Project Overview

In this project, we are using the ESP8266 NodeMCU microcontroller to control multiple relays remotely via the **Sinric Pro** platform. The relays can be switched on and off using voice commands through smart home assistants (like Amazon Alexa or Google Assistant) or through the Sinric Pro mobile app.

The project involves the following components:

- **ESP8266 NodeMCU**: A Wi-Fi-enabled microcontroller used to connect to the internet and control relays.
- **Relays**: Used to control high-power devices like lights, fans, or motors. The relays in this project are **active-low**, meaning they are turned on by sending a `LOW` signal.
- **Sinric Pro**: A cloud-based platform that provides APIs for integrating smart devices into voice assistants like Alexa and Google Home.

Features

- Remote control of up to four relays.
- Integration with Sinric Pro to allow remote control via voice assistants or a mobile app.
- The relays are initialized in an "off" state when the system starts.

Hardware Components

1. **ESP8266 NodeMCU**
2. **4-channel Relay Module**
3. **Jumper wires**
4. **Power Supply**
5. **Wi-Fi Router (for internet connection)**

Libraries Required

1. **ESP8266WiFi.h**: Provides Wi-Fi functionality for the ESP8266.
2. **SinricPro.h**: Used to integrate the project with the Sinric Pro platform and handle communication with the Sinric Pro cloud service.
3. **Arduino.h**: Standard library for working with Arduino-compatible boards, such as ESP8266.