# An overview of the fictional company Wide World Importers

Source (which you can also use for further investigations into the company and the database tables): <https://docs.microsoft.com/en-us/sql/samples/wide-world-importers-what-is?view=sql-server-ver15>

Wide World Importers (WWI) is a wholesale novelty goods importer and distributor operating from the San Francisco bay area.

As a wholesaler, WWI's customers are mostly companies who resell to individuals. WWI sells to retail customers across the United States including specialty stores, supermarkets, computing stores, tourist attraction shops, and some individuals. WWI also sells to other wholesalers via a network of agents who promote the products on WWI's behalf. While all of WWI's customers are currently based in the United States, the company is intending to push for expansion into other countries.

WWI buys goods from suppliers including novelty and toy manufacturers, and other novelty wholesalers. They stock the goods in their WWI warehouse and reorder from suppliers as needed to fulfil customer orders. They also purchase large volumes of packaging materials, and sell these in smaller quantities as a convenience for the customers.

Recently WWI started to sell a variety of edible novelties such as chilli chocolates. The company previously did not have to handle chilled items. Now, to meet food handling requirements, they must monitor the temperature in their chiller room and any of their trucks that have chiller sections.

## Workflow for warehouse stock items

## The typical flow for how items are stocked and distributed is as follows:

* WWI creates purchase orders and submits the orders to the suppliers.
* Suppliers send the items, WWI receives them and stocks them in their warehouse.
* Customers order items from WWI
* WWI fills the customer order with stock items in the warehouse, and when they do not have sufficient stock, they order the additional stock from the suppliers.
* Some customers do not want to wait for items that are not in stock. If they order say five different stock items, and four are available, they want to receive the four items and backorder the remaining item. The item would then be sent later in a separate shipment.
* WWI invoices customers for the stock items, typically by converting the order to an invoice.
* Customers might order items that are not in stock. These items are backordered.
* WWI delivers stock items to customers either via their own delivery vans, or via other couriers or freight methods.
* Customers pay invoices to WWI.
* Periodically, WWI pays suppliers for items that were on purchase orders. This is often sometime after they have received the goods.

# The project

The project uses the WideWorldImportersDW database. As the name suggests, this database is already designed as a Data Warehouse (DW).

## Dimension tables

WideWorldImportersDW has the following dimension tables. The description also includes the relationship to the source tables in the WideWorldImporters source database.

Table

Description automatically generated

## Fact tables

You will use one or more of the following fact tables in your project. Sale is mandatory. The description below includes the relationship to the source tables in Wide World Importers’ source database as well as the analysis tasks that each fact table is typically used with.

Table

Description automatically generated

Documentation for the WWI data warehouse (including descriptions of the columns in the individual tables) can be found here: <https://dataedo.com/samples/html/WideWorldImportersDW/doc/WideWorldImportersDW_6/tables.html>

## Business requirements and non-functional requirements

It is expected of you that you let the data lead to new questions or "areas of concern". You know where to look (Order, Sale, Transactions), and the examples of analyzes in the table above (Sample analytics) can inspire you to where you can start (a kind of "data-driven analysis").

The result must be an interactive environment that provides the business user (CEO, Sales Manager, Order Manager, Marketing Manager, Finance Manager etc.) with options to navigate relevant data as needed.

As mentioned, you must at least use the fact table Sale as the center for applications. Therefore, analytics related to this fact table is mandatory for your application.

For the project, you can assume that the following non-functional requirements have been agreed upon in collaboration with Wide World Importers:

* View, analyze and monitor the sales information with the capability of drill down. Optionally this could also be implemented for orders and/or transaction information.
* Perform multidimensional analysis on sales, order and/or transaction information.
* Allow users to quickly navigate around the data to discover new areas of concern.

## Project requirements and documentation

In the project, you must demonstrate your understanding of the BI-process. The project must include something from each of the 4 main topics of the curriculum: The business requirement definition process, Power BI, Multidimensional modelling + MDX and Tabular modelling + DAX. An exhaustive list of topics and sub-topics can be found in the document “Topics for the project days”, but note that you do *not* need to implement and include everything from every sub-topic! It is up to you to determine which sub-topics suits the business requirements.

The project work must have a cover page, which must contain project name, course name, participant names and numbers and date.

The first part of the document (corresponding to the topics for project day 1) must explain business requirements and selected analyzes, including facts and dimensions as well as Data Mart Schema(s).

The second part of the document consists of your work with topics and sub-topics within project day 2, 3 and 4. For each topic, there must first be a brief (!) explanation of the topic followed by how it is implemented. To document the implementation you can include screenshots, diagrams, tables, code, output, errors, etc.

There is no limit to the number of pages or the number of words and characters.

## Regarding the exam

* You must have the project ready for the oral exam, both on paper and/or pdf and running on your computer.
* Make sure every team member has a copy of the final result.