**Problem statement**

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An Environmental Monitoring System (EMS) is designed to detect changes in environmental conditions, such as air quality or temperature changes, and respond accordingly. The system comprises four main components:

1. Sensor: A sensor detects changes in environmental conditions such as air quality or temperature.

2. DataLogger: Records and stores environmental data when triggered by the Sensor.

3. AnalysisServer: Analyzes the recorded data to determine if the environmental conditions are within safe limits or if there's an anomaly.

4. EnvironmentalManager: A responsible individual or system that receives notifications about the environmental conditions and takes appropriate actions if needed.

Signals:

- Sensor to DataLogger - ConditionChangeDetected

- Sensor to DataLogger - NoConditionChange

- DataLogger to AnalysisServer - SendDataForAnalysis

- DataLogger to AnalysisServer - NoDataAvailable

- AnalysisServer to EnvironmentalManager - AnomalyDetected

- AnalysisServer to EnvironmentalManager - MinorChangeDetected

- AnalysisServer to EnvironmentalManager - ConditionsNormal

The LTLs:

1. [](dataIsRecording -> X serverSendsAlert) - The first property ensures that if data is being recorded, the server will eventually send an alert.
2. [](serverSendsAlert -> <> managerChecksData) - The second property ensures that if the server sends an alert, the manager will eventually check the data.
3. [](!conditionChangeDetected -> ! [] managerChecksData) - The third property ensures that if no condition change is detected, the manager will not check the data.