### Hardware Requirements of Project

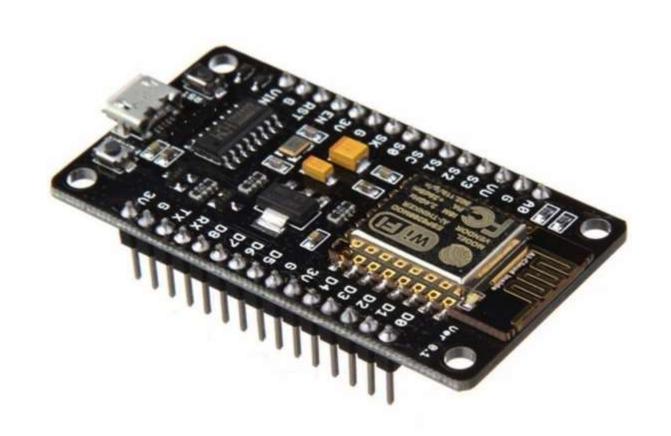
#### Lecturer Syed Umaid Ahmed

#### **Note:**

- Each group consists of two members
- All the stuff would be purchased by the students
- Any help required would be provided
- The project should be submitted for evaluation and then returned
- The timing duration should be 30 days and total marks would be 20



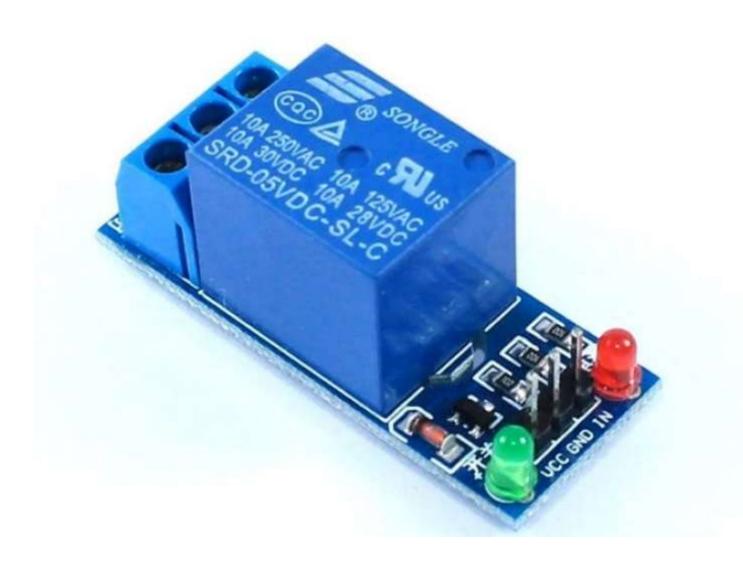
#### 1. Node MCU Board (ESP8266)



