



JAVASCRIPT LIBRARIES, FRAMEWORKS, AND TOOLS

Bernard Suen
Center for Entrepreneurship
Chinese University of Hong Kong



Center for
Entrepreneurship

2019 CYBERPORT GBA BOOTCAMP

數碼港大灣區青年創業計劃

[https://
www.cyberport.hk/en/
cross-boundary-
programme](https://www.cyberport.hk/en/cross-boundary-programme)

數碼港 大灣區青年創業計劃

把握粵港澳大灣區機遇 領創新世代

提供全面的創業支援，讓粵港澳三地青年及創業家抓緊大灣區發展機遇，攜手合作實踐具潛力的數碼科技及商業項目，成就創業夢。

透過計劃，你可以：

- 免費參加創業營
- 廣結人脈，與粵港澳大灣區市場接軌，開拓龐大商機
- 加速項目落戶，享受大灣區創業支援
- 享受 1 對 1 創業諮詢服務，提升項目質素
- 尋找投資者及創業夥伴
- 獲得每項目港幣 10 萬種子基金*

*項目須得到數碼港創意微型基金(CCMF)錄取

協辦機構

廣東 澳門 香港

總值 港幣 100 萬 創業基金

截止日期 2019·11·01

計劃詳情及申請

創業營精彩內容包括：

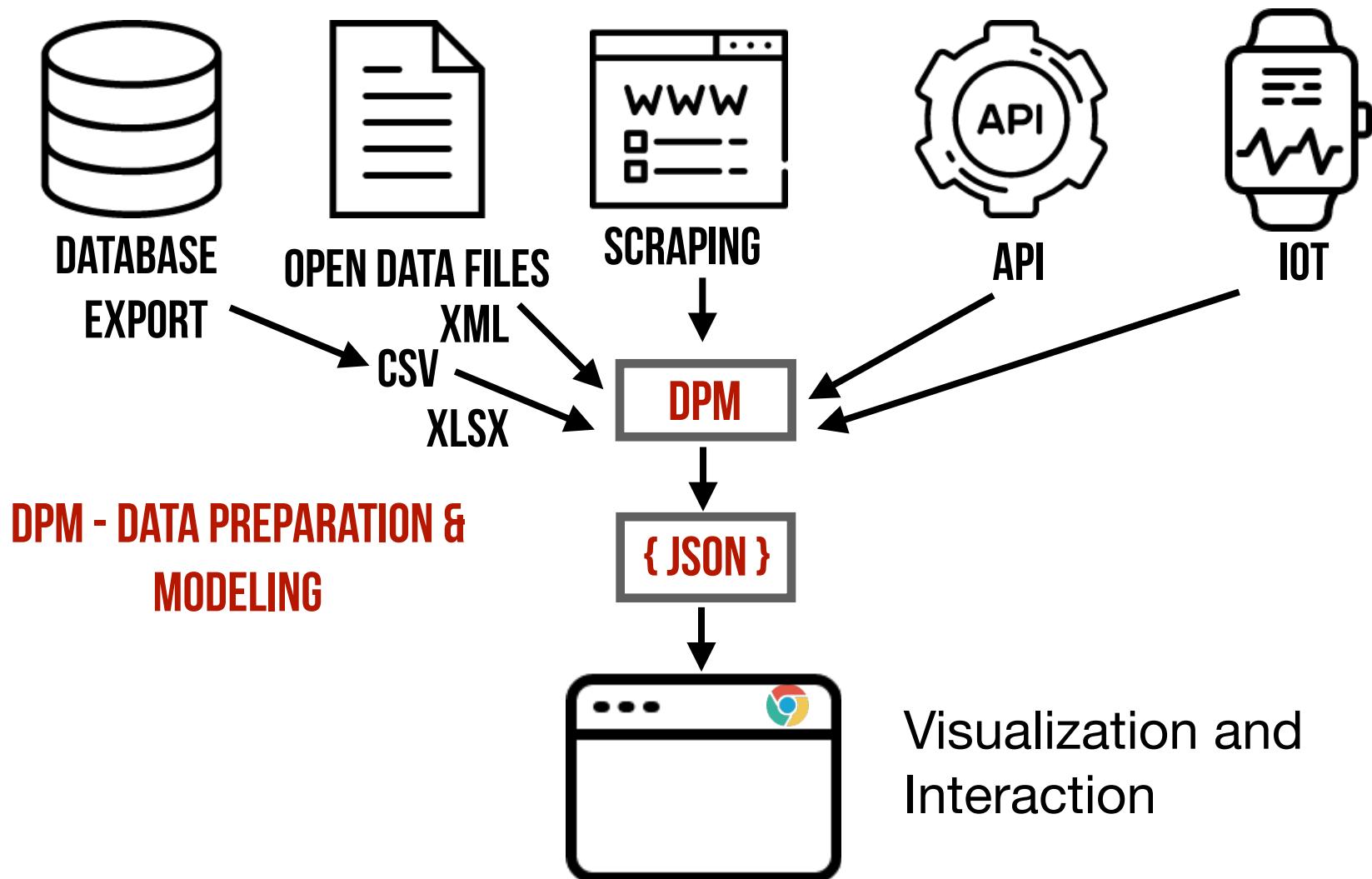
- 與 150+ 粵港澳青年一同激發創意
- 親身體驗創業過程，從零開始至完成產品開發
- 參觀騰訊深圳總部及企業交流
- 與粵港澳初創人對話，分享創業經驗

Table of Contents

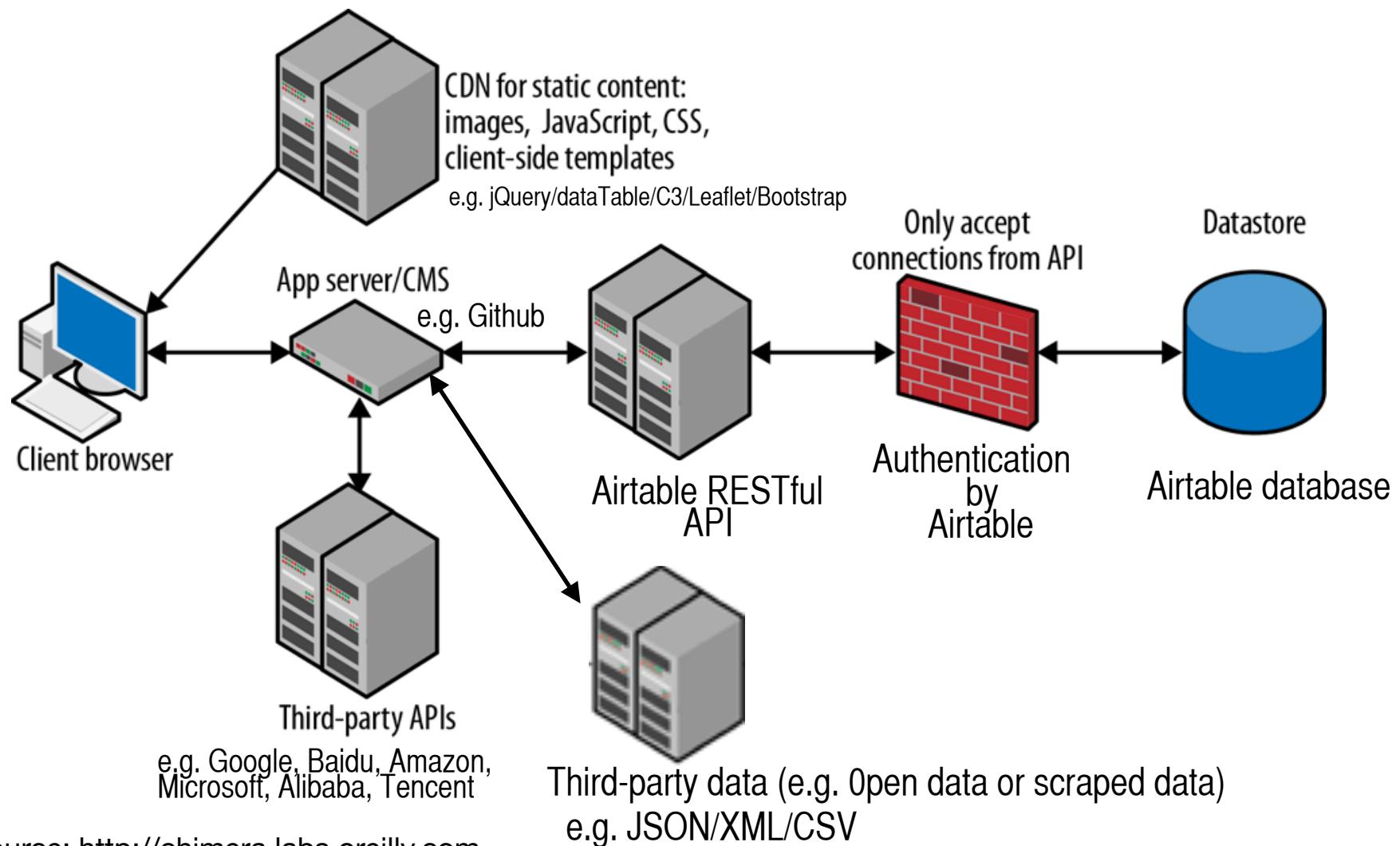
內容概要

1. **Mobile-first design using jQuery and Bootstrap.**
以jQuery及Bootstrap實踐移動為先的設計
2. **More jQuery and Bootstrap for making maps and charts with additional 3rd party libraries (e.g. C3D3 & Leaflet).**
用jQuery、Bootstrap及其他第三方代碼庫來製作圖表和地圖(e.g. C3D3 & Leaflet)

What have you been learning?
學習進度



TOOLS AND PACKAGES USED THROUGHOUT THE DATA CYCLE

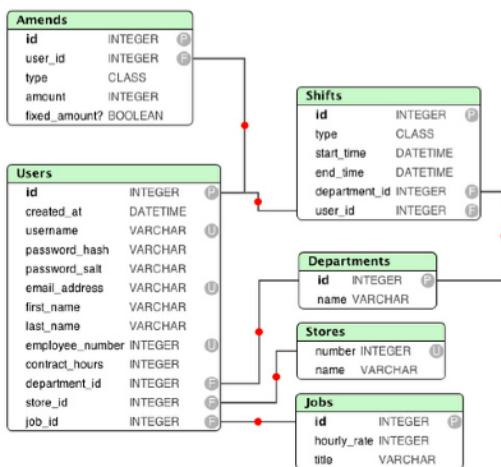


Source: <http://chimera.labs.oreilly.com>

Source: commons.wikimedia.org



Source: [Caius Durling \(Flickr\)](https://flickr.com)

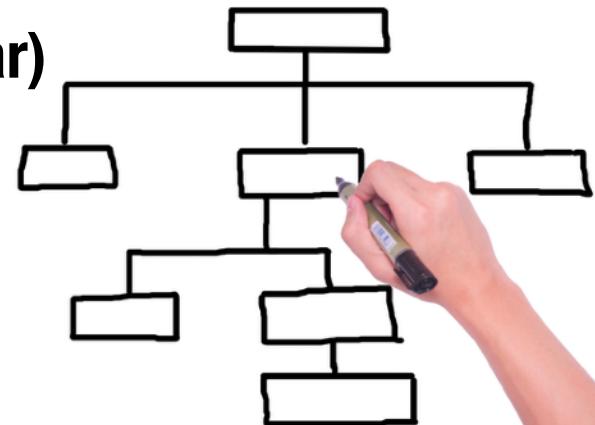


M(odel)
(e.g. table, relations, and formulas)

V(iew)
(e.g. Kanban, Calendar)

