PROFESSIONAL READINESS FOR INNOVATION, EMPLOYABILITY, ENTREPRENEURSHIP BY IBM

ASSIGNMENT-1

GROUP 5- INTERNET OF THINGS(IoT)

BUILD A SMART HOME IN WOKWI
MINIMUM 2 SENSOR, LED, BUZZER

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CODE:

```
int sensorPin = A0;
unsigned int sensorValue = 0;
float voltage;
#define ECHOPIN1 2
#define TRIGPIN1 3
#define ECHOPIN2 4
#define TRIGPIN2 5
#define ROOM1 6
#define ROOM2 7
#define ROOM3 8
#define ALARM 10
void setup() {
  Serial.begin(9600);
  pinMode(TRIGPIN1, OUTPUT);
  pinMode(ECHOPIN1, INPUT);
  pinMode(TRIGPIN2, OUTPUT);
  pinMode(ECHOPIN2, INPUT);
  pinMode(ALARM,OUTPUT);
  digitalWrite(ROOM1, HIGH);
}
void DoorCam(){
  //if doorbell = high
    //Serial.print("Doorbell is being rang")
  //send to website
  }
void MotionDetection(int TRIGPIN, int ECHOPIN, int ROOM) {
  float duration, distance;
  int movement;
```

```
  digitalWrite(TRIGPIN, LOW);
  delayMicroseconds(2);
  digitalWrite(TRIGPIN, HIGH);
  delayMicroseconds(10);
  digitalWrite(TRIGPIN, LOW);
  duration = pulseIn(ECHOPIN, HIGH);
  distance = (duration / 2) * 0.0344;
 if (distance >= 200){ //range could be calculated at setup so room size doesn't
affect?
    ++movement;
  }
  else {
    movement <= 0;
  }
 if (movement = 50) {  //placeholder value
  digitalWrite(ROOM, LOW);
 }
}
void HouseAlarm (){
  // if alarmOn = HIGH
  //    IR1 = HIGH
  //    tone(BUZZ,400);
  //    noTone (30);
}
void WakeUpAlarm(){
  // get real time
  //Alarm = (ReceiveTime)
  //CurrentTime
  //if RecieveTime = CurrentTime
```

```
  //tone(BUZZ,400);
  //noTone (30);
}
void loop(){
  MotionDetection(TRIGPIN1,ECHOPIN1,ROOM1);
 }
```

BLOCK DIAGRAM: