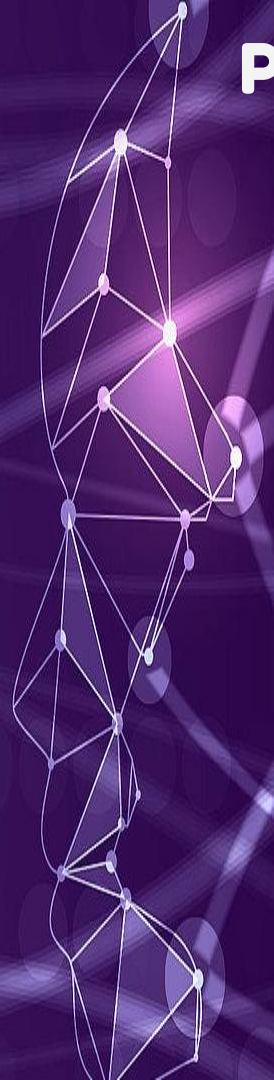
Problem Statement

- SAFETY FROM FIRE HAZARDS AND SPREAD OF HAZARDOUS GASES



```
//Team name : Protocol6
//Team Leader : B Zahid Hussain
//problem statement number : 9
#include <SoftwareSerial.h>
#define DEBUG true
SoftwareSerial wifi_module(2,3);
int red_led_pin = 9;
int green_led_pin = 8;
int buzzer_pin = 10;
int smoke_sensor_pin = A0;
void setup()
{
  Serial.begin(9600);
  wifi_module.begin(9600); // Set the baudrate according to your esp8266
  pinMode(red_led_pin, OUTPUT);
  pinMode(green_led_pin, OUTPUT);
  pinMode(buzzer_pin, OUTPUT);
  pinMode(smoke_sensor_pin, INPUT);
  esp8266_command("AT+RST\r\n",2000,DEBUG); // reset module
  esp8266_command("AT+CWMODE=2\r\n",1000,DEBUG); // configure as access point
  esp8266_command("AT+CIFSR\r\n",1000,DEBUG); // get ip address
  esp8266_command("AT+CIPMUX=1\r\n",1000,DEBUG); // configure for multiple
connections
  esp8266_command("AT+CIPSERVER=1,80\r\n",1000,DEBUG); // turn on server on port 80
}
void loop()
{
  int analogSensor = analogRead(smoke_sensor_pin);
  if (analogSensor > 350)
  {
    digitalWrite(red_led_pin, HIGH);
    digitalWrite(green_led_pin, LOW);
    tone(buzzer_pin, 1000, 200);
  }
  else
  {
    digitalWrite(red_led_pin, LOW);
    digitalWrite(green_led_pin, HIGH);
    noTone(buzzer_pin);
  }
  if(wifi_module.available())
  {
    if(wifi_module.find("+IPD,"))
    {
     delay(1000);
     int connectionId = wifi_module.read()-48;
     String webpage = "<h1>IOT Smoke Detection System</h1>";
```

FEASIBILITY

01 Easy to setup

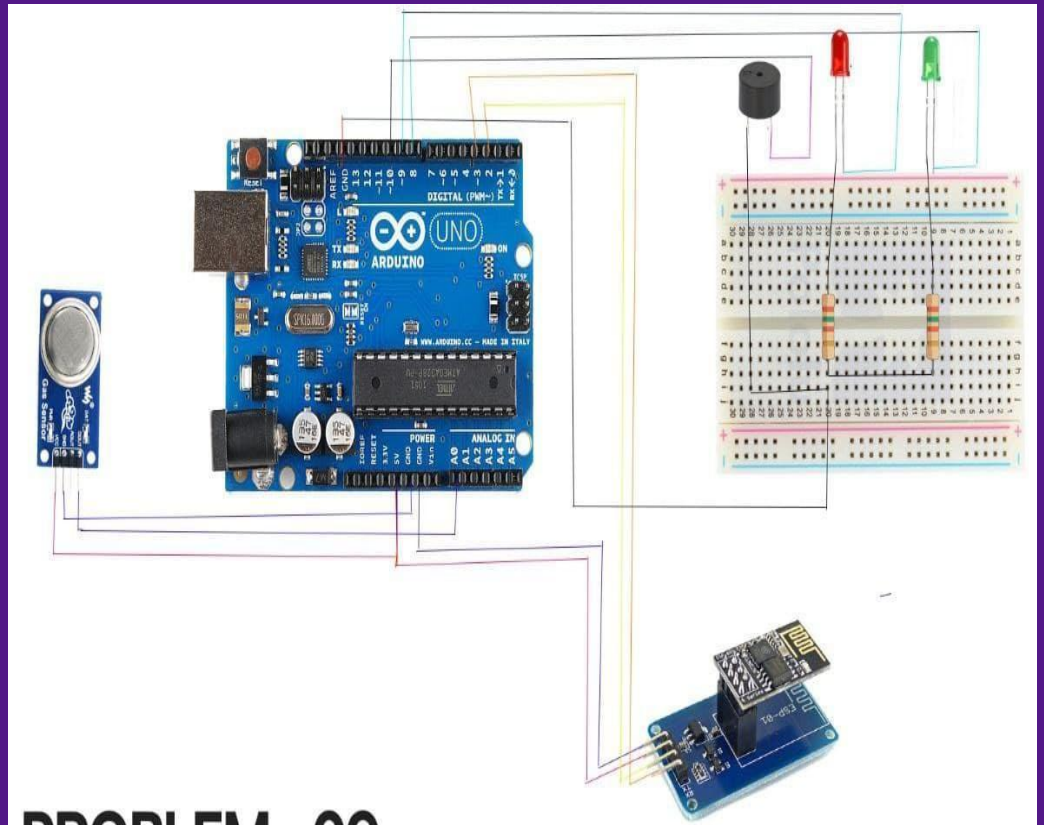
02 Low Cost

03 Quick Response

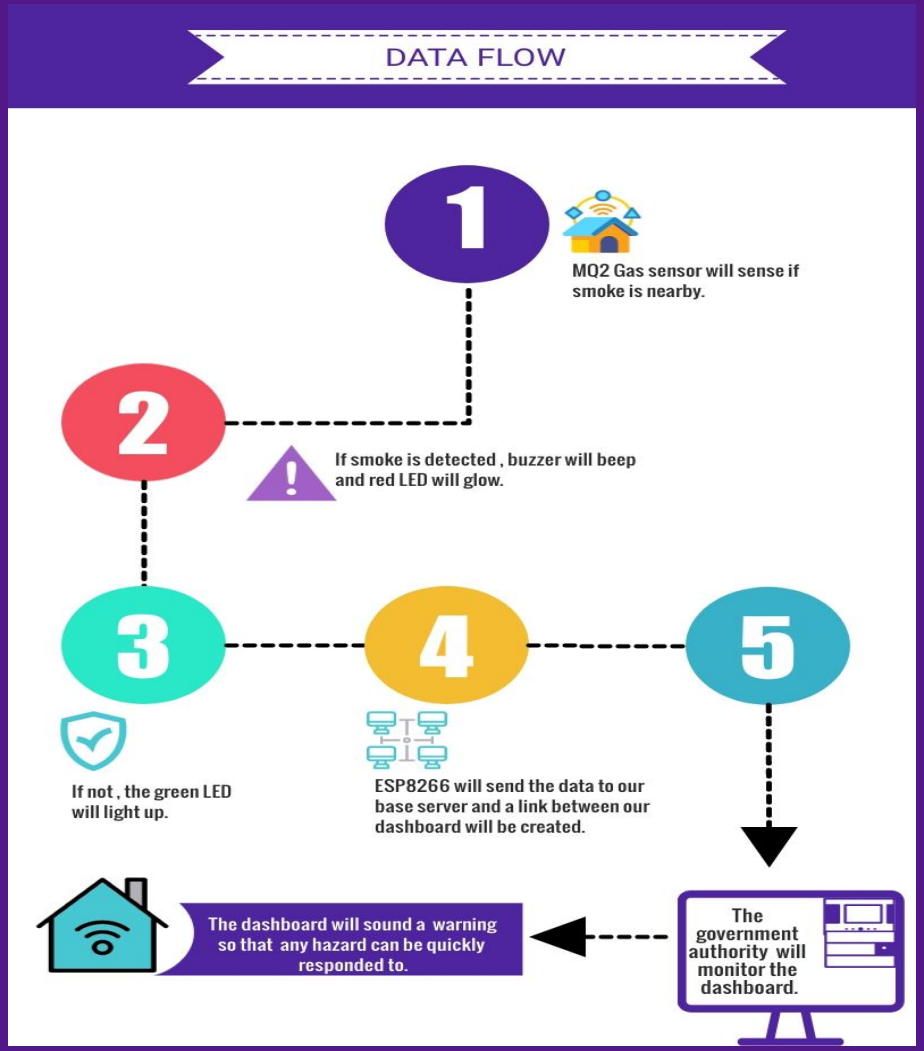
04 Intuitive Dashboard

Components:

- **01** Arduino
- **01** ESP8266 WiFi Module attached with ESP01 module
- **01** MQ2 gas sensor
- **01** Green & Red LED
- **01** Buzzer
- **02** 220 OHM Resistors
- **01** Breadboard
- **Many** Connecting Wires

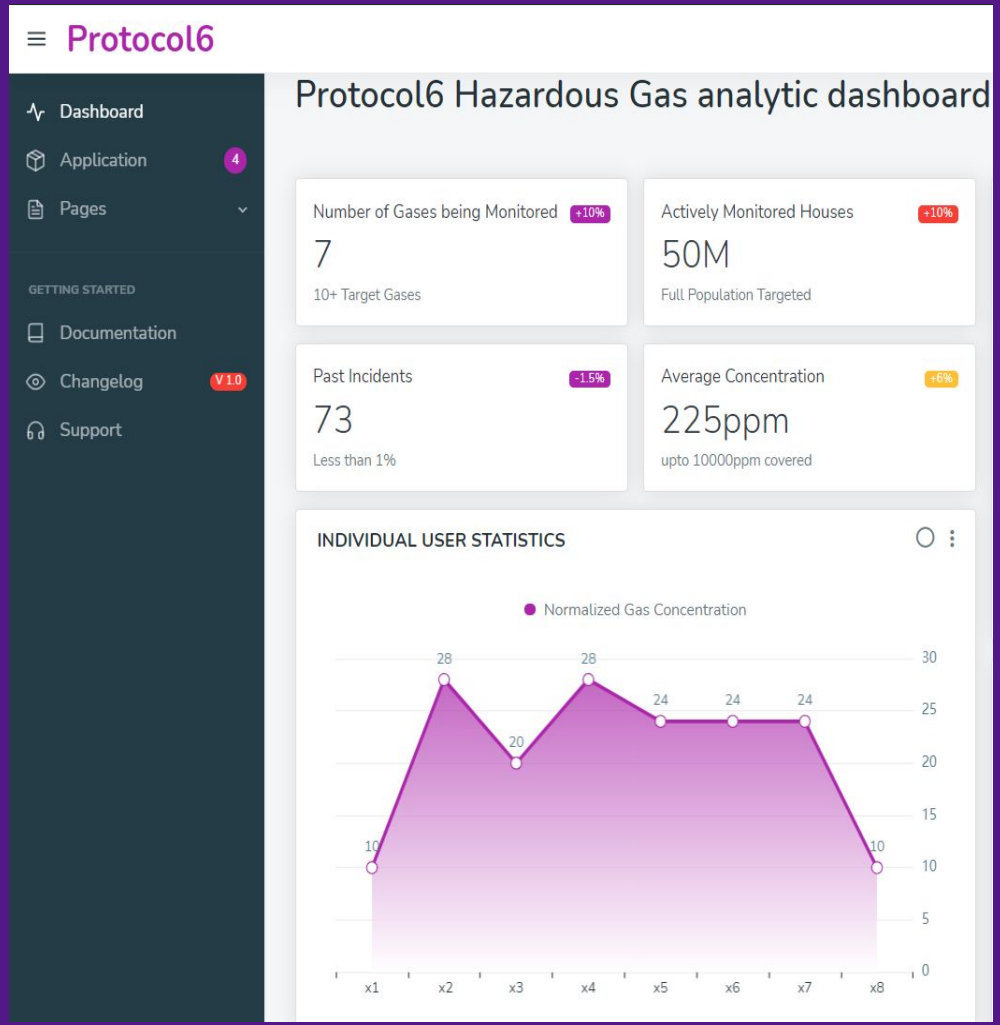


PROBLEM - 09



HOW IT WORKS

Get instant alert when the gas concentration increases to specified level



Dashboard will Contain