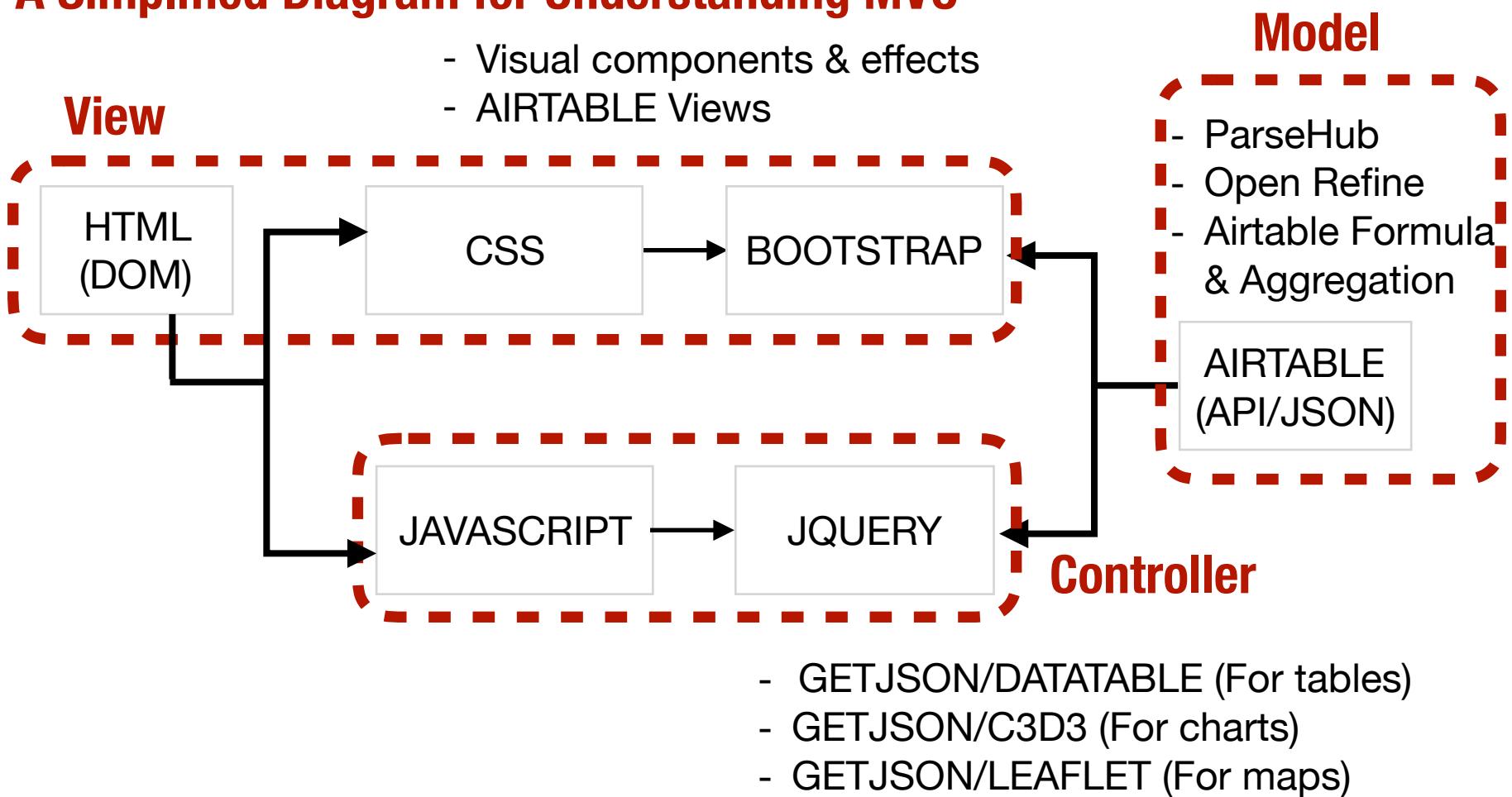
MVC MODEL

Source: pexels.com



C(ontroller)
(e.g. Sitemap, menu, navbar, and dashboard)

A Simplified Diagram for Understanding MVC



Mobile First Design Using jQuery and Bootstrap

以jQuery及Bootstrap實踐移動為先的設計

1. Single page app
單頁應用
2. Change the colour of the Bootstrap Navbar
更改Navbar顏色
3. Create a fixed footer
製作固定的HTML footer
4. Perform transition effect in CSS & Bootstrap
以CSS及Bootstrap製作過渡效果
5. Perform transition effect & sidebar in jQuery
以jQuery製作過渡效果和Sidebar
6. iFrame: Embedding web page objects
以iFrame嵌入其他網頁物件

A Single Page App

單頁應用

Bootstrap Templates & Themes

Free Bootstrap themes that are ready to customize and publish. All of our themes are built with Bootstrap 4, MIT licensed, and updated regularly!



SB Admin 2
A free Bootstrap admin theme



Creative
A one page creative theme



Agency
A one page agency theme



<https://startbootstrap.com/themes>



Start Bootstrap

THEMES ▾ TEMPLATES ▾ SNIPPETS LEARN ▾ RESOURCES

BLOG

Freelancer

A one page Bootstrap portfolio theme for freelancers featuring a flat design and a custom portfolio grid

The screenshot shows the 'Freelancer' theme on the Start Bootstrap website. The main header features a large, colorful 'S' logo followed by the text 'Start Bootstrap'. Below the header is a navigation bar with links for 'THEMES ▾', 'TEMPLATES ▾', 'SNIPPETS', 'LEARN ▾', and 'RESOURCES'. To the right of the navigation are links for 'BLOG', a blue 'Twitter' icon, and a black 'GitHub' icon. The main content area has a dark teal background. It features a circular profile picture of a smiling man, the text 'START BOOTSTRAP' in white, and a thin horizontal line with two stars. Below this is the text 'Graphic Artist - Web Designer - Illustrator'. At the bottom of the main content area is a white 'PORTFOLIO' section with a similar thin horizontal line and two stars. The footer contains a copyright notice: '© 2014 Start Bootstrap. All Rights Reserved.' and a link to 'View on GitHub'.

The sidebar on the right side of the page provides options for interacting with the theme. It includes a red button with a download icon and the text 'Free Download', a white button with a live preview icon and the text 'Live Preview', and another white button with a GitHub icon and the text 'View on GitHub'. A smaller box below these buttons encourages users to 'Get updates when Freelancer is improved!' and features a blue button with a Twitter icon and the text 'Follow @SBootstrap'. In the top right corner of the sidebar, there is a small circular badge with the number '4'.



START BOOTSTRAP

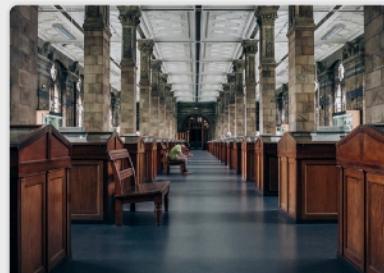


Graphic Artist - Web Designer - Illustrator

PORTFOLIO



Want to meet our team?

[Click here](#)[Filter](#) [Sort](#) ...

President's dining hall



Grand ballroom



Pearl room



Ruby room

Team

We are a group of skilled individuals.



John Doe

Developer



John Doe

Developer



John Doe

Developer

How does it work?

```
49 <div class="section">
50     <div class="container">
51         <div class="row">
52             <div class="col-md-12">
53                 <div class="jumbotron">
54                     <h1>Want to meet our team?</h1>
55                     <a href="#team" class="btn btn-primary btn-large">Click here</a>
56                 </div>
57             </div>
58         </div>
59     </div>
60 </div>
```

HTML

```
67 <div class="section" id="team">
68     <div class="container">
69         <div class="row">
70             <div class="col-md-12">
71                 <h1 class="text-center">Team</h1>
72                 <p class="text-center">We are a group of skilled individuals.</p>
73             </div>
74         </div>
75         <div class="row">
76             <div class="col-md-4">
77                 
79                 <h3 class="text-center">John Doe</h3>
80                 <p class="text-center">Developer</p>
81             </div>
```

CSS

```
pingendo_demo > # style.css > ...
1 html {
2     scroll-behavior: smooth;
3 }
```

HTML

Change the Colour of the Bootstrap Navbar

更改Navbar顏色



TWBSColor

Generate your own Bootstrap navbar

<https://work.smarchal.com/twbscolor/>

Select your colors

Default background



Active background



Default color



Active color



Colorize dropdown

Brand

Link

Link

Dropdown ▾

Search

Submit

Disabled

Dropdown ▾

Select your colors

Default background



Active background



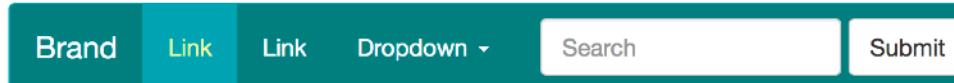
Default color



Active color



Colorize dropdown



```
.navbar-default {  
    background-color: #0b7d7e;  
    border-color: #05a1b0;  
}  
.navbar-default .navbar-brand {  
    color: #fbfeff;  
}  
.navbar-default .navbar-brand:hover,  
.navbar-default .navbar-brand:focus {  
    color: #f1f9ae;  
}  
.navbar-default .navbar-text {  
    color: #fbfeff;  
}  
.navbar-default .navbar-nav > li > a {  
    color: #fbfeff;  
}  
.navbar-default .navbar-nav > li > a:hover,  
.navbar-default .navbar-nav > li > a:focus {  
    color: #f1f9ae;  
}  
.navbar-default .navbar-nav > li > .dropdown-menu {  
    background-color: #0b7d7e;  
}  
.navbar-default .navbar-nav > li > .dropdown-menu > li > a {  
    color: #fbfeff;  
}  
.navbar-default .navbar-nav > li > .dropdown-menu > li > a:hover,  
.navbar-default .navbar-nav > li > .dropdown-menu > li > a:focus {  
    color: #f1f9ae;  
    background-color: #05a1b0;  
}  
.navbar-default .navbar-nav > li > .dropdown-menu > li.divider {  
    background-color: #05a1b0;  
}  
.navbar-default .navbar-nav .open .dropdown-menu > .active > a,  
.navbar-default .navbar-nav .open .dropdown-menu > .active > a:hover,
```

