

# How to use Node-Red to build a Chat bot

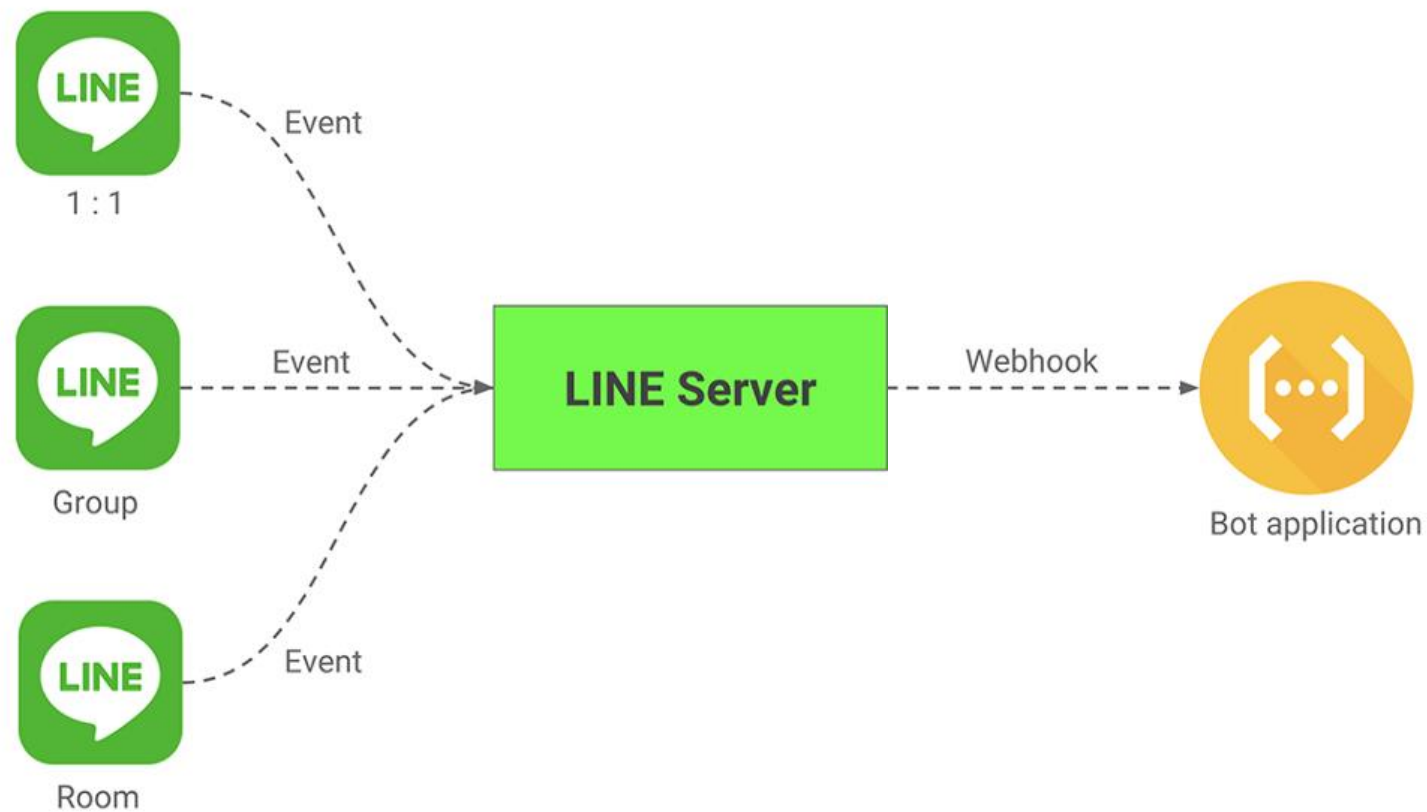
北祥股份有限公司

Michael

CSI 策略創新中心

# Webhook?

## 事件訂閱機制



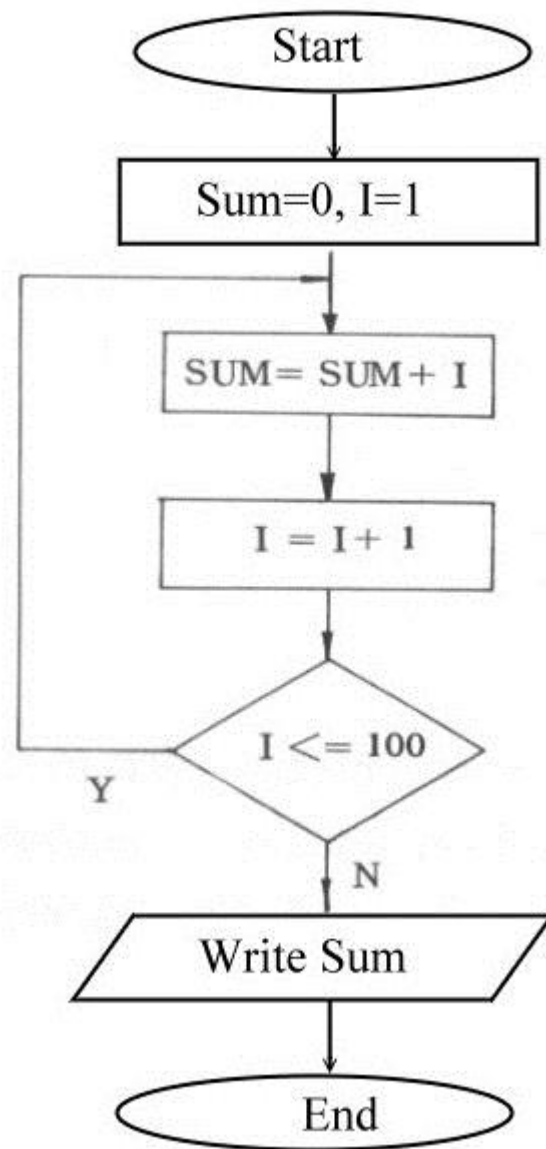
## 用Nodered 串接Webhook

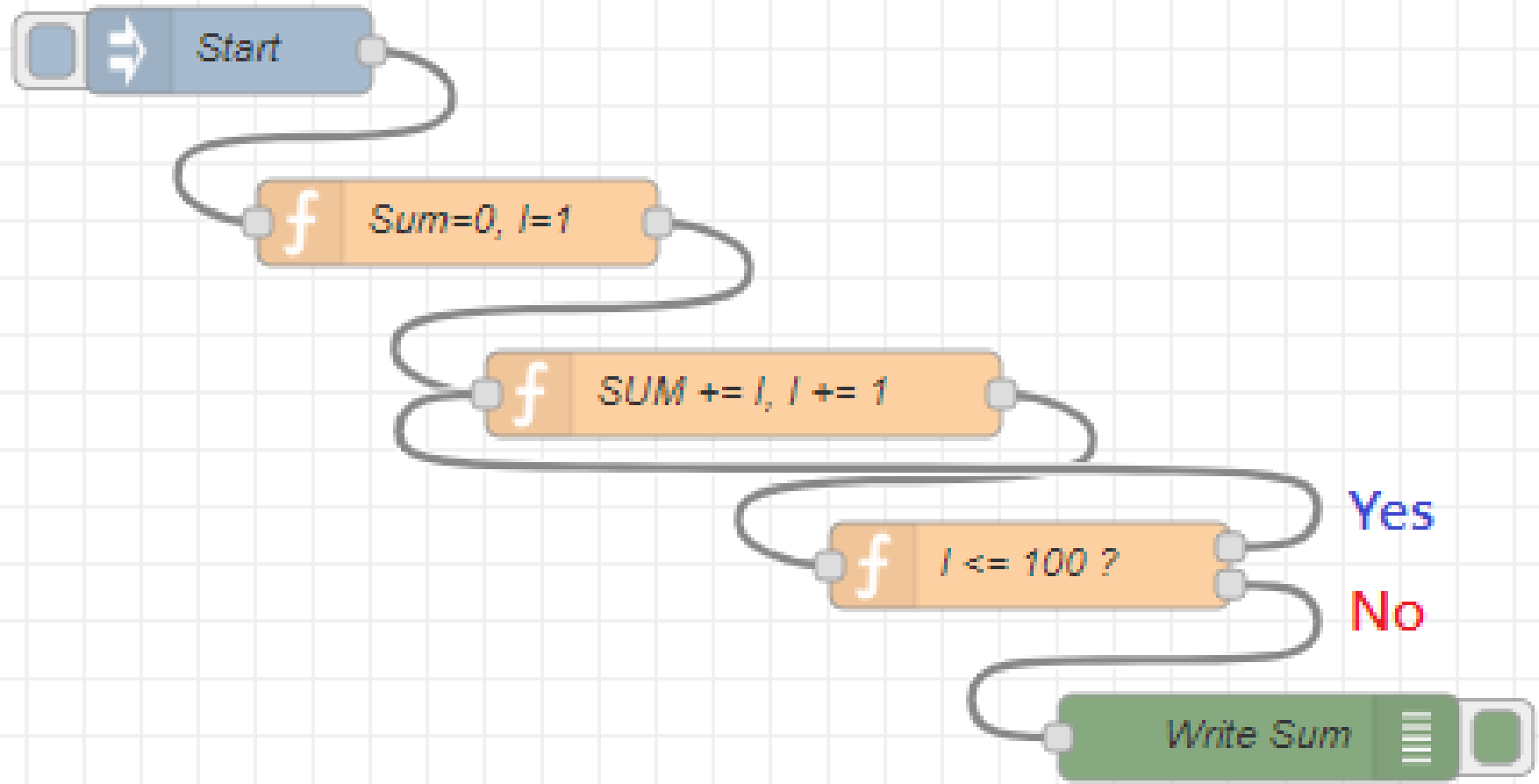
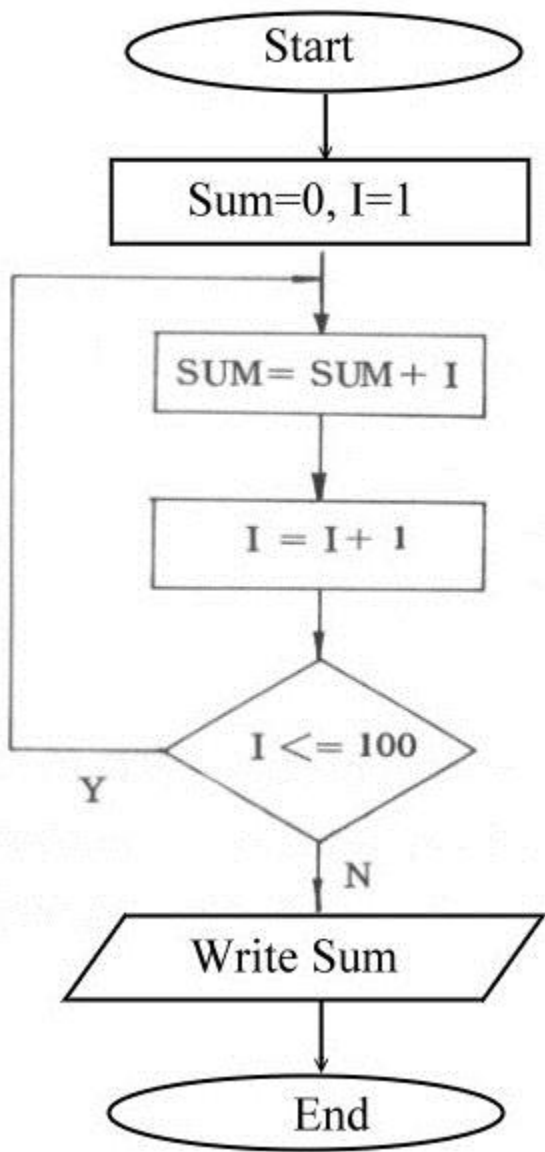
### Why NodeRed

- 視覺化
- 開發快速
- 串接API容易
- 串接IOT容易
- 入門快速
- Node.js 為基礎

視覺化

流程圖

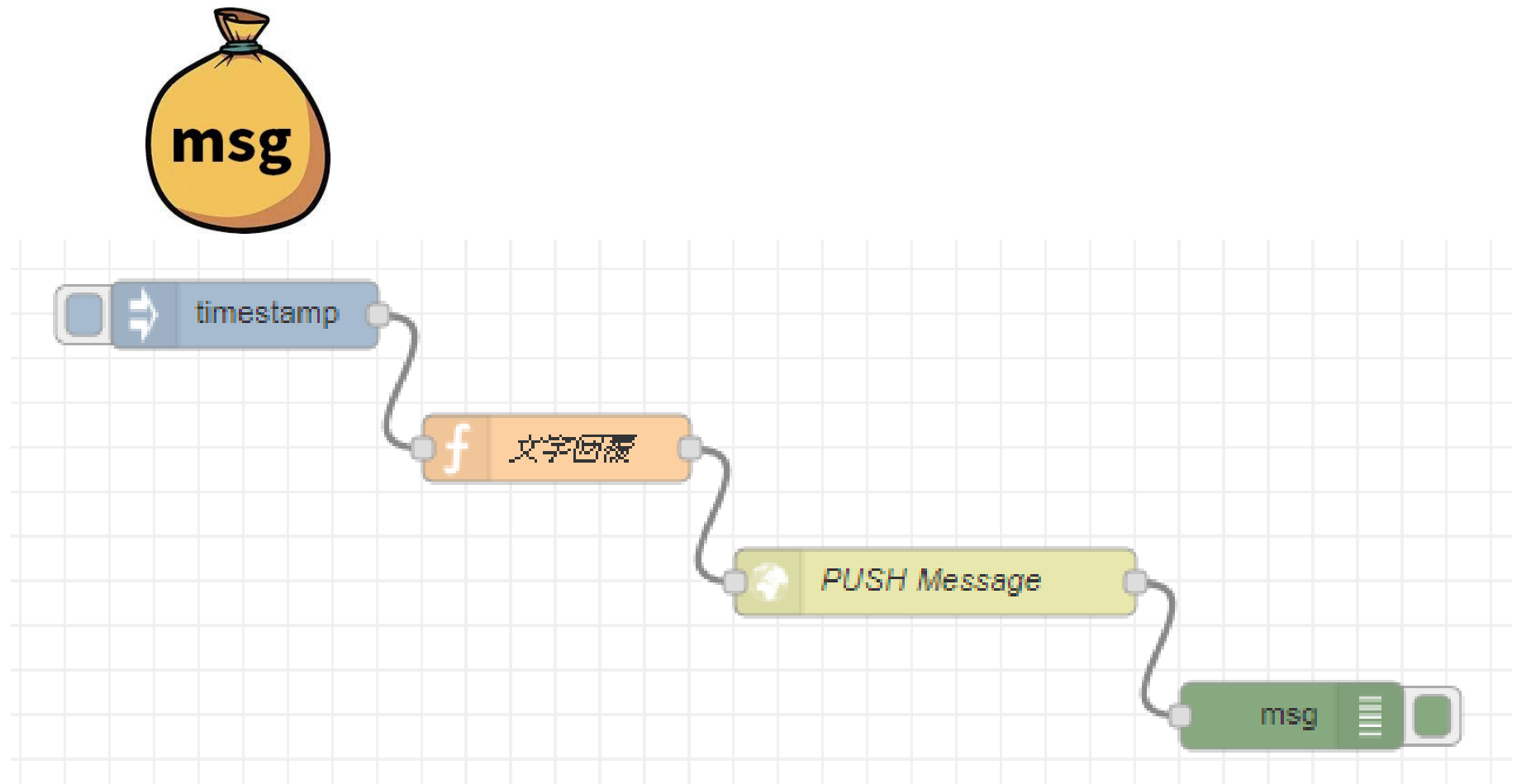




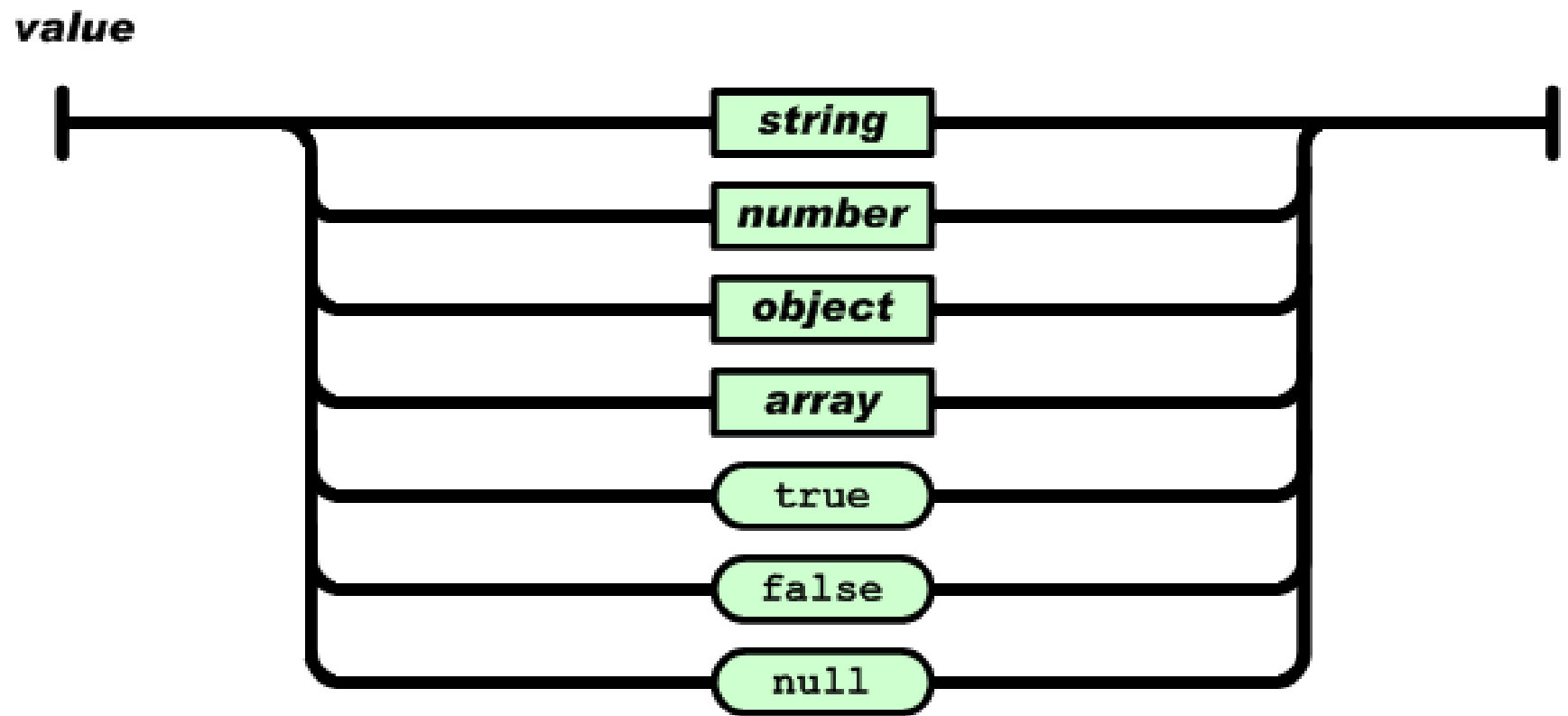
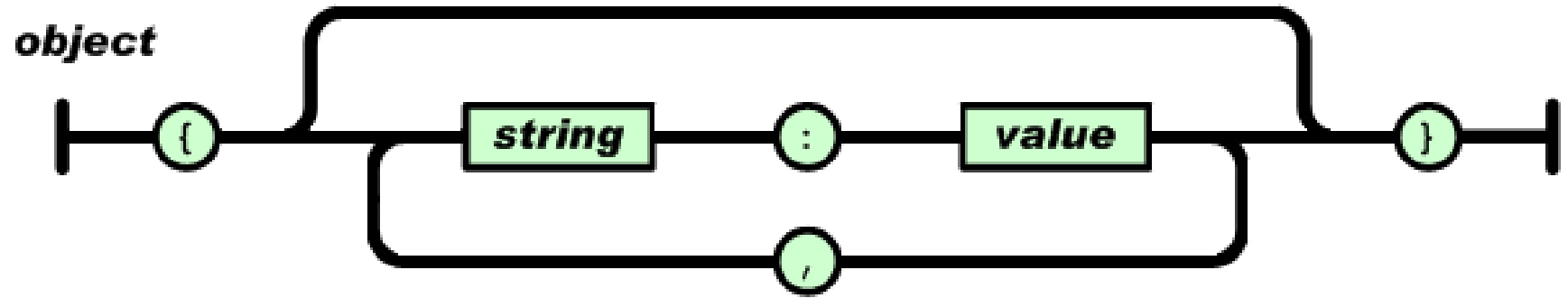
2019/4/10 上午9:47:24 node: Write Sum  
 msg.sum : number  
 5050

# Node-RED

Msg flow

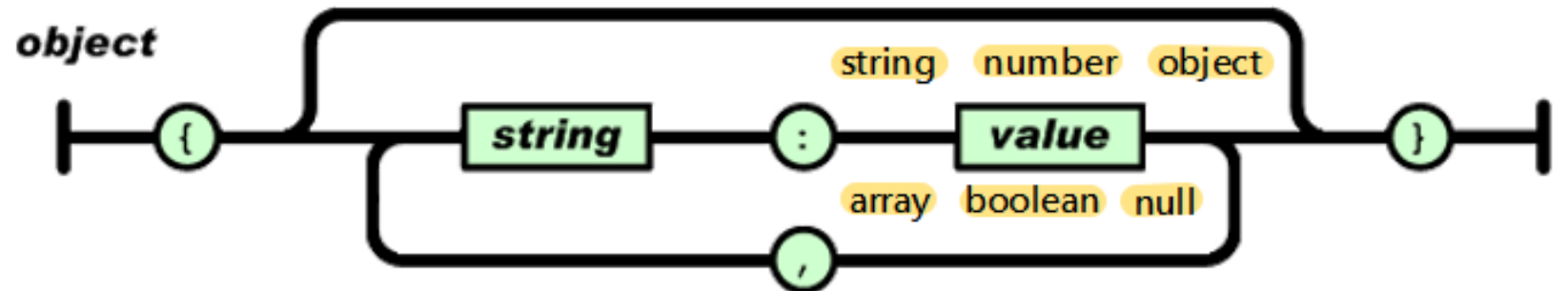


# JSON?



# JSON

```
1 {
2   "replyToken": "nHuyWiB7yP5Zw52FIkcQobQuGDXCTA",
3   "messages": [
4     {
5       "type": "text",
6       "text": "Hello, user"
7     },
8     {
9       "type": "image",
10      "originalImageUrl": "https://example.com/original.jpg",
11      "previewImageUrl": "https://example.com/preview.jpg"
12    }
13  ]
14 }
```



# Node-RED

視覺化  
開發工具

Node-RED

localhost:1880/#flow/d40622f.2fdc9e

Node-RED

Deploy

filter nodes

Flow 1

Flow 2

input

- inject
- catch
- status
- link
- mqtt
- http
- websocket
- tcp
- udp

output

- debug
- link

節點選項

info

debug

Information

Flow	"d40622f.2fdc9e"
Name	Flow 1
Status	Enabled

Flow Description

None

Hold down `ctrl` when you `click` on a node port to enable quick-wiring

# Node-RED

視覺化  
開發工具

The screenshot shows the Node-RED web interface in a browser window. The browser address bar displays `localhost:1880/#flow/d40622f.2fdc9e`. The interface includes a top navigation bar with a "Deploy" button, a search bar, and a "filter nodes" input. The main workspace is divided into a left-hand node palette and a right-hand information panel. The node palette is organized into "input" and "output" categories. The "input" category includes nodes for inject, catch, status, link, mqtt, http, websocket, tcp, and udp. The "output" category includes a debug node. The information panel on the right is highlighted with an orange border and contains the following details:

- info** / **debug** tabs
- Information** section:
  - Flow: "d40622f.2fdc9e"
  - Name: Flow 1
  - Status: Enabled
- Flow Description** section:
  - None
- Footer text: "Hold down `ctrl` when you `click` on a node port to enable quick-wiring"

節點說明及輸出

# Node-RED

視覺化  
開發工具

The screenshot displays the Node-RED web interface in a browser window. The address bar shows the URL `localhost:1880/#flow/d40622f.2fdc9e`. The interface includes a top navigation bar with a "Deploy" button, a central workspace with flow tabs for "Flow 1" and "Flow 2", and a left sidebar with node categories like "input" and "output". A right sidebar provides information and a debug console. The text "分流管理" (Flow Management) is overlaid on the workspace, and "部屬" (Deploy) is overlaid on the right sidebar.

Node-RED

localhost:1880/#flow/d40622f.2fdc9e

Node-RED

Deploy

filter nodes

Flow 1 Flow 2

input

- inject
- catch
- status
- link
- mqtt
- http
- websocket
- tcp
- udp

output

- debug
- link

分流管理

部屬

info

Information

Flow	"d40622f .2:"
Name	Flow 1
Status	Enabled

Flow Description

None

Hold down `ctrl` when you `click` on a node port to enable quick-wiring

input

- inject
- catch
- status
- link
- mqtt
- http
- websocket
- tcp
- udp

output

- debug
- link
- mqtt
- http response
- websocket
- tcp
- udp

function

- function
- template
- delay
- trigger
- comment
- http request
- tcp request
- switch
- change
- range
- split
- join
- sort
- batch
- csv
- html
- json
- xml
- yaml
- rbe

social

- email
- twitter
- email
- twitter

storage

- file
- file

analysis

- sentiment

advanced

- watch
- feedparse
- exec

IBM Watson

- conversation
- conversation workspace manager
- discovery
- discovery document loader
- discovery query builder
- language translator
- language identify
- language translator util
- natural language classifier
- Natural Language Understanding
- personality insights
- speech to text
- speech to text custom builder

Node-RED

Operation

Introduction

Practice

Node-RED

filter nodes

Flow 1

input

- inject
- catch
- status
- link
- mqtt
- http
- websocket
- tcp
- udp
- ibmiot

output

- debug

Successfully deployed  
You have some unused configuration nodes. [Click here to see them](#)

Successfully injected: Hello World!!

2018/10/8 上午9:26:58 node:  
ed298a23.27e428  
msg.payload : string[13]  
"Hello World!!"

Node-RED

Operation

Introduction

Practice

The screenshot displays the Node-RED web interface. At the top left, the logo and name "Node-RED" are visible. The top right corner features a "Deploy" button and a menu icon. Below the header, there are tabs for "Flow 1" and "Flow 2". A search bar labeled "filter nodes" is positioned on the left. The left sidebar is divided into "input" and "output" sections, listing various nodes such as inject, catch, status, link, mqtt, http, websocket, tcp, udp, and ibmiot. The main workspace shows a flow with five nodes: a "timestamp" node, a "msg.payload" node, a "[get] /helloWorld" node, a function node "f", and an "http" node. The right sidebar has tabs for "info" and "debug", with a search bar for "all nodes" and a trash icon. The bottom of the interface includes zoom controls and a mobile view icon.

Node-RED

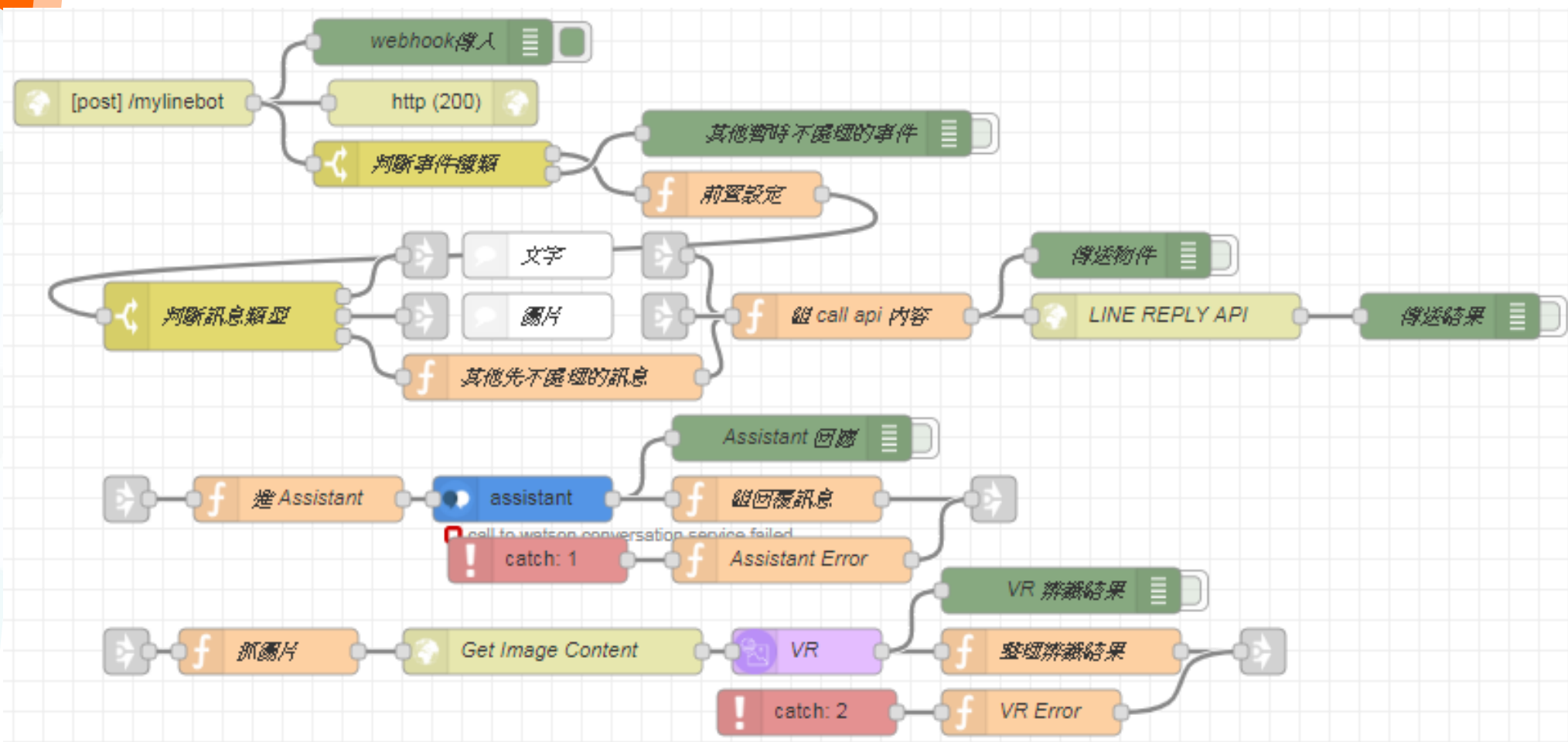
Operation

Introduction

Practice

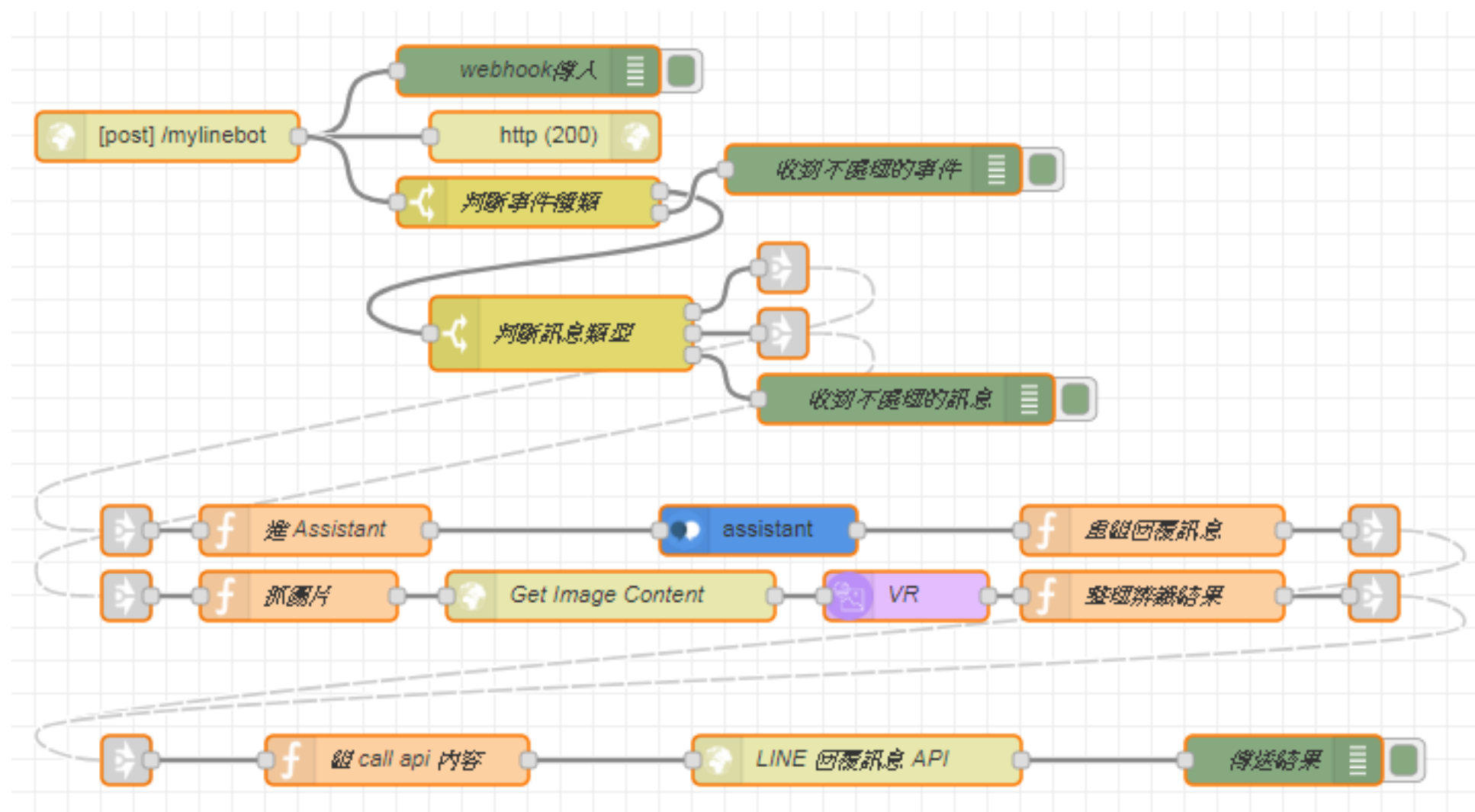
# Build A Chat bot

## Fully version

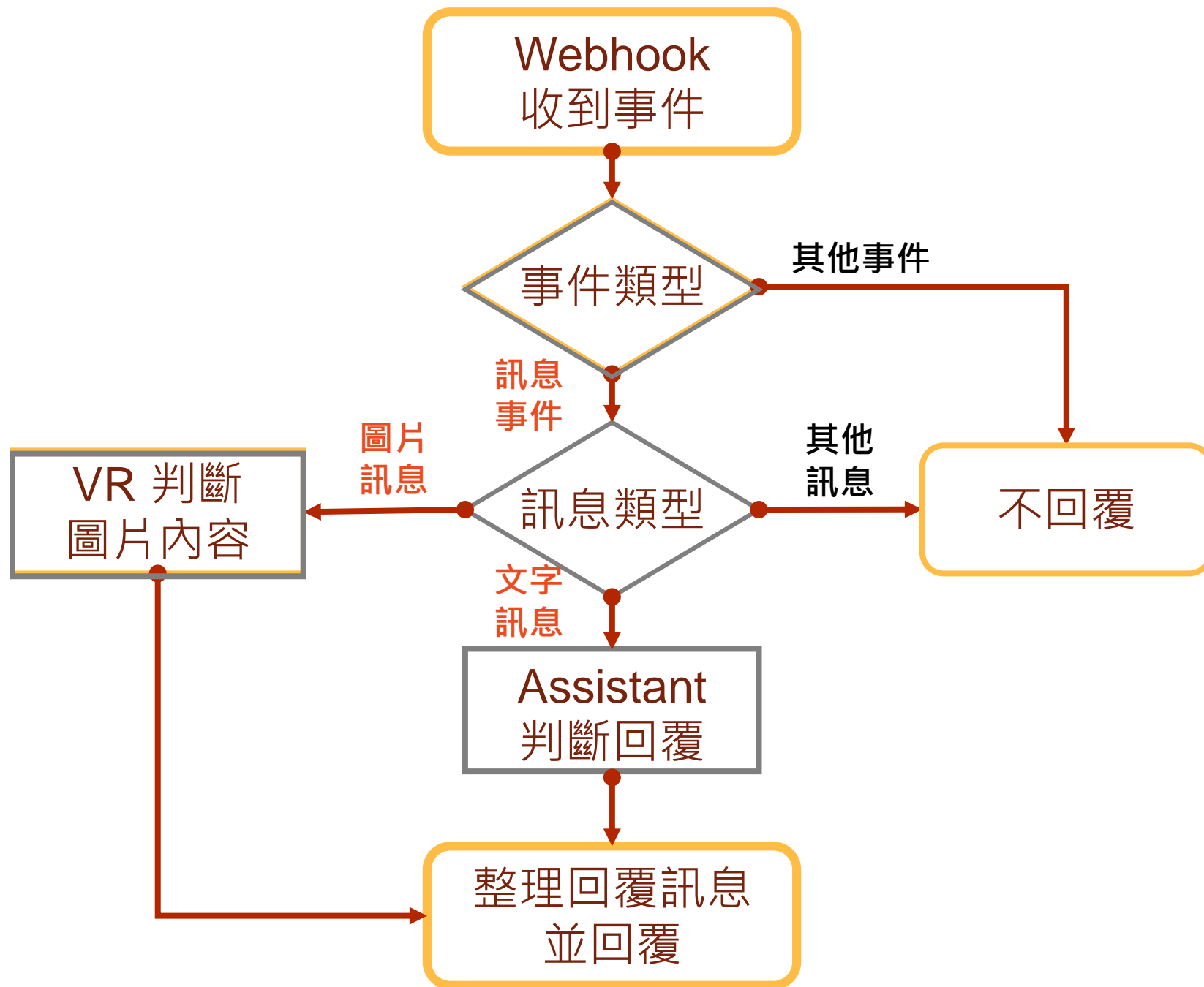


# Build A Chat bot

Easy version



# Webhook 流程



# 完成基本 webhook

input

- inject
- catch
- status
- link
- mqtt
- http
- websocket
- tcp
- mqtt
- ibmiot

output

- debug
- link
- mqtt
- http response
- websocket



## Edit http in node

Delete Cancel Done

node properties

Method POST

Accept file uploads?

URL /mylinebot

Name Name

## Edit debug node

Delete Cancel Done

node properties

Output complete msg object

To debug window

system console

Name webhook传入

## Edit http response node

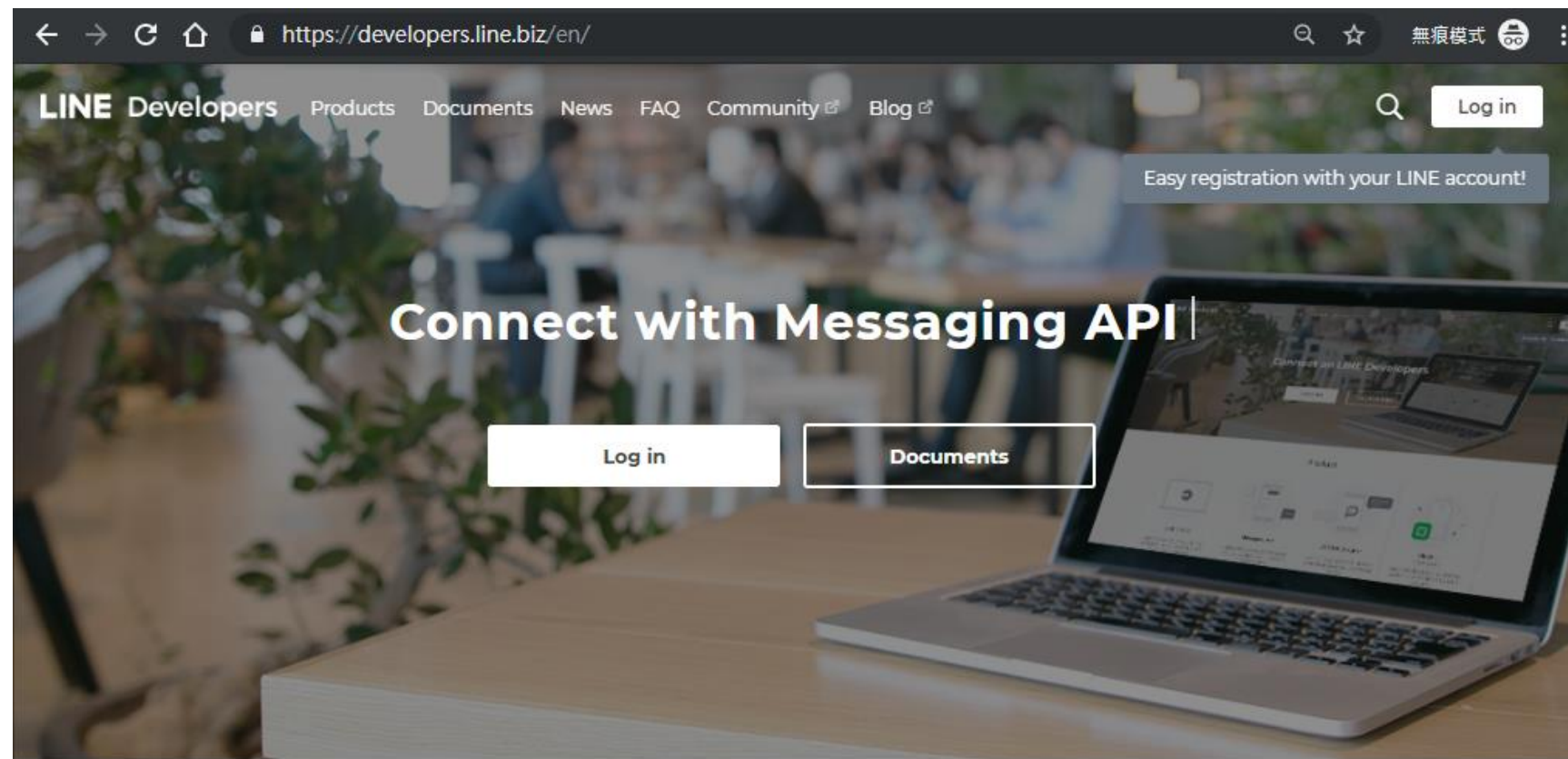
Delete Cancel Done

node properties

Name Name

Status code 200

# Line Developers



## Products



### LINE Login

Increase the reach of your service using LINE Login.



### Messaging API


Use Messaging API and connect to users around the world!


