

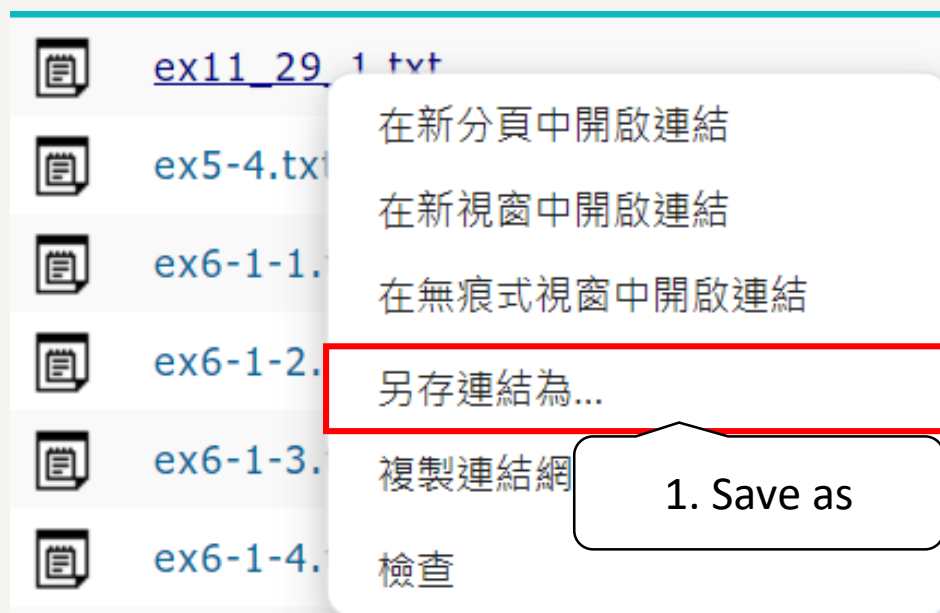
物聯網實務 HW11

電機碩一 11278008 林佳慧

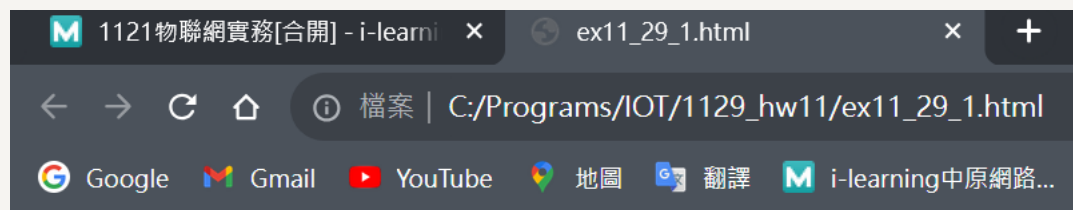
日期:2023/11/29

Exercise 11-1

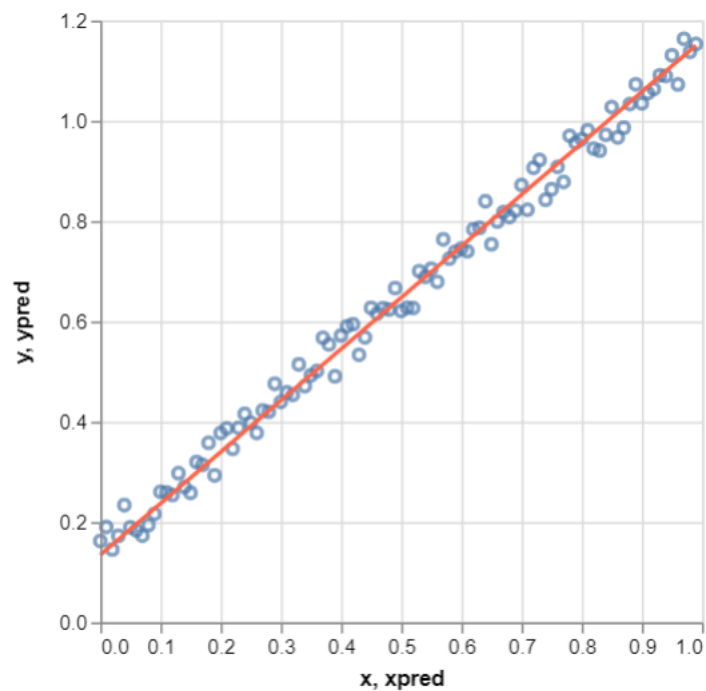
ex11_29_1.html (copy from ex11_29_1.txt)



Result

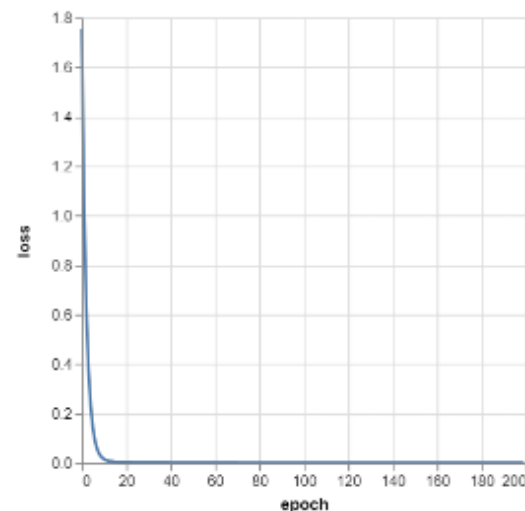


Linear Regression

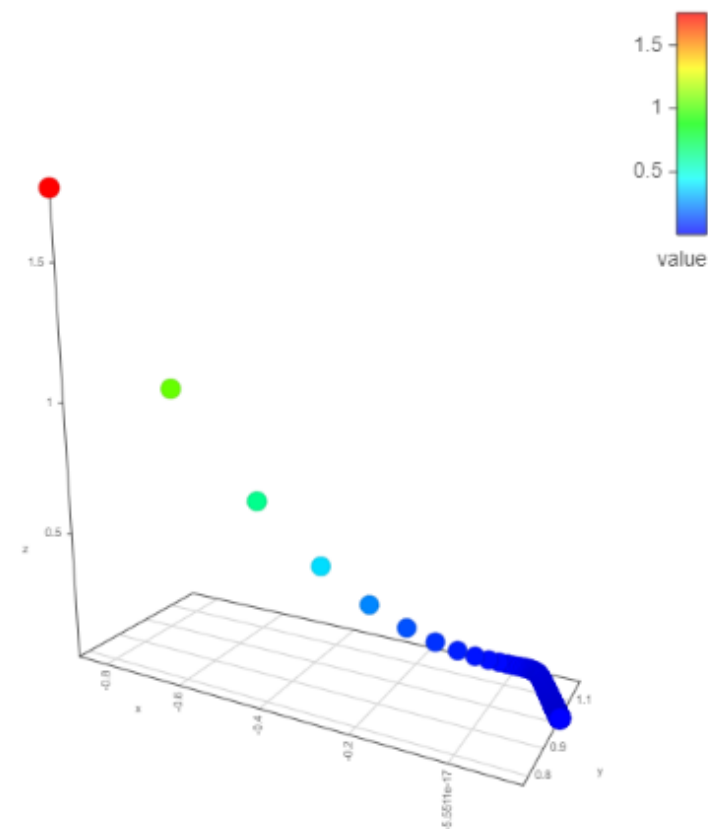


[Save as SVG](#)[Save as PNG](#)[View Source](#)[Open in Vega Editor](#)

[Save as SVG](#)[Save as PNG](#)[View Source](#)[Open in Vega Editor](#)



[Save as SVG](#)[Save as PNG](#)[View Source](#)[Open in Vega Editor](#)



Exercise 11-2

- ex11_29_1.html
- (copy from ex1129_.txt)
- Ping pong game

File Edit Selection View Go Run ... 1129_hw11

EXTENSIONS: MARKET... live

Live Server v5.7.9
Launch a development local...
Ritwick Dey

Live Share 14.8M ★ 4
Real-time collaborative dev...
Microsoft

[Deprecated]... 5.1M ★ 4.5
Adds audio calling capabili...
Microsoft

Live Preview 3.4M ★ 4.5
Hosts a local server in your ...
Microsoft

Live Sass Co... 2.4M ★ 4.5
Compile Sass or Scss to CSS...
Ritwick Dey

Live Sass Com... 1.4M ★ 5
Compile Sass or Scss to CSS...
Glenn Marks

Live HTML Prev... 1M ★ 2
Edit and preview HTML doc...
Harshdeep Gupta

Live Server P... 949K ★ 3.5

Live Server v5.7.9
Ritwick Dey | 42,100,405 | ★★★★★ (466)
Launch a development local Server with live reload feature for static & dynamic pages
Disable Uninstall

This extension is enabled globally.

live changes without saving file.
<https://github.com/ritwickdey/vscode-live-server-plus-plus>

Live Server

Live Server loves ❤️ your multi-root workspace

Live Server for server side pages like PHP. [Check Here](#)

[For 'command not found error' #78]

vscode marketplace v5.7.9 downloads 69M rating 4.4/5 (465)
travis branch no longer available appveyor branch passing license MIT

Launch a local development server with live reload feature for static & dynamic pa

Categories
Other

Extension Resources
[Marketplace](#)
[Repository](#)
[License](#)
[Ritwick Dey](#)

More Info
Published 2017-06-28, 05:14:04
Last released 2022-08-31, 11:03:25

Port : 5500

安裝Live Server。在vscode修改，網頁也會即時更新。

File Edit Selection View Go Run ...