01 Number of actively monitored houses

`

02 Total number of past incidents

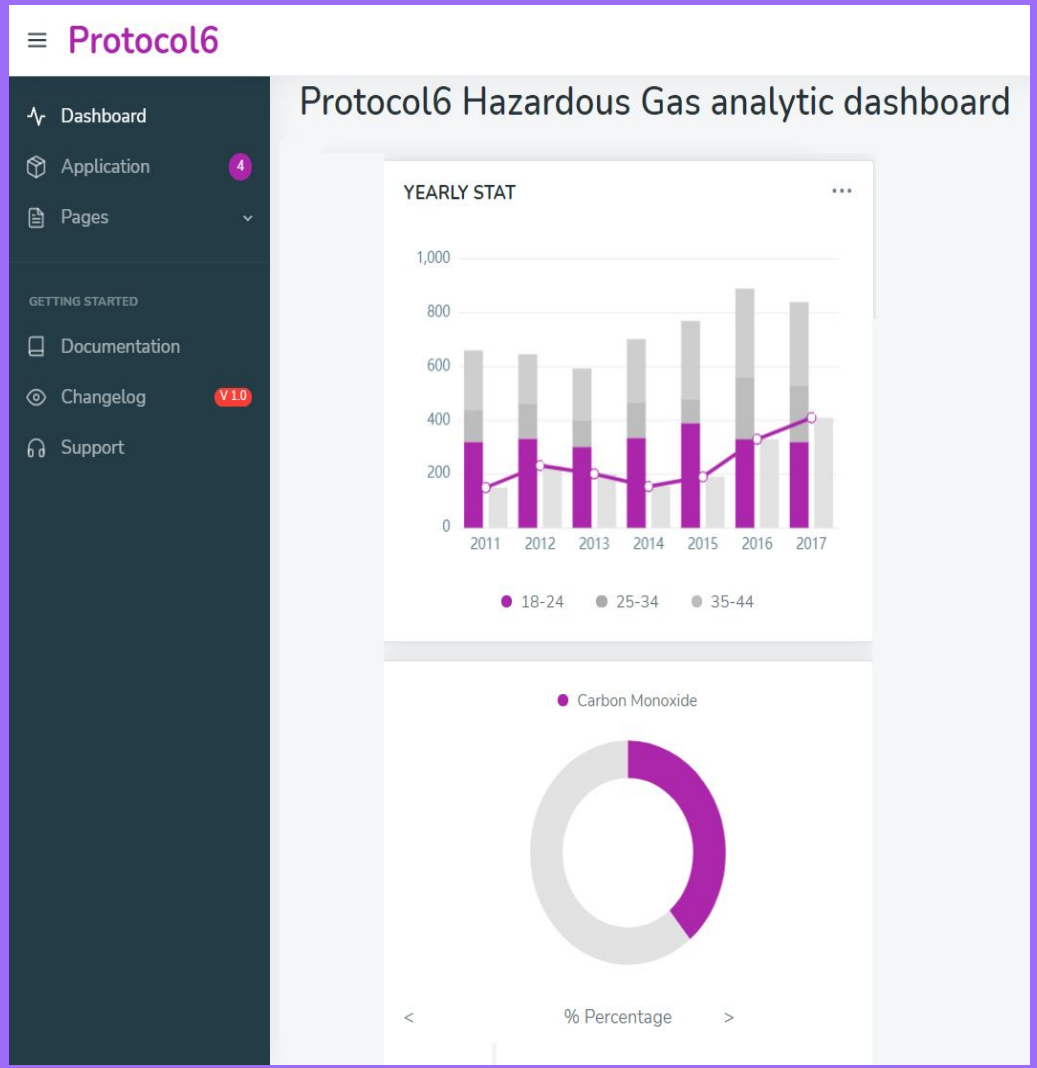
03 Number of gases that are being monitored

