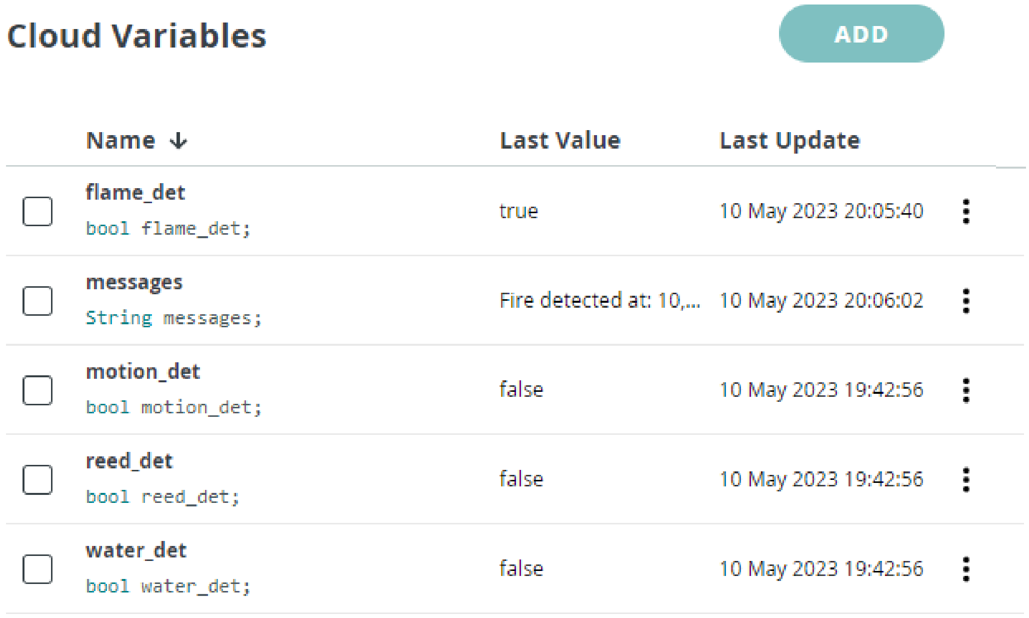
```
#include "thingProperties.h"
#include <HTTPClient.h>

const char* ntpServer = "gr.pool.ntp.org";//"gr.ntp.grnet.org";
const long gmtOffset_sec = 7200;/* +2 7200sec*/
const int daylightOffset_sec = 3600;/*3600  1 hour daylight offset*/

int buzzer = 2, LedPin = 32, Movesensor = 35, WaterPin = 33, flamePin = 15, reedPin = 12, door = 0;
bool motioncheck, Watercheck, flamecheck, reedcheck;
char *email, *msg;

String IFTTT_URL = "https://maker.ifttt.com/trigger/email/with/key/cFiKgFaqDSoeeNR4mqFUYJ";

void setup()
{
  pinMode(buzzer, OUTPUT);
  pinMode(LedPin, OUTPUT);
  pinMode(Movesensor, INPUT);
  pinMode(WaterPin, INPUT);
  pinMode(flamePin, INPUT);
  pinMode(reedPin, INPUT);
  Serial.begin(9600);
  delay(1500);
  initProperties();
  ArduinoCloud.begin(ArduinoIoTPreferredConnection);
  setDebugMessageLevel(2);
  ArduinoCloud.printDebugInfo();
}

void loop()
```

```
{
  ArduinoCloud.update();
  delay(500);//0.5sec

  if (motioncheck)
  {
    PIRSensor();
  }

  if (Watercheck)
  {
    WaterSensor();
  }

  if (flamecheck)
  {
    flameSensor();
  }

  if (reedcheck)
  {
    reedSensor();
  }
}

void PIRSensor()
{
  int pinStateCurrent = LOW, pinStatePrevious = LOW;
  email = "Motion was detected";
  msg = "Motion detected at: ";
  pinStatePrevious = pinStateCurrent;
  pinStateCurrent = digitalRead(Movesensor);

  if (pinStatePrevious == LOW && pinStateCurrent == HIGH)
  {
    configTime(gmtOffset_sec, daylightOffset_sec, ntpServer);
    printLocalTimeAndMsg(msg);
    tone(buzzer, 500, 100);
    sendEmai();
  }
  else if (pinStatePrevious == HIGH && pinStateCurrent == LOW)
  {
    noTone(buzzer);
  }
}

void WaterSensor()
{
  email = "Water leak was detected";
  msg = "Water leak detected at: ";

  if (analogRead(WaterPin) > 300)
  {
    tone(buzzer, 500, 100);
    configTime(gmtOffset_sec, daylightOffset_sec, ntpServer);
    printLocalTimeAndMsg(msg);
    sendEmai();
  }
  else
  {
    noTone(buzzer);
  }
```

```
}

void flameSensor()
{
  int fire = digitalRead(flamePin);
  email = "Fire was detected";
  msg = "Fire detected at: ";

  if ( fire == HIGH)
  {
    tone(buzzer, 500, 100);
    configTime(gmtOffset_sec, daylightOffset_sec, ntpServer);
    printLocalTimeAndMsg(msg);
    sendEmai();
  }
  else
  {
    noTone(buzzer);
  }
}

void reedSensor()
{
  int proximity = digitalRead(reedPin);

  if ((proximity == LOW && door == 2) or (proximity == LOW && door == 0))
  {
    msg = ("Door closed at: ");
    email = "The door closed";
    tone(buzzer, 500, 50); //100
    door = 1;
    sendEmai();
    configTime(gmtOffset_sec, daylightOffset_sec, ntpServer);
    printLocalTimeAndMsg(msg);
  }
  else if ((proximity == HIGH && door == 1) or (proximity == HIGH && door == 0))
  {
    email = "The door opened";
    msg = ("Door opened at: ");
    noTone(buzzer);
    door = 2;
    sendEmai();
    configTime(gmtOffset_sec, daylightOffset_sec, ntpServer);
    printLocalTimeAndMsg(msg);
  }
}

void onMotionDetChange()
{

  if (motion_det)
  {
    email = "Motion detection is enabled";