1129_hw11

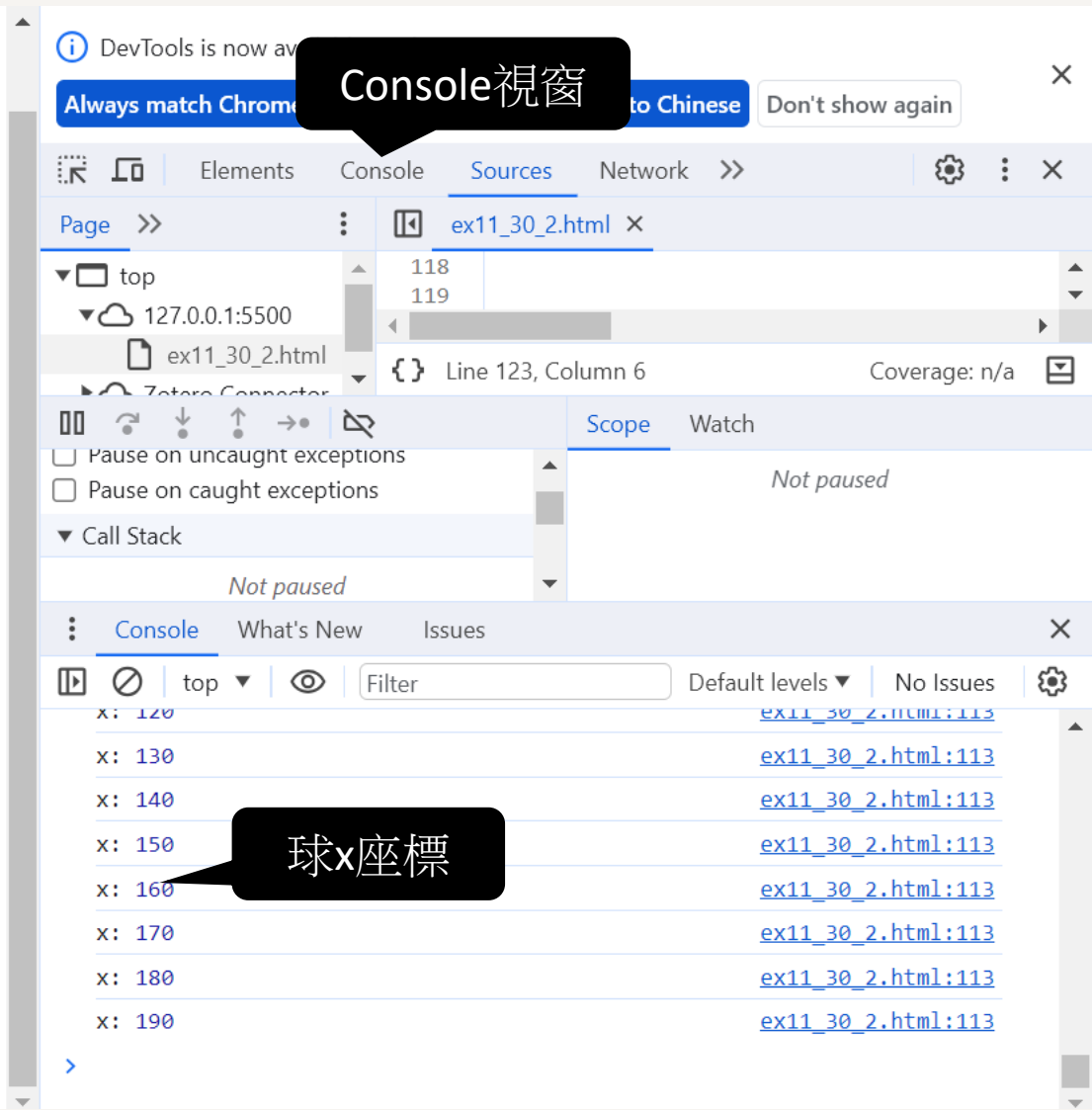
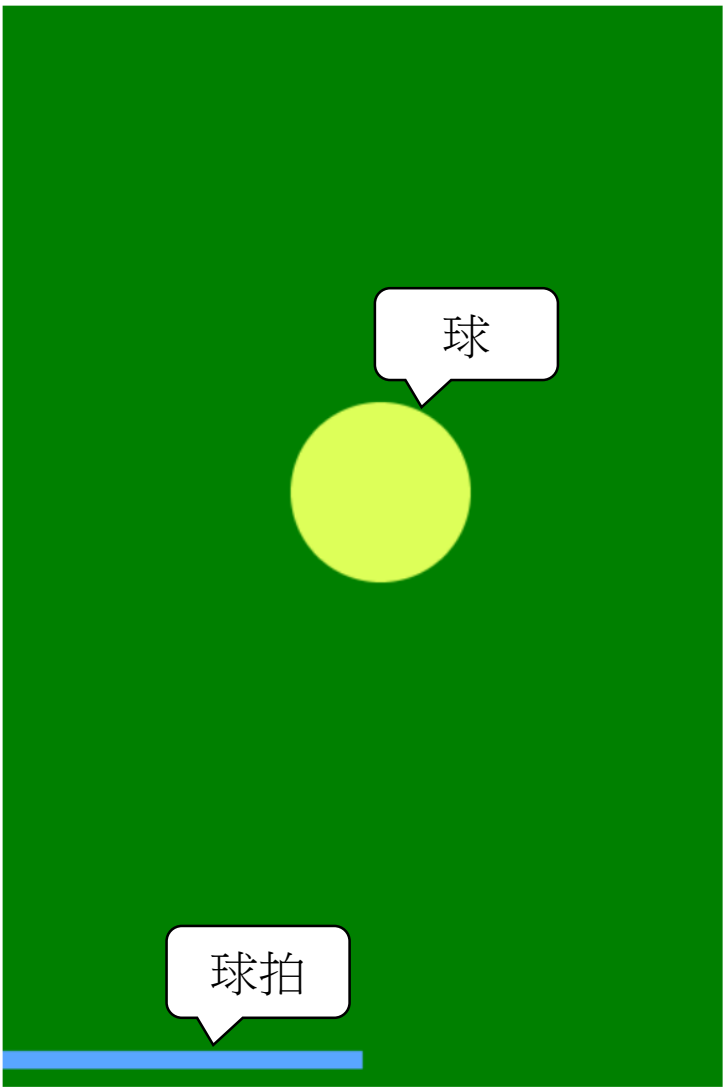
ex11_30_2.html U X

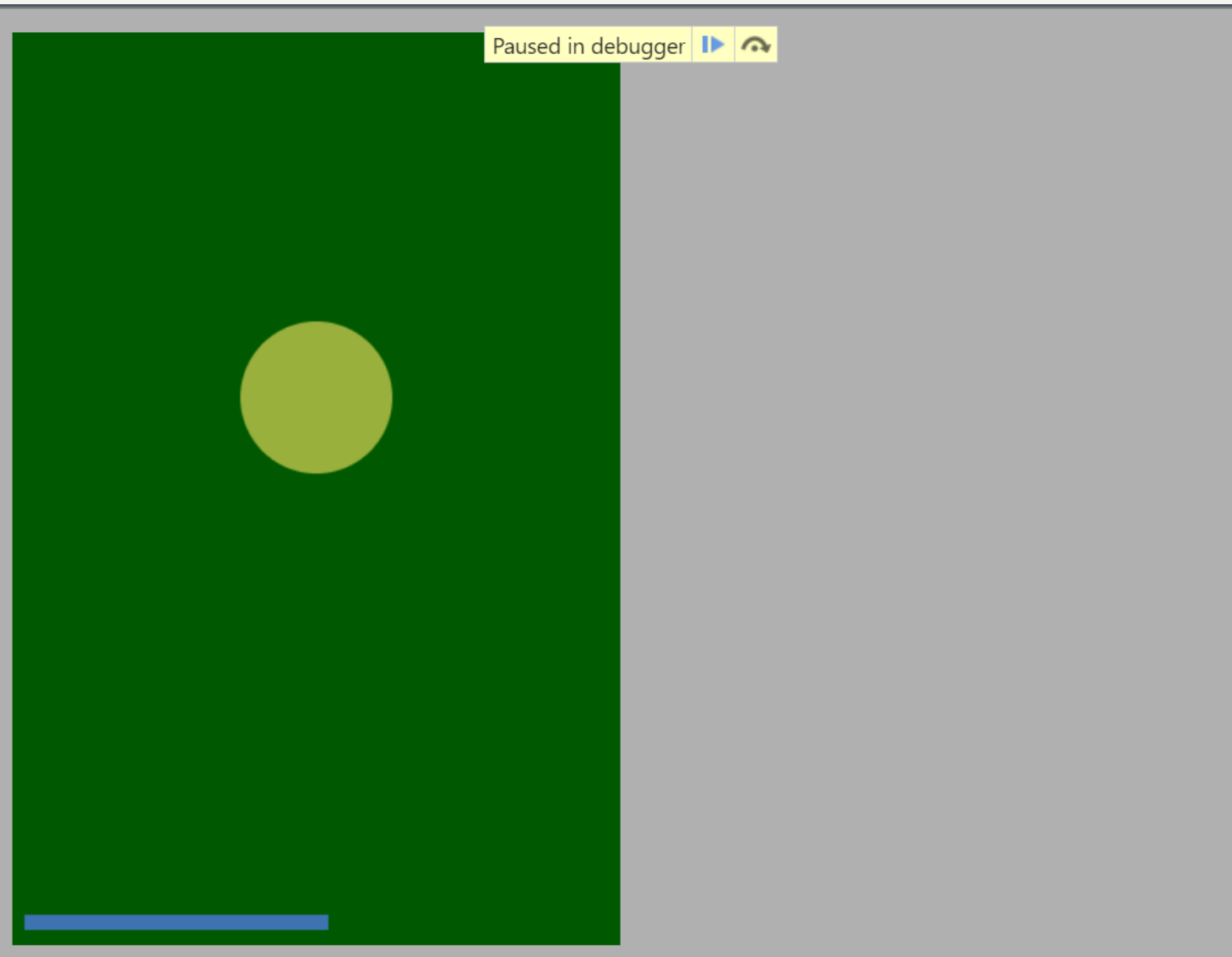
ex11_30_2.html > html > body > script

```
9
10 <script>
11
12 // create canvas
13 var canvas = document.createElement("canvas");
14 const width = 400;
15 const height = 600;
16 canvas.width = width;
17 canvas.height = height;
18 var context = canvas.getContext('2d');
19 // context.fillStyle = "#008000";
20 // context.fillRect(0, 0, width, height);
21
22 // add canvas
23 document.body.appendChild(canvas);
24
25 const ball_radius = 50;
26 const ball_initialx = width/2;
27 const ball_initialy = height/2;
28 var ball_x;
29 var ball_y;
30
31 const paddle1_w = 200;
32 const paddle1_h = 10;
33 const paddle1_initialx = 0;
34 const paddle1_initialy = height - 2*paddle1_h;
35 var paddle1_x;
36 var paddle1_y;
37
38 var mvTimer;
```

可更改球的半徑、速度，paddle的寬度等等

Ln 31, Col 23 Spaces: 4 UTF-8 CRLF HTML Port : 5500





DevTools is now available in Chinese!

Always match Chrome's language Switch DevTools to Chinese Don't show again

Elements Console Sources Network >>

Page >> ex11_30_2.html x

122 function update() {
123 updateball();
124 updateaddball();
}

Line 123, Column 6 Coverage: n/a

Scope Watch

Local
this: Window
Script
Global

Call Stack

update ex11_30_2.html:123 Window

Console What's New Issues

top Filter Default levels No Issues

39 ex11_30_2.html:165
{"39":true} ex11_30_2.html:166
37 ex11_30_2.html:165
{"37":true,"39":true} ex11_30_2.html:166
x: 80 ex11_30_2.html:113
x: 70 ex11_30_2.html:113
x: 60 ex11_30_2.html:113
x: 50 ex11_30_2.html:113
x: 40 ex11_30_2.html:113

按鍵代碼

KeysDown內容

Exercise 11-3

- ex11_29_3.html
- (copy from ex11_29_3.txt)
- Record playing data



擊到3次自動下載

近期下載記錄

training_data.json
3.7 KB • 完成

ex11_30_3.html
7.4 KB • 3 分鐘前

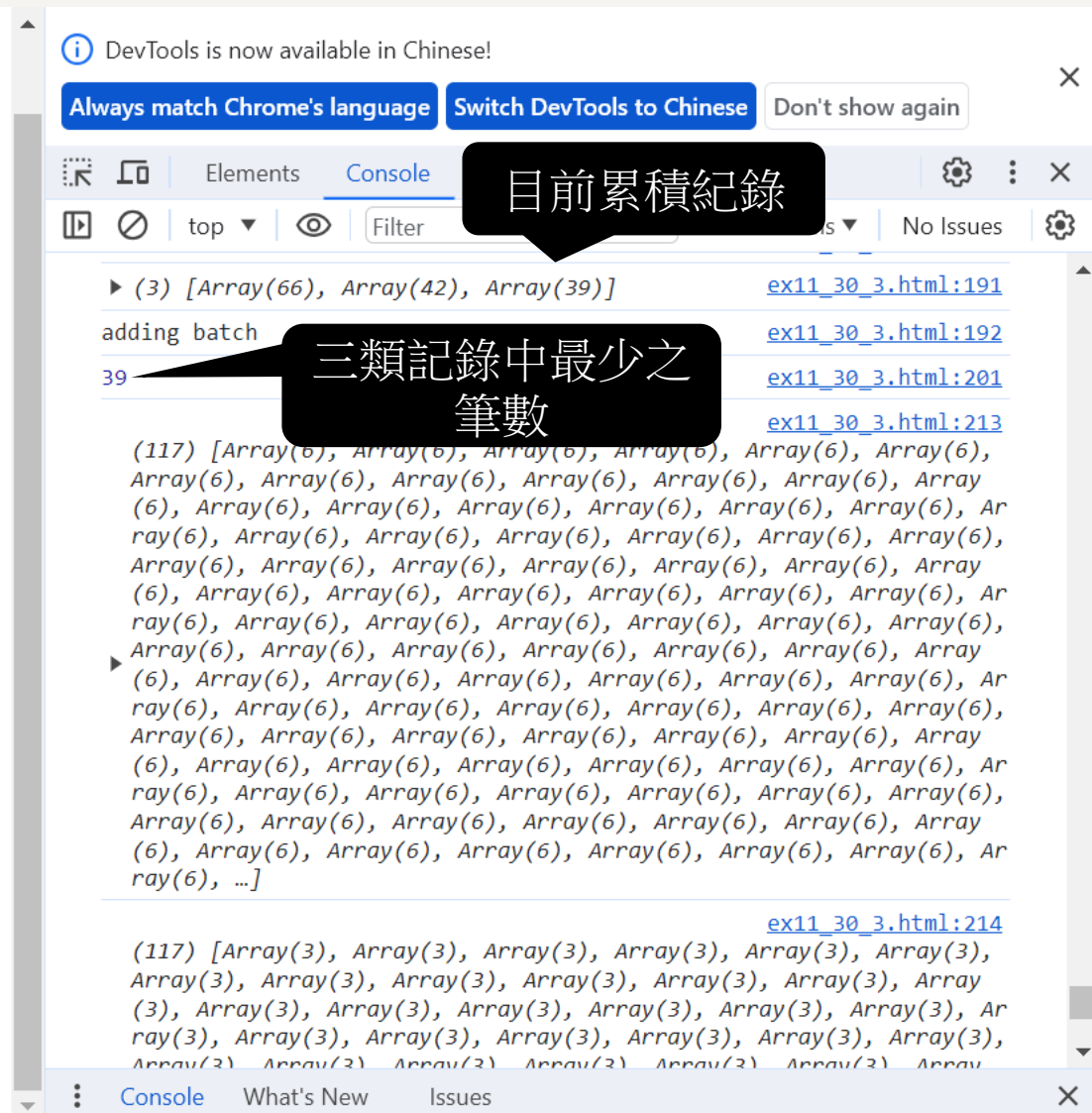
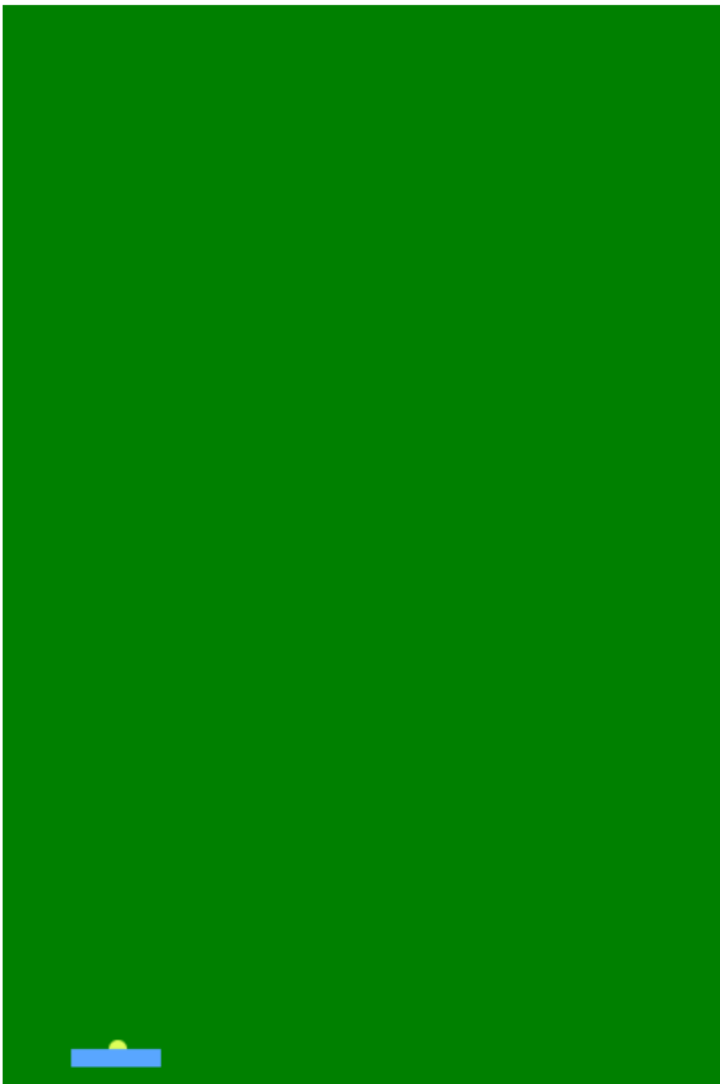
ex11_30_2.html
3.7 KB • 37 分鐘前

