

Inventory Management Application

An online seller fulfills customer orders placed on the seller's website, and maintains stock of multiple products in their warehouse. The online seller uses inventory management software to accomplish these needs.

The warehouse is divided into multiple bins (shelves or areas of the warehouse) to hold inventory. A bin can contain multiple different products, and a product can have inventory in multiple different bins.

Your task is to develop a web application, using your language and frameworks of choice, that will allow warehouse staff to view, create, edit, and delete: Products, Bins, Inventory Levels, and Orders. Data should be stored in a SQL database of your choice.

Your project delivery should include all source code, and a copy of your database files, as either an .MDF file, a .BAK file, or one or more .SQL files.

While we encourage using C# and Microsoft SQL Server, please use whatever language and SQL database you are most comfortable with.

Product

A Product record is the basic information about the Product that a seller carries.

Field Name	Data Type
ProductID	PK
SKU	nvarchar (unique)
ProductDescription	nvarchar

Order

Orders are placed by a customer for one or more products

Field Name	Data Type
OrderID	PK
OrderNumber	nvarchar (unique)
DateOrdered	DateTime
CustomerName	nvarchar
CustomerAddress	nvarchar

Order Lines

Order lines are related to an Order, and specify which Products has been ordered, and how many. An Order can contain more than one Order Line

Field Name	Data Type
OrderLineID	PK
OrderID	FK
ProductID	FK
QTY	Integer

Bins

Bins are the individual shelves, pallets, or other areas in the warehouse where inventory is located

Field Name	Data Type
BinID	PK
BinName	nvarchar (unique)

Inventory

Inventory records point to the Product in inventory, and the Bin that it is stored in.

There should not be multiple rows for the same Product and Bin.

Quantities of zero do not need to be stored.

Field Name	Data Type
InventoryID	PK
ProductID	FK
BinID	FK
QTY	Integer