Business rule:

Air Quality Monitoring(AQM) system is a data-driven software system for monitoring the air quality of Bangladesh. The goal of this proposed system is to mainly provide maps and charts for monitoring the current and future Air Quality Index (AQI) of any area in Bangladesh. The following Business Rule describes the situation that a AQM database must model:

The data is collected from the sensors and satellites of different stations covering multiple areas. The stations, which is acting as the Data-Source can either be of mobile sensor based devices , or a weather station, but not both. Both the Data-Source will have an ID and the organization name. The model number should be recorded for each mobile sensor devices and the locations of the weather station should also be recorded.

Each mobile sensor device gives mobile sensor data which is destroyed when the mobile sensor device is discontinued. Similarly, each weather station gives weather station data which is destroyed when the weather station itself is discontinued. Mobile sensor data have a daily data,PM2.5,temperature , longitude, latitude, and timestamp. Weather station have a monthly data, PM2.5, rain precipitation, wind speed, visibility, cloud cover, relative humidity, and timestamp. Mobile sensor device may give multiple mobile sensor data but mobile sensor data will always have a mobile sensor device. Likewise, weather station may give multiple weather station data but weather station data will always have a weather station.

There will be a User which can either be Municipalities or Ministry, but not both. Municipalities and Ministry can intercommunicate about the data and comment about it. The message passed has to be recorded in the database. User will have a name, password, email. District name for Municipality should be recorded and ministry name for Ministry should be recorded.