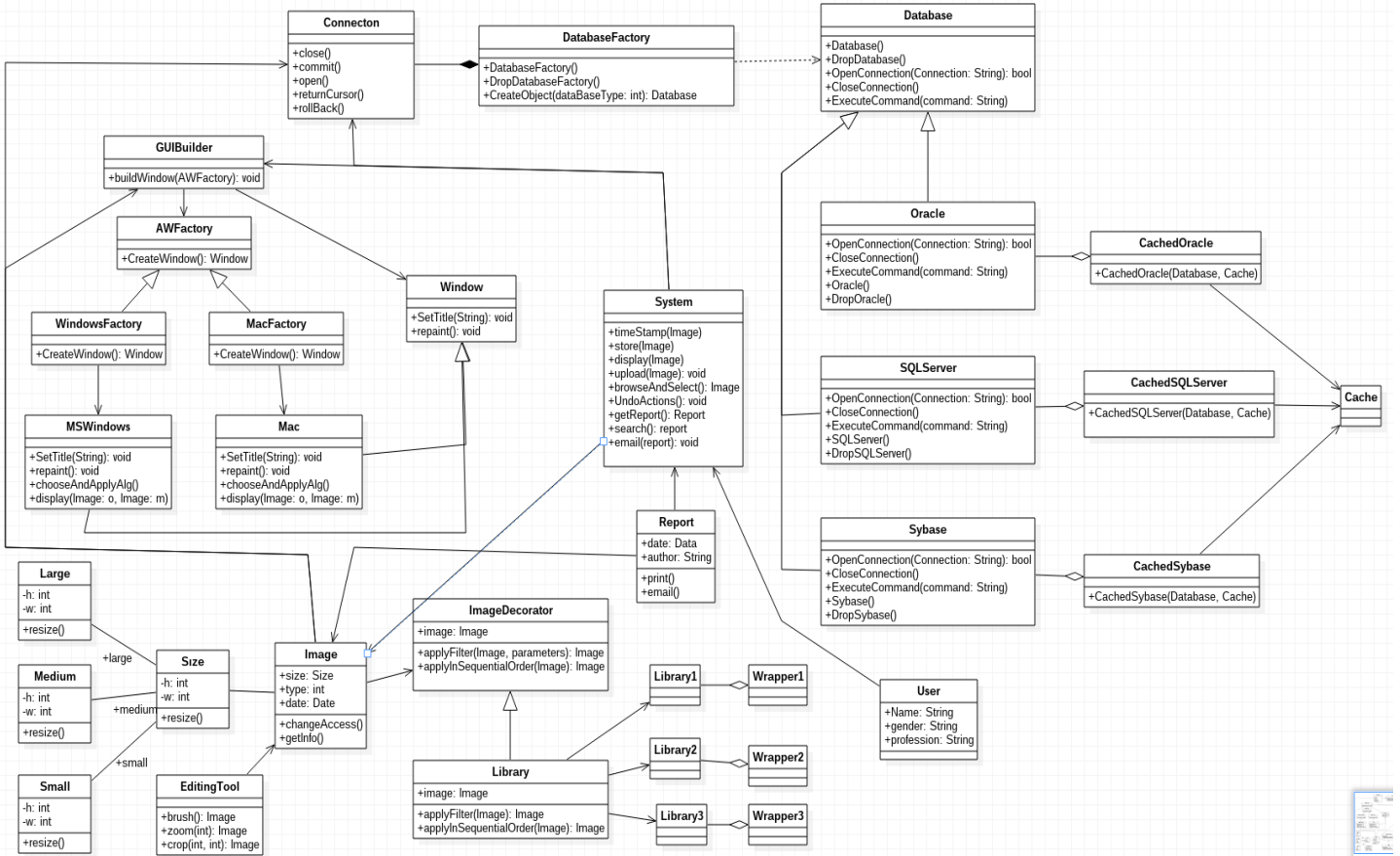


UML

Here I provided my complete uml. As you may guess I tried to use two design patterns which are Decorator and Factory pattern.



I tried to use **Abstract Factory pattern** for GUI part of this system, because I believe that it should work with both Mac and Windows and our system should not be aware of this specifications.

