

CSE563: Internals of Application Servers

Spring Semester 2021

Lecture Notes and Class Quiz

Instructor: **Ramesh Loganathan**

Date: 11/02/2021

Class Topic: **Sensors Use Cases**

Summary:

This lecture covered the Sensors and its Use Cases.

Some Use Cases discussed in class:

- 1. Security System :** detect intruder.. motion sensors, and cameras (need image and activity recognition)
- 2. Harmful gases sensing :** can detect different types gases, ad can also detect intensity (some gases are not harmful when in small quantities), and maybe can also detect combination of gases that are more dangerous than the individual ones in this set
- 3. Collision avoidance system in a car:** IR sensors, there are cameras.. wheel/car direction sensors, speed sensors.. all come into play when detecting a possible collision
- 4. Agriculture watering solution:** soil moisture, wind patterns (will water dry sooner), weather forecast (dry next few days?), rain forecast, and crop state.. based on all of these the algo should decide to water or not

Class Quiz:

Question 1: Create a block diagram describing a use case which is **not discussed** in the class.

Question 2: Briefly mention the sensors used in the above use case.

Question 3: Suppose you are implementing this use case. How is your implementation handling the sensor data? Example with the help of sample output of the sensor data.

Submission Format:

1. The quiz answers can be hand-written or typed.
2. Duration of the quiz is 15 mins.
3. Submit it as Roll_Number.pdf

Board Snapshot:

