

```
#include <BlynkSimpleEsp32.h>
```

```
BlynkTimer timer;
```

```
#define RelayPin1 13
```

```
#define RelayPin2 12
```

```
#define RelayPin3 14
```

```
#define RelayPin4 27
```

```
#define RelayPin5 26
```

```
#define RelayPin6 25
```

```
#define RelayPin7 33
```

```
#define RelayPin8 32
```

```
#define SwitchPin1 15
```

```
#define SwitchPin2 4
```

```
#define SwitchPin3 5
```

```
#define SwitchPin4 18
```

```
#define SwitchPin5 19
```

```
#define SwitchPin6 21
```

```
#define SwitchPin7 22
```

```
#define SwitchPin8 23
```

```
#define wifileD 2
```

```
#define VPIN_BUTTON_1 V1
```

```
#define VPIN_BUTTON_2 V2
```

```
#define VPIN_BUTTON_3 V3
```

```
#define VPIN_BUTTON_4 V4
```

```
#define VPIN_BUTTON_5 V5
```

```
#define VPIN_BUTTON_6 V6
```

```
#define VPIN_BUTTON_7 V7
```

```
#define VPIN_BUTTON_8  V8
```

```
int toggleState_1 = 1;
```

```
int toggleState_2 = 1;
```

```
int toggleState_3 = 1;
```

```
int toggleState_4 = 1;
```

```
int toggleState_5 = 1;
```

```
int toggleState_6 = 1;
```

```
int toggleState_7 = 1;
```

```
int toggleState_8 = 1;
```

```
int wifiFlag = 0;
```

```
#define AUTH "-ERoQzWSvRL6iOuBOUcJ8TN2KTCATTrh"
```

```
#define WIFI_SSID "abcd1234"    //Wifi Name
```

```
#define WIFI_PASS "abcd1234"    //Wifi Password
```

```
void relayOnOff(int relay){
```

```
    switch(relay){
```

```
        case 1:
```

```
            if(toggleState_1 == 1){
```

```
                digitalWrite(RelayPin1, LOW);
```

```
                toggleState_1 = 0;
```

```
                Serial.println("Device1 ON");
```

```
            }
```

```
        else{
```

```
            digitalWrite(RelayPin1, HIGH);
```

```
            toggleState_1 = 1;
```

```
            Serial.println("Device1 OFF");
```

```
        }
```

```
delay(100);
```

```
break;
```

```
case 2:
```

```
if(toggleState_2 == 1){
```

```
digitalWrite(RelayPin2, LOW);
```

```
toggleState_2 = 0;
```

```
Serial.println("Device2 ON");
```

```
}
```

```
else{
```

```
digitalWrite(RelayPin2, HIGH);
```

```
toggleState_2 = 1;
```

```
Serial.println("Device2 OFF");
```

```
}
```

```
delay(100);
```

```
break;
```

```
case 3:
```

```
if(toggleState_3 == 1){

    digitalWrite(RelayPin3, LOW);

    toggleState_3 = 0;

    Serial.println("Device3 ON");

}

else{

    digitalWrite(RelayPin3, HIGH);

    toggleState_3 = 1;

    Serial.println("Device3 OFF");

}

delay(100);

break;

case 4:

    if(toggleState_4 == 1){

        digitalWrite(RelayPin4, LOW);

        toggleState_4 = 0;
```

```
Serial.println("Device4 ON");

}

else{

digitalWrite(RelayPin4, HIGH);

toggleState_4 = 1;

Serial.println("Device4 OFF");

}

delay(100);

break;

case 5:

if(toggleState_5 == 1){

digitalWrite(RelayPin5, LOW);

toggleState_5 = 0;

Serial.println("Device5 ON");

}

else{
```

```
digitalWrite(RelayPin5, HIGH);
```

```
toggleState_5 = 1;
```

```
Serial.println("Device5 OFF");
```

```
}
```

```
delay(100);
```

```
break;
```

```
case 6:
```

```
if(toggleState_6 == 1){
```

```
digitalWrite(RelayPin6, LOW);
```

```
toggleState_6 = 0;
```

```
Serial.println("Device6 ON");
```

```
}
```

```
else{
```

```
digitalWrite(RelayPin6, HIGH);
```

```
toggleState_6 = 1;
```

```
Serial.println("Device6 OFF");
```



```
}
```

```
delay(100);
```

```
break;
```

```
case 7:
```

```
if(toggleState_7 == 1){
```

```
digitalWrite(RelayPin7, LOW);
```

```
toggleState_7 = 0;
```

```
Serial.println("Device7 ON");
```

```
}
```

```
else{
```

```
digitalWrite(RelayPin7, HIGH);
```

```
toggleState_7 = 1;
```

```
Serial.println("Device7 OFF");
```

```
}
```

```
delay(100);
```

```
break;
```

case 8:

```
    if(toggleState_8 == 1){
```

```
        digitalWrite(RelayPin8, LOW);
```

```
        toggleState_8 = 0;
```

```
        Serial.println("Device8 ON");
```

```
    }
```

```
    else{
```

```
        digitalWrite(RelayPin8, HIGH);
```

```
        toggleState_8 = 1;
```

```
        Serial.println("Device8 OFF");
```

```
    }
```

```
    delay(100);
```

```
    break;
```

```
    default : break;
```

```
}
```

```
}
```

```
void with_internet(){

    if (digitalRead(SwitchPin1) == LOW){

        delay(200);

        relayOnOff(1);

        Blynk.virtualWrite(VPIN_BUTTON_1, toggleState_1);

    }

    else if (digitalRead(SwitchPin2) == LOW){

        delay(200);

        relayOnOff(2);

        Blynk.virtualWrite(VPIN_BUTTON_2, toggleState_2);

    }

    else if (digitalRead(SwitchPin3) == LOW){

        delay(200);

        relayOnOff(3);

        Blynk.virtualWrite(VPIN_BUTTON_3, toggleState_3);
```

```
}
```

```
else if (digitalRead(SwitchPin4) == LOW){
```

```
    delay(200);
```

```
    relayOnOff(4);
```

```
    Blynk.virtualWrite(VPIN_BUTTON_4, toggleState_4);
```

```
}
```

```
else if (digitalRead(SwitchPin5) == LOW){
```

```
    delay(200);
```

```
    relayOnOff(5);
```

```
    Blynk.virtualWrite(VPIN_BUTTON_5, toggleState_5);
```

```
}
```

```
else if (digitalRead(SwitchPin6) == LOW){
```

```
    delay(200);
```

```
    relayOnOff(6);
```

```
    Blynk.virtualWrite(VPIN_BUTTON_6, toggleState_6);
```

```
}
```

```
else if (digitalRead(SwitchPin7) == LOW){

    delay(200);

    relayOnOff(7);

    Blynk.virtualWrite(VPIN_BUTTON_7, toggleState_7);

}

else if (digitalRead(SwitchPin8) == LOW){

    delay(200);

    relayOnOff(8);

    Blynk.virtualWrite(VPIN_BUTTON_8, toggleState_8);

}

}

void without_internet(){

    if (digitalRead(SwitchPin1) == LOW){

        delay(200);

        relayOnOff(1);
```

```
}
```

```
else if (digitalRead(SwitchPin2) == LOW){
```

```
    delay(200);
```

```
    relayOnOff(2);
```

```
}
```

```
else if (digitalRead(SwitchPin3) == LOW){
```

```
    delay(200);
```

```
    relayOnOff(3);
```

```
}
```

```
else if (digitalRead(SwitchPin4) == LOW){
```

```
    delay(200);
```

```
    relayOnOff(4);
```

```
}
```

```
else if (digitalRead(SwitchPin5) == LOW){
```

```
    delay(200);
```

```
    relayOnOff(5);
```

```
}
```

```
else if (digitalRead(SwitchPin6) == LOW){
```

```
    delay(200);
```

```
    relayOnOff(6);
```

```
}
```

```
else if (digitalRead(SwitchPin7) == LOW){
```

```
    delay(200);
```

```
    relayOnOff(7);
```

```
}
```

```
else if (digitalRead(SwitchPin8) == LOW){
```

```
    delay(200);
```

```
    relayOnOff(8);
```

```
}
```

```
}
```

```
BLYNK_CONNECTED() {
```

```
Blynk.syncVirtual(VPIN_BUTTON_1);
```

```
Blynk.syncVirtual(VPIN_BUTTON_2);
```

```
Blynk.syncVirtual(VPIN_BUTTON_3);
```

```
Blynk.syncVirtual(VPIN_BUTTON_4);
```

```
Blynk.syncVirtual(VPIN_BUTTON_5);
```

```
Blynk.syncVirtual(VPIN_BUTTON_6);
```

```
Blynk.syncVirtual(VPIN_BUTTON_7);
```

```
Blynk.syncVirtual(VPIN_BUTTON_8);
```

```
}
```

```
BLYNK_WRITE(VPIN_BUTTON_1) {
```

```
toggleState_1 = param.asInt();
```

```
digitalWrite(RelayPin1, toggleState_1);
```

```
}
```



```
BLYNK_WRITE(VPIN_BUTTON_2) {  
  
    toggleState_2 = param.asInt();  
  
    digitalWrite(RelayPin2, toggleState_2);  
  
}
```

```
BLYNK_WRITE(VPIN_BUTTON_3) {  
  
    toggleState_3 = param.asInt();  
  
    digitalWrite(RelayPin3, toggleState_3);  
  
}
```

```
BLYNK_WRITE(VPIN_BUTTON_4) {  
  
    toggleState_4 = param.asInt();  
  
    digitalWrite(RelayPin4, toggleState_4);  
  
}
```

```
BLYNK_WRITE(VPIN_BUTTON_5) {
```

```
toggleState_5 = param.asInt();
```

```
digitalWrite(RelayPin5, toggleState_5);
```

```
}
```

```
BLYNK_WRITE(VPIN_BUTTON_6) {
```

```
toggleState_6 = param.asInt();
```

```
digitalWrite(RelayPin6, toggleState_6);
```

```
}
```

```
BLYNK_WRITE(VPIN_BUTTON_7) {
```

```
toggleState_7 = param.asInt();
```

```
digitalWrite(RelayPin7, toggleState_7);
```

```
}
```

```
BLYNK_WRITE(VPIN_BUTTON_8) {
```

```
toggleState_8 = param.asInt();
```

```
digitalWrite(RelayPin8, toggleState_8);  
  
}
```

```
void checkBlynkStatus() {
```

```
    bool isconnected = Blynk.connected();
```

```
    if (isconnected == false) {
```

```
        wifiFlag = 1;
```

```
        digitalWrite(wifiLed, LOW);
```

```
    }
```

```
    if (isconnected == true) {
```

```
        wifiFlag = 0;
```

```
        digitalWrite(wifiLed, HIGH);
```

```
    }
```

```
}
```

```
void setup()

{

    Serial.begin(9600);


    pinMode(RelayPin1, OUTPUT);

    pinMode(RelayPin2, OUTPUT);

    pinMode(RelayPin3, OUTPUT);

    pinMode(RelayPin4, OUTPUT);

    pinMode(RelayPin5, OUTPUT);

    pinMode(RelayPin6, OUTPUT);

    pinMode(RelayPin7, OUTPUT);

    pinMode(RelayPin8, OUTPUT);


    pinMode(wifiLed, OUTPUT);


    pinMode(SwitchPin1, INPUT_PULLUP);
```

```
pinMode(SwitchPin2, INPUT_PULLUP);
```

```
pinMode(SwitchPin3, INPUT_PULLUP);
```

```
pinMode(SwitchPin4, INPUT_PULLUP);
```

```
pinMode(SwitchPin5, INPUT_PULLUP);
```

```
pinMode(SwitchPin6, INPUT_PULLUP);
```

```
pinMode(SwitchPin7, INPUT_PULLUP);
```

```
pinMode(SwitchPin8, INPUT_PULLUP);
```

```
digitalWrite(RelayPin1, toggleState_1);
```

```
digitalWrite(RelayPin2, toggleState_2);
```

```
digitalWrite(RelayPin3, toggleState_3);
```

```
digitalWrite(RelayPin4, toggleState_4);
```

```
digitalWrite(RelayPin5, toggleState_5);
```

```
digitalWrite(RelayPin6, toggleState_6);
```

```
digitalWrite(RelayPin7, toggleState_7);
```

```
digitalWrite(RelayPin8, toggleState_8);
```

```
WiFi.begin(WIFI_SSID, WIFI_PASS);
```

```
timer.setInterval(3000L, checkBlynkStatus);
```

```
Blynk.config(AUTH);
```

```
}
```

```
void loop()
```

```
{
```

```
if (WiFi.status() != WL_CONNECTED)
```

```
{
```

```
  Serial.println("WiFi Not Connected");
```

```
}
```

```
else
```

```
{
```

```
  Serial.println("WiFi Connected");
```

```
  Blynk.run();
```

```
}
```

```
timer.run();
```

```
if (wifiFlag == 0)
```

```
    with_internet();
```

```
else
```

```
    without_internet();
```

```
}
```