Firebase-NodeMCU
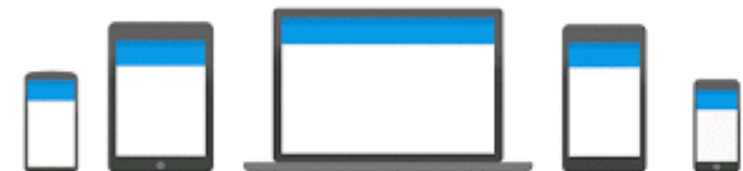
NodeMCU interface with Firebase

Dr. Sarwan Singh

NIELIT Chandigarh
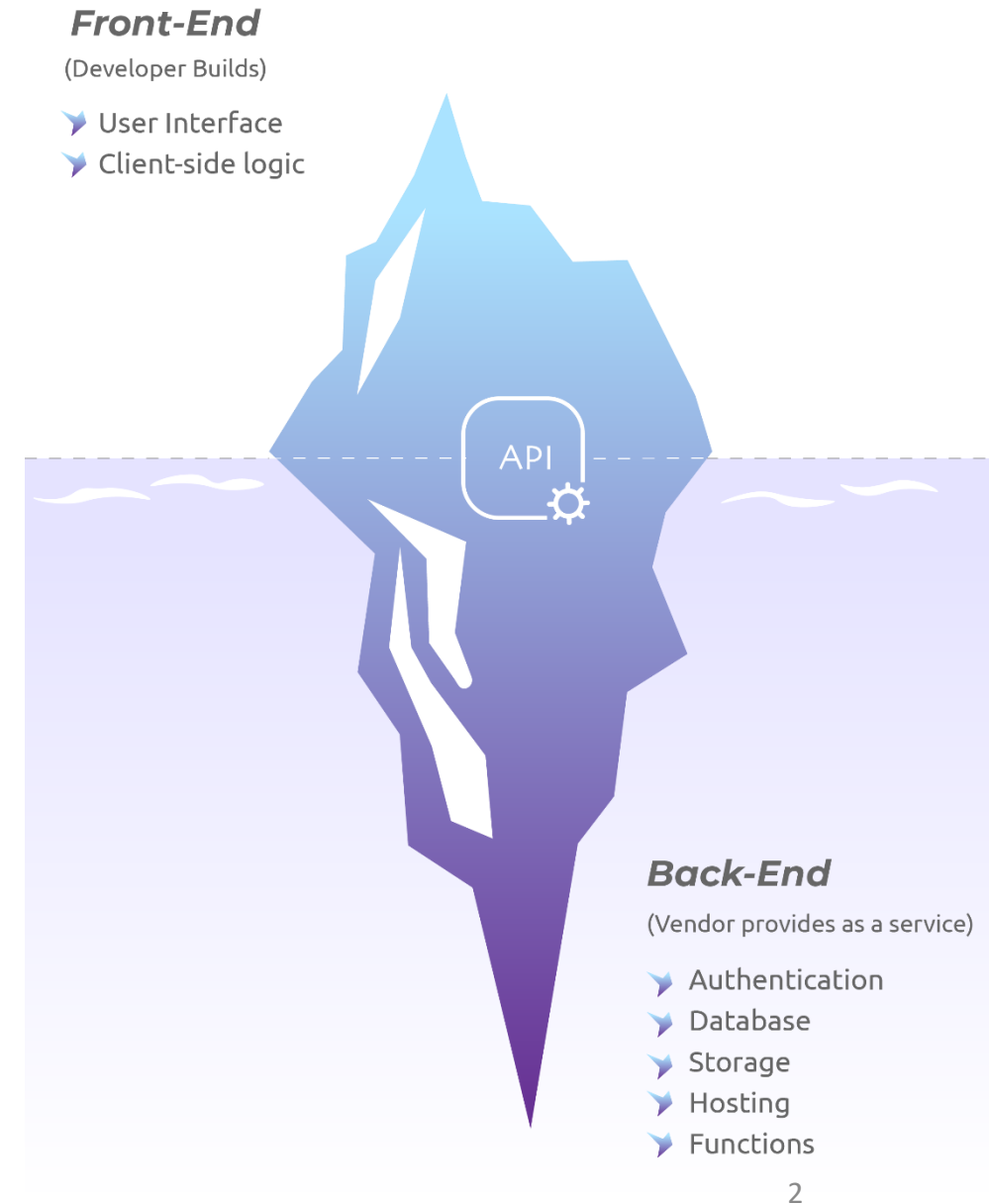
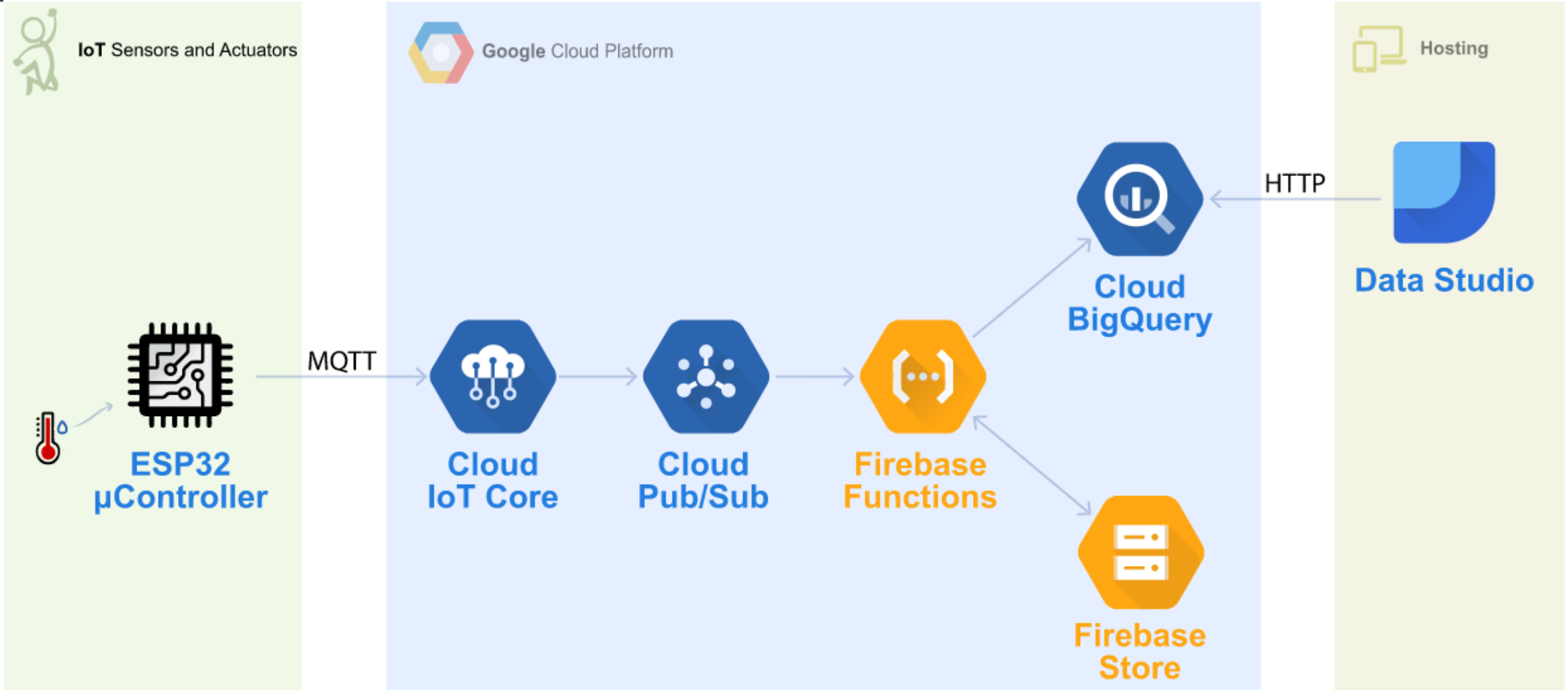# Agenda

- Firebase – NodeMCU

References

- google
- firebase.google.com

Front-End

(Developer Builds)

- User Interface
- Client-side logic

API

Back-End

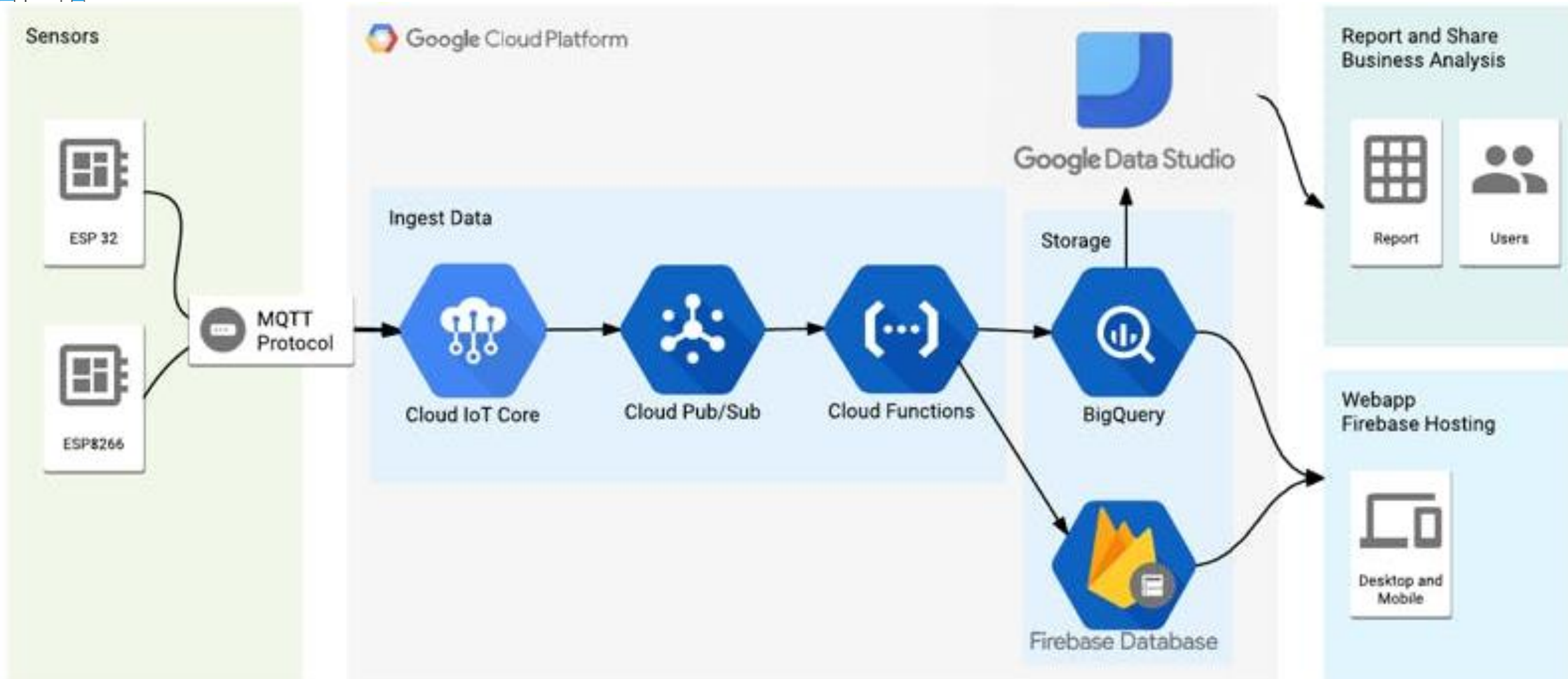(Vendor provides as a service)

- Authentication
- Database
- Storage
- Hosting
- Functions

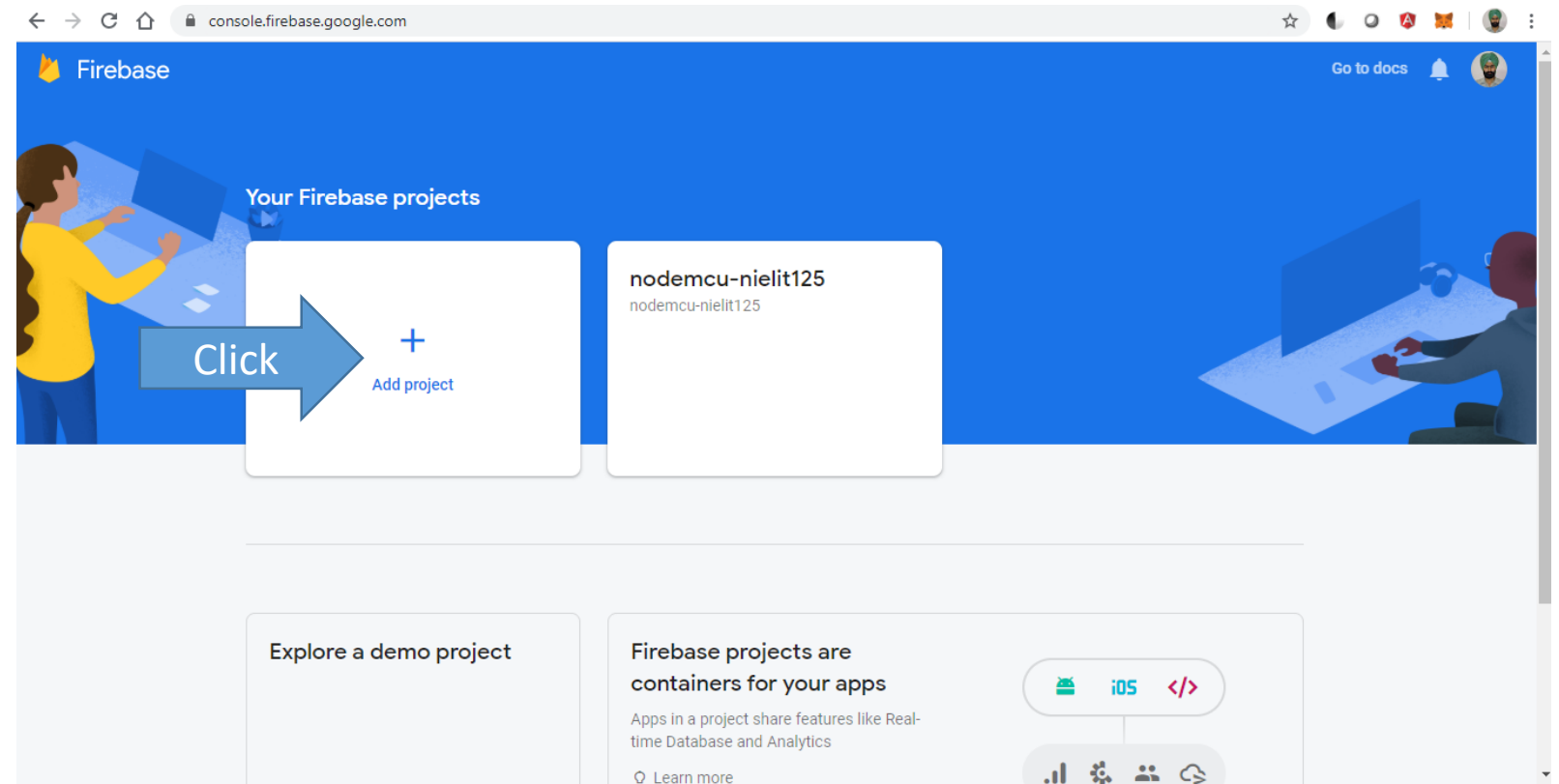# Designing IoT based application using GCP

Designing IoT based application using GCP
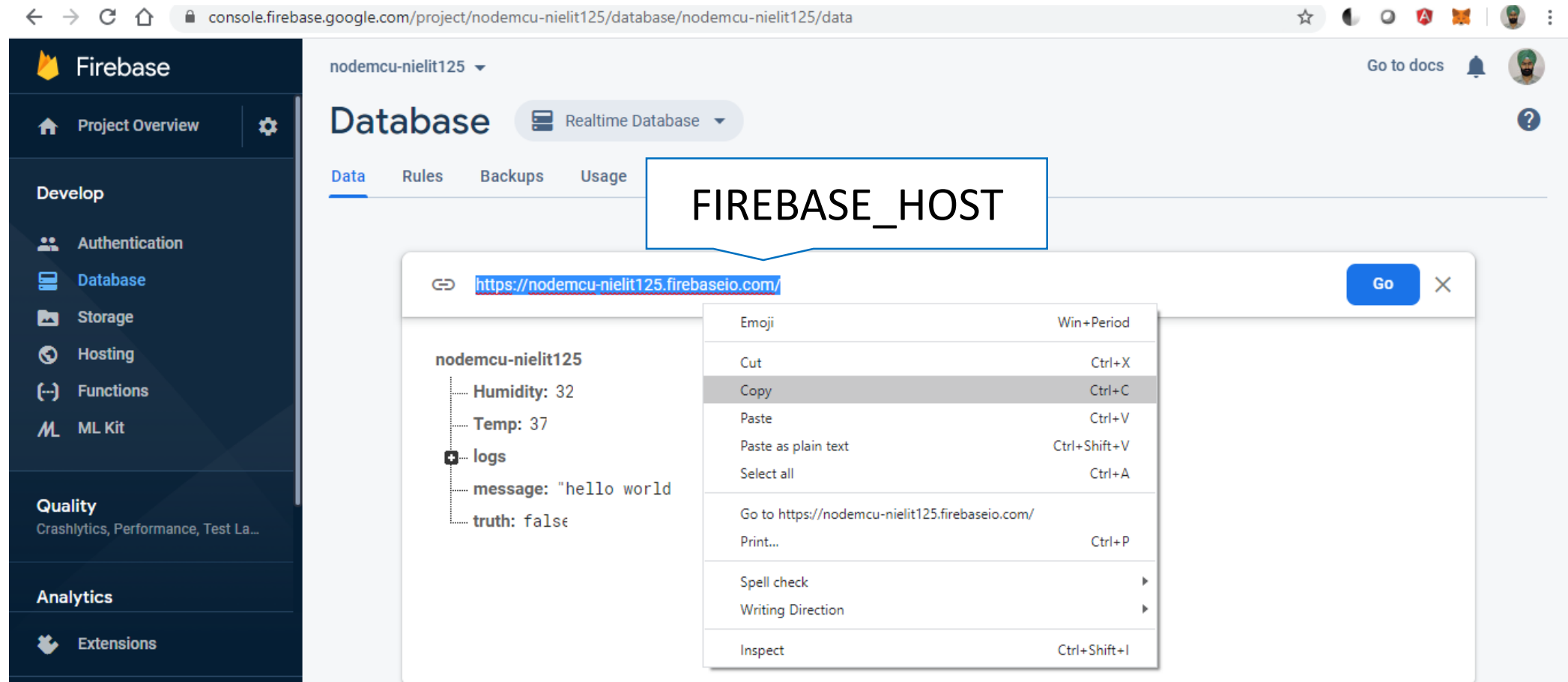
Firebase console settings

- Create new project

• Copy the link for FIREBASE_HOST variable in Arduino code
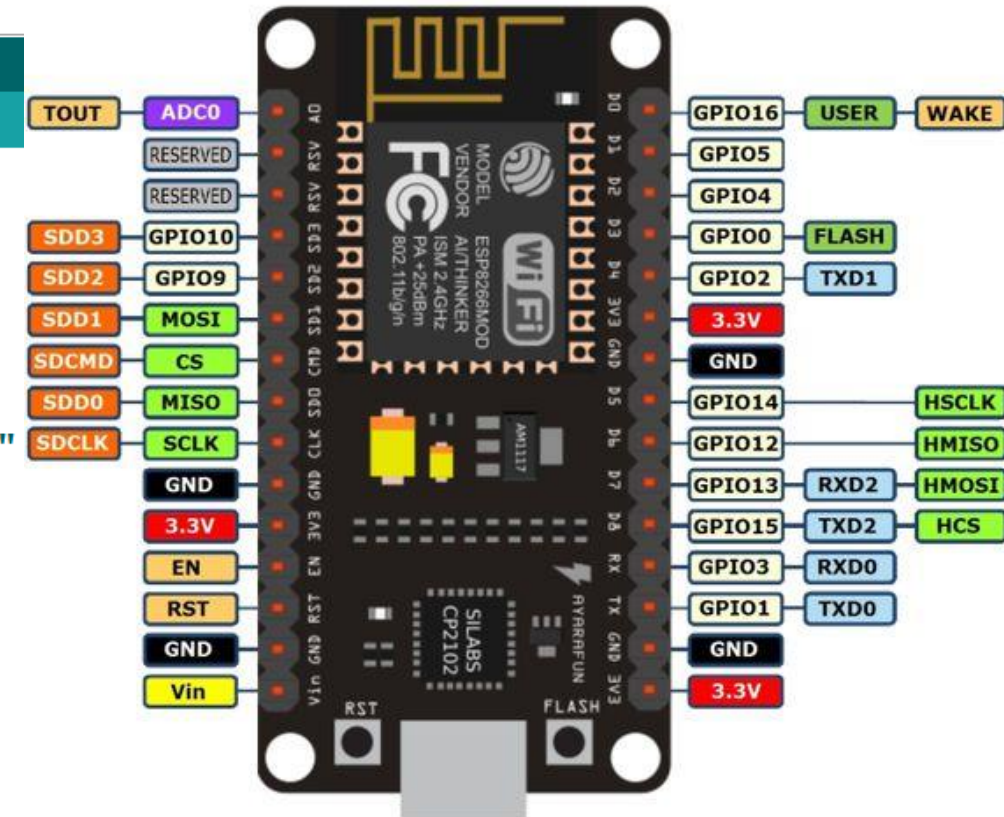
NodeMCU setting

- Change the appropriate FIREBASE_HOST , FIREBASE_AUTH, WIFI_SSID, WIFI_PASSWORD setting

File Edit Sketch Tools Help
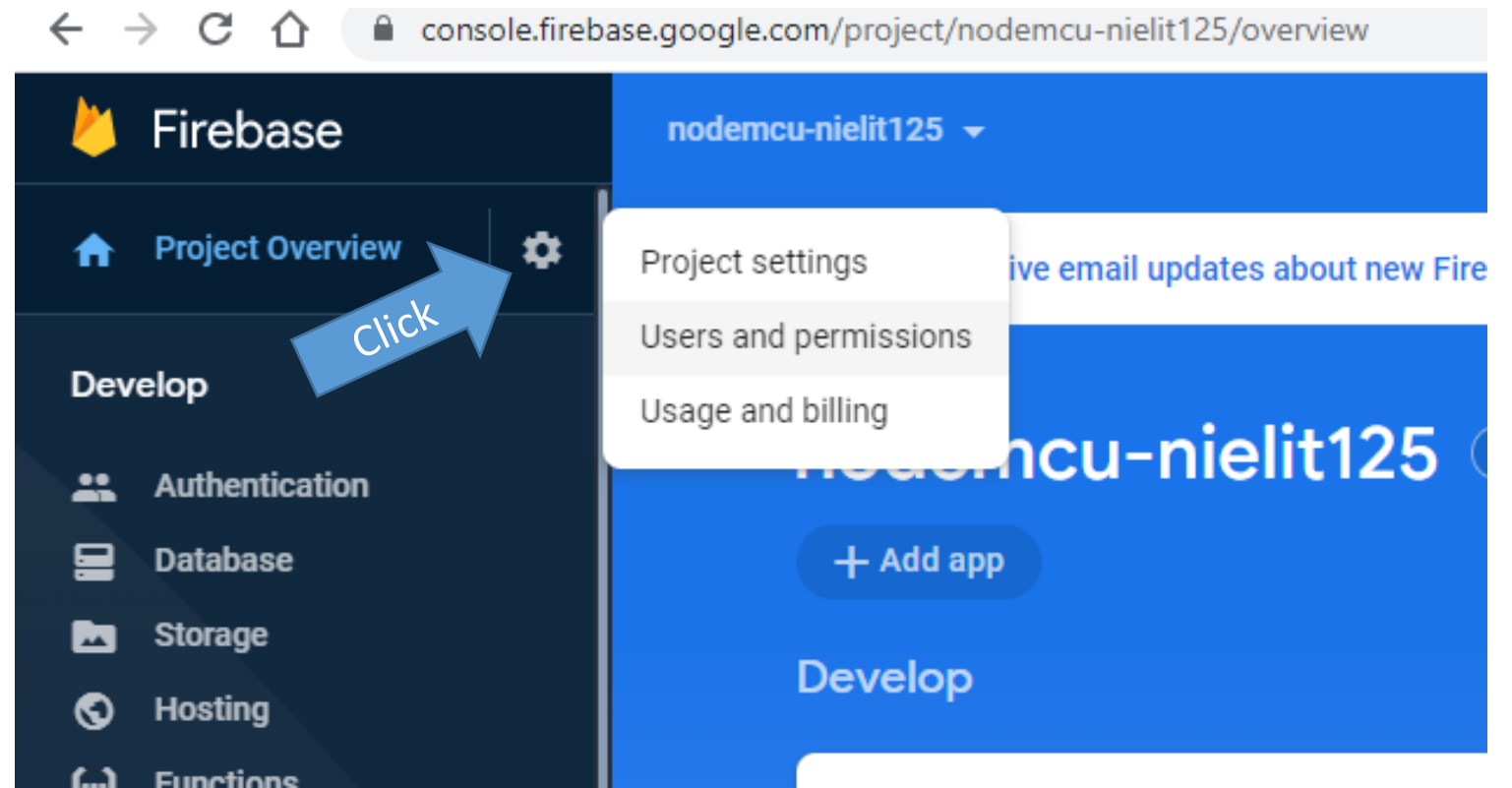
FirebaseDHT_NodeMCU §

```
4  #include <FirebaseArduino.h>
5  #include  <ESP8266WiFi.h>
6
7  // Set these to run example.
8  #define FIREBASE_HOST "yyyyyyyyyyy.firebaseio.com"
9  #define FIREBASE_AUTH "xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx"
10 #define WIFI_SSID   "ssssss"    // wifi SSID
11 #define WIFI_PASSWORD "pppppp"  // wifi password
12
13
```
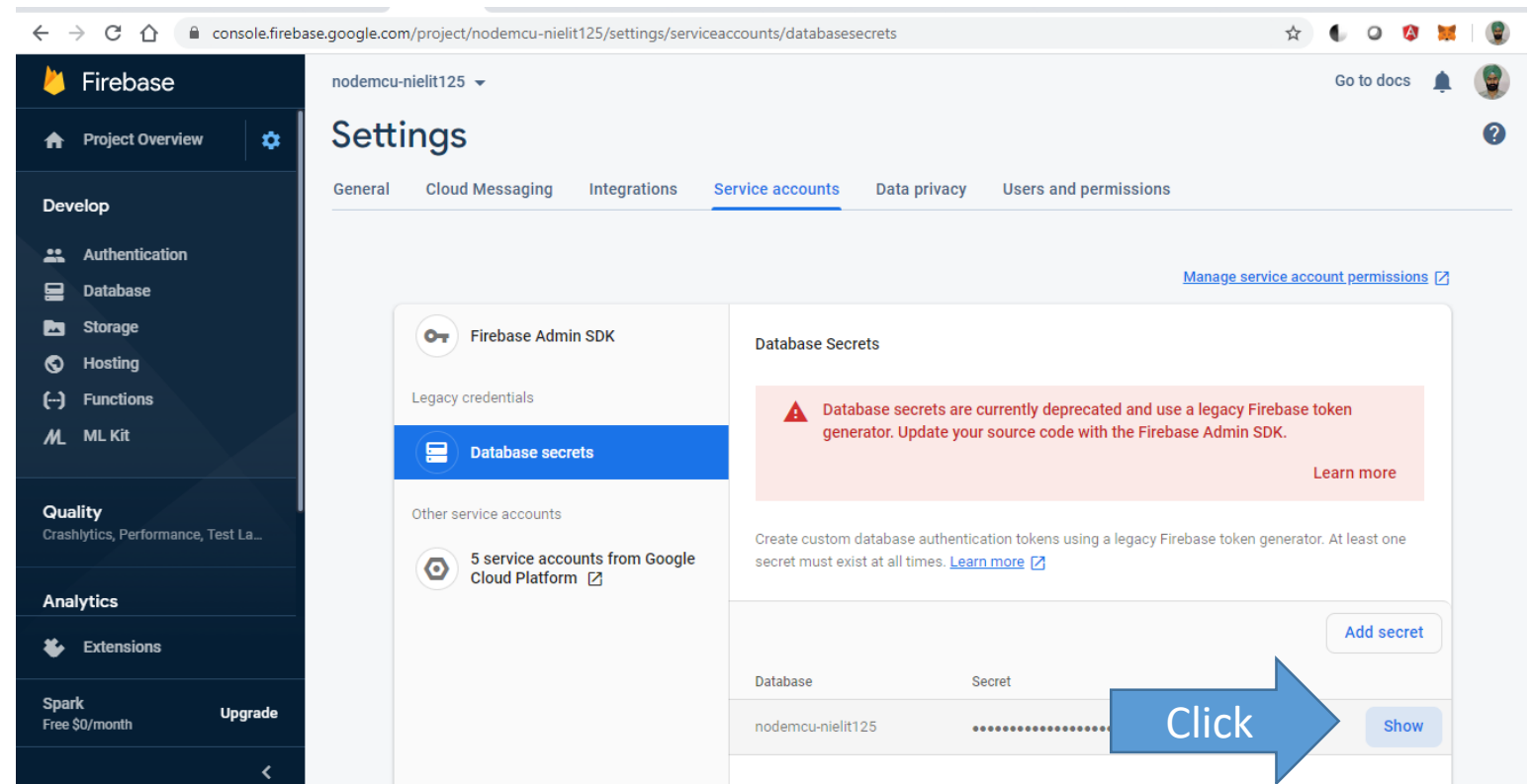
• Firebase console > Project Settings

sarwan@NIELIT

- Firebase console > Project Settings >
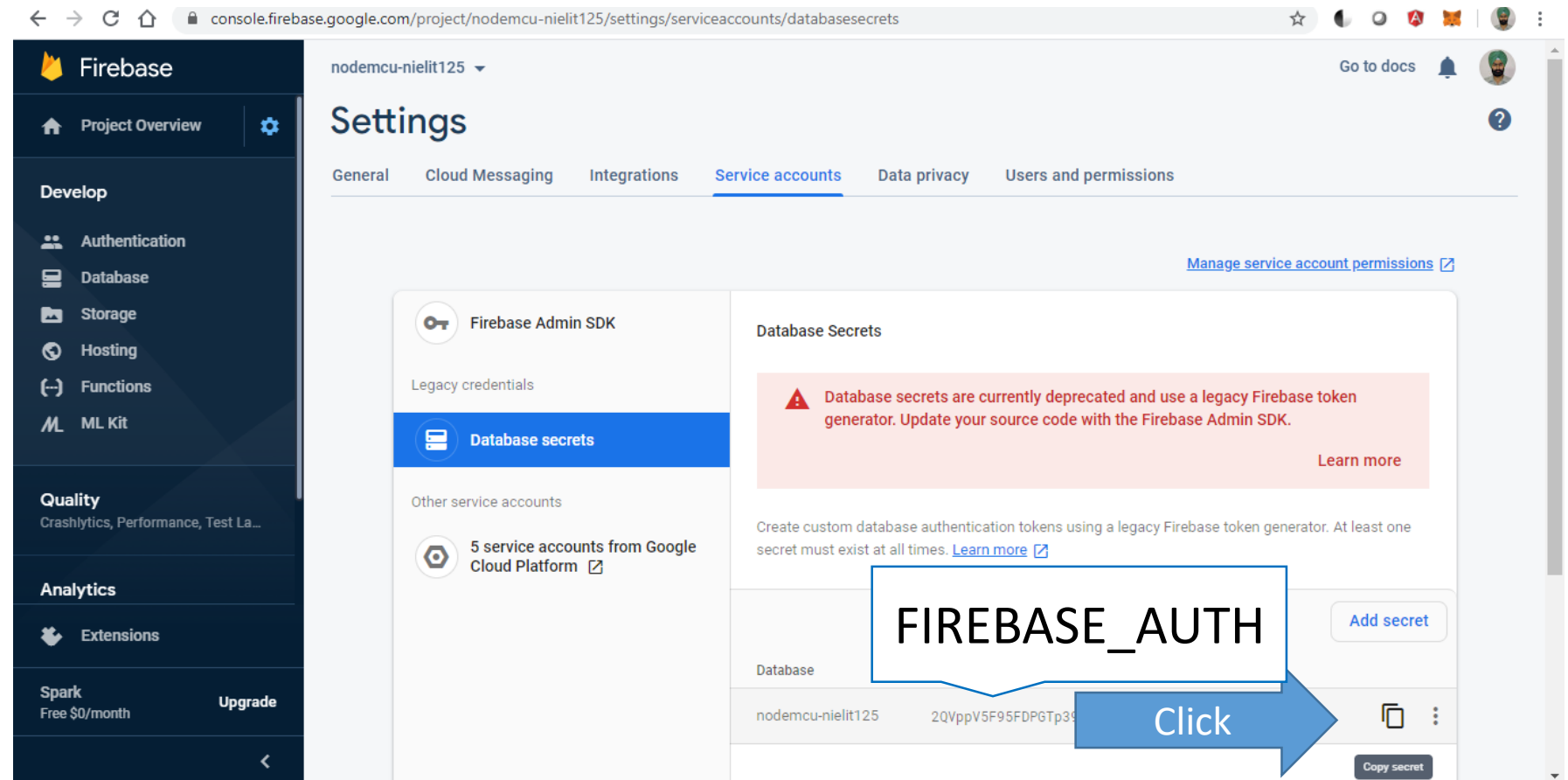
  Service accounts > Database Secrets

Click show button

- Copy the Secret by clicking copy secret button

NodeMCU setting

- Change the appropriate FIREBASE_HOST , FIREBASE_AUTH, WIFI_SSID, WIFI_PASSWORD setting

```
File Edit Sketch Tools Help

FirebaseDHT_NodeMCU §

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11  #define WIFI_PASSWORD "pppppp"  // wifi password
12
13
```

FirebaseDHT_NodeMCU §

```
19  void setup() {
20      Serial.begin(9600);
21      WiFi.begin (WIFI_SSID, WIFI_PASSWORD);
22      while (WiFi.status() != WL_CONNECTED) {
23          delay(500);
24          Serial.print(".");
25      }
26      dht.begin();
27      Serial.println ("");
28      Serial.println ("WiFi Connected!");
29      Serial.println(WiFi.localIP());
30
31      Firebase.begin(FIREBASE_HOST, FIREBASE_AUTH);
32  }
```

```
33
34 void loop() {
35
36     float h = dht.readHumidity();
37     float t = dht.readTemperature();   // 
38
39     Firebase.setFloat ("Temp", t);
40     Firebase.setFloat ("Humidity", h);
41
42     //forTesting();
43     delay(1000);
44 }
```