Assignment-4

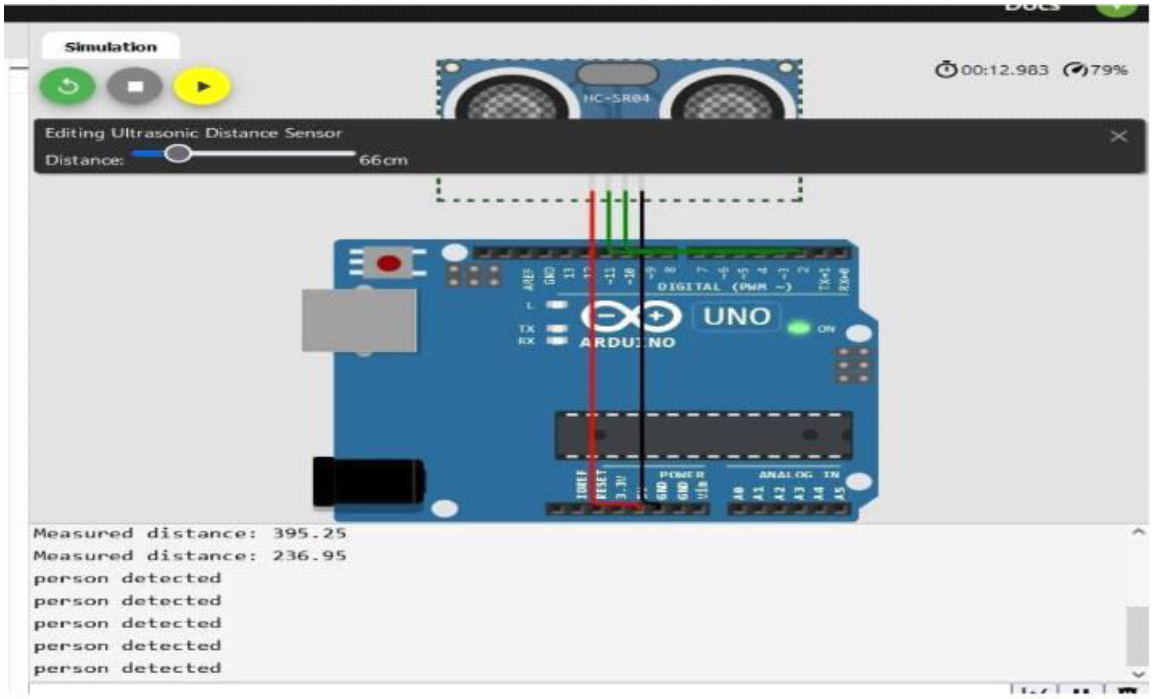
Question-1:

Write code and connectionsinwokwifor ultrasonic.Wheneverdistance islessthan100 cmssend“alert” to ibmcloud and display indevice recent events.

Solution:

```
#define ECHO_PIN 2
#define TRIG_PIN 3
#define organization = “fkxdqs”
#define deviceType = “Arduino”
#define deviceId = “1200”
#define authMethod =“use-token-auth”#define
authToken = “00000000” void
setup() { Serial.begin(9600);
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();
```

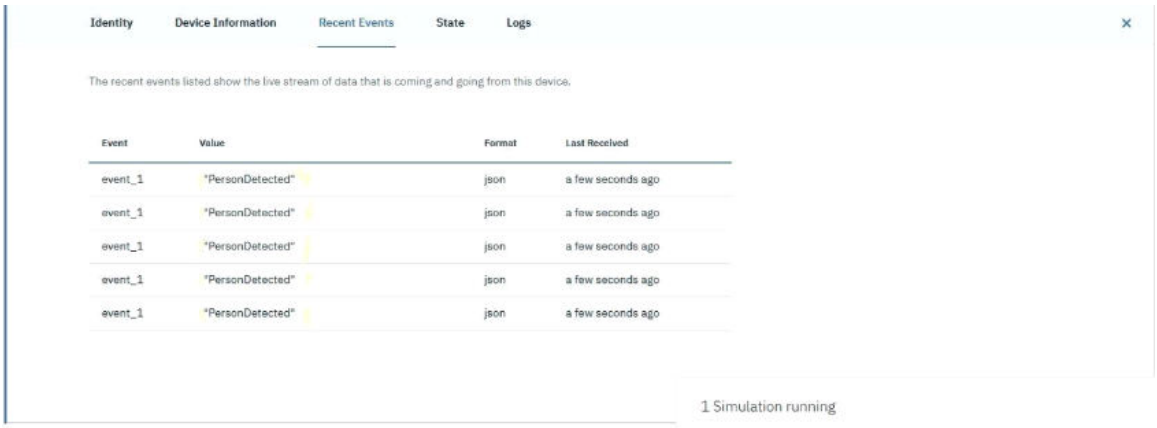
```
if(distance <=
100)
{
Serial.println("person detected ");
}
else{
Serial.print("Measureddistance: ");
Serial.println(readDistanceCM());
}
delay(1000);
}
```



Wokwi Link: https://wokwi.com/projects/346567349532361298

IBM Cloud

Device Recent Events



WOWKI EXECUTIONPART WITH ANOTHER CODE:

```
#include "Ultrasonic.h"
Ultrasonic ultrasonic(12, 13);
int distance;

void setup() {
  Serial.begin(9600);
  pinMode(6, OUTPUT);
}

void loop() {
   distance = ultrasonic.read(CM);
   Serial.print("Distance in CM: ");
   Serial.println(distance);
    if(distance<=100)
    {
  Serial.println("alert!!!!");
  digitalWrite(4, HIGH);
    }


  delay(1000);
}
```