

Assignment -4

Assignment Date	10 NOV 2022
Student Name	S BHAVYA
Student Roll Number	731619106005
Maximum Marks	2 Marks

Question-1:

Write code and connections in wokwi for the ultrasonic sensor. Whenever the distance is less than 100 cms send an "alert" to the IBM cloud and display in the device recent events. Upload document with wokwi share link and images of IBM cloud

Program:

```
#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();
```

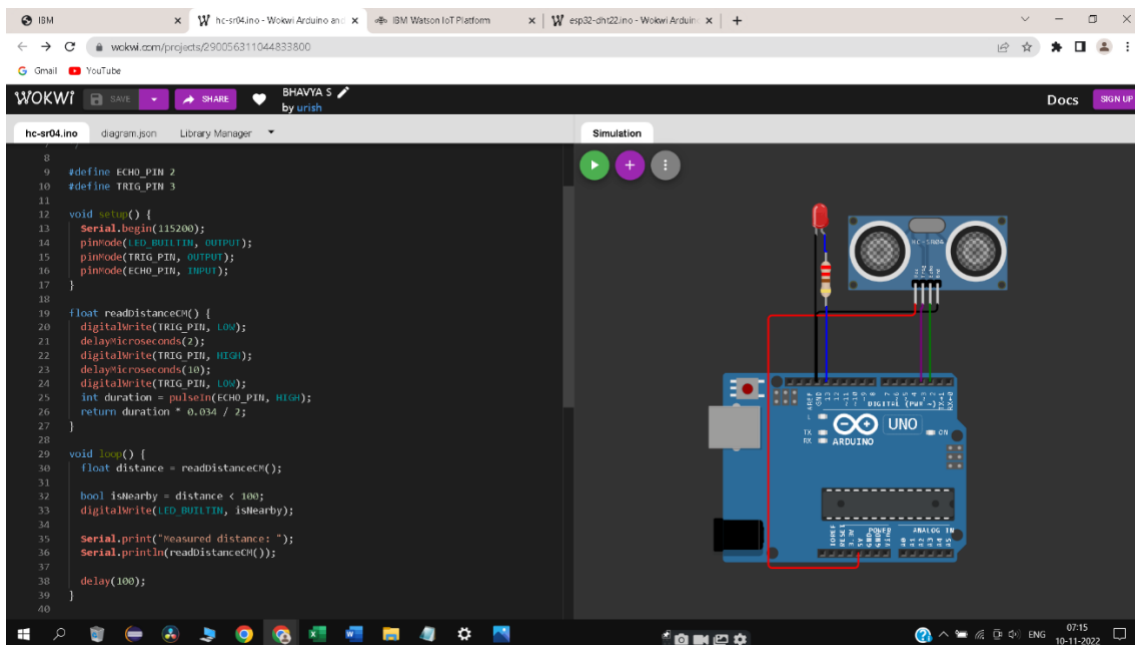
```
bool isNearby = distance < 100;  
  
digitalWrite(LED_BUILTIN, isNearby);
```

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

```
delay(100);
```

```
}
```

Output:



Identity	Personal Information	Recent Events	State	Links	More
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2					
3					
4					
5					
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99					
100					

The recent events listed show the live stream of data that is coming and going from this device.