    msg = "Motion detection turned on at:  ";
    motioncheck = true;
  }
  else
  {
    email = "Motion detection is disabled";
    msg = "Motion detection turned off at:  ";
    motioncheck = false;
  }
  sendEmai();
  configTime(gmtOffset_sec, daylightOffset_sec, ntpServer);
  printLocalTimeAndMsg(msg);
  OnOffLed();
}

void onWaterDetChange()
{

  if (water_det)
  {
    email = "Water detection is enabled";
    msg = "Water detection turned on at: ";
    Watercheck = true;
  }
  else
  {
    email = "Water detection is disabled";
    msg = "Water detection turned off at: ";
    Watercheck = false;//Waterchek
  }

  sendEmai();
  configTime(gmtOffset_sec, daylightOffset_sec, ntpServer);
  printLocalTimeAndMsg(msg);
  OnOffLed();
}

void onFlameDetChange()
{
  if (flame_det)
  {
    email = "Flame detection is enabled";
    msg = "Flame detection turned on at: ";
    flamecheck = true;
  }
  else
  {
    email = "Flame detection is disabled";
    msg = "Flame detection turned off at: ";
    flamecheck = false;
  }

  sendEmai();
  configTime(gmtOffset_sec, daylightOffset_sec, ntpServer);
  printLocalTimeAndMsg(msg);
  OnOffLed();
}
void onReedDetChange()
{

  if (reed_det)
  {
    email = "Door detection is enabled";
    msg = "Door detection turned on at: ";
    reedcheck = true;
  }
  else
  {
    email = "Door detection is disabled";
    msg = "Door detection turned off at: ";
    reedcheck = false;
  }

  sendEmai();
  configTime(gmtOffset_sec, daylightOffset_sec, ntpServer);
  printLocalTimeAndMsg(msg);
  OnOffLed();
}

void OnOffLed()
{
  digitalWrite(LedPin, HIGH);
  delay(500);
  digitalWrite(LedPin, LOW);
}

void printLocalTimeAndMsg(char* mesg)
{

  char printTime[50], buf[70];
  time_t rawtime;
  struct tm timeinfo;

  if (!getLocalTime(&timeinfo))
  {
    Serial.println("Failed to obtain time");
    return;
  }

  strftime(printTime, sizeof(printTime), "%d, %B %Y %H:%M:%S", &timeinfo);
  strcpy(buf, mesg);
  strcpy(buf + strlen(mesg), printTime);
  messages = buf;
}

void sendEmai()
{
  String url = IFTTT_URL;
  url.replace("email", "email");
  url.replace("cFiKgFaqDSoeeNR4mqFUYJ", "cFiKgFaqDSoeeNR4mqFUYJ");
  HTTPClient http;
  http.begin(url);
  http.addHeader("Content-Type", "application/json");
  String payload = "{\"value3\":\"body\"}";
  payload.replace("body", email);
  int httpResponseCode = http.POST(payload);

  if (httpResponseCode > 0)
   {
    String response = http.getString();
    Serial.println(httpResponseCode);
    Serial.println(response);
   }
   else
   {
    Serial.print("Error sending HTTP POST request: ");
    Serial.println(httpResponseCode);
   }

  http.end();
}
```

```
void onMessagesChange(){
}
```



Cloud Variables

	Name ↓	Last Value	Last Update	
□	flame_det bool flame_det;	true	10 May 2023 20:05:40	⋮
□	messages String messages;	Fire detected at: 10,...	10 May 2023 20:06:02	⋮
□	motion_det bool motion_det;	false	10 May 2023 19:42:56	⋮
□	reed_det bool reed_det;	false	10 May 2023 19:42:56	⋮
□	water_det bool water_det;	false	10 May 2023 19:42:56	⋮