

## Project Name: Analyze IoT sensor data with machine learning

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### Module: Part 3: Application Building and final deployment

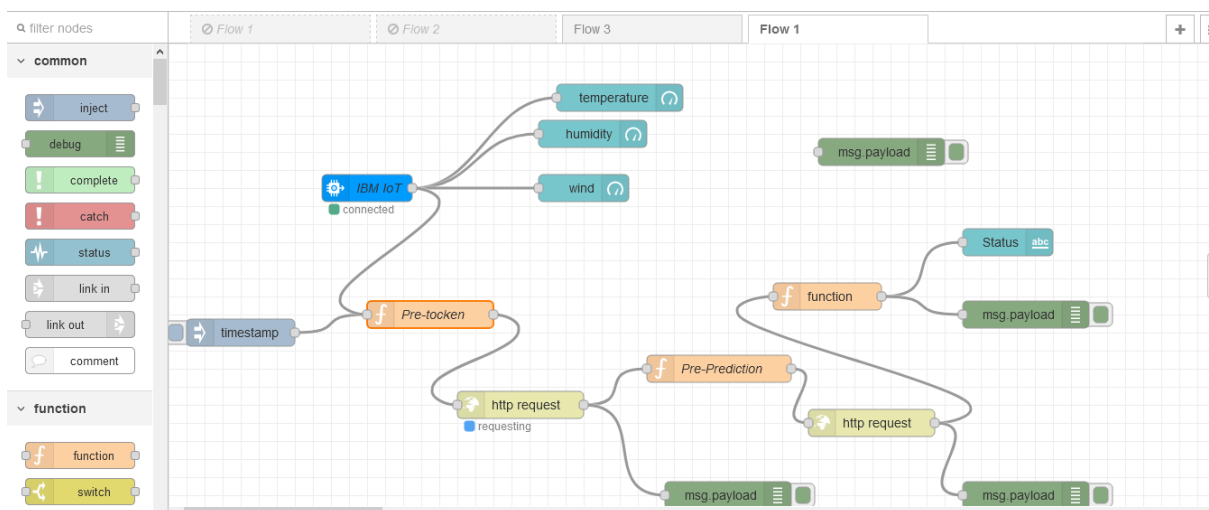
#### Sub module: Creating Node-RED Service and Stream the IoT data on to Node-RED

1. In Cloud Foundry App click on node red.
2. Click on visit app url in node red tab.
3. Go to node red page.
4. Click on node red flow editor.
5. Click on new flow.
6. Disable previous flows and create new flow.
7. Click on import and import Analysis IoT file.
8. Click on IBM Cloud Dashboard and click access IAM.
9. Click on API key.
10. Create new API key for IBM cloud.
11. Copy IBM CLOUD API key.
12. Click on pre token function on node red.
13. Replace API key with copied API key.

#### Sub module: give these sensor data as inputs to model built

1. Update Analysis IoT model and change values for Temp, wind, and humidity and also update API key, device key and Device ID in analysis IoT Jason file.
2. Update output file also in status node.
3. Connect output of IBM IoT node to the pre token node.

#### Node Red schematic



#### Sub module: Display sensor information and prediction Ui

## Output: Real time prediction

The screenshot shows a web browser window with the address bar displaying `https://node-red-gpayq-2020-10-01.mybluemix.net/ui/#/0?socketid=mgEo-xj`. The browser's address bar includes standard navigation icons (back, forward, home, refresh) and a search bar. The page content is displayed on a light gray background. A blue header bar at the top left contains a hamburger menu icon and the text "Analysis". Below this, a white box with a blue border contains the text "IoT Weather". Underneath this box, the word "Status" is followed by a JSON object: `{"details":{"Rainfall":{"temperature":89,"humidity":94,"wind":32,"output":"No Rain"}}}`.

Analysis

IoT Weather

Status `{"details":{"Rainfall":{"temperature":89,"humidity":94,"wind":32,"output":"No Rain"}}}`