ASSIGNMENT-01

IOT ENABLED CODING

ASSIGNMENT NUMBER	01
STUDENT NAME	INDHUJA .M
STUDENT REG. NO	951819104009

WRITE A CODE TO AUTOMATE THE HOME USING VARIOUS SENSORS

PROGRAM

```
int flexSensor = A2;

int buzzer = 6;

int lights = 5;


void setup()

{

  Serial.begin(9600);

  pinMode(flexSensor, INPUT);

  pinMode(buzzer, OUTPUT);

  pinMode(lights, OUTPUT);

}


void loop()

{

  bool door = checkDoor(); // true if door is open

  doorAction(door);

}


bool checkDoor()

{

  if(map(analogRead(flexSensor),100,1000,0,1000)>500)
```

```cpp
  {
    // door closed
    return(false);
  }
  else
  {
    return(true);
  }
}


void doorAction(bool door)
{
  if(door)
  {
    // if door is opened, buzzer rings for 1 sec and lights are turned on for a total of 5 secs
    digitalWrite(buzzer,HIGH);
    digitalWrite(lights,HIGH);
    delay(1000);
    digitalWrite(buzzer,LOW);
    delay(4000);
    digitalWrite(lights,LOW);
  }
}
```

Power Distribution
Bread Board

Flex sensor connected to door hinge
Such that flex sensor appears folded
when door is open

When door is opened,
Buzzer buzzes for 1 sec total
Lights are turned on for 5 secs total

Output Bread Board