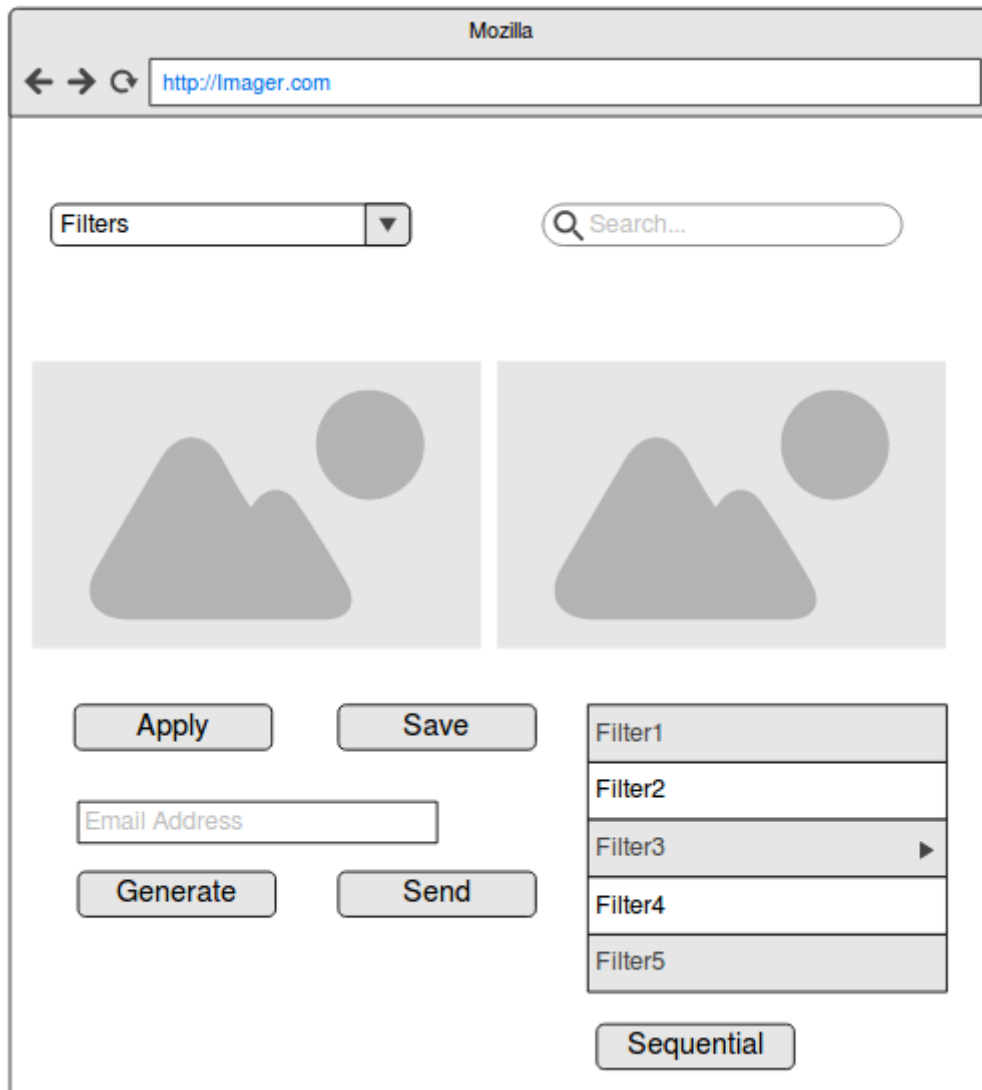
While applying filters to images I tried to use **Decorator pattern**. Because there exist our original library with which we apply our filters and we have wrappers to them which acts like adding new functionality to existing one. So I thought Decorator pattern fits here perfectly.

Additionally I tried to combine **Abstract Factory pattern** and **Decorator pattern** on database side of our system. We may have many Database types so I thought that our application should be able to use all of them without being aware of them. Also I tried to add new functionality to our existing databases like Database cache.

Database caching is a process included in the design of computer applications which generate web pages on-demand (dynamically) by accessing backend databases.

So I tried to add this new functionality with help of **Decorator pattern**.

Note: Also I could use Factory pattern in report class but the time I realized it was too late.



Here I tried to provide mock-up for my GUI. On the top left corner there exist drop-down menu to select a filter that you want to apply. And below there exist your original and modified image. In search you can search for your previous works. Also you can generate and send the report. Furthermore you can select 5 filters and apply them sequentially to your image.