System structure

- There are several ways to integrate WeMos into your project. Some of them are illustrated here

Today we will focus on this case
WeMos Client with Client Server Example
JSON

- JavaScript Object Notation
- A lightweight data-interchange format
- “Self-describing“, easy to parse in code, human-readable

```json
{"employees":[
  {
    "firstName":"John", "lastName":"Doe"},
  {
    "firstName":"Anna", "lastName":"Smith"},
  {
    "firstName":"Peter", "lastName":"Jones"}
]}
```
Creating Function App - Screenshots

1. Open Microsoft Azure
2. Navigate to the Marketplace
3. Search for Function App
   - Results show Function App by Microsoft
Creating Function App - Screenshots
Addind ESP8266 To the Arduino IDE

Open the Preferences menu in the Arduino IDE

Paste this URL:
Addind ESP8266 To the Arduino IDE

1. Select Boards Manager... and choose ESP8266 from the list.
2. Install the ESP8266 package.
3. Reboot the machine.

### Boards Manager

- ESP8266 by ESP8266 Community
Running the Sample sketch

- In Tools -> Boards choose WeMos D1 R2 & mini
- File -> ESP8266HTTPClient -> BasicHttpClient
- Make sure to fix the AP details, and the server address (lines 34, 47 respectively) - don’t forget to replace https with http
- To send objects to the server, modifications to the http header are needed. After `http.begin()` add the following (copy-paste might ruin the apostrophes):
  - `http.addHeader("Content-Type", "application/json");`
  - `http.addHeader("x-functions-key", "JpmxeZ0brnhYD2MBvavfniqHAYB61uwZ45URiPljNijjunLrrPIWA==");` // the key here is the master key (marked in the screenshot)
  - Replace `http.GET()` with `http.POST({JSON*string*comes*here})`