## Assignment-1

```
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);
}
```

