Assignment-4

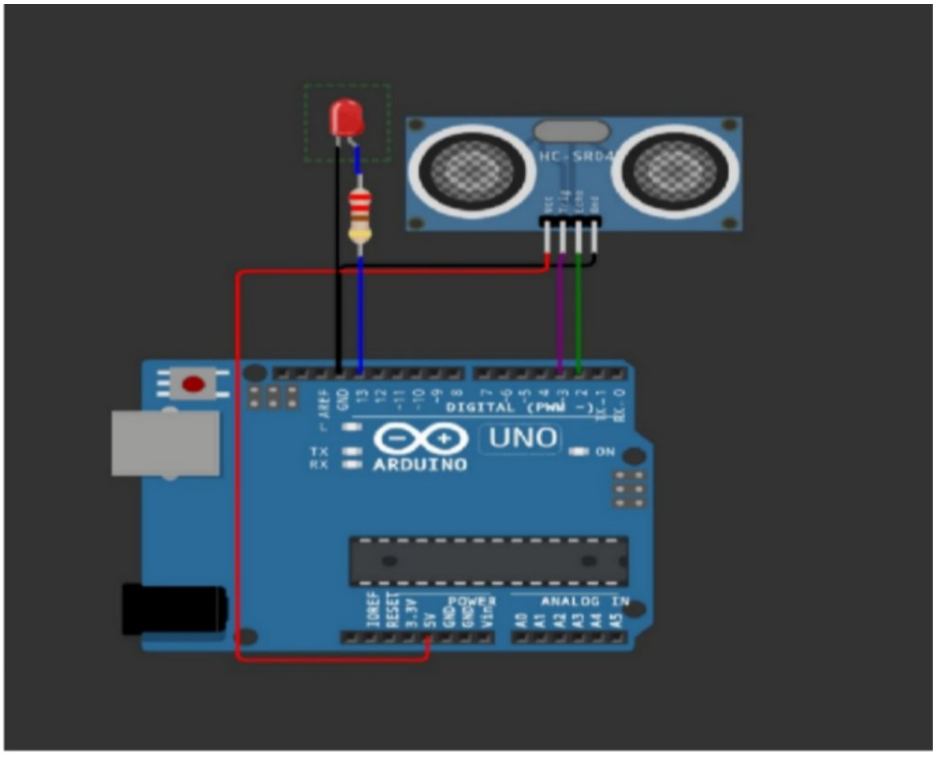
Python Programming

Assignment Date	27 October 2022
Student Name	Mr.Gokul
Student Register Number	923019106008
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:



Code:

```
#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);
}
```