AED Final Project

——City Healthcare System

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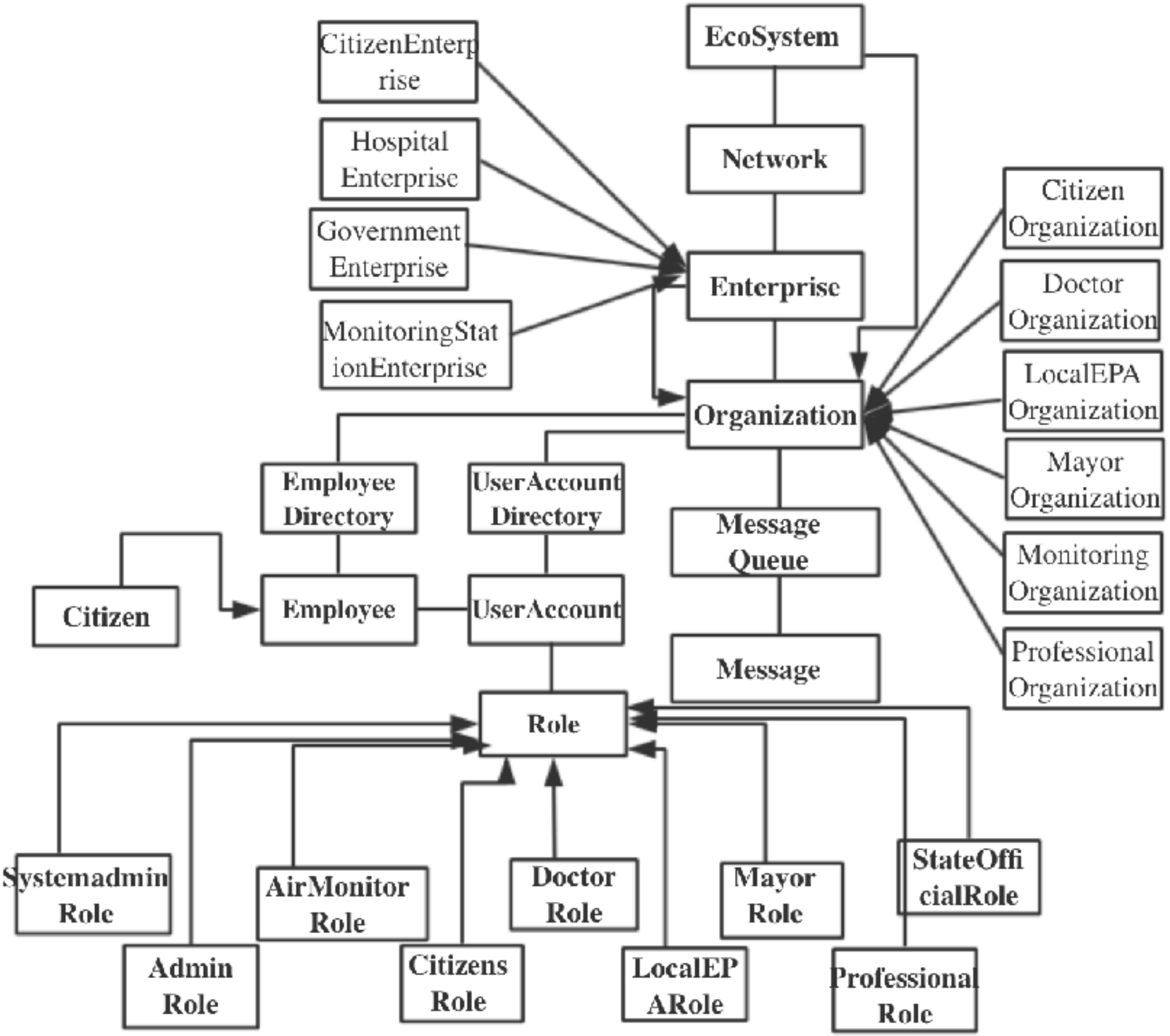
Problem Statement

- The health condition of citizens is important to a city. It is related closely to the happiness level and the development of a city.
- However, it is usually difficult for government to monitor the health condition of citizens frequently and to make decisions correspondingly.

The proposed solution

- Develop an IOT application that will enable a city to monitor the health conditions of its population.


CitizenEnterprise
Hospital Enterprise
Government Enterprise
MonitoringStationEnterprise
EcoSystem
Network
Enterprise
Organization
Citizen Organization
Doctor Organization
LocalEPA Organization
Mayor Organization
Monitoring Organization
Professional Organization
Employee Directory
UserAccount Directory
Message Queue
Message
Citizen
Employee
UserAccount
Role
Systemadmin Role
Admin Role
AirMonitor Role
Citizens Role
Doctor Role
LocalEPARole
Mayor Role
Professional Role
StateOfficialRole

Key Roles

- Citizen Role:Input their vital signs and health condition at regular intervals/check result calculated by this system/reset user password
- Doctor Role:Create user account and input basic information for citizens/check vital signs citizens input

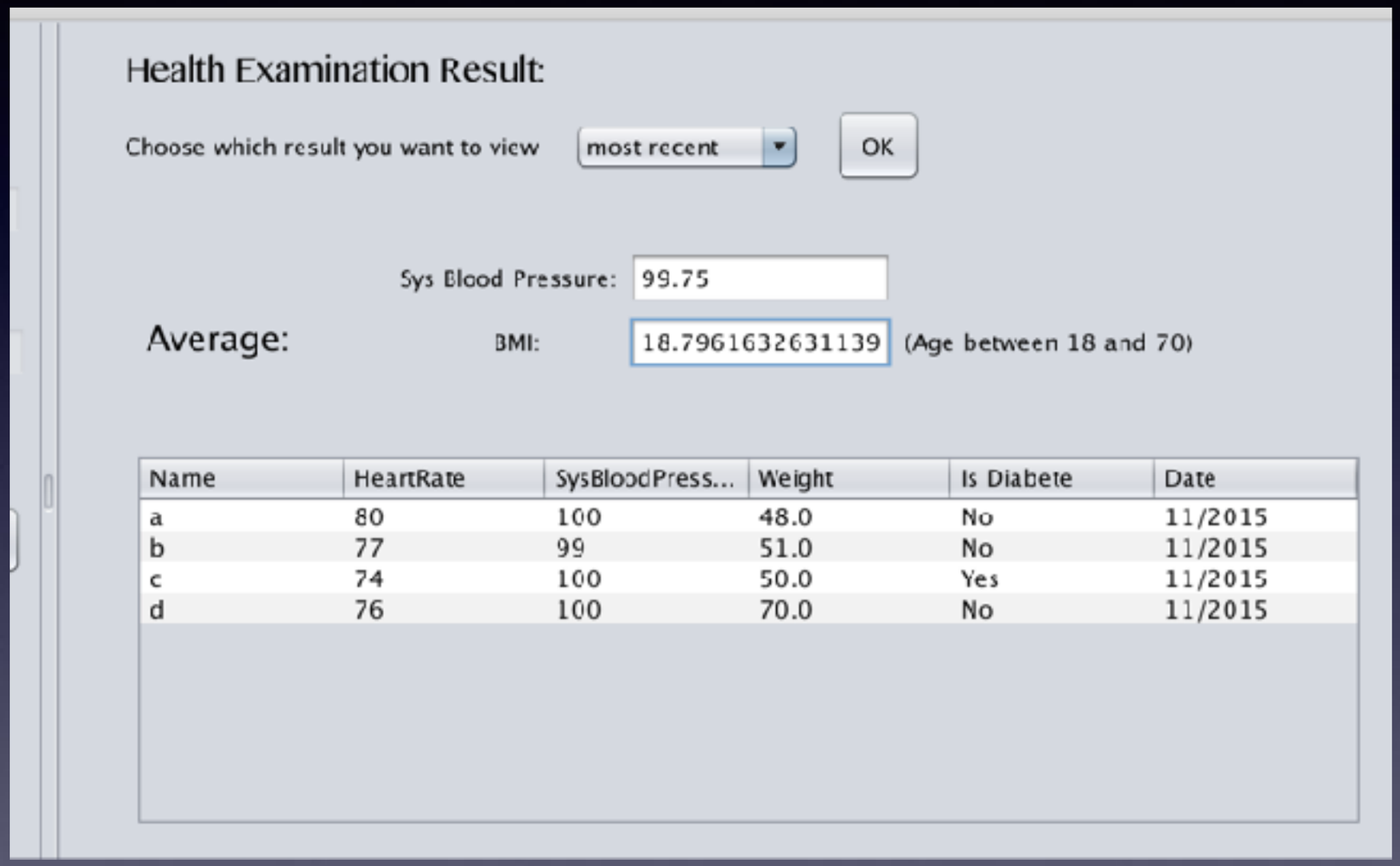
Key Roles

- Air Monitor Role:Acquire real-time data of air condition(AQI)
- Local EPA Role:send warning messages to different kind of citizens according to the data of air conditions
- Professional Role:view the results of collected vital signs/send health report of whole city to mayor

Key Roles

- Mayor Role:Check warning messages send by state health officials/read health report send by professionals
- State Health Official Role:view the result of collected vital signs/send warning to mayors

Key Features



- Calculate the average value of some vital signs and basic information automatically

Key Features

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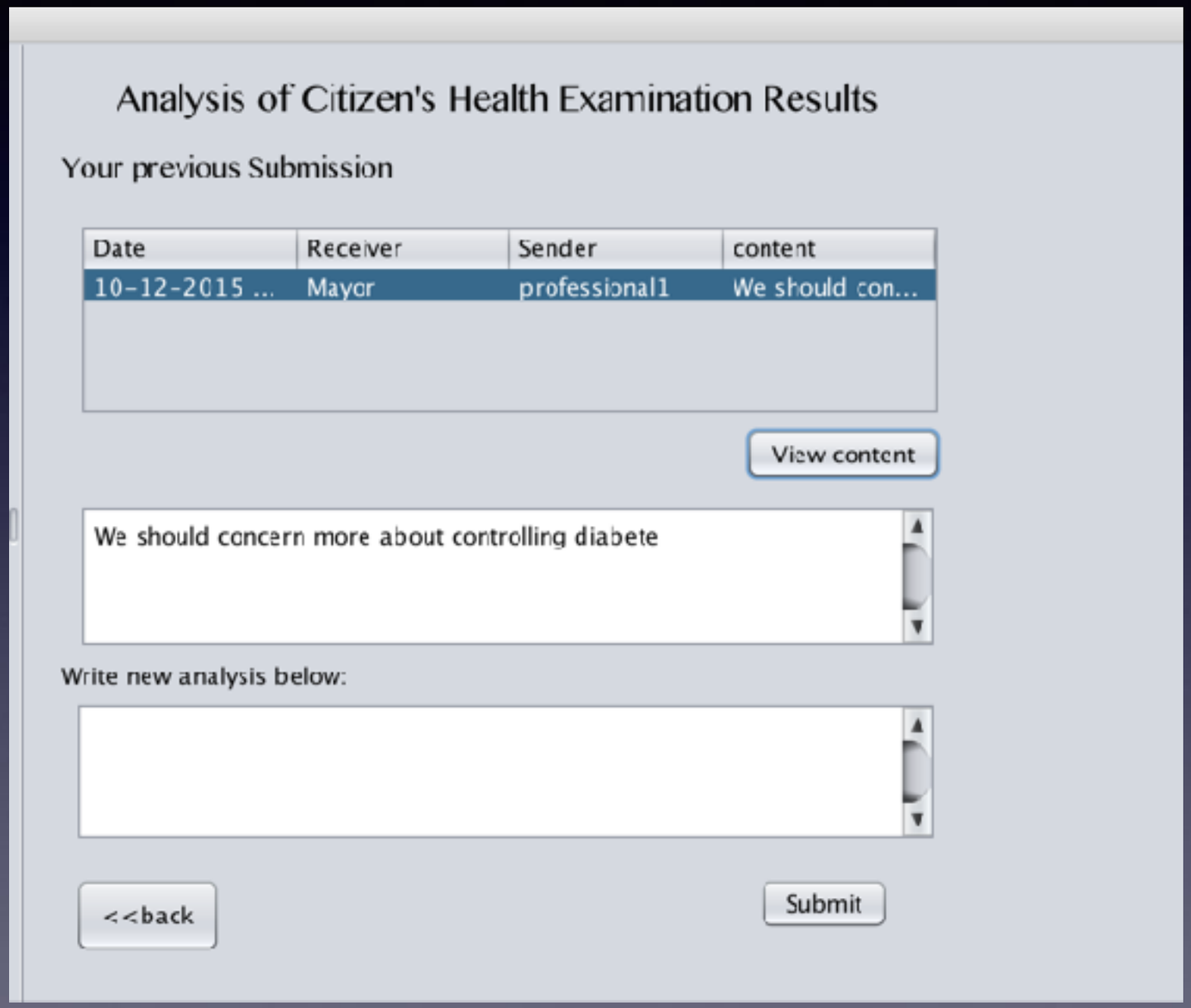
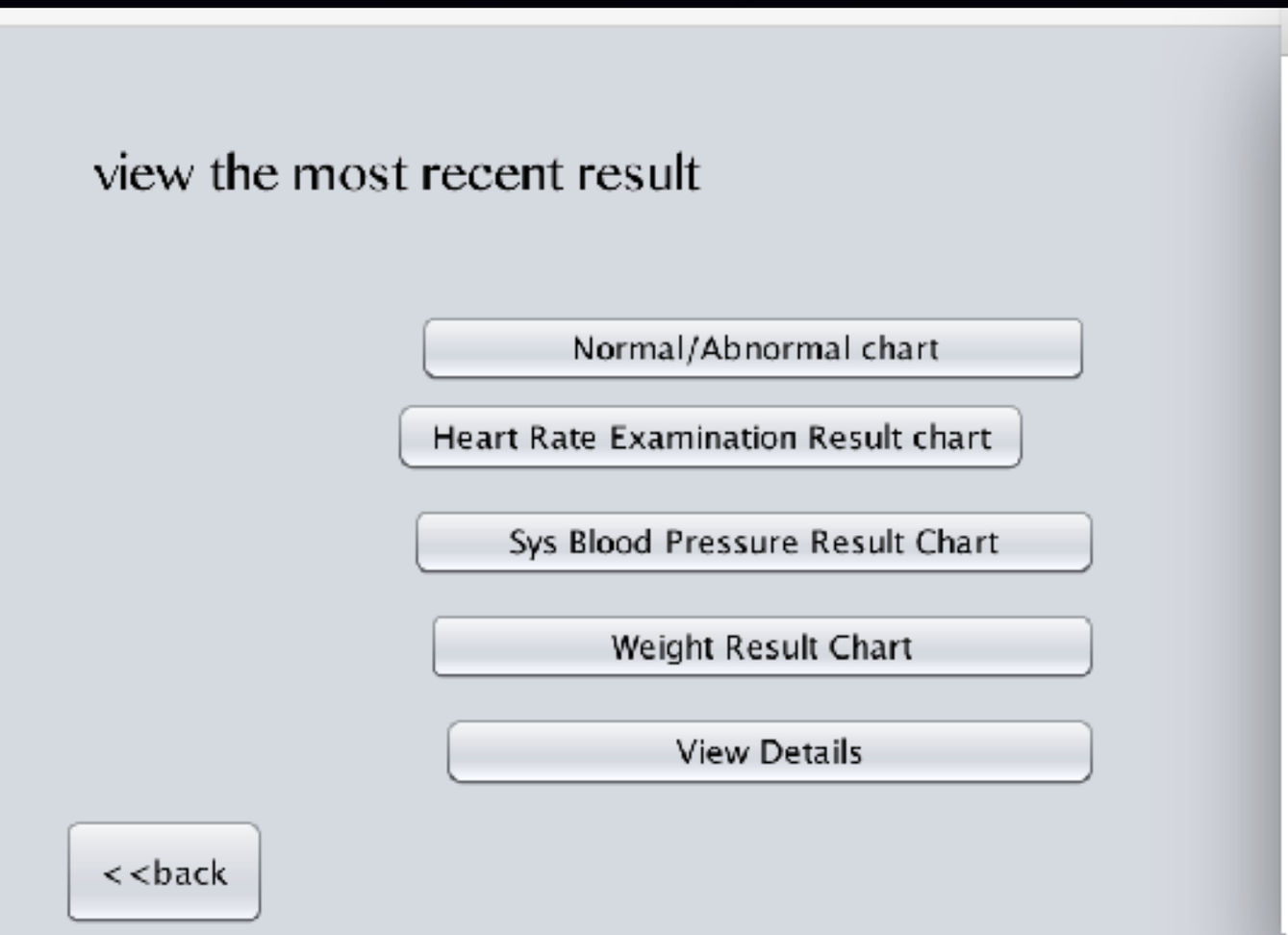
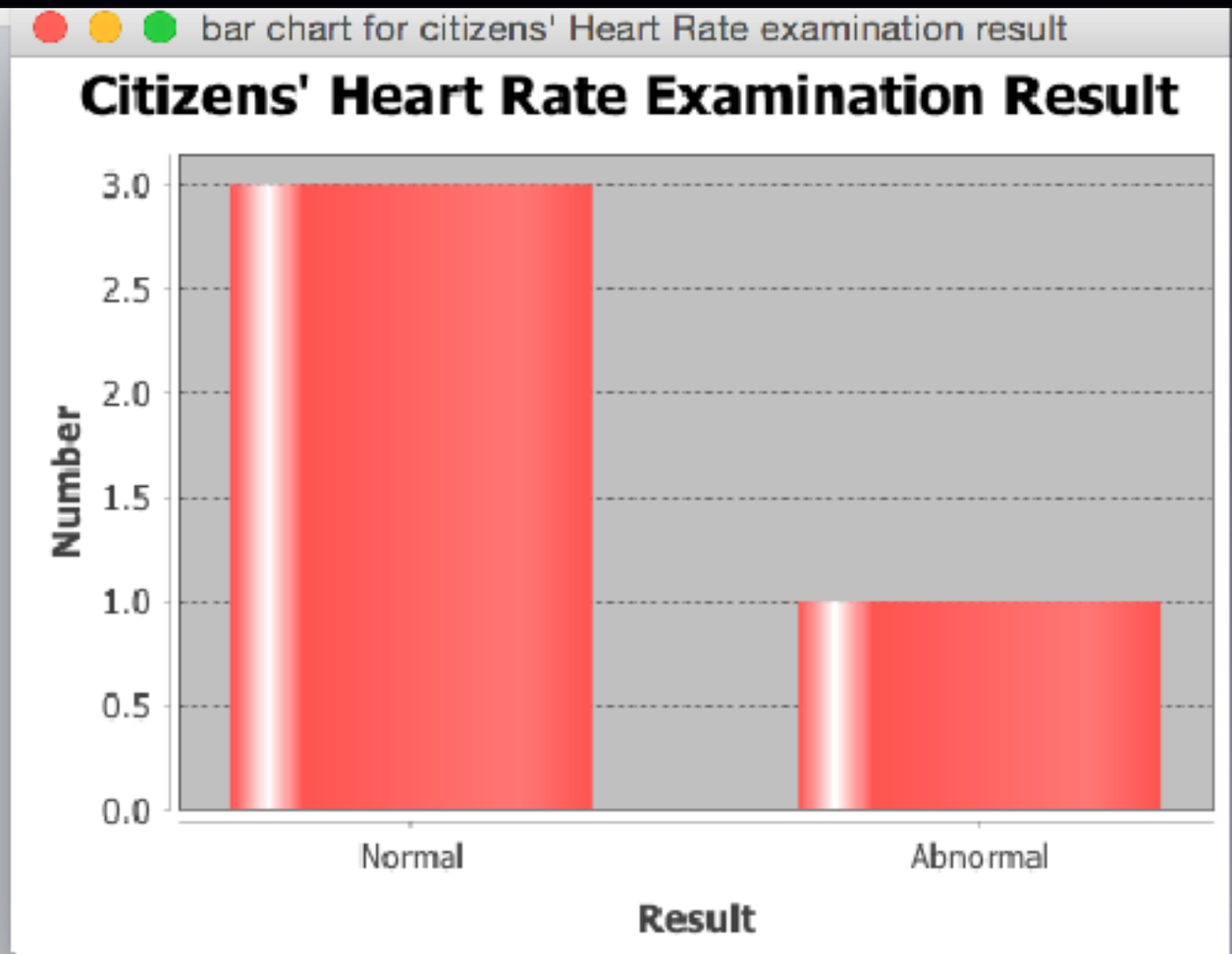


- There are communications between different roles. Such as Mayor and State Health Official, local EPA and citizens.

Extra Features





- Some of the results could be viewed by bar chart or line chart.

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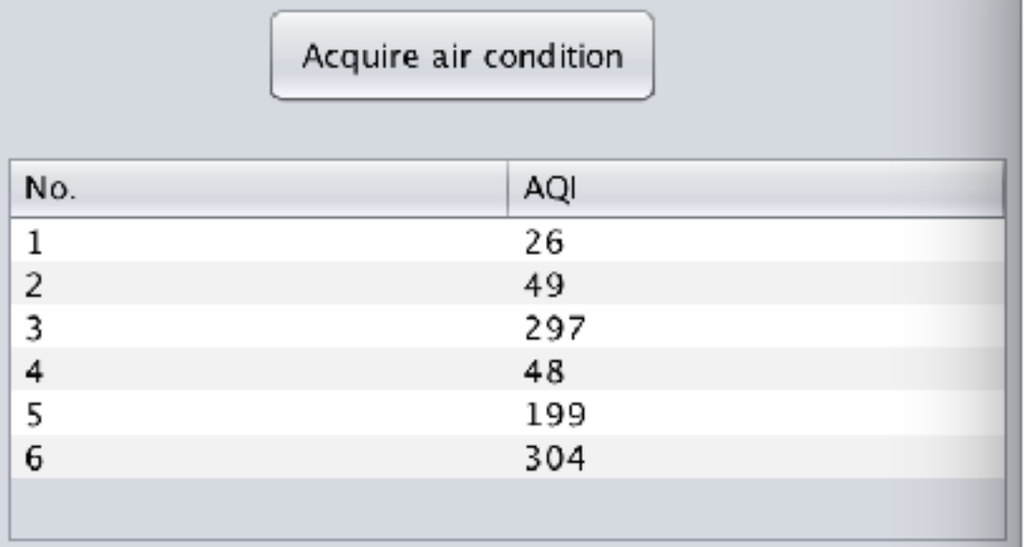

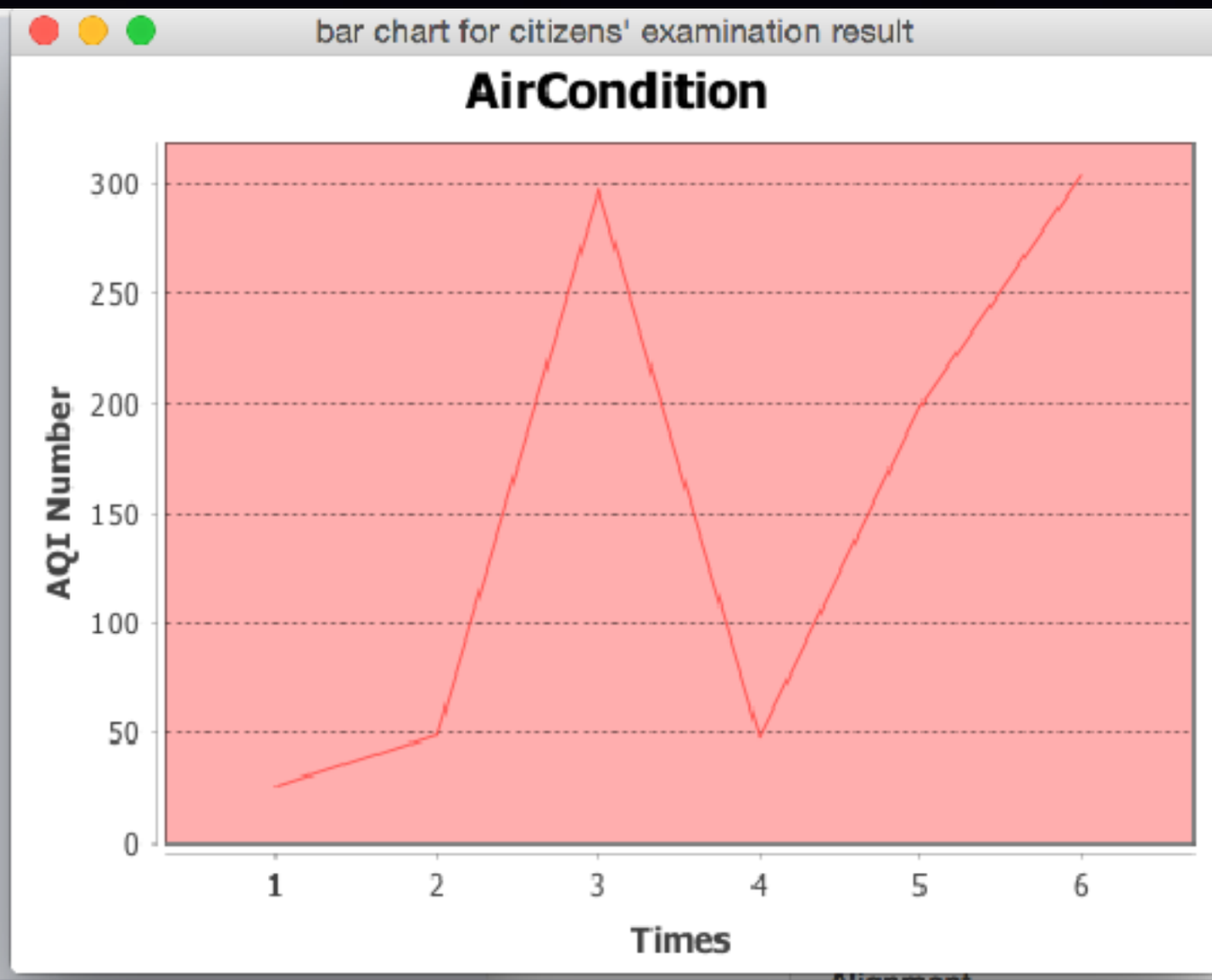

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