

**Assignment -1**  
Python Programming

|                     |                   |
|---------------------|-------------------|
| Assignment Date     | 19 September 2022 |
| Student Name        | MURALITHARAN S    |
| Student Roll Number | 721219106032      |
| Maximum Marks       | 2 Marks           |

```
int triggerPin = 7;
int echoPin = 6;
unsigned long duration;
int distance;
int pinSensor =2;
int pinLed =12;
int pinBuzzer =13;
int pirSensor =0;
void setup()
{
  pinMode(triggerPin, OUTPUT);
  pinMode (echoPin, INPUT);
  Serial.begin(9600);
  pinMode(pinSensor, INPUT);
  pinMode(pinLed, OUTPUT);
  pinMode(pinBuzzer, OUTPUT);
}
void loop()
{
  digitalWrite(triggerPin, LOW);
  delayMicroseconds(2);
  //clearing the trigger
```

```
digitalWrite(triggerPin, HIGH);
delayMicroseconds(10);
digitalWrite(triggerPin, LOW);
    // capturing the time duration for sound wave to travel in microseconds
duration = pulseIn(echoPin, HIGH);
distance = 0.01723 * duration;
Serial.print(distance);
Serial.println("cm");
pirSensor = digitalRead(pinSensor);
if (pirSensor == HIGH)
{
    digitalWrite(pinLed, HIGH);
    tone(pinBuzzer, 1000, 500);
}
else {
    digitalWrite(pinLed, LOW);
}
delay(10);
}
```

