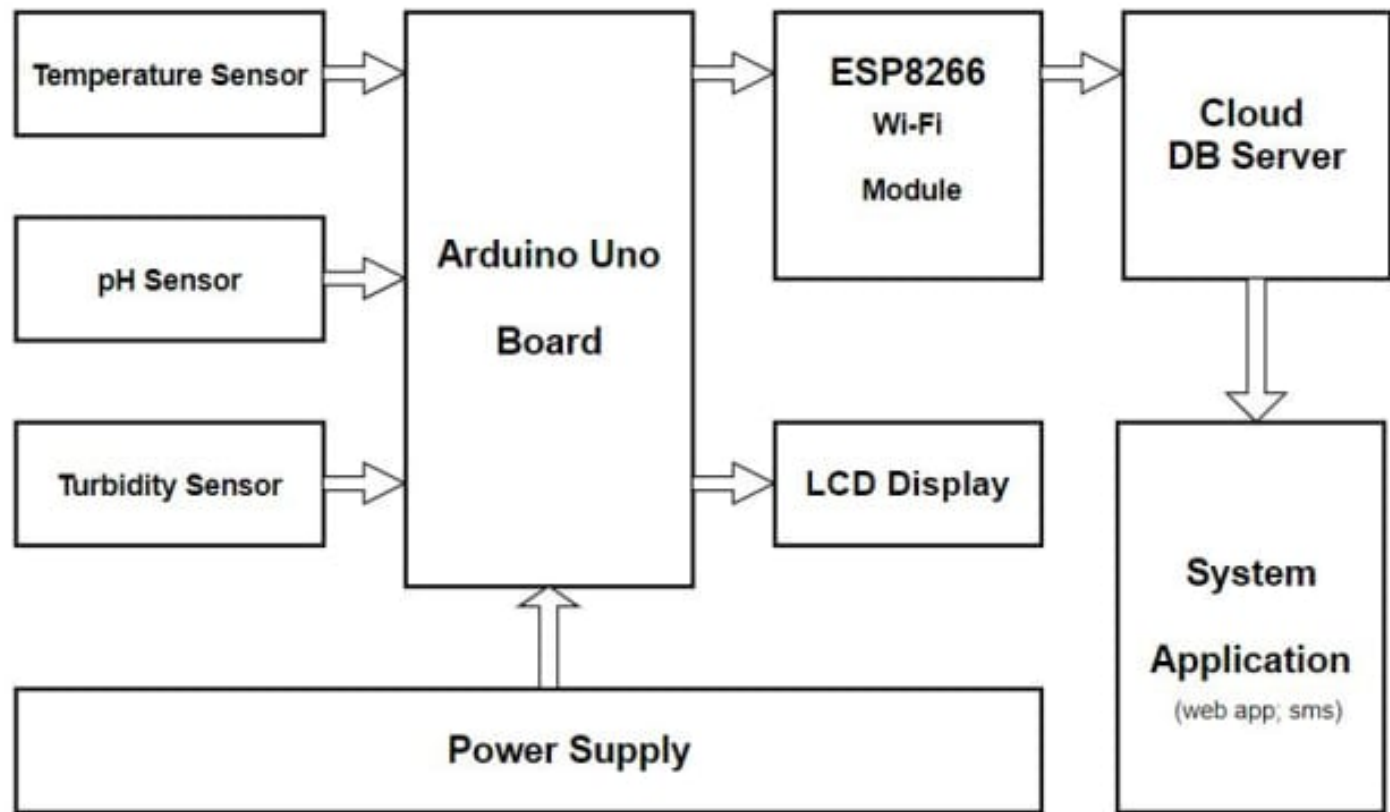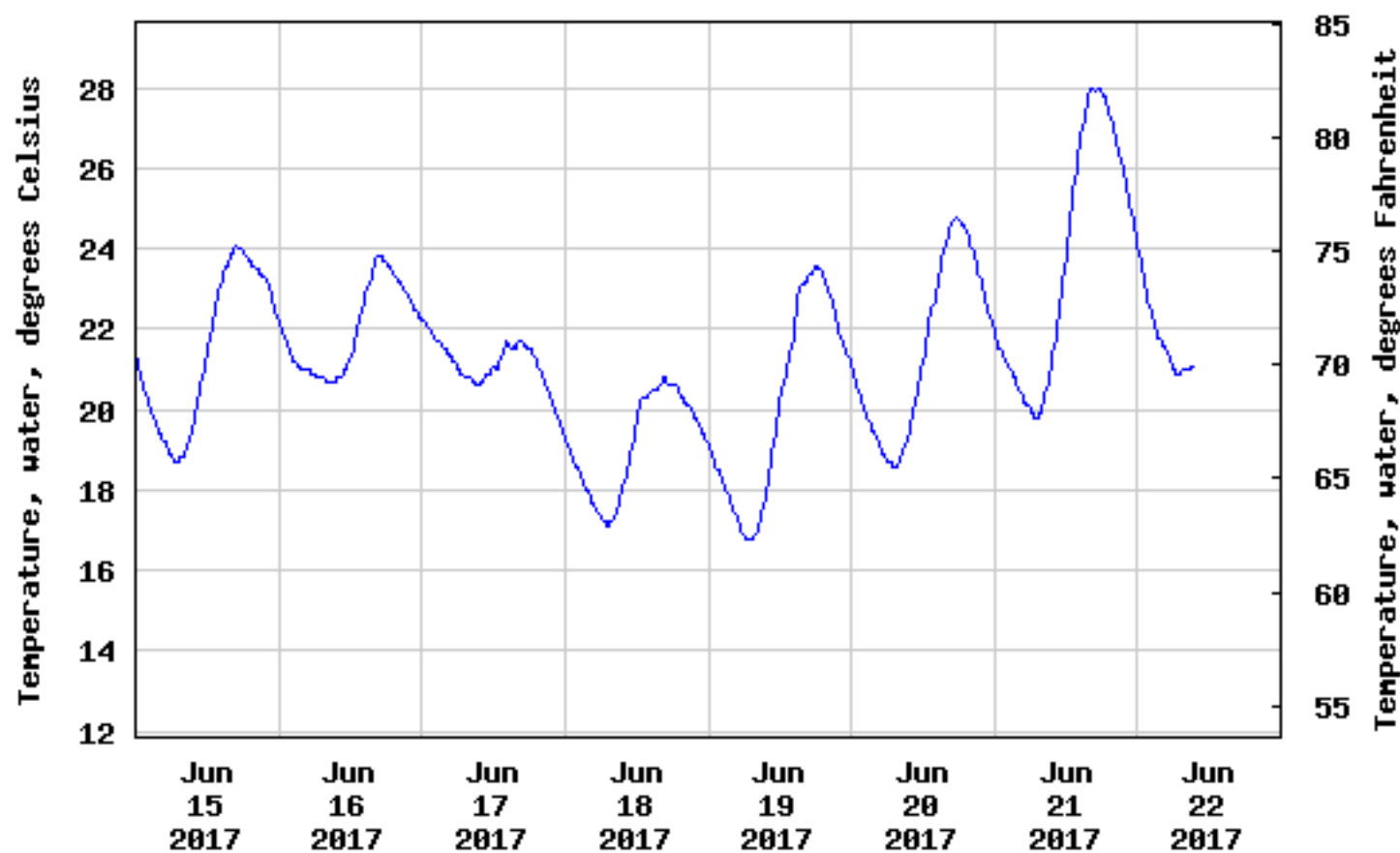# What is IoT?

The Internet of Things (IoT) describes the network of physical objects—"things"—that are embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the internet. These devices range from ordinary household objects to sophisticated industrial tools. With more than 7 billion connected IoT devices today, experts are expecting this number to grow to 10 billion by 2020 and 22 billion by 2025. Oracle has a network of device partners.

Temperature Sensor	→			
pH Sensor	→	Arduino Uno Board	→	ESP8266 Wi-Fi Module	→	Cloud DB Server
Turbidity Sensor	→		→	LCD Display		

Power Supply → Arduino Uno Board

Cloud DB Server → System Application (web app; sms)

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```cpp
if (serialA7->available()) {
    char c = serialA7->read();
    //debug purpose
        #ifdef A7Client_ENABLE_RESP_DEBUG
    Serial.print(c);
        #endif
    ////
    prevChar = millis();
    sum = (c == resp[sum]) ? sum + 1 : 0;
    if (sum == len)break;
}
if ((unsigned long) (millis() - timerStart) >
timeout * 1000UL) {
        Serial.println(F("Timeout"));
    return false;
}
//If interchar Timeout => return FALSE. So
we can return sooner from this function.
if (((unsigned long) (millis() - prevChar) >
chartimeout) && (prevChar != 0)) {
        Serial.println(F("InterChar
```