ASSIGNMENT-3
Programming

Assignment Date	02 October 2022
Student Name	Alagu. Pi
Student Roll Number	311119106003
Maximum Marks	2

Question:
Write code and connections in wokwi for the ultrasonic sensor.

Program:

```
int trigPin = 9; // TRIG pin
int echoPin = 8; // ECHO pin
float duration_us, distance_cm;


void setup() {
 // begin serial port
 Serial.begin (9600);


 // configure the trigger pin to output mode  pinMode(trigPin,
OUTPUT);
 // configure the echo pin to input mode  pinMode(echoPin,
INPUT);
 }


void loop() {
 // generate 10-microsecond pulse to TRIG  pin
 digitalWrite(trigPin, HIGH);
 delayMicroseconds(10);
 digitalWrite(trigPin, LOW);


 // measure duration of pulse from ECHO  pin
 duration_us = pulseIn(echoPin, HIGH);
// calculate the distance
distance_cm = 0.017 * duration_us;
```

```
 // print the value to Serial Monitor
Serial.print("distance: ");
Serial.print(distance_cm);
Serial.println(" cm")
delay(500);
 }
```

Output:
distance: 29.4   cm
distance: 27.6   cm
distance: 26.9   cm
distance: 17.4   cm
distance: 16.9   cm
distance: 14.3   cm
distance: 15.6   cm
distance: 13.1 cm

BLOCK DIAGRAM: