

# 物聯網實務第三周作業

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September 29, 2022

## Exercise 3-1

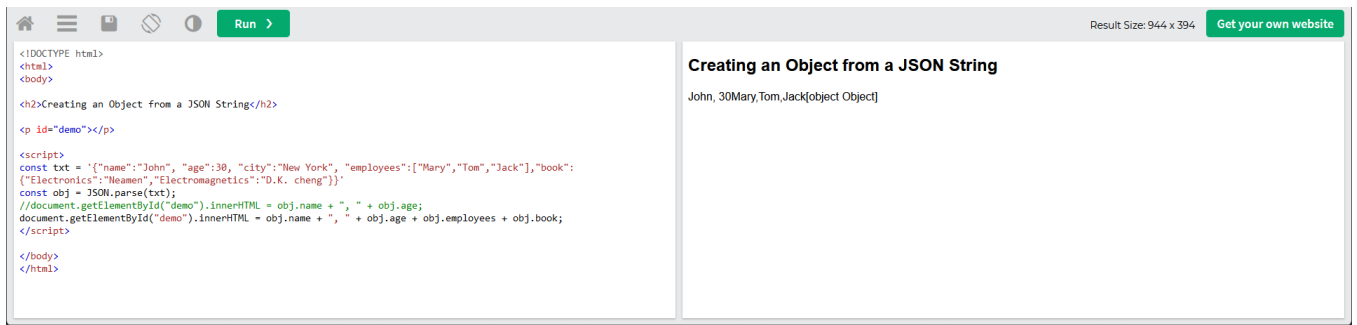


Figure 1: JSON.parse().

## Exercise 3-2

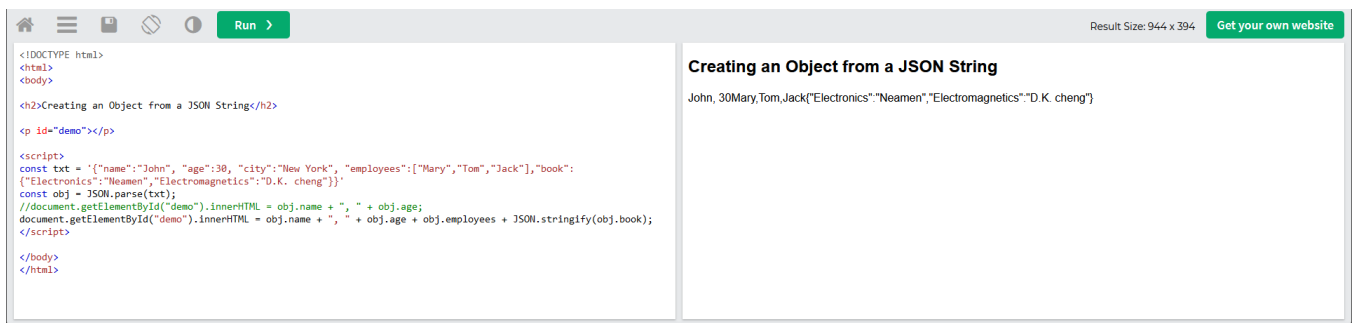


Figure 2: JSON.stringify().

## Exercise 3-3

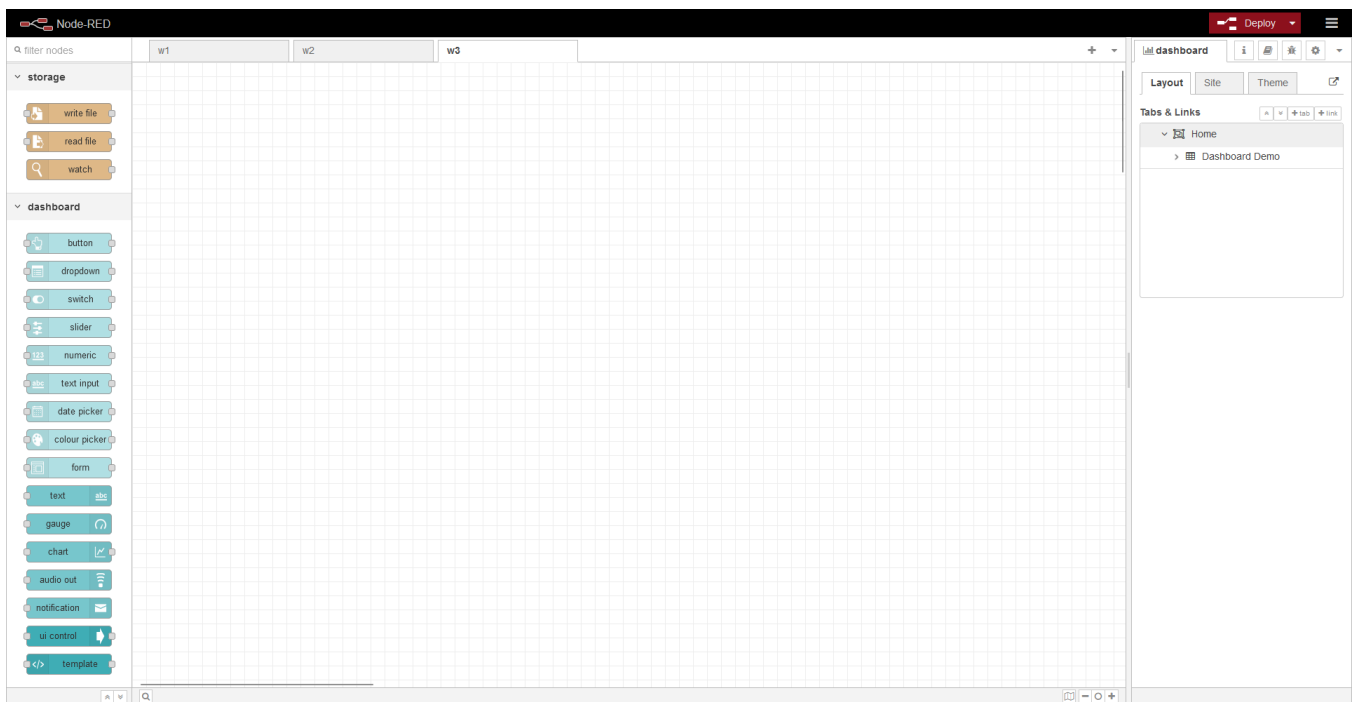


Figure 3: Install node-red-dashboard.

## Exercise 3-4

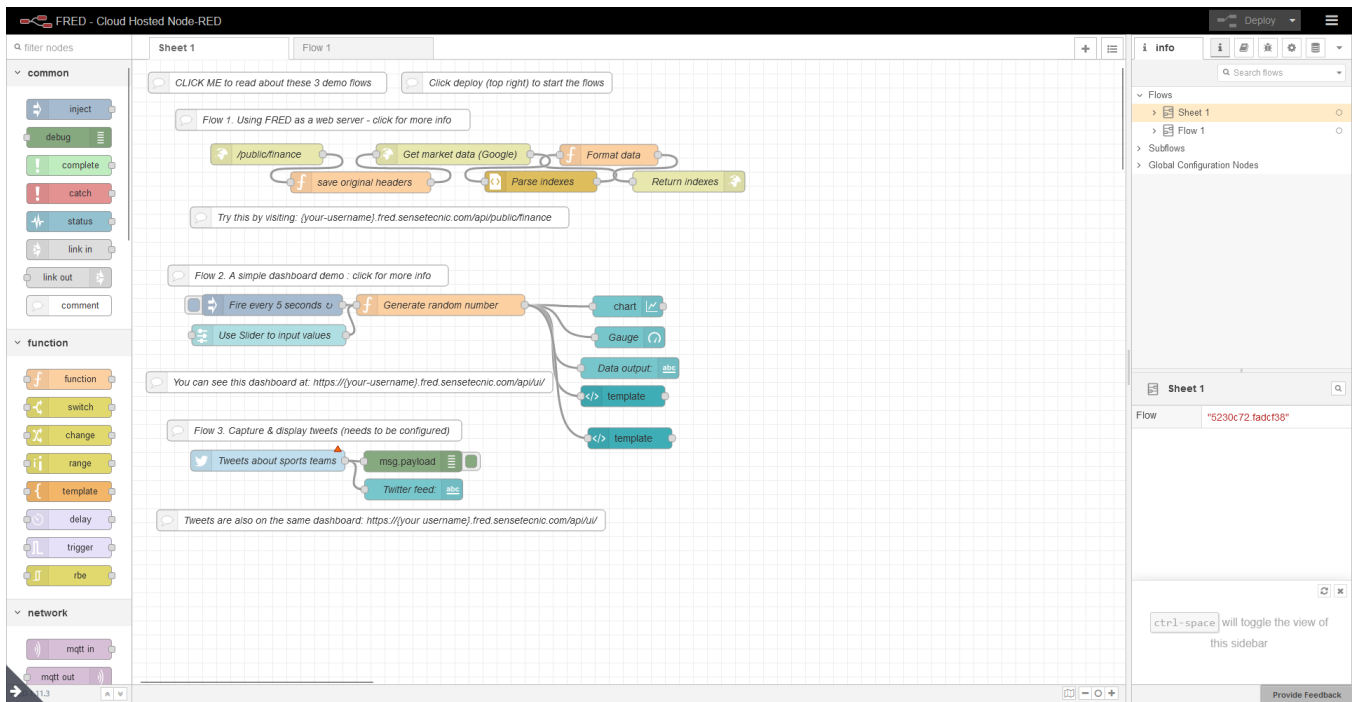
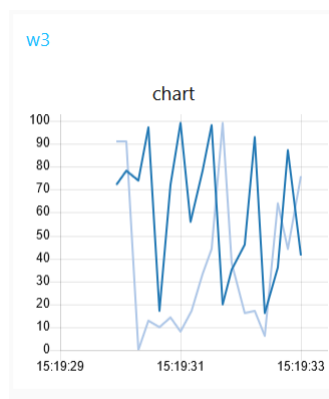
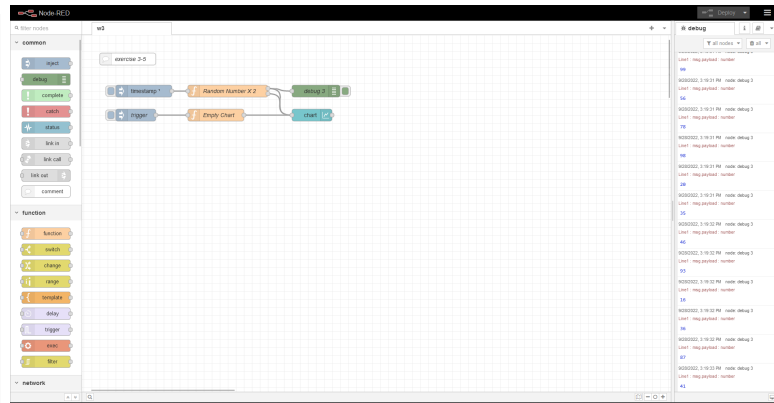


Figure 4: Copy flows in fred to local node-red.

## Exercise 3-5



(a) Chart



(b) Flow

(c) timestamp node

(d) trigger node

```

1 var msg1 = {};
2 var msg2 = {};
3
4 msg1.payload = Math.round(Math.random()*100);
5 msg1.topic = 'Line1';
6
7 msg2.payload = Math.round(Math.random()*100);
8 msg2.topic = 'Line2';
9
10 return [msg1,msg2];

```

(e) Random Number X 2 node

```

1 var msg = {};
2 msg.payload = {};
3 return msg;

```

(f) Empty Chart node

(g) debug 3 node

(h) chart node

Figure 5: Node-red dashboard multiple lines on a chart.

