProductKey AND c.ProductSubcategoryKey = d.ProductSubcategoryKey AND a.OrderDateKey = b.TimeKey

AND (c.EnglishProductSubcategoryName = 'Mountain Bikes' OR c.EnglishProductSubcategoryName = 'Road Bikes' OR c.EnglishProductSubcategoryName = 'Touring Bikes')

GROUP BY b.CalendarYear, c.EnglishProductSubcategoryName;

Table

Description automatically generated

From table, we know that Mountain bike model had the highest sales (in dollar volume) in 2003 .

7,

use aw;

SELECT c.EnglishProductSubcategoryName

from DimProductSubcategory c

where c.EnglishProductSubcategoryName NOT IN( 'Mountain Bikes' , 'Road Bikes' ,'Touring Bikes')

limit 5;

Table

Description automatically generated with medium confidence

8,

use aw;

SELECT SUM(a.OrderQuantity) AS 'Total number ', b.CalendarYear, d.Color

FROM FactInternetSales a, DimTime b, DimProductSubcategory c, DimProduct d

WHERE a.ProductKey = d.ProductKey AND c.ProductSubcategoryKey = d.ProductSubcategoryKey AND a.OrderDateKey = b.TimeKey

AND (c.EnglishProductSubcategoryName = 'Mountain Bikes' OR c.EnglishProductSubcategoryName = 'Road Bikes' OR c.EnglishProductSubcategoryName = 'Touring Bikes')

GROUP BY b.CalendarYear, d.Color;

Table

Description automatically generated

So red bike is most popular in 2001,

red bike is most popular in 2002,

black bike is most popular in 2003

black bike is most popular in 2004

9,

SELECT SUM(a.OrderQuantity) AS 'Total number ', c.EnglishProductSubcategoryName

FROM FactInternetSales a, DimTime b, DimProductSubcategory c, DimProduct d , DimCustomer u

WHERE u.EnglishEducation='Graduate Degree' AND u.CustomerKey=a.CustomerKey AND a.ProductKey = d.ProductKey AND c.ProductSubcategoryKey = d.ProductSubcategoryKey

AND (c.EnglishProductSubcategoryName = 'Mountain Bikes' OR c.EnglishProductSubcategoryName = 'Road Bikes' OR c.EnglishProductSubcategoryName = 'Touring Bikes')

GROUP BY c.EnglishProductSubcategoryName ;

Application

Description automatically generated with medium confidence

So, Road Bikes have highest sales.

10,

SELECT (SUM(a.UnitPrice)-SUM(ProductStandardCost)) AS 'Profit Margin', b.CalendarYear, g.StateProvinceName

FROM FactInternetSales a, DimTime b, DimProductSubcategory c, DimProduct d , DimCustomer u, DimGeography g

WHERE u.GeographyKey=g.GeographyKey and u.CustomerKey=a.CustomerKey AND a.ProductKey = d.ProductKey AND c.ProductSubcategoryKey = d.ProductSubcategoryKey AND a.OrderDateKey = b.TimeKey AND b.CalendarYear='2004'

AND (c.EnglishProductSubcategoryName = 'Mountain Bikes' OR c.EnglishProductSubcategoryName = 'Road Bikes' OR c.EnglishProductSubcategoryName = 'Touring Bikes')

GROUP BY g.StateProvinceName;

Table

Description automatically generated