ex11_29_1.txt
已移除

物聯網實務(十一).pdf
3.6 MB • 1 小時前

完整下載記錄

擊到球



Exercise 11-4

- ex11_29_4.html
- (copy from ex11_29_4.txt)
- Train model

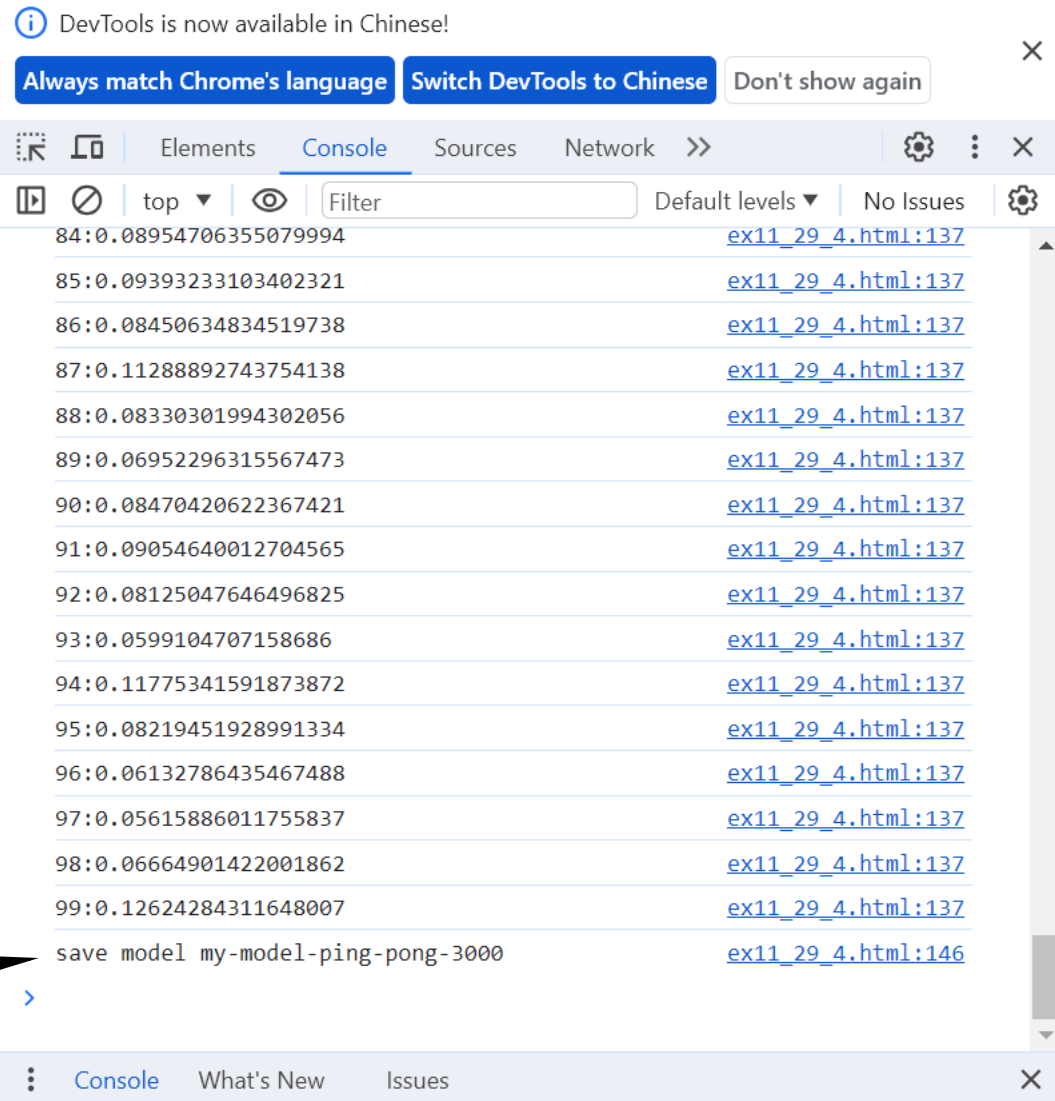
請選出一個乒乓球遊戲紀錄檔

select *.json data file
選擇檔案 training_data_3000.json

1. 選擇檔案

儲存模型

F12

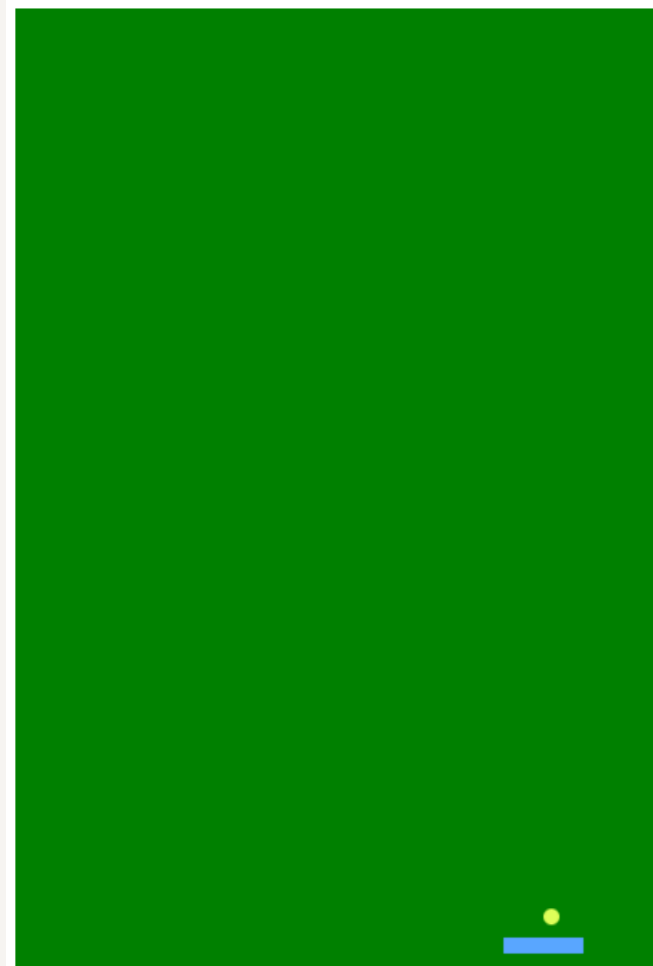


Exercise 11-5

- ex11_29_5.html
- (copy from ex11_29_5.txt)
- AI play ping pong game

從ex11-4的訓練模型，AI會自己打乒乓球

AI Playing Ping Pong Game



DevTools is now available in Chinese!

Always match Chrome's language

Switch DevTools to Chinese

Don't show again

Elements Console Sources Network Performance Memory >> Settings More

top Filter Default levels No Issues

```
▶ Int32Array [1, buffer: ArrayBuffer(4), byteLength: 4, byteOffset: 0, length: 1, Symbol (Symbol.toStringTag): 'Int32Array']  
Tensor tfjs:17  
  [[320, 386, 156, 320, 389, 159],]  
Tensor tfjs:17  
  [[0, 1, 0],]  
ex11_29_5.html:178  
▶ Int32Array [1, buffer: ArrayBuffer(4), byteLength: 4, byteOffset: 0, length: 1, Symbol (Symbol.toStringTag): 'Int32Array']  
Tensor tfjs:17  
  [[320, 389, 159, 320, 392, 162],]  
Tensor tfjs:17  
  [[0, 1, 0],]  
ex11_29_5.html:178  
▶ Int32Array [1, buffer: ArrayBuffer(4), byteLength: 4, byteOffset: 0, length: 1, Symbol (Symbol.toStringTag): 'Int32Array']  
Tensor tfjs:17  
  [[320, 392, 162, 320, 395, 165],]  
Tensor tfjs:17  
  [[0, 1, 0],]  
ex11_29_5.html:178  
▶ Int32Array [1, buffer: ArrayBuffer(4), byteLength: 4, byteOffset: 0, length: 1, Symbol (Symbol.toStringTag): 'Int32Array']
```

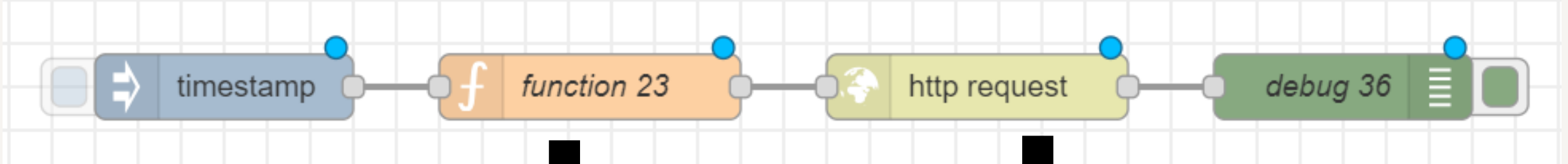
Console What's New Issues

Exercise 11-6

- Generate data to firebase:

The screenshot shows the Node-RED web interface. In the top right corner, there is a Firebase logo and a dropdown menu labeled 'fornodered'. Below this, the 'Realtime Database' panel is visible, showing a list of data points under the 'plotdata' path. The data points are timestamps: 1700658185968, 1700658627412, 1700658627557, 1700658628849, 1700658630002, 1700658632064, and 1700658634742. In the main workspace, a workflow is built with four nodes connected in a sequence: 'timestamp' (blue), 'function 16' (orange, highlighted), 'http request' (yellow), and 'debug 26' (green). The 'function 16' node is currently selected, and its configuration is visible in the right-hand sidebar.

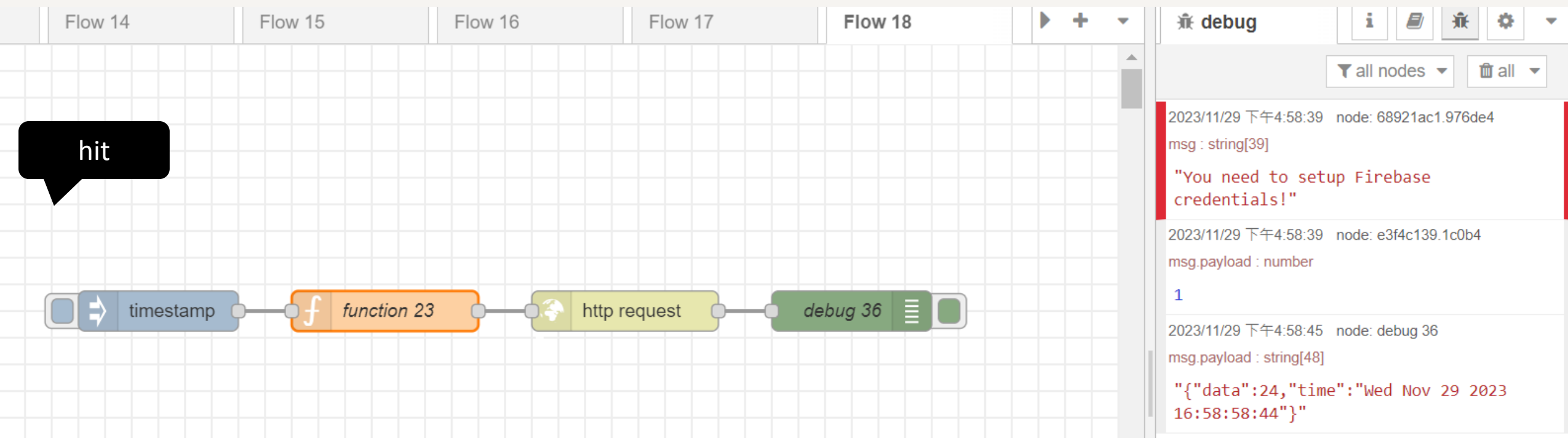
Generate data to firebase



```
let data = Math.round((Math.random()*100));
const d = new Date();
var timestamp = d.getTime();
var time = d.toString() + " " + d.getHours()
+ ":" + d.getMinutes() + ":" +
d.getMinutes() + ":" + d.getSeconds();
msg.url="https://totoras-57d56-default-
rtbd.firebaseio.com/plotdata/"+timestamp+".json
";
msg.payload = { "data": data, "time": time };
return msg;
```

The screenshot shows the 'Edit http request node' dialog box. It has a 'Delete' button, a 'Cancel' button, and a 'Done' button. Under the 'Properties' section, the 'Method' is set to 'PUT' (highlighted with a red box and a black callout bubble labeled 'PUT'). The 'URL' field contains 'http://'. There are also icons for settings, a document, and a preview.

Trigger



```
https://totoras-57d56-default-rtdb.firebaseio.com/
```

```
└─ plotdata
```

```
└─ 1701248324878
```

```
└─ data: 24
```

```
└─ time: "Wed Nov 29 2023 16:58:58:44"
```

隨機產生data

Trigger 6 times

The screenshot shows a Node-RED workflow on a grid background. The workflow consists of four nodes connected in sequence: a 'timestamp' node (blue), a 'function 23' node (orange), an 'http request' node (yellow), and a 'debug 36' node (green). A black speech bubble with the word 'hit' points to the 'timestamp' node. Below the workflow, there is a box with the Firebase logo and the word 'Firebase'. To the right of this box is a list of seven plotdata entries, each with a play button icon and a unique ID. The last entry, '1701248451764', is highlighted with a blue border. On the far right, the debug console is open, showing a list of messages from the 'debug 36' node. Each message is a JSON object with 'data' and 'time' fields. The messages are timestamped with the date and time '2023/11/29 下午5:00:48' through '2023/11/29 下午5:00:55'.

hit

timestamp → function 23 → http request → debug 36

Firebase

plotdata

- ▶ 1701248324878
- ▶ 1701248445276
- ▶ 1701248448156
- ▶ 1701248450091
- ▶ 1701248451764
- ▶ 1701248453685
- ▶ 1701248455188

all nodes | all

```
["data":30,"time":"Wed Nov 29 2023 17:0:0:45"]
```

2023/11/29 下午5:00:48 node: debug 36
msg.payload : string[45]

```
["data":3,"time":"Wed Nov 29 2023 17:0:0:48"]
```

2023/11/29 下午5:00:50 node: debug 36
msg.payload : string[46]

```
["data":89,"time":"Wed Nov 29 2023 17:0:0:50"]
```

2023/11/29 下午5:00:52 node: debug 36
msg.payload : string[45]

```
["data":5,"time":"Wed Nov 29 2023 17:0:0:51"]
```

2023/11/29 下午5:00:54 node: debug 36
msg.payload : string[46]

```
["data":69,"time":"Wed Nov 29 2023 17:0:0:53"]
```

2023/11/29 下午5:00:55 node: debug 36
msg.payload : string[46]

```
["data":40,"time":"Wed Nov 29 2023 17:0:0:55"]
```

Exercise 11-7

- Add App

The image displays two screenshots of the Firebase console interface to guide the user through adding a new application.

Left Screenshot: Shows the 'Recent projects' section. A red box highlights the project card for 'totoras' (ID: totoras1027). A callout bubble labeled '1.Click' points to this card. Below the project cards is a large white button with a blue plus sign and the text 'Add project'.