## Exercise 3-6

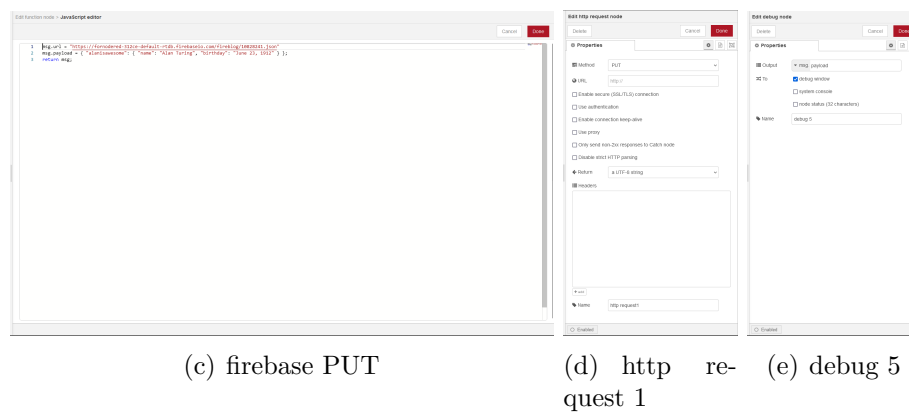
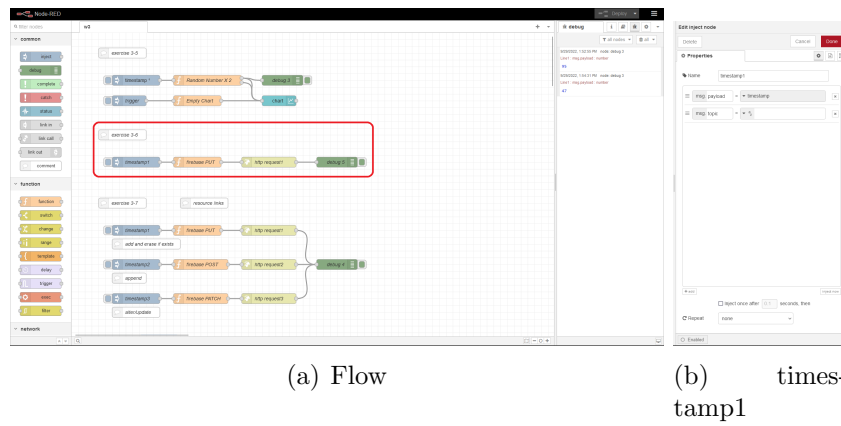


Figure 6: Put JSON data to realtime database.

