

ANTHONY DEBRUYN

**Year Project**

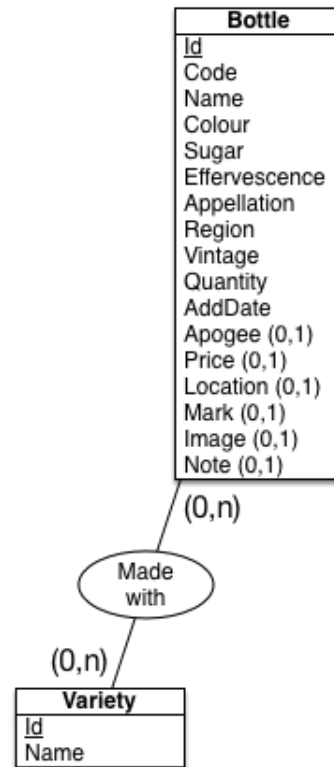
**Wysiwyd**

*The mobile wine cellar manager!*

# 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  $\{0, 1, 2, 3, 4, 5\}$ .
- Vintage is mandatory if the Effervescence attribute is set to "None".

### 2.2 The Relational Model

The translation of the ENR into the relational model:

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

**Variety** (Id, Name)

**BottleVarieties** (IdBottle, IdVariety)

*BottleVarieties.IdBottle* 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  $\{0, 1, 2, 3, 4, 5\}$ .
- Vintage is mandatory if the Effervescence attribute is set to "None".

## 2.3 Normalisation