WORKSHOP 4: Layered Architecture for a Domotic Circuit Simulator (Python)

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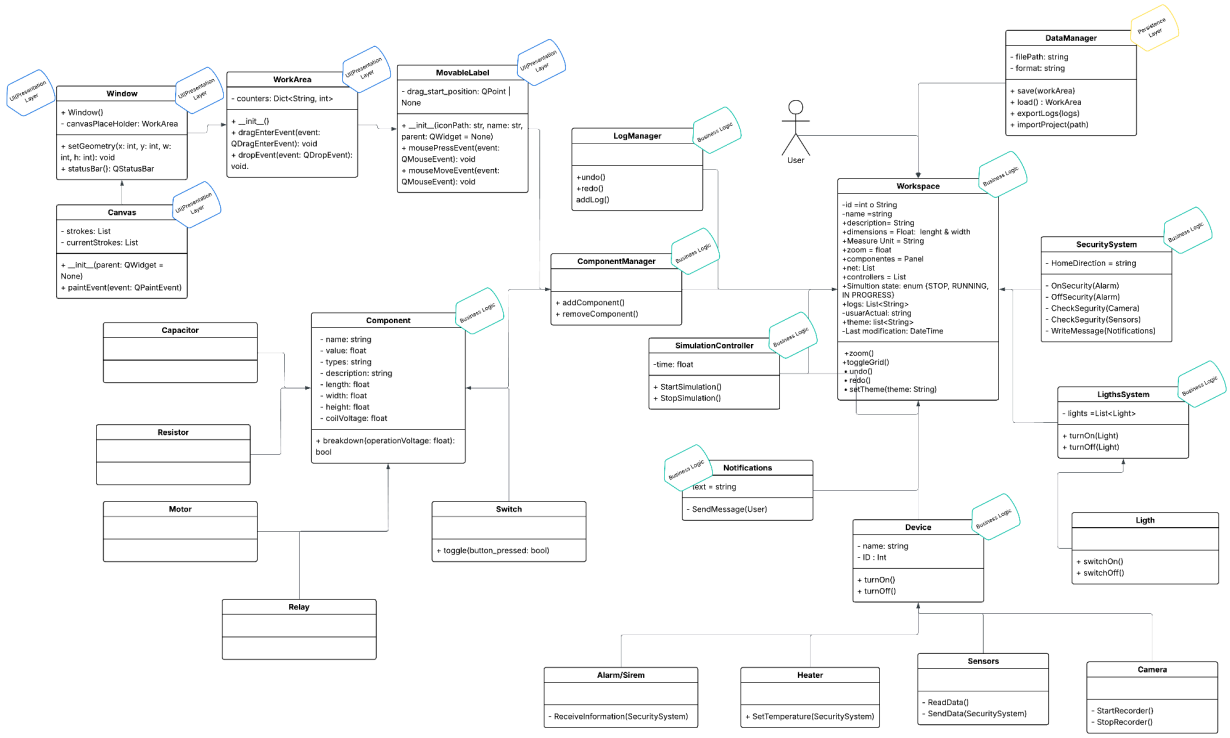
Layered Design Review:



Description of UML Labels

GUI Label (Blue)

This label identifies all classes that belong to the **Graphical User Interface**.
It includes visual elements, interactive components, and any class that handles user interaction with the application.
Its main purpose is to manage events, update the interface, and communicate with the business logic layer.

Business Logic Label (Green)

This label marks the classes that contain the **core logic of the program**.
These classes implement the rules, processes, device interactions, controllers, validations, and the overall functional flow of the simulator.
They should remain independent from the GUI to maintain a modular, scalable, and easy-to-maintain architecture.

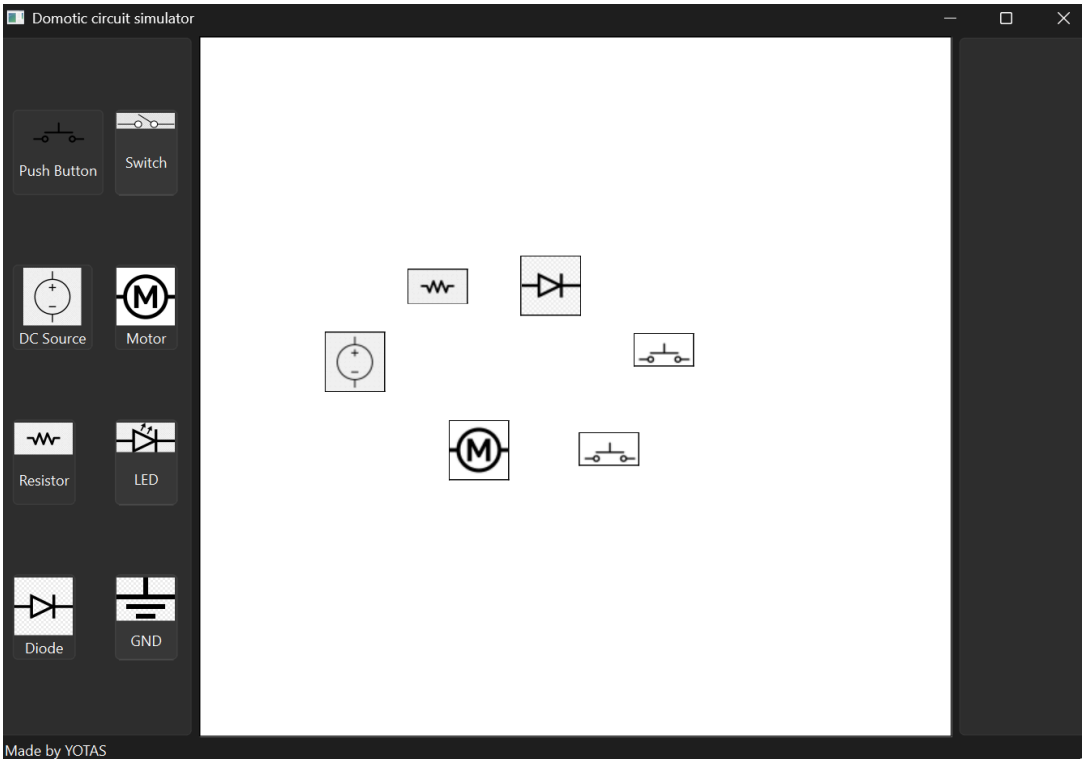
Persistence Layer Label (Yellow)

This label is used for classes responsible for **data persistence**.
It includes everything related to saving, loading, importing, or exporting data (such as the workspace state, configuration, or logs).
Its role is to ensure data consistency and allow the simulator to store and retrieve information reliably.

Python GUI Prototype:

We use the mode PyQt6l the window of the program and this is how it´s like that we can see the buttons of the different classes in the left side:

We can set anyone of the screen of differents classes to make a circuit:



But only it's the GUI of the classes and not the logic. The rest is in the Git Hub program.

GitHub the Program: https://github.com/angelclash2006/OOP-proyect.git