

Q-01

Quiz

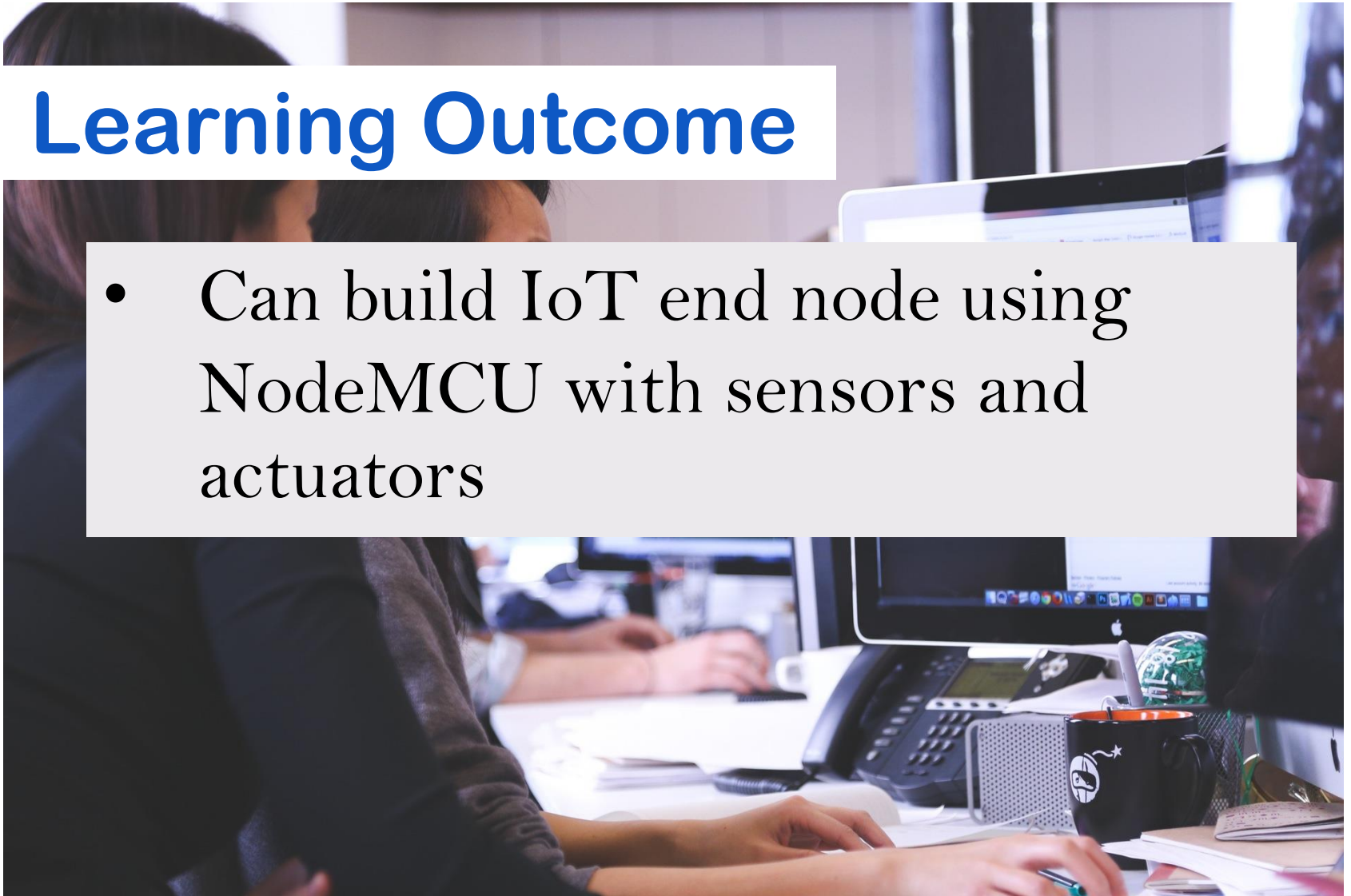
Sensor & Actuator

Semester 1/2563

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Learning Outcome

- Can build IoT end node using NodeMCU with sensors and actuators



Task (4%)

