|  |
| --- |
| **Category** |
| CategoryID |
| CategoryName |

|  |
| --- |
| **Period** |
| Year |
| Quarter |
| Month |
| Day |

|  |
| --- |
| Category |
| Product |
| Period |
| Customer |
| UnitPrice |
| Quantity |
| Discount |

|  |
| --- |
| **Product** |
| ProductID |
| Name |

|  |
| --- |
| **Customer** |
| CustomerID |
| CompanyName |
| City |
| Country |

|  |
| --- |
| OrderDetails |

The above star schema consists of two types of tables: a fact table and four dimensional tables. We design the Product table as the fact table and Category table, Product table, Period table and Customer table as four dimensional tables severally. Each dimension table has a one-to-many relationship to the central fact table. As for the sales report should show the sales figures of shops in different countries for certain period of time, we extracted the useful columns which contains the information of product, category, customer and date from different tables as shown in the graph above. And aggregated these columns to build a new one can meet the requirements in the sales report.

The primary benefit of this star schema is its simplicity for users to write, and databases to process: queries are written with simple inner joins between the facts and four dimensions. Star joins are simpler than possible in [snowflake schema](http://en.wikipedia.org/wiki/Snowflake_schema). Where conditions need only to filter on the attributes desired, and aggregations are fast. We users can see clearly from the hierarchical design and get the target information.

The structure of searching:

