ANTHONY DEBRUYN

Year Project
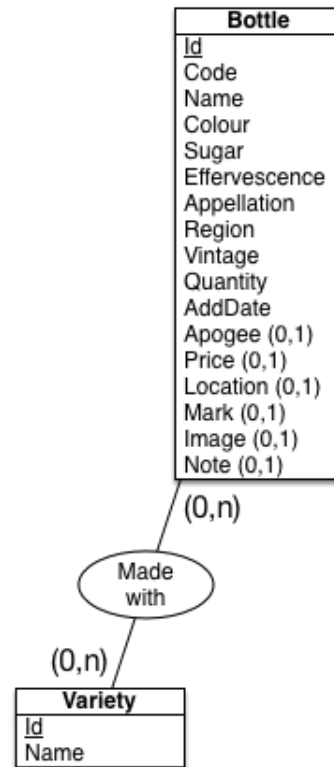
Wysiwyd

The mobile wine cellar manager!

Gaëtan Podevijn | PROJ-H-400

1 Introduction

2 The Database

2.1 The Entity Relationship Diagram

Relationship DB diagram.png

Figure 1: The ERD.

Constraints

- If the type is "Champagne", then the Year attribute is not mandatory.

- The AddDate must be $\leq$ the current date.

- Id, Code, Quantity, Vintage, Apogee are a natural numbers.

- Price is a positive real number.

- Colour is a natural number in $\{0, 1, 2\}$.

- Sugar is a natural number in $\{0, 1, 2, 3\}$.

- Effervescence is a natural number in $\{0, 1, 2, 3\}$.

- Mark is a natural number in $\{1, 2, 3, 4, 5\}$.

- Vintage is mandatory if the Effervescence attribute is set to "0".

2.2 The Relational Model

The translation of the ENR into the relational model:

Bottle (<u>Id</u>, Code, Name, Colour, Sugar, Effervescence, Appellation, Region, Vintage, Quantity, AddDate, *Apogee*, *Price*, *Location*, *Mark*, *Image*, *Note*)

2

Variety (<u>Id</u>, <u>Name</u>)

BottleVarieties (<u>Bottle Id</u>, <u>Variety Id</u>)

> *BottleVarieties.Bottle Id* foreign key to *Bottle.Id*
> *BottleVarieties.IdVariety* foreign key to *Variety.Id*

Constraints

- If the type is "Champagne", then the Year attribute is not mandatory.

- The AddDate must be $\leq$ the current date.

- Id, Code, Quantity, Vintage, Apogee are a natural numbers.

- Price is a positive real number.

- Colour is a natural number in $\{0, 1, 2\}$.

- Sugar is a natural number in $\{0, 1, 2, 3\}$.

- Effervescence is a natural number in $\{0, 1, 2, 3\}$.

- Mark is a natural number in $\{1, 2, 3, 4, 5\}$.

- Vintage is mandatory if the Effervescence attribute is set to "0".

- For each Bottle Id in BottleVariety, there exists an Id in Bottle.

- For each Variety Id in BottleVariety, there exists an Id in Variety.

Remark Number are given to colours, varieties, etc. to allow the use of different string resources for different languages.

2.3   Normalisation

No normalisation was necessary.