Assignment-4

Python Programming

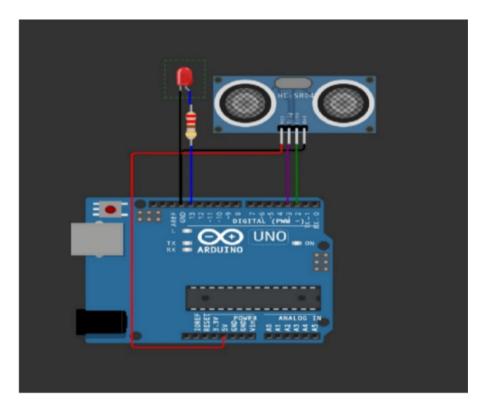| Assignment Date	27 October 2022
Student Name	Mr.Naveen
Student Register Number	923019106012
Maximum Marks	2 Marks

Question-1:

Write code and connections in wokwi for ultrasonic sensor. Whenever distance is less than 100 cms send "alert" to ibm cloud

Solution:

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Code:

```cpp
#define ECHO_PIN 2
#define TRIG_PIN 3

void setup()
  { Serial.begin(115200);
   pinMode(LED_BUILTIN, OUTPUT);
   pinMode(TRIG_PIN, OUTPUT);
   pinMode(ECHO_PIN, INPUT);
}

float readDistanceCM()
  { digitalWrite(TRIG_PIN, LOW);
   delayMicroseconds(2);
   digitalWrite(TRIG_PIN, HIGH);
   delayMicroseconds(10);
   digitalWrite(TRIG_PIN, LOW);
   int duration = pulseIn(ECHO_PIN, HIGH);
   return duration * 0.034 / 2;
}

void loop() {
   float distance = readDistanceCM();

   bool isNearby = distance < 100;
   digitalWrite(LED_BUILTIN, isNearby);

   Serial.print("Measured distance: ");
   Serial.println(readDistanceCM());

   delay(100);
}
```