Right Screenshot: Shows the 'Project Overview' page for the 'totoras' project. A red box highlights the '+ Add app' button. A callout bubble labeled '2.Add app' points to this button. The page also shows a sidebar with navigation links for 'Build', 'Release & Monitor', and 'Analytics', and a 'Spark plan' button.

Add Web

 **Firebase**

專案總覽

專案捷徑

App Check

產品類別

建構

發布及監控

數據分析

互動交流

所有產品

Spark
免付費 每月 \$0 美元

升級

totoras

接收 Firebase 新功能、相關研究和活動等最新消息的電子郵件

立即申請

totoras

Spark 方案

將 Firebase 新增至應用程式即可開始使用

iOS+


首先請新增應用程式

Web



× 將 Firebase 新增至您的網頁應用程式

1 註冊應用程式

應用程式暱稱 

Plotdata

Plotdata

☐ 一併為此應用程式設定 **Firebase 託管** 功能。 [瞭解詳情](#) 

你也可以之後再設定託管功能。無論何時開始使用託管功能，你都無須付費。

註冊應用程式

2

2 新增 Firebase SDK

2 新增 Firebase SDK

☐ 使用 npm

☒ 使用 <script> 標記

Use a <script> tag

如果不希望使用建構工具，你可以透過這個選項新增及使用 Firebase JS SDK。使用這個選項即可輕鬆展開作業，但不建議用於已正式推出的應用程式。[瞭解詳情](#)。

使用任何 Firebase 服務之前，請先複製這些指令碼並貼到 <body> 標記的最下方：

```
<script type="module">
  // Import the functions you need from the SDKs you need
  import { initializeApp } from "https://www.gstatic.com/firebasejs/10.7.0/firebase-app.js";
  import { getAnalytics } from "https://www.gstatic.com/firebasejs/10.7.0/firebase-analytics.js";
  // TODO: Add SDKs for Firebase products that you want to use
  // https://firebase.google.com/docs/web/setup#available-libraries

  // Your web app's Firebase configuration
  // For Firebase JS SDK v7.20.0 and later, measurementId is optional
  const firebaseConfig = {
    apiKey: "AIzaSyA...",
    authDomain: "tot...",
    projectId: "toto...",
    storageBucket: "...",
    messagingSenderId: "...",
    appId: "1:570004...",
    measurementId: "G-BKDVDT97D6"
  };

  // Initialize Firebase
```

Copy

Paste and save to ex_11_29_7.html



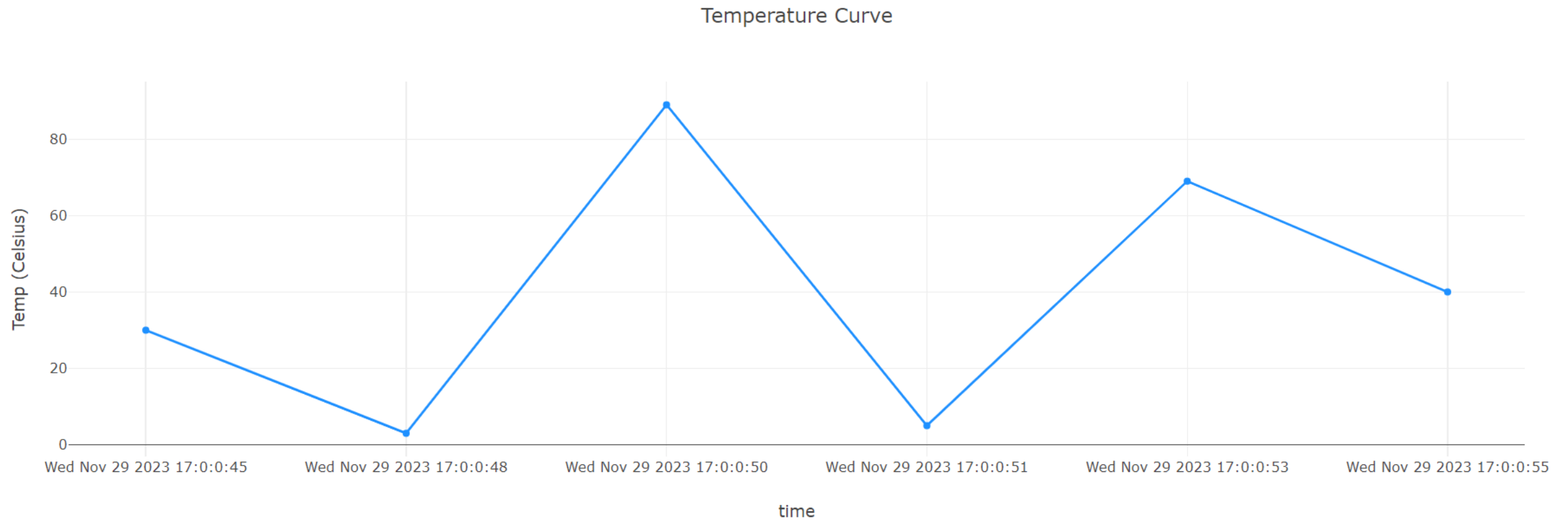
The screenshot shows a code editor with a file explorer on the left and a code editor on the right. The file explorer shows a list of files: ex11_30_2.html U, ex11_30_3.html U, ex11_29_4.html U, ex11_29_5.html U, and ex11_29_7.html 2, U X. The code editor shows the following code:

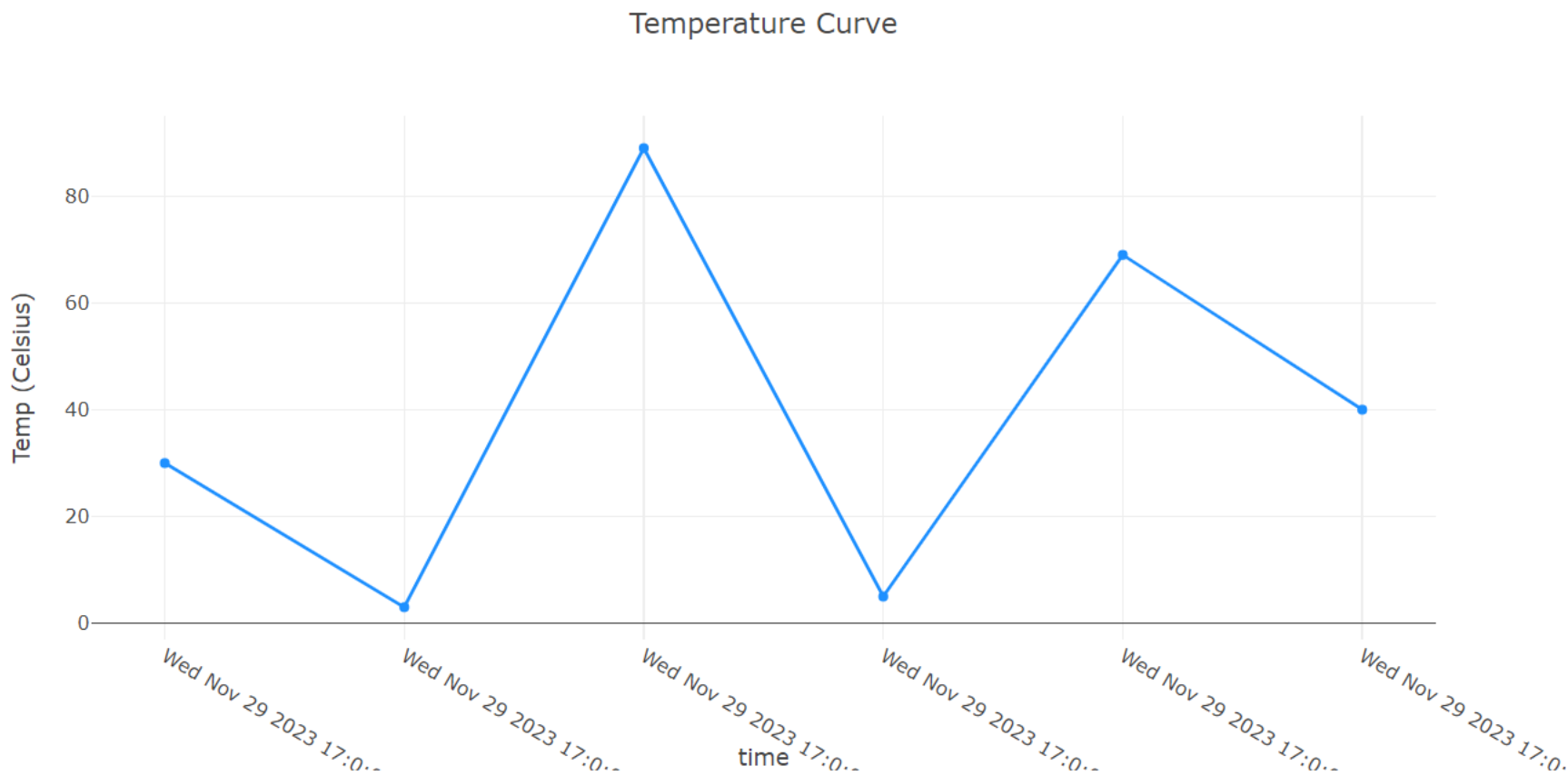
```
< ex11_29_7.html > html > body > script
52 //model = await tf.loadModel('tfjsversion/model.json');
53 model.summary();
54
55
56
57 }
58 loadmodel(); //呼叫載入模型函數
59
60 */
61
62 // Your web app's Firebase configuration
63 // For Firebase JS SDK v7.20.0 and later, measurementId is optional
64
65
66 const firebaseConfig = {
67   apiKey: "AIzaSyAFZfAUZmumSkprtspY3mRMVcEudpvGhD0",
68   authDomain: "totoras-57d56.firebaseio.com",
69   projectId: "totoras-57d56",
70   storageBucket: "totoras-57d56.appspot.com",
71   messagingSenderId: "570004486299",
72   appId: "1:570004486299:web:2b18fccc486a9f40786e3e",
73   measurementId: "G-BKDVDY97D6"
74 };
75
76
77
78
79
80 // Initialize Firebase
81 firebase.initializeApp(firebaseConfig);
```

A red box highlights the Firebase configuration object (lines 66-74). A speech bubble labeled "Paste" points to this box.

Ln 65, Col 3 Spaces: 2 UTF-8 CRLF HTML Port : 5500

Result





DevTools is now available in Chinese!

Always match Chrome's language

Switch DevTools to Chinese

F12

Elements Console >>

top Filter

Default levels No Issues

```
1248448156: {...}, 1701248450091: {...}, 1701248451764: {...}, 1701248453685: {...}, 1701248455188: {...}} i
▶ 1701248324878: {data: 24, time: 'Wed Nov 29 2023 17:00:45'}
▶ 1701248445276: {data: 30, time: 'Wed Nov 29 2023 17:00:48'}
▶ 1701248448156: {data: 3, time: 'Wed Nov 29 2023 17:00:50'}
▶ 1701248450091: {data: 89, time: 'Wed Nov 29 2023 17:00:51'}
▶ 1701248451764: {data: 5, time: 'Wed Nov 29 2023 17:00:53'}
▶ 1701248453685: {data: 69, time: 'Wed Nov 29 2023 17:00:55'}
▶ 1701248455188: {data: 40, time: 'Wed Nov 29 2023 17:00:57'}
▶ [[Prototype]]: Object
```

40 [ex11_29_7.html:91](#)

[ex11_29_7.html:99](#)

```
(6) ['Wed Nov 29 2023 17:00:45', 'Wed Nov 29 2023 17:00:48', 'Wed Nov 29 2023 17:00:50', 'Wed Nov 29 2023 17:00:51', 'Wed Nov 29 2023 17:00:53', 'Wed Nov 29 2023 17:00:55'] i
  0: "Wed Nov 29 2023 17:00:45"
  1: "Wed Nov 29 2023 17:00:48"
  2: "Wed Nov 29 2023 17:00:50"
  3: "Wed Nov 29 2023 17:00:51"
  4: "Wed Nov 29 2023 17:00:53"
```

Console What's New Issues

Exercise 11-8

- Training Model
- ex11_29_8.html
- (copy from ex11_29_8.txt)

請選出一個紀錄檔

select *.json data file
選擇檔案 training_data.json

1. Choose training_data.json

Save model

i DevTools is now available in Chinese!

Always match Chrome's language

Switch DevTools to Chinese

Don't show again

Elements Console >> Filter

Default levels ▼ No Issues

87:0.20329351746477187	ex11_29_8.html:150
88:0.1983514723057548	ex11_29_8.html:150
89:0.195873168297112	ex11_29_8.html:150
90:0.19589726626873016	ex11_29_8.html:150
91:0.20097506302408874	ex11_29_8.html:150
92:0.19389821030199528	ex11_29_8.html:150
93:0.20366514171473682	ex11_29_8.html:150
94:0.21516171489687017	ex11_29_8.html:150
95:0.19586615598139664	ex11_29_8.html:150
96:0.19686937301109234	ex11_29_8.html:150
97:0.2005030867876485	ex11_29_8.html:150
98:0.20152616958754757	ex11_29_8.html:150
99:0.195040886135151	ex11_29_8.html:150
save model my-model-heart	ex11_29_8.html:159

>

Console What's New Issues

Homework 11-1

- change code: when the length of the record is larger than 100, the json file will be downloaded automatically

File Edit Selection View Go Run ...

1129_hw11

ex11_29_7.html U

ex11_29_8.html U

ex11_29_9.html 2, U

ex11_29_3.html U X

ex11_29_5.html U

ex11_29_3.html > html > body > script > updateball

199

200

201

202

203

204

205

206

207

208

209

210

211

212

213

214

215

216

217

218

219

220

221

222

223

224

225

226

227

```
var len = Math.min(training_data[0].length, training_data[1].length, training_data[2].length);
console.log(len);
var data_xx=[];
var data_yy=[];

if (len > 100){
  for(i = 0; i < 3; i++){
    data_xx.push(...training_data[i].slice(0, len));    // trims training data to 'len' length

    data_yy.push(...Array(len).fill([i==0?1:0, i==1?1:0, i==2?1:0,i==3?1:0, i==4?1:0, i==5?1:0])); // creates 'len' number re
    // either [1, 0 0] for left, [0, 1, 0] - for no move
    // and [0, 0, 1] for right (depending in index if training data
  }
  console.log(data_xx);
  console.log(data_yy);

  var a = document.createElement("a");
  // var a = document.getElementById("a");
  var file = new Blob([JSON.stringify({xs: data_xx, ys: data_yy})], {type: 'application/json'});
  a.href = URL.createObjectURL(file);
  a.download = 'training_data.json';
  a.click();
  console.log('download training_data.json'); //印出文字'download training_data.json'

  clearInterval(myTimer);
} //end if
} //end else
```

將值更改為100

Ln 216, Col 52 Spaces: 4 UTF-8 CRLF HTML Port : 5500

Homework 11-2

- Open “ex11_29_7.html” and save as “ex11_29_9.html”
- Delete /* */
- /* */

File Edit Selection View Go Run ...

1129_hw11

ex11_29_7.html U

ex11_29_8.html U

ex11_29_9.html 2, U

ex11_29_5.html U

ex11_29_9.html > html > body > script

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

/*

function Normalize(array) {

let Normalizedarray=[];

const max = Math.max(...array);

const min = Math.min(...array);

Normalizedarray = array.map(function (val) { return 2*(val-min)/(max-min)-1; });

return Normalizedarray ;

}

async function loadmodel(){

//加載模型

//model = await tf.loadLayersModel('indexeddb://my-model-ping-pong-3000');

model = await tf.loadLayersModel('indexeddb://my-model-heart');

//model = await tf.loadModel('tfjsversion/model.json');

model.summary();

}

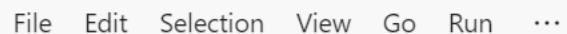
loadmodel(); //呼叫載入模型函數

*/

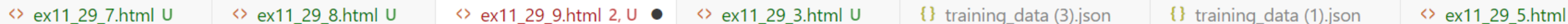
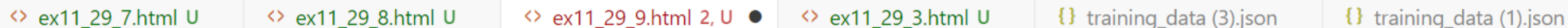
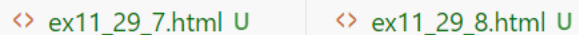
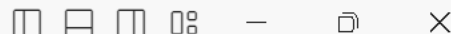
將註解拿掉

< main* 2 0 0

Ln 37, Col 34 Spaces: 2 UTF-8 CRLF HTML Port : 5500



1129_hw11

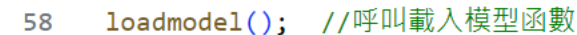


<> ex11_29_9.html > html > body > script > on('value') callback

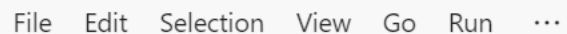
```

32
33
34
35 function Normalize(array) {
36   let Normalizedarray=[];
37   const max = Math.max(...array);
38   const min = Math.min(...array);
39   Normalizedarray = array.map(function (val) { return 2*(val-min)/(max-min)-1; });
40
41
42
43   return Normalizedarray ;
44 }
45
46
47 async function loadmodel(){
48
49   //加載模型
50   //model = await tf.loadLayersModel('indexeddb://my-model-ping-pong-3000');
51   model = await tf.loadLayersModel('indexeddb://my-model-heart');
52   //model = await tf.loadModel('tfjsversion/model.json');
53   model.summary();
54
55
56
57 }
58 loadmodel(); //呼叫載入模型函數
59
60

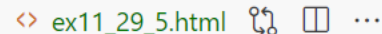
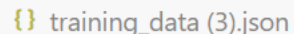
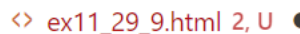
```







1129_hw11



```
<> ex11_29_9.html >  html >  body >  script >  on('value') callback
```

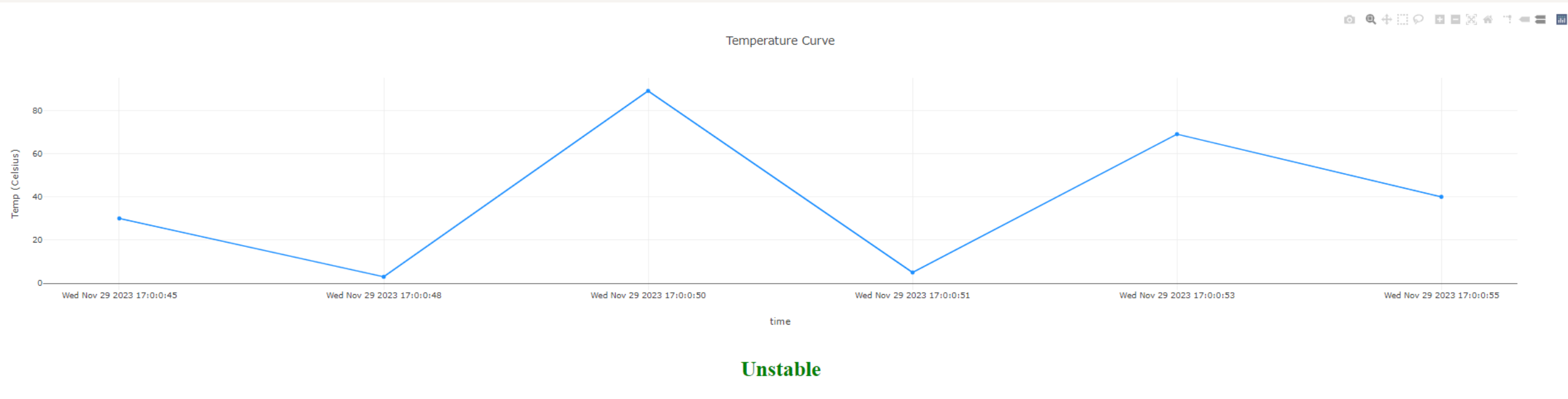
```

124     var inputtensor = tf.tensor([Normalize(Dataarray)]);
125     inputtensor.print();
126     var prediction = model.predict(inputtensor);
127     prediction.print();
128     // console.log(Array.from(prediction.dataSync()));
129     // console.log(prediction.dataSync()); //返回张量所包含的所有值的一维数组
130     // argmax will return embeddingL 0, 1 or 2, we need -1, 0 or 1 (left, no move, right) - decrement it and return
131     // also we actually need to flip that prediction, as ai plays on top (upside-down)
132     //return -(tf.argmax(prediction, 1).dataSync()-1);
133     // var result = tf.argmax(prediction, 1).dataSync();
134     var result =tf.argmax(prediction, 1).dataSync();
135     console.log(result);
136     if((result-1)<0)
137     {
138         document.getElementById("status").style.color="green";
139         document.getElementById("status").innerHTML = "Unstable";
140     }
141     else
142     {
143         document.getElementById("status").style.color="green";
144         document.getElementById("status").innerHTML = "Stable";
145     }
146
147     inputtensor.dispose();
148     prediction.dispose();
149
150
151
152

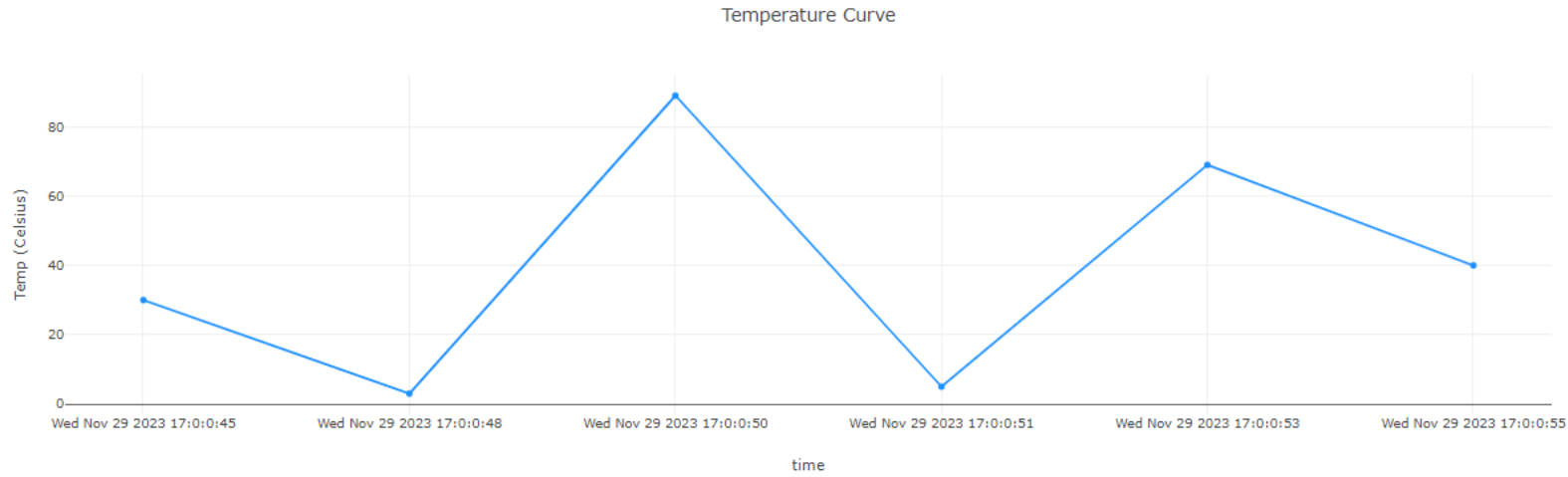
```



Result



Result



Unstable

DevTools is now available in Chinese!

Always match Chrome's language Switch DevTools to Chinese Don't show again

Elements Console Sources Network Performance Memory >> Filter Default levels No Issues 1 hidden

dense_Dense2 (Dense) [[null,64]] [null,64] tfjs:17

4160 tfjs:17

dropout_Dropout2 (Dropout) [[null,64]] [null,64] tfjs:17

0 tfjs:17

dense_Dense3 (Dense) [[null,64]] [null,3] tfjs:17

195 tfjs:17

===== tfjs:17

=====

Total params: 4803 tfjs:17

Trainable params: 4803 tfjs:17

Non-trainable params: 0 tfjs:17

===== tfjs:17

=====

ex11_29_9.html:86

{1701248324878: {...}, 1701248445276: {...}, 1701248448156: {...}, 1701248450091: {...}, 1701248451764: {...}, 1701248453685: {...}, 1701248455188: {...}}

▶ 1701248324878: {data: 24, time: 'Wed Nov 29 2023 16:58:58:44'}

▶ 1701248445276: {data: 30, time: 'Wed Nov 29 2023 17:0:0:45'}

▶ 1701248448156: {data: 3, time: 'Wed Nov 29 2023 17:0:0:48'}

▶ 1701248450091: {data: 89, time: 'Wed Nov 29 2023 17:0:0:50'}

▶ 1701248451764: {data: 5, time: 'Wed Nov 29 2023 17:0:0:51'}

▶ 1701248453685: {data: 69, time: 'Wed Nov 29 2023 17:0:0:53'}

▶ 1701248455188: {data: 40, time: 'Wed Nov 29 2023 17:0:0:55'}

▶ [[Prototype]]: Object

40 ex11_29_9.html:91

ex11_29_9.html:99

(6) ['Wed Nov 29 2023 17:0:0:45', 'Wed Nov 29 2023 17:0:0:48', 'Wed Nov 29 2023 17:0:0:50', 'Wed Nov 29 2023 17:0:0:51', 'Wed Nov 29 2023 17:0:0:53', 'Wed Nov 29 2023 17:0:0:55']

Tensor tfjs:17

[[-0.372093, -1, 1, -0.9534883, 0.5348837, -0.1395349],]

Tensor tfjs:17

[[0.66409, 0.3012458, 0.0346641],]

ex11_29_9.html:136

Int32Array [0, buffer: ArrayBuffer(4), byteLength: 4, byteOffset: 0, length: 1, Symbol(Symbol.toStringTag): 'Int32Array')]

>

Console What's New Issues