#### MAIL SERVER REPORT

#### **Students Names/IDs:**

Name	ID
Mustafa Kamel Nofal	21011366
Yousef Mohamed Mohamed Taman	21011621
Ahmed Hesham Emara	21010202
Mohamed Rezq Mohamed Ibrahim	21011134

### **How to Run Application**

- At first you must open spring boot application and run it- open the Vue project using vs code and run it using "npm run serve" and openthe link

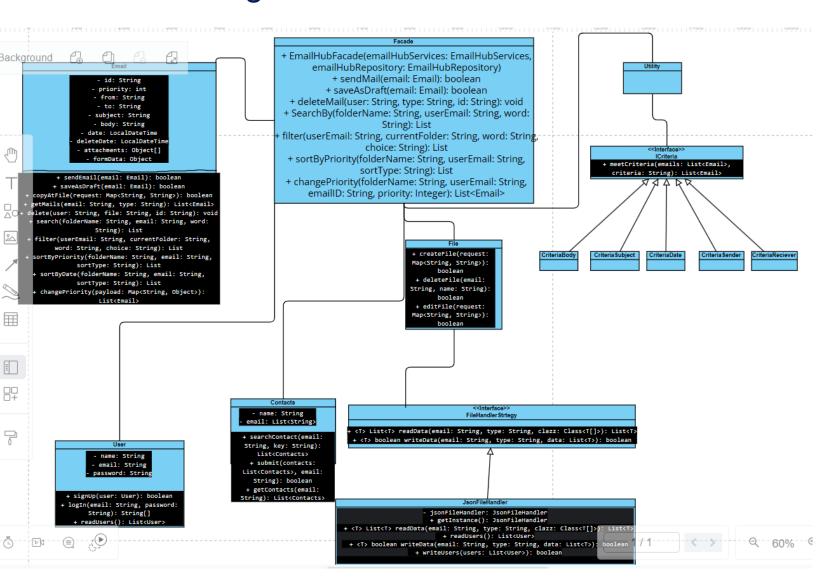
## **Design Patterns Applied**

- 1-Singleton Pattern.
- 2-Facade Pattern.
- 3-Strategy Pattern.
- 4-Filter Pattern.
- 5-Repository Pattern.

### **Design Decisions**

- 1- Singleton Pattern: Ensures a class has only one instance and provides a global point to this instance.
- 2- Facade Pattern: Provides a simplified interface to a set of interfaces in a subsystem, making it easier to use.
- 3- Strategy Pattern: Defines a family of algorithms, encapsulates each one, and makes them interchangeable. Strategy lets the algorithm vary independently from clients that use it.
- 4- Filter Patter: Allows you to filter a set of objects based on certain criteria.
- 5- Repository Pattern: Mediates between the domain and data mapping layers, acting like an in-memory collection of domain objects.
- 6- Auto delete is supported

### Class Diagram



# Sample Runs