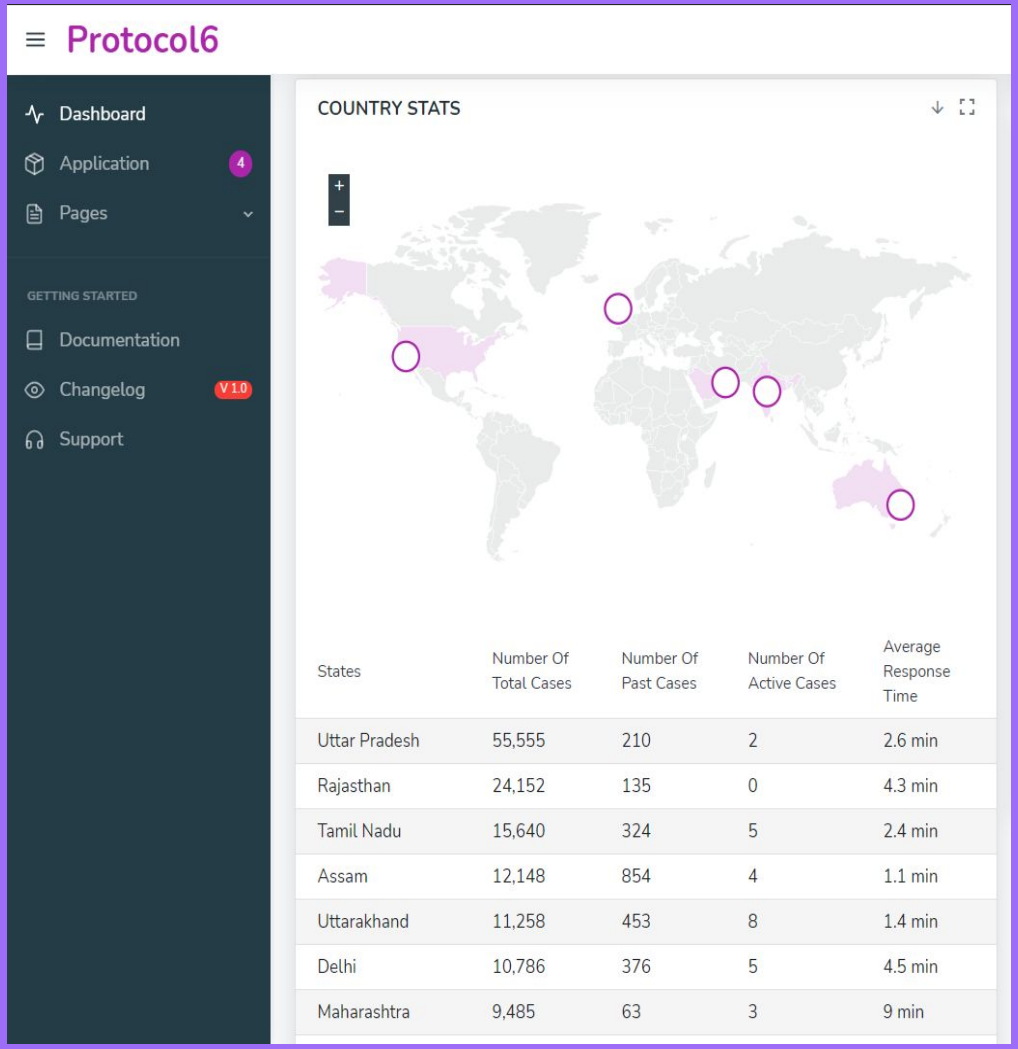
04 Individual user statistics

Dashboard will Contain

05 Yearly statistics `

06 Individual gas concentration percentage





Dashboard will Contain

07 Interactive country map

08 State wise statistics

“The future belongs to those who believe in the beauty of their dreams”

THANK YOU !

Questions Are Welcome!