● <https://developers.line.biz/en/>

Create Provider

Bot's provider

**LINE Developers** Products Documents News FAQ Community [Blog](#)




Welcome **Michael/臭猫** 

**Providers** 

- Providers
- Tools
- Support

### Provider List (3)

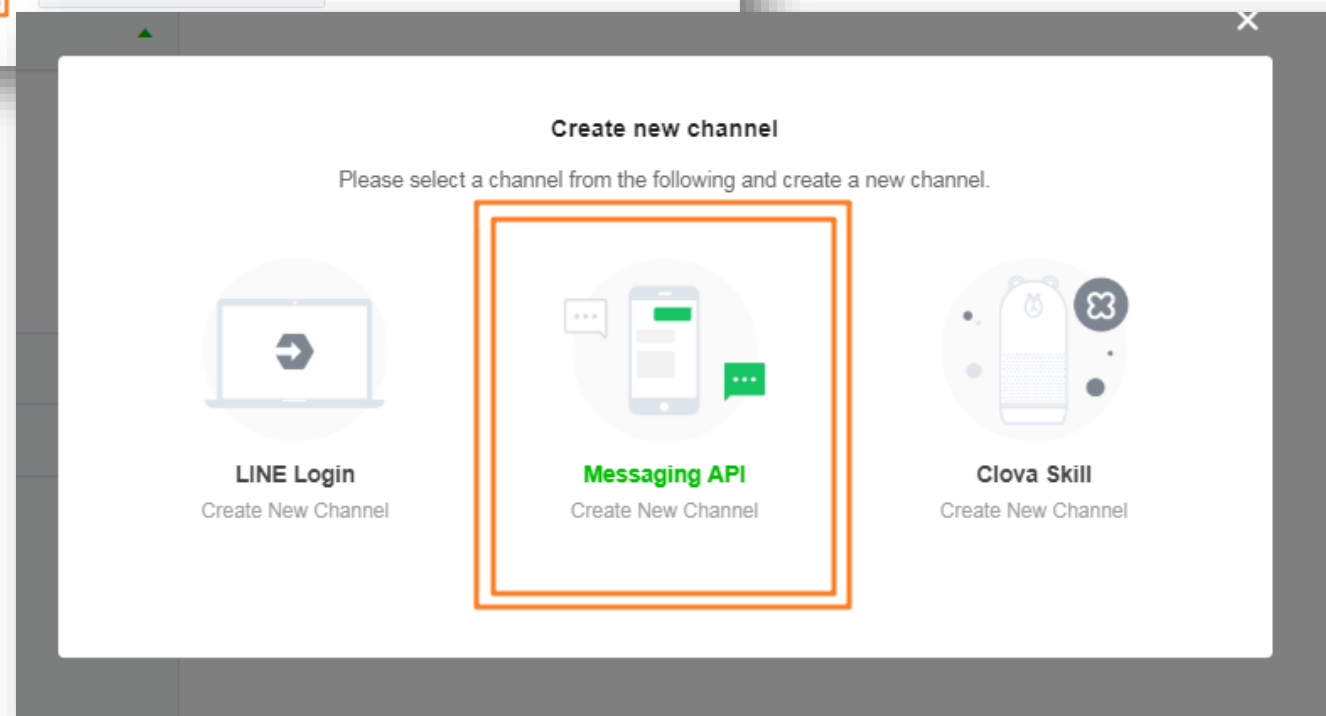
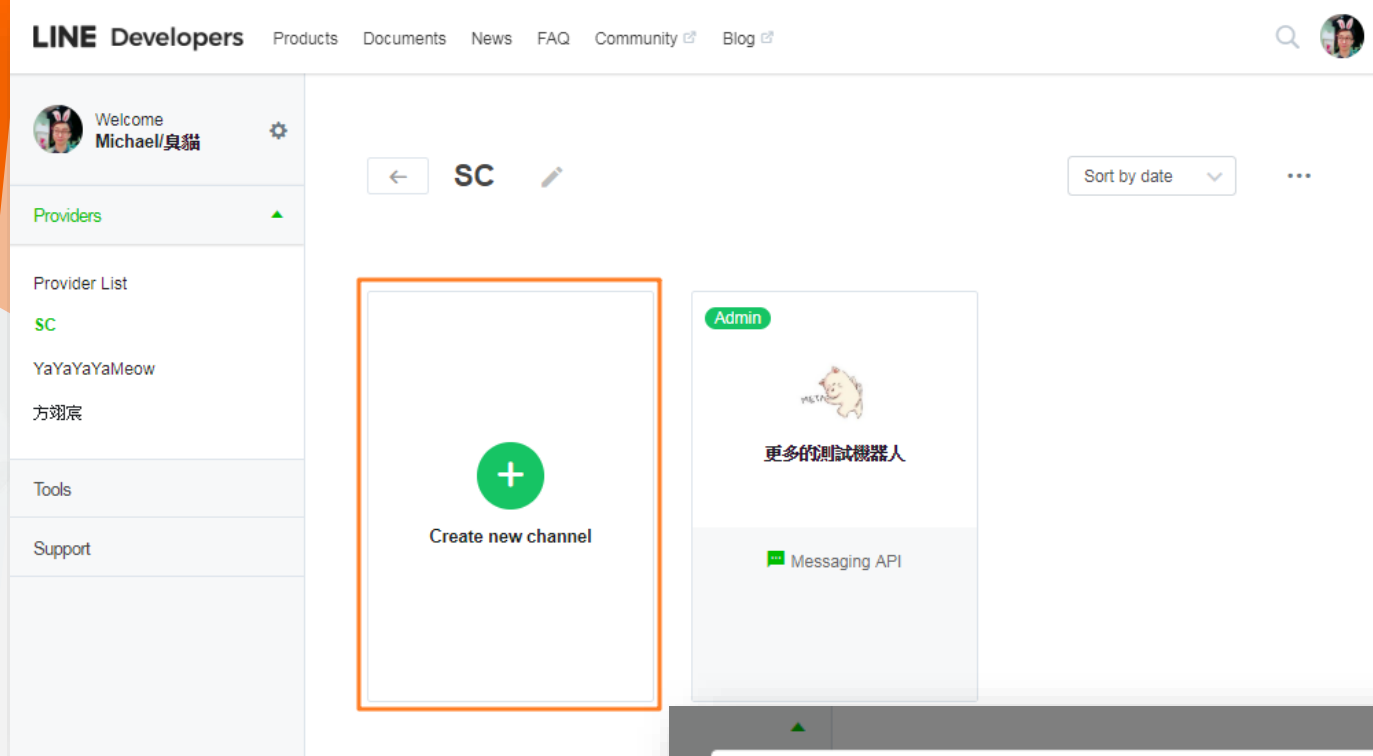
[+ Create New Provider](#)

Provider	Role
	<a href="#">Admin</a>
	<a href="#">None</a>
	<a href="#">Admin</a>

[+ Create New Provider](#)

# Add a Bot

## Create Channel





Under 3MB; JPEG/PNG/GIF/BMP

App name

test bot

Max: 20 characters

Note: The app name cannot be changed for seven days.

App description

test bot


Max: 500 characters

Category

其他媒體

Subcategory

媒體(其他)

Email address 

Max: 100 characters

填入必要資訊

- [LINE Official Account Terms of Use](#) I have read and agree to the Terms of Use.
- [LINE Official API Terms of Use](#): I have read and agree to the Terms of Use.

Edit

Create

點擊建立的  
chatbot  
下一步設定

The screenshot shows the LINE Developers console interface. At the top, there is a navigation bar with the following links: **LINE Developers**, Products, Documents, News, FAQ, Community, and Blog. On the right side of the navigation bar, there is a search icon and a user profile picture.

The main content area is divided into a left sidebar and a central workspace. The sidebar contains the following sections: **Welcome Michael/真貓** (with a gear icon for settings), **Providers** (with a green up arrow), **Provider List** (with a list of blurred items), **Tools**, and **Support**.

The central workspace shows a channel named **SC** with a back arrow and an edit icon. On the right side of the workspace, there is a **Sort by date** dropdown menu and a three-dot menu icon.

The workspace contains two main cards. The left card is titled **Create new channel** and features a large green plus sign icon. The right card is titled **Admin** and contains a small cartoon robot icon, the text **更多的測試機器人** (More test robots), and a **Messaging API** button with a green checkmark icon. This right card is highlighted with an orange border.

# 設定說明

## Messaging settings

Channel access token (long-lived) ?

[Redacted token]

Issue

啟用webhook

Use webhooks ?

Enabled

Edit

webhook網址: nodered路徑 + /mylinebot

Webhook URL Requires SSL ?

https://sc-node-red.mybluemix.net/mylinebot

如 **sc-node-red.bluemix.net/mylinebot**

Verify

Edit

Allow bot to join group chats ?

Enabled

允許機器人加入到群組對話中

Edit

# 設定說明

## Using LINE@ features

Message text for LINE@ features are set on the LINE@ Manager.

### 自動回覆: 關閉

Auto-reply messages [?](#)

Disabled

Edit

### 初次加入的問後語: 關閉

Greeting messages [?](#)

Disabled

Edit

## Bot Informations

QR code of your bot



Use this QR code to add your bot as a friend for testing and to share your bot with other users.

line加入好友  
一掃就可以看到你的  
聊天機器人囉!



# 實機操作



**Q & A**

**北祥股份有限公司 Michael**