## Exercise 3-7

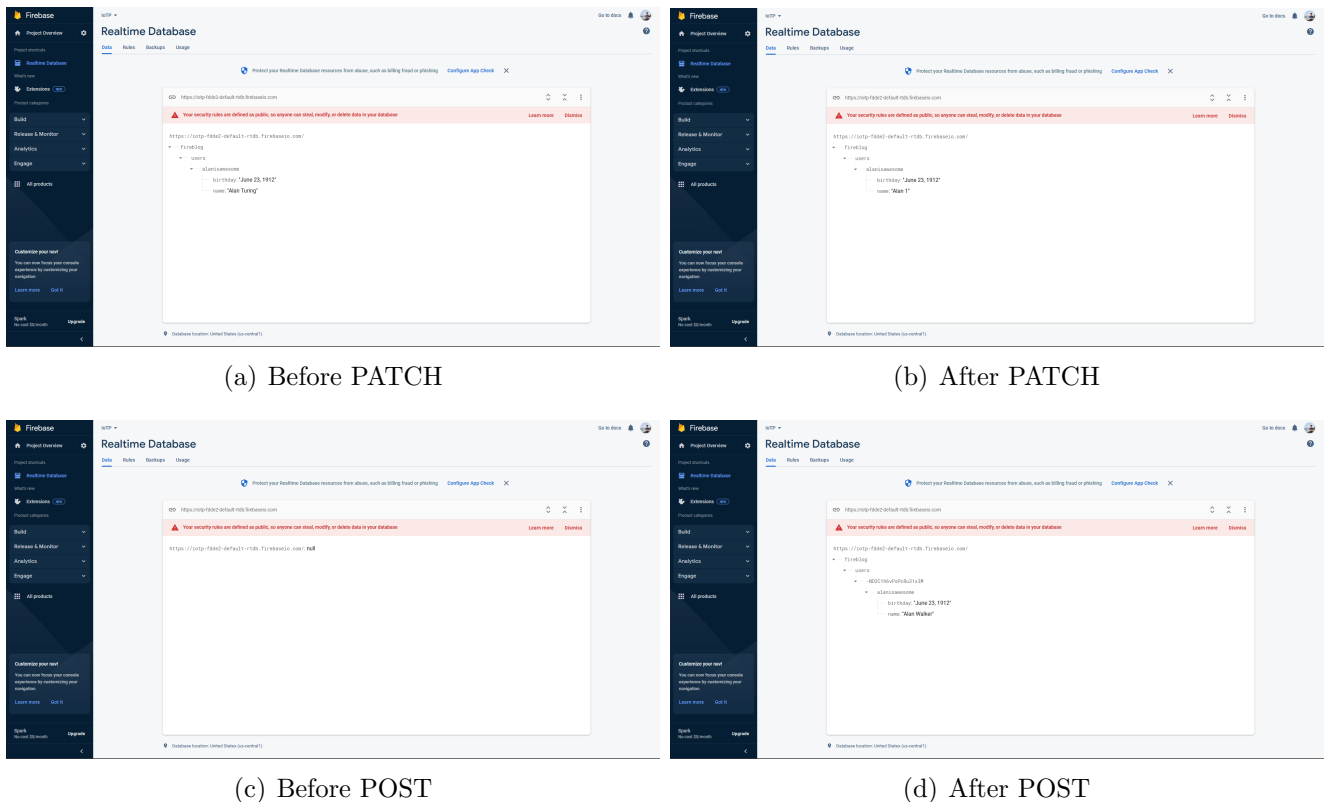
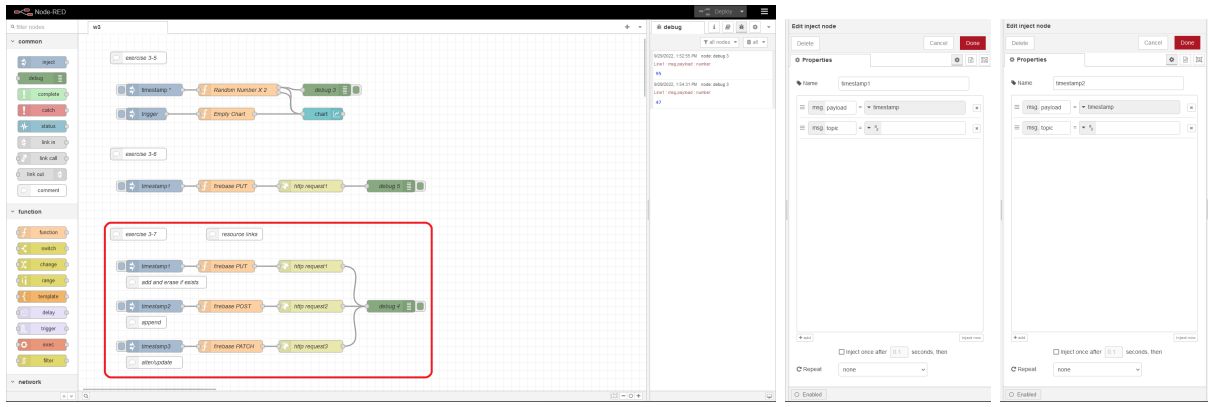


