CZ3003 Software Systems Analysis and Design

<u>Lab Project Basic
Requirements</u>

The Ministry of Home Affairs (MHA) is procuring a Crisis Management System (CMS) to allow seamless collaboration between government agencies in times of emergency. The Prime Minister, cabinet ministers and government agency key decision makers shall monitor the crisis situation through the CMS.

Emergency situations can arise due to dengue outbreak, haze, bird flu outbreak, earthquake aftershocks, tsunami's, terrorist activities or accidents within crowded, confined areas.
Note: you should cover 2 or more emergency situations in your system.

The CMS shall provide real-time status updates on a map of Singapore, integrated with weather conditions, dengue hot spot, haze information and so on, on a web graphical user interface. One example of the map can be found in http://www.dengue.gov.sg/subject.asp?id=74.
In addition, the Prime Minister's Office shall receive a status report summarizing key indicators and trends over email every 30 minutes.

The CMS shall provide useful information such as location of Civil Defence shelters and updates to the public through social media (e.g., SMS, Facebook and Twitter) periodically.
Note: you should provide 2 or more social media in your system.

The CMS shall serve as a command-and-control platform to respond quickly to needs and dangerous conditions, such as gas leaks, hazardous air condition and fires.

The input of the CMS may come from different sources. The main one is from call center.
The public may call call center hotline for assistance and incident reporting. Call center operators will request the following information from members of the public:
- Name
- Mobile number
- Location (postal code and building unit number, if applicable)
- Type of assistance requested
  - Emergency Ambulance
  - Rescue and Evacuation
  - Fire-Fighting
  - Gas Leak Control

Call center operators shall enter the information provided into the CMS via a user interface (either web or desktop application). Requests are immediately updated on the map and dispatched using SMS to the relevant agencies:
  - Emergency Ambulance – Singapore Civil Defence Force (SCDF)
  - Rescue and Evacuation - SCDF
  - Fire-Fighting - SCDF
  - Gas Leak Control – Singapore Power

Other possible courses could be weather forecast API (http://developer.yahoo.com/weather/), PSI reading for air pollution (http://www.nea.gov.sg/psi/).
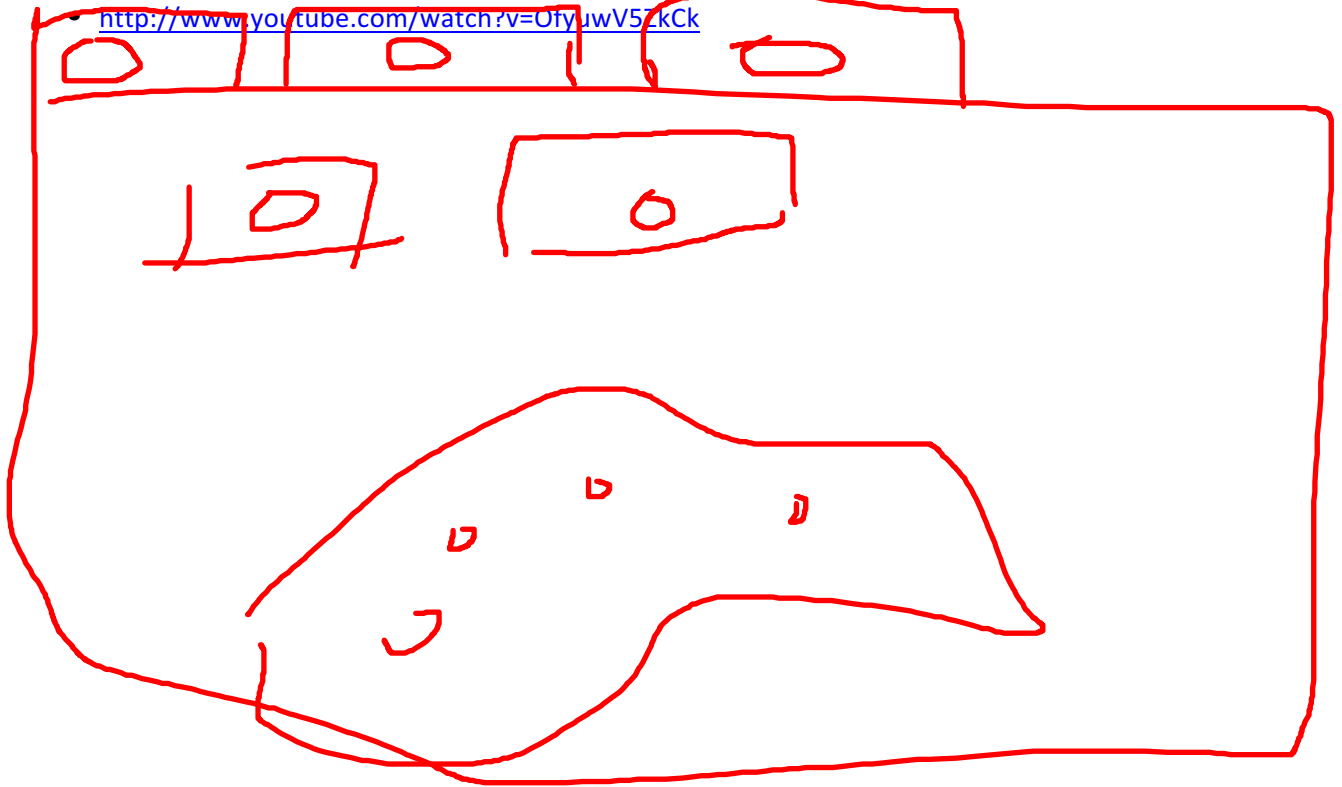

Non-functional requirements
Design your system to consider **one and only one** of the following non-functional requirements must to be considered in the project.
Flexibility, Maintainability, Performance, Reusability, Robustness, Reliability or Security.

For example, flexibility requirements could be: how easy to support new type of crisis in the

References

- National Environment Agency. http://www.nea.gov.sg
- Dengue Singapore. http://www.dengue.gov.sg
- http://www.dengue.gov.sg/subject.asp?id=74
- WebEOC Crisis Management System - http://www.esi911.com/esi/
- http://www.youtube.com/watch?v=OfyuwV5ZkCk

1. Display live important information YONG HAO LI GUANLONG
2. User Report Incident but Call Center create incident Mengyan Simeng
3.CMS distributing incident to related departments Austin Emil
4. Departments track and update status of the incident Darren Yuehan

inform prime minister
handle social media stuff