DEVELOPMENT OF AN ONLINE SALES PLATFORM USING OBJECT-ORIENTED PROGRAMMING
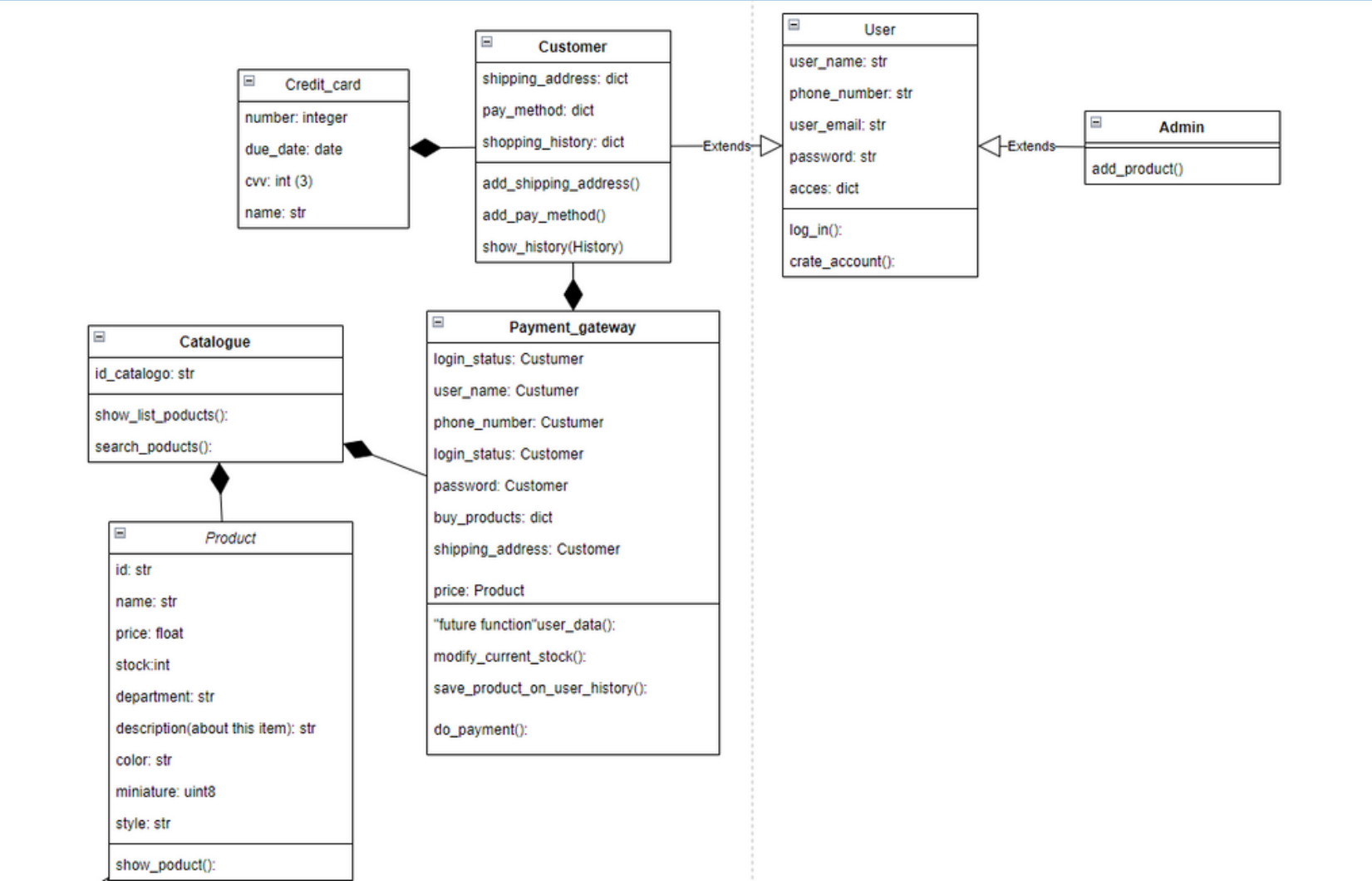
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INTRODUCTION

Object-oriented programming is defined as a programming paradigm that attempts to simulate things in the real world through elements called objects. These objects have some characteristics such as inheritance, polymorphism, encapsulation, and abstraction. Likewise, these objects are defined as a series of behaviors called methods and properties known as attributes.

On the other hand, electronic commerce refers to any commercial transaction in which the transfer of information over electronic networks is used to buy and sell goods or services.

Additionally, the following class diagram was developed, with the objective of having a reference to program the application.

GOAL

Develop an online store platform, using the object-oriented programming paradigm

METHODS

Python version 3.12.1 will be used to the development of the logical part of the software, and the FastApi framework. For the data layer we will use an ORM tool, in this way the SQLAlchemy library was selected that will facilitate the connection of the database with the backend of the platform.

For the development of the frontend, software, Html, CSS and javascript will be used for the development of the interface. The Django framework will also be used.

The Apache server software will be used to deploy the application as a local host.

EXPERIMENTS

Corresponding unit tests will be developed in the backend, such as verifying the integrity of the data in the creation of the user, products, shipping address, payment methods, etc. The correct operation of each method will be tested.

To test the persistence of the data we will use the Faker library to generate the data corresponding to user accounts, products, credit cards and addresses, which will be stored in a fictitious database, on which we will verify the persistence by making multiple purchases. with different accounts, In this process the attributes of the user account will be verified when logging in and the correct creation and modification of a product will be verified by observing the product and purchasing.

BIBLIOGRAPHY

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