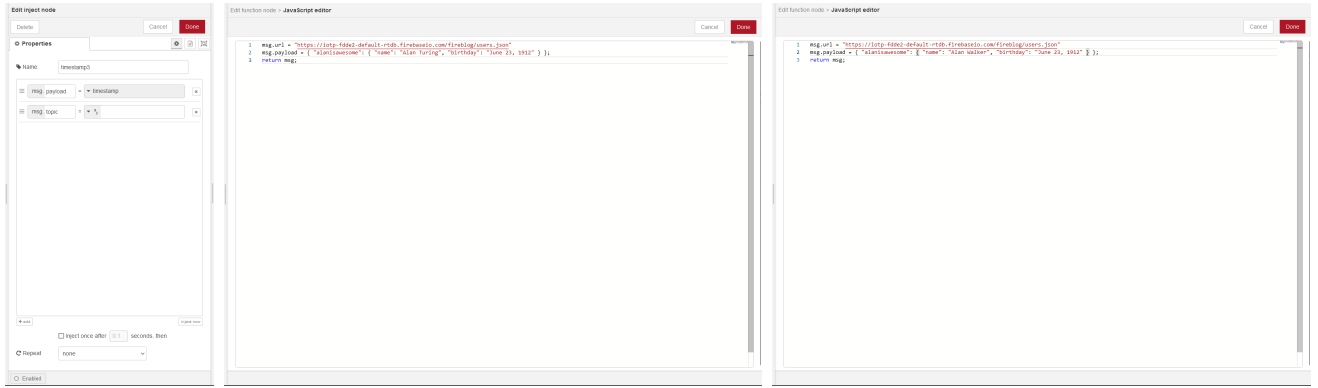
Figure 7: Try PATCH and POST method to write data to your database.



(a) Flow

(b) timestamp1

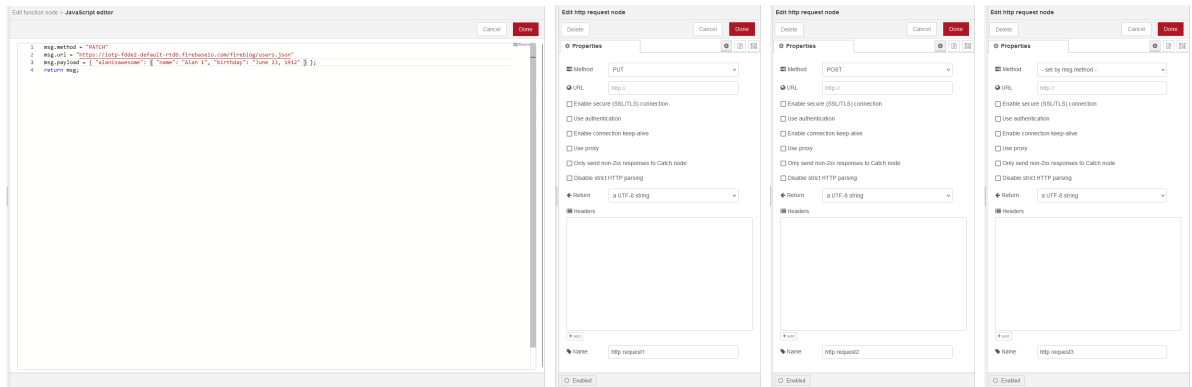
(c) timestamp2



(d) timestamp2

(e) firebase PUT

(f) firebase POST

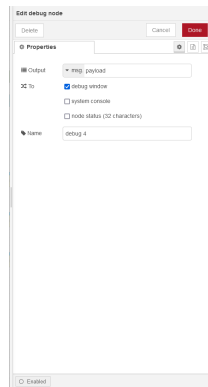


(g) firebase PATCH

(h) http request1

(i) http request2

(j) http request3



(k) debug 4

Figure 8: Try PATCH and POST method to write data to your database.