Section A.

1. A sound sensor is a sensor that is receptive to audio frequencies. It detects sinusoidal waves generated from sound. It has 3 pins: 5V power pin, output data pin, and ground pin. A common application of a sound sensor is a microphone.
2. Sensor layer. This layer defines and comprises of the network of sensor components used to power the IoT system.

Network layer. This layer enables the routing of data from sensor devices to other devices over the Internet.

Platform layer. This layer establishes a messaging platform between the application system and the routed data.

Application layer. This layer defines application interfaces that end users use to monitor and interact with sensor data.

1. UART: 0 00001011 0 1 (low start)(8 bit data)(parity[errorcheck] bit)(high end)

I2C: 10 0001011 0 1 01 (high-low bit clock start)(7bit data)(write bit)(ack bit)(low-high bit data end)

1. Duty cycle = 64 / 255 \* 100 = 25.1%

Chart, box and whisker chart

Description automatically generated

1. -Information centers

-Inventory management

-Chemical lab/Radiology

-Ward management

-Sanitary management

- Pharmacy

**Section B**

**Unfinished**