1)
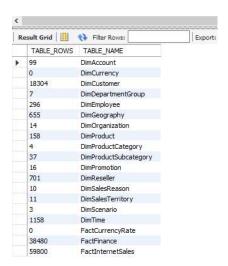
```
1    SELECT table_rows, table_name
2    FROM INFORMATION_SCHEMA.TABLES
3    WHERE TABLE_SCHEMA = 'aw'
```

Result Grid | Filter Rows: | Export:

TABLE_ROWS	TABLE_NAME
99	DimAccount
0	DimCurrency
18304	DimCustomer
7	DimDepartmentGroup
296	DimEmployee
655	DimGeography
14	DimOrganization
158	DimProduct
4	DimProductCategory
37	DimProductSubcategory
16	DimPromotion
701	DimReseller
10	DimSalesReason
11	DimSalesTerritory
3	DimScenario
1158	DimTime
0	FactCurrencyRate
38480	FactFinance
59800	FactInternetSales

2)

Limit to 1000 rows

```
1 •  SELECT TABLE_NAME, COLUMN_NAME
2    FROM INFORMATION_SCHEMA.COLUMNS
3    WHERE TABLE_SCHEMA = 'aw' AND COLUMN_KEY = 'PRI'
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

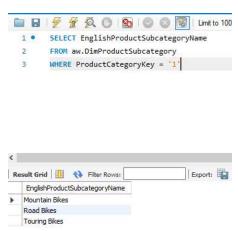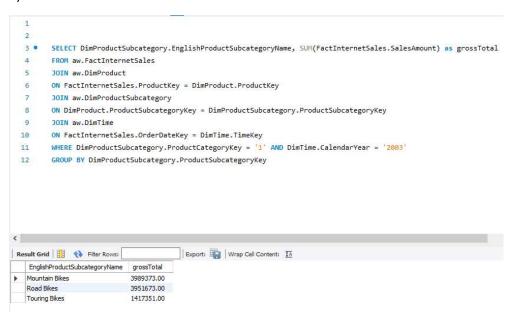| TABLE_NAME	COLUMN_NAME
DimAccount	AccountKey
DimCurrency	CurrencyKey
DimCustomer	CustomerKey
DimDepartmentGroup	DepartmentGroupKey
DimEmployee	EmployeeKey
DimGeography	GeographyKey
DimOrganization	OrganizationKey
DimProduct	ProductKey
DimProductCategory	ProductCategoryKey
DimProductSubcategory	ProductSubcategoryKey
DimPromotion	PromotionKey
DimReseller	ResellerKey
DimSalesReason	SalesReasonKey
DimSalesTerritory	SalesTerritoryKey
DimScenario	ScenarioKey
DimTime	TimeKey
FactInternetSales	SalesOrderNumber
FactInternetSales	SalesOrderLineNumber

3)

They literally labeled them such. Dimension tables have dim and fact tables have fact.
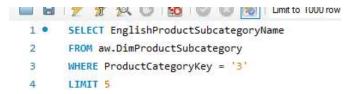
4)

It is because of the parent employee—each boss will have their boss and that boss will have their boss and so on.

5)

```
         Limit to 100
1 •  SELECT EnglishProductSubcategoryName
2    FROM aw.DimProductSubcategory
3    WHERE ProductCategoryKey = '1'
```

EnglishProductSubcategoryName
Mountain Bikes
Road Bikes
Touring Bikes

6)

```
1
2
3 •  SELECT DimProductSubcategory.EnglishProductSubcategoryName, SUM(FactInternetSales.SalesAmount) as grossTotal
4    FROM aw.FactInternetSales
5    JOIN aw.DimProduct
6    ON FactInternetSales.ProductKey = DimProduct.ProductKey
7    JOIN aw.DimProductSubcategory
8    ON DimProduct.ProductSubcategoryKey = DimProductSubcategory.ProductSubcategoryKey
9    JOIN aw.DimTime
10   ON FactInternetSales.OrderDateKey = DimTime.TimeKey
11   WHERE DimProductSubcategory.ProductCategoryKey = '1' AND DimTime.CalendarYear = '2003'
12   GROUP BY DimProductSubcategory.ProductSubcategoryKey
```

EnglishProductSubcategoryName	grossTotal
Mountain Bikes	3989373.00
Road Bikes	3951673.00
Touring Bikes	1417351.00

7)

```
1 ●   SELECT EnglishProductSubcategoryName
2     FROM aw.DimProductSubcategory
3     WHERE ProductCategoryKey = '3'
4     LIMIT 5
```

EnglishProductSubcategoryName
Bib-Shorts
Caps
Gloves
Jerseys
Shorts

8)

```
1 ●   SELECT DimTime.CalendarYear, DimProduct.Color, SUM(FactInternetSales.OrderQuantity) as totalBikes
2     FROM aw.FactInternetSales
3     JOIN aw.DimProduct
4     ON FactInternetSales.ProductKey = DimProduct.ProductKey
5     JOIN aw.DimProductSubcategory
6     ON DimProduct.ProductSubcategoryKey = DimProductSubcategory.ProductSubcategoryKey
7     JOIN aw.DimTime
8     ON FactInternetSales.OrderDateKey = DimTime.TimeKey
9     WHERE DimProductSubcategory.ProductCategoryKey  = '1'
10    AND DimTime.CalendarYear BETWEEN 2000 AND 2005
11    GROUP BY DimTime.CalendarYear , DimProduct.Color
12    ORDER BY DimTime.CalendarYear, totalBikes DESC
```

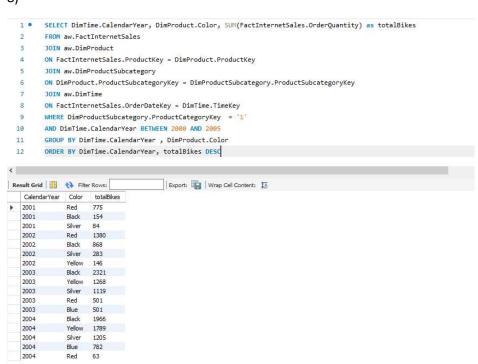| CalendarYear	Color	totalBikes
2001	Red	775
2001	Black	154
2001	Silver	84
2002	Red	1380
2002	Black	868
2002	Silver	283
2002	Yellow	146
2003	Black	2321
2003	Yellow	1268
2003	Silver	1119
2003	Red	501
2003	Blue	501
2004	Black	1966
2004	Yellow	1789
2004	Silver	1205
2004	Blue	782
2004	Red	63

9)

```sql
1 • SELECT ModelName, COUNT(ModelName) AS total
2   FROM aw.DimProduct
3   JOIN aw.FactInternetSales
4   ON DimProduct.ProductKey = FactInternetSales.ProductKey
5   JOIN aw.DimProductSubcategory
6   ON DimProduct.ProductSubcategoryKey = DimProductSubcategory.ProductSubcategoryKey
7   JOIN aw.DimCustomer
8   ON FactInternetSales.CustomerKey = DimCustomer.CustomerKey
9   WHERE DimCustomer.EnglishEducation = 'Graduate Degree' AND DimProductSubcategory.ProductCategoryKey = '1'
10  GROUP BY ModelName
11  ORDER BY total DESC
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

ModelName	total
Mountain-200	715
Road-150	318
Road-250	296
Touring-1000	274
Road-750	219
Road-550-W	216
Road-350-W	150
Road-650	135
Mountain-400-W	101
Touring-3000	91
Mountain-500	76
Touring-2000	68
Mountain-100	61

10)

```sql
1 • SELECT DimGeography.StateProvinceName, SUM(FactInternetSales.UnitPrice - FactInternetSales.ProductStandardCost) as margin
2   FROM FactInternetSales
3   JOIN DimProduct
4   ON FactInternetSales.ProductKey = DimProduct.ProductKey
5   JOIN DimCustomer
6   ON FactInternetSales.CustomerKey = DimCustomer.CustomerKey
7   JOIN DimGeography
8   ON DimCustomer.GeographyKey = DimGeography.GeographyKey
9   JOIN DimTime
10  ON FactInternetSales.OrderDateKey = DimTime.TimeKey
11  WHERE DimTime.CalendarYear = '2004'
12  GROUP BY DimGeography.StateProvinceName
13  ORDER BY margin DESC
14
15
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

StateProvinceName	margin
California	847226.00
England	499735.00
New South Wales	464461.00