A4: Conceptual Data Model

Our project features an information system capable of supporting an online store, which would allow users to buy products from a wide range of categories. In this artefact we present its Conceptual Domain Model, which includes the relevant entities and the relationships between them are shown in Figure 1. We also present an aditional section where we include all the business rules our platform has.

Class Diagram

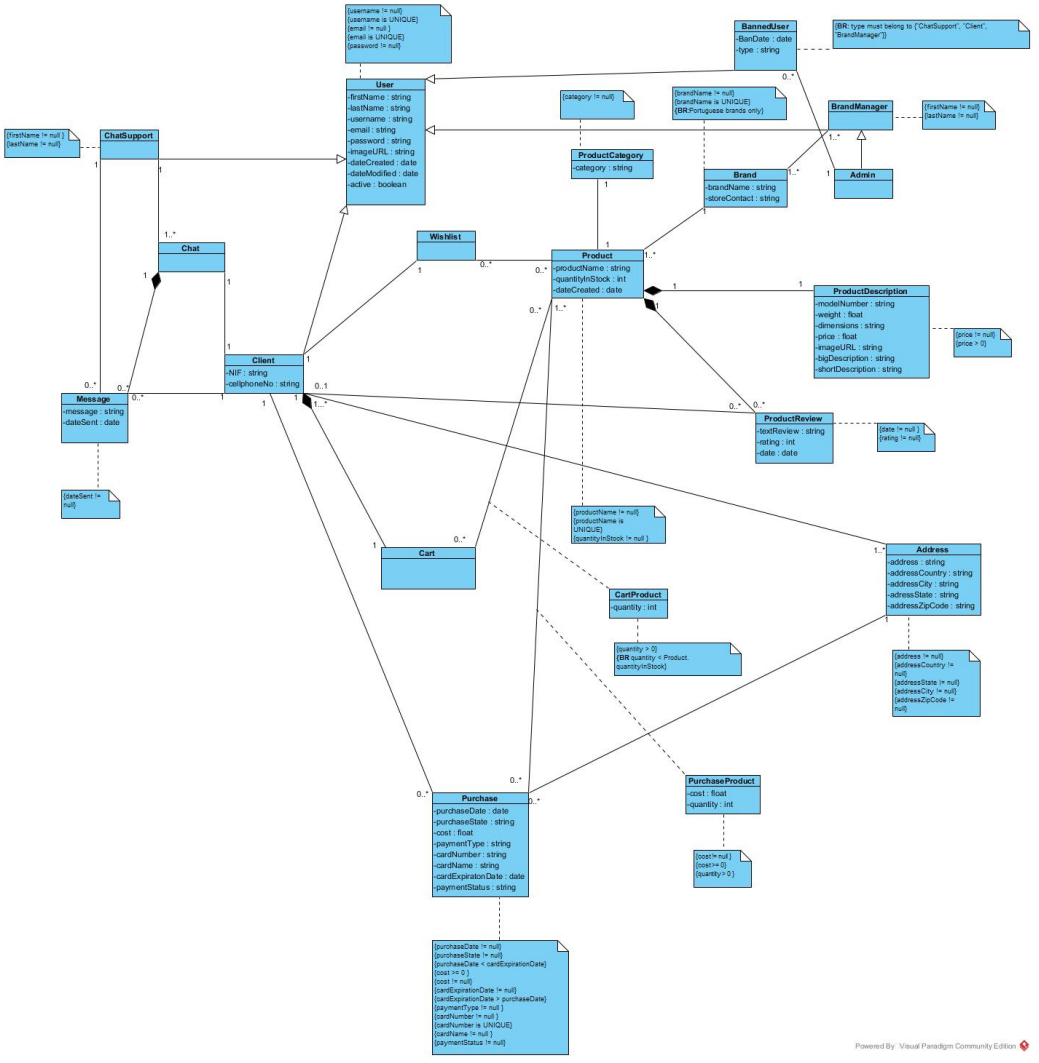

Figure 1: Simplified Class Diagram in UML

The relevant relationships (inheritance and association) are represented. Abstract classes or interfaces were not deemed necessary. All the associations between the entities are binary and bidirectional and the entities play a single, well-defined role in them.
The attributes' type is shown in a generic way and although they are all marked as private, there will be methods to access them. Attributes that can be derived from others (such as the the cart's total payment value) or that aren't going to be implemented (such as users' birthday, for discounts) are not shown.

Business Rules

In table 1 we present all the business rules of our platform, including some rules that we have already showed on the UML diagram.

Identifier	**Name**	**Description**
BR01	Ownership	Only a *Client* can buy a product from the site.
BR02	Buy Product	A *User* can only buy a product if the quantity is at least 1.
BR03	Products	Products from Portuguese brands only.
BR04	Stock	A *Client* can only buy a quantity of a certain product that is smaller than the quantity in Stock
BR05	BannedUser	The only types of Banned *Users* are *Client*, *ChatSupport* and *BrandManager*, that is, an *Admin* can't be banned

Table 1: Business Rules

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