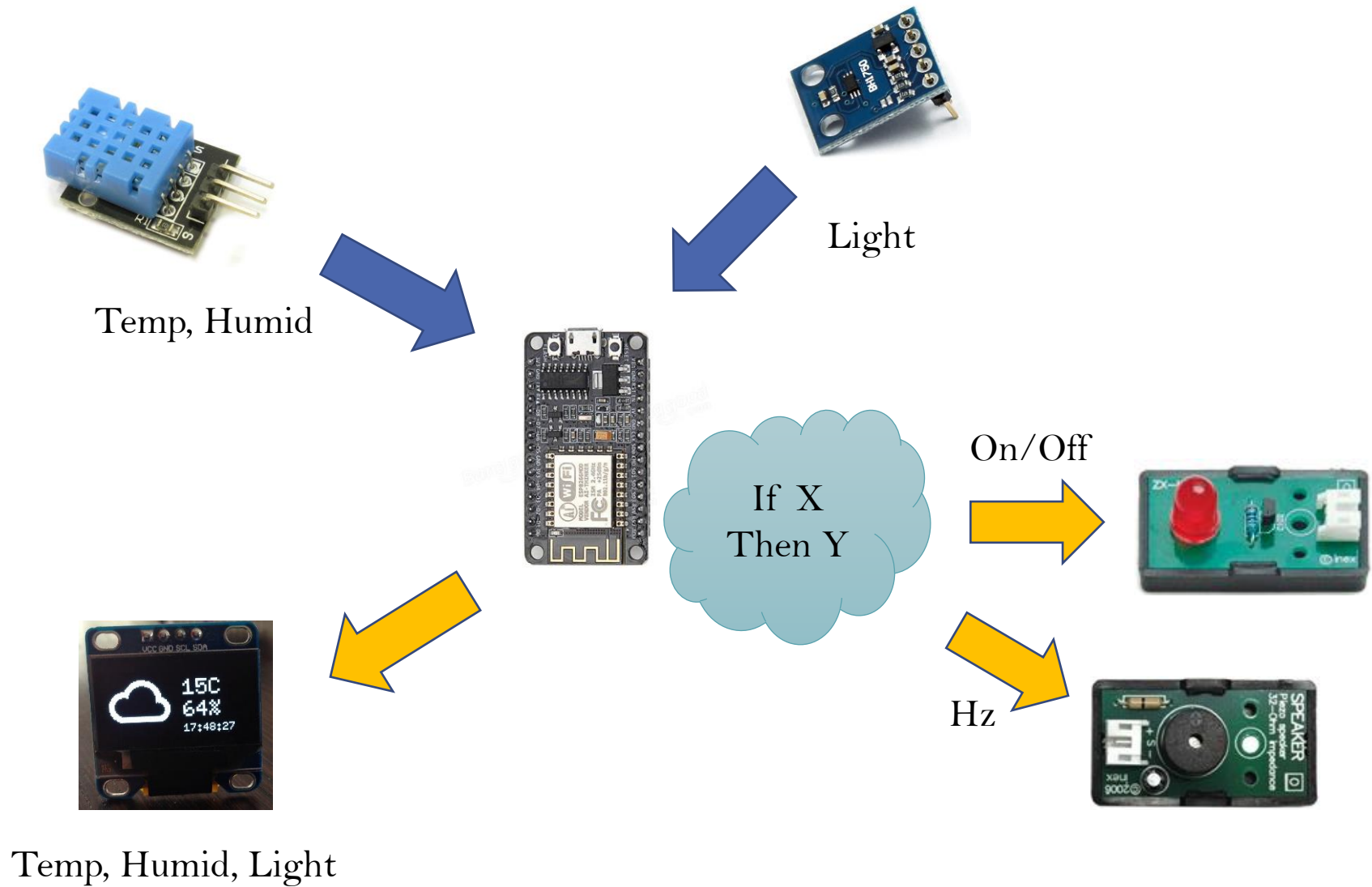
- **Build a weather station using**
 - **NodeMCU**
 - **DHT22 (Temp / Humid)**
 - **BH1750 (Light)**
 - **OLED Display**
 - **LED / SPEAKER**

Q&A (1%)

- **Answer the question or modify the code**
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Required functions

- Display current temperature, humidity, or light level on OLED Display
 - Print sensor data to serial monitor
 - Alert when temp / humid/ light is over the threshold
 - Play sound / no sound
 - Or turn LED on/off
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TASK A

Sensor	BH1750
Actuator	Speaker
Condition	If Lux < 50 Then alert with sound Else sound off

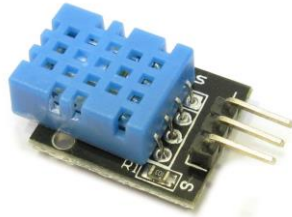
Don't forget to print sensor value to OLED and Serial Monitor



TASK B

Sensor	BH1750
Actuator	LED
Condition	If Lux < 50 Then LED light ON Else light OFF

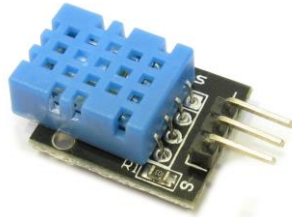
Don't forget to print sensor value to OLED and Serial Monitor



TASK C

Sensor	DHT22
Actuator	Speaker
Condition	If Temp > 26 Then alert with sound Else sound off

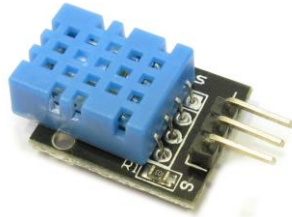
Don't forget to print sensor value to OLED and Serial Monitor



TASK D

Sensor	DHT22
Actuator	LED
Condition	If Temp > 26 Then LED light ON Else LED light OFF

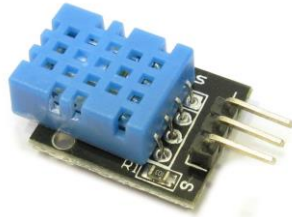
Don't forget to print sensor value to OLED and Serial Monitor



TASK E

Sensor	DHT22
Actuator	Speaker
Condition	If Humid > 60 Then alert with sound Else sound OFF

Don't forget to print sensor value to OLED and Serial Monitor



TASK F

Sensor	DHT22
Actuator	LED
Condition	If Humid > 60 Then LED light ON Else LED light OFF

Don't forget to print sensor value to OLED and Serial Monitor