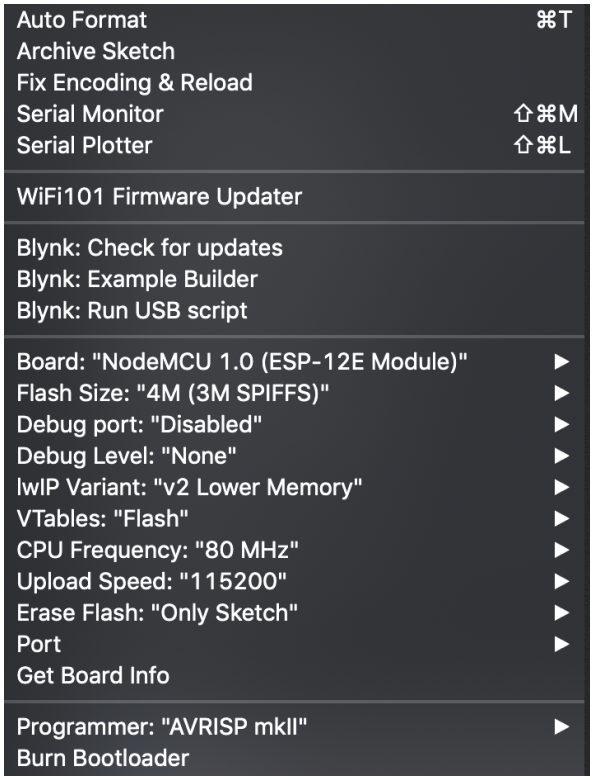
NodeMCU (ESP8266 board) set-up:

1. Set up Arduino IDE:
    1. Go to File->Preferences
    2. Copy URL below to install the ESP board manager extensions: http://arduino.esp8266.com/stable/package_esp8266com_index.json
    3. Paste URL under Additional Boards Manager URLs
    4. Go to Tools -> Boards -> Boards Manager
        1. Search for esp8266
        2. Select “esp8266 by ESP8266 Community”
        3. Install the latest version
2. Set up NodeMCU settings
    1. Go to Tools
        1. **Board**: NodeMCU 1.0 (ESP-12E Module)
        2. Flash Size: 4M (3M SPIFFS)
        3. CPU Frequency: 80 MHz
        4. Upload Speed: 115200 or 921600



3. Installing Firmware flasher
    1. Go to Link: https://github.com/nodemcu/nodemcu-flasher
        1. Go to Win32/Release or Win64/Release
        2. Download ESP8266Flasher.exe
    2. Install and run ESP8266Flasher.exe
4. Flash the NodeMCU with updated firmware
    1. In ESP8266Flasher,

2. Connect the NodeMCU to your USB port
3. Connect GPIO-0 (D3 on the board) to GND
4. Configure the PORT to the COM Port of the NodeMCU
    1. If the PORT cannot be found, go to https://www.silabs.com/products/development-tools/software/usb-to-uart-bridge-vcp-drivers and install the USB drivers for your machine.
    2. Windows: Extract all files to a folder and run the x64 version of the installer
    3. Mac: Run the SiLabsUSBDriverDisk.dmg file followed by the “Silicon Labs VCP Driver.pkg” file
        1. **Currently not working on MacOS High Sierra -10/29/2018**
5. Hit Flash and wait until complete

5. Testing your NodeMCU for functionality
    1. Go to Arduino -> File -> Examples -> ESP8266 -> Blink
    2. Go to Tools -> Port -> Select the COM port of the NodeMCU
    3. Compile and Upload
    4. The LED should begin flashing
6. If step 5 was successful, the board is ready to be used. Upload the *GoogleSheets.ino* code to it
    1. Make sure to change the parameters required at the beginning of the code
        1. const char* ssid
        2. const char* password
    2. When the program begins, it will print out the device MAC address. This needs to be provided to BME IT in order to gain access to the router and internet.
    3. The on-board LED will be solid on when the board has successfully connected to WiFi.
        1. This only occurs on start-up. If internet connection is broken after start-up, reset the board using the RST button and ensure the LED still turns on.
    4. **Make sure to copy the libraries folder to the Documents/Arduino folder**
        1. Merge/replace any file conflicts