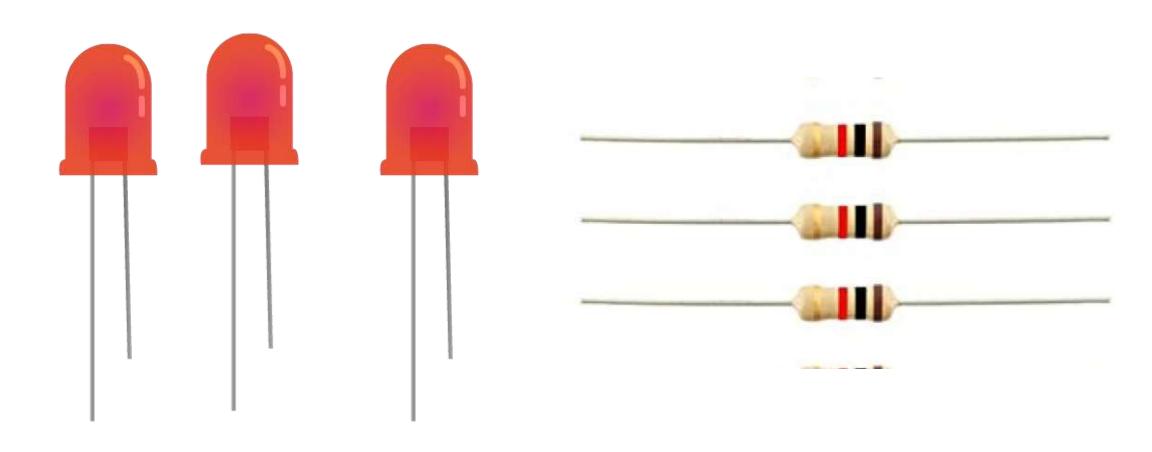
#### 2. Data Cable for Node MCU



## 3. One Channel Relay Module



# 4. Three LED's (Red, Yellow, Green) With Three Resistors of Value 1K

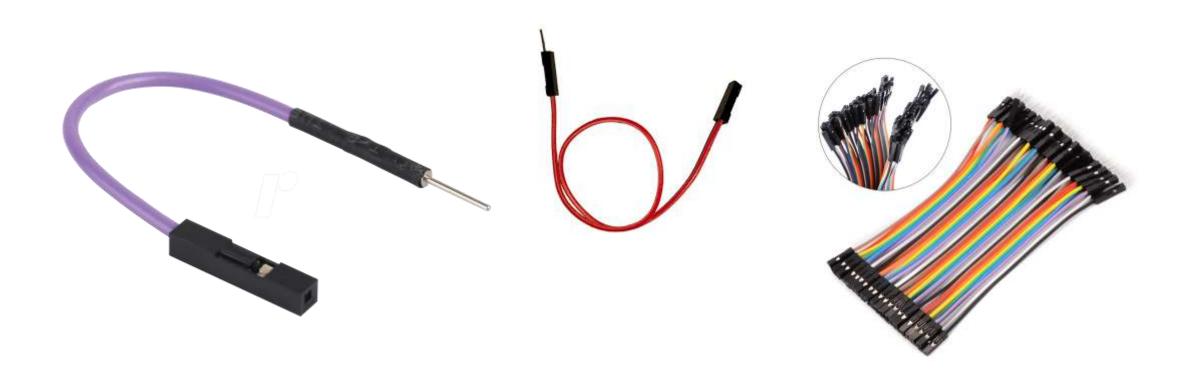


#### 5. Two Tactile Push Buttons

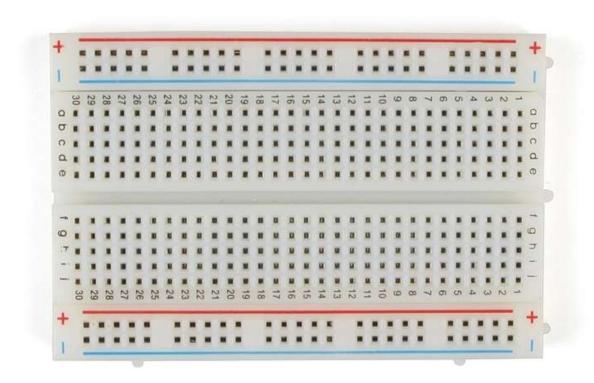




# 6. Jumper Wires small (Male to Female) & (Female to Female) 10, 10 each



#### 7. Medium Sized Breadboard



#### 8. Bulb Holder Socket (Use Socket No Buttons)



#### 9. Wire and Two Pin Plug



## 10. Normal Energy Saver (40 watt) Bulb Take which is according to your socket



#### **Bill of Materials**

1.	Node MCU	430
2.	Relay Module (One-Channel)	90
3.	Data Cable	100
4.	LED's Red, Green, Blue and Resistors	20
5.	Jumper Wires	100
6.	Breadboard	130
7.	Holder and Switch Board with Socket	300
8.	Wire with Two Pin Plug	20
9.	Energy Saver (50 watt)	190
10.	Tape, 5v adapter (Normal)	120

Total Cost =	<u>.</u>	<b>1500</b>
	-	

Purchase from any shop, Nearby is shop beside Sir Syed University, General Electronics. Far is Saddar and Co-operative Market