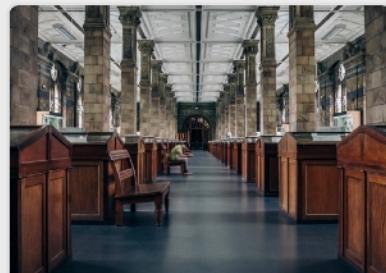
pingendo_demo > # style.css > ...

```
56 .navbar-default {  
57     background-color: #0b7d7e;  
58     border-color: #05a1b0;  
59 }  
60 .navbar-default .navbar-brand {  
61     color: #fbfeff;  
62 }  
63 .navbar-default .navbar-brand:hover,  
64 .navbar-default .navbar-brand:focus {  
65     color: #f1f9ae;  
66 }  
67 .navbar-default .navbar-text {  
68     color: #fbfeff;  
69 }  
70 .navbar-default .navbar-nav > li > a {  
71     color: #fbfeff;  
72 }  
73 .navbar-default .navbar-nav > li > a:hover,  
74 .navbar-default .navbar-nav > li > a:focus {  
75     color: #f1f9ae;
```

Want to meet our team?

[Click here](#)

Filter Sort ...



President's dining hall



Grand ballroom



Pearl room



Ruby room

Create a Fixed Footer

製作固定的HTML footer

```
14 #footer {  
15     position: fixed;  
16     left: 0;  
17     bottom: 0;  
18     width: 100%;  
19     background-color: ##007acc;  
20     color: white;  
21     text-align: center;  
22 }
```

CSS

```
<div id="footer" class="container">  
    <div class="row">  
        <div class="col-xs-3">  
            <i class="fa fa-3x fa-fw fa-home"></i>  
        </div>  
        <div class="col-xs-3">  
            <i class="fa fa-3x fa-bar-chart fa-fw"></i>  
        </div>  
        <div class="col-xs-3">  
            <i class="fa fa-3x fa-calendar fa-fw"></i>  
        </div>  
        <div class="col-xs-3">  
            <i class="fa fa-3x fa-fw fa-map-marker"></i>  
        </div>  
    </div>  
</div>
```

HTML

The screenshot shows a web page from w3schools.com. At the top, there's a navigation bar with links for Home, HTML, CSS, JAVASCRIPT, SQL, PYTHON, PHP, BOOTSTRAP, HOW TO (which is highlighted in green), and MORE. On the left, a sidebar lists various CSS topics like Star Rating, User Rating, Overlay Effect, etc., with 'Fixed Footer' also highlighted in green. The main content area has a title 'How TO - Fixed Footer'. Below it is a 'Previous' button. A text block says 'Learn how to create a fixed/sticky footer with CSS.' A section titled 'Fixed/Sticky Footer Example' contains text about the footer being at the bottom of the page and a red 'Footer' box. A 'Try it Yourself' button is at the bottom of this section. To the right, there's a sidebar with 'Most Visited' and 'Getting Started' sections, followed by a 'Dashboard' section with 'Users', 'Gifts', and 'Messages' items, and a 'Reminder' section with a lorem ipsum text. At the very bottom, there's a blue footer bar with icons for Home, Charts, Calendar, and Location.

How TO - Fixed Footer

◀ Previous

Learn how to create a fixed/sticky footer with CSS.

Fixed/Sticky Footer Example

The footer is placed at the bottom of the page.

Footer

Try it Yourself »

Slide me left.

https://www.w3schools.com/howto/howto_css_fixed_footer.asp

Perform Transition Effect in CSS & Bootstrap

以CSS及Bootstrap製作過渡效果

 Dashboard

Users



Gifts



Messages

 Reminder

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec pharetra non ipsum quis tempor. Etiam dignissim turpis in felis pulvinar aliquet. Proin eu semper neque. Quisque auctor orci felis, consectetur varius eros pretium nec. Suspendisse vitae enim sit amet justo bibendum efficitur in a dolor. Aenean convallis vulputate risus, sed interdum mauris interdum sit amet. Vestibulum nisi lacus, fermentum auctor rutrum a, commodo ut justo. Morbi porttitor tincidunt nunc non feugiat.

Slide me left.

https://www.w3schools.com/cssref/css3_pr_animation-keyframes.asp



Team

We are a group of skilled individuals.



John Doe

Developer



John Doe

Developer



John Doe

Developer



```
.section.wipe {  
    animation: transitionIn 0.75s;  
}  
  
@keyframes transitionIn {  
    from {  
        opacity: 0;  
        transform: translateX(100%);  
    }  
  
    to {  
        opacity: 1;  
        transform: translateX(0);  
    }  
}
```

CSS

[https://www.youtube.com/
watch?v=zWB219zf1og](https://www.youtube.com/watch?v=zWB219zf1og)

```
<div class="section wipe">  
    <div class="container">  
        <div class="row">  
            <div class="col-md-12">  
                <h1 class="text-center">Team</h1>  
                <p class="text-center">We are a group of skilled  
                    </div>  
    </div>
```

HTML

Bootstrap Collapsible Panel

 Dashboard

Users



Gifts



Messages



 Reminder

<https://www.tutorialspoint.com/Bootstrap-Collapsible-panel>



Dashboard

Users



Gifts



Messages



Reminder

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec pharetra non ipsum quis tempor. Etiam dignissim turpis in felis pulvinar aliquet. Proin eu semper neque. Quisque auctor orci felis, consectetur varius eros pretium nec. Suspendisse vitae enim sit amet justo bibendum efficitur in a dolor. Aenean convallis vulputate risus, sed interdum mauris interdum sit amet. Vestibulum nisi lacus, fermentum auctor rutrum a, commodo ut justo. Morbi porttitor tincidunt nunc non feugiat.



HTML

```
<div class="panel panel-primary">
  <div class="panel-heading">
    <h3 class="panel-title">
      <i class="fa fa-fw fa-lg fa-paperclip"></i>Reminder
    </h3>
    <a data-toggle="collapse" href="#target">
      /a>
    </div>

    <div class="panel-body dashboard">
      <p contenteditable="true">Lorem ipsum dolor sit amet, consectetur
        non ipsum quis tempor. Etiam dignissim turpis in felis posuere
        Proin eu semper neque. Quisque auctor orci felis, consectetur
        pretium nec. Suspendisse vitae enim sit amet justo bibendum.
        a dolor. Aenean convallis vulputate risus, sed interdum i
        sit amet. Vestibulum nisi lacus, fermentum auctor rutrum
        justo. Morbi porttitor tincidunt nunc non feugiat.</p>
    </div>
```

HTML

```
<div class="panel panel-primary">
  <div class="panel-heading">
    <h3 class="panel-title">
      <a data-toggle="collapse" href="#target">
        <i class="fa fa-fw fa-lg fa-paperclip"></i>Reminder</a>
      </a>
    </h3>
    <a data-toggle="collapse" href="#target">
      </div>
      <div class="panel-collapse collapse" id="target">
        <div class="panel-body dashboard">
          <p contenteditable="true">Lorem ipsum dolor sit amet, consec-
            non ipsum quis tempor. Etiam dignissim turpis in felis p
            Proin eu semper neque. Quisque auctor orci felis, consec-
            pretium nec. Suspendisse vitae enim sit amet justo biben-
            a dolor. Aenean convallis vulputate risus, sed interdum i
            sit amet. Vestibulum nisi lacus, fermentum auctor rutrum
            justo. Morbi porttitor tincidunt nunc non feugiat.</p>
        </div>
      </div>
    </a>
```

Perform Transition Effect in jQuery

以jQuery製作過渡效果

 Dashboard

Users	
Gifts	
Messages	

Panel title


13


2


1

Move me to the left.

<https://jqueryui.com/effect/>

 Dashboard

Users	 13
Gifts	 2
Messages	 1

Panel title


13


2


1

HTML/JS

```
<div class="section">
  <div class="container">
    <div class="box">Move me to the left.</div>
  </div>
</div>
<script>
  $( document ).click(function() {
    |   $(".box").toggle( "slide" );
  });
</script>
```

Sidebar Menu Effect in jQuery

以jQuery製作Sidebar

[Dashboard](#)[Shortcuts](#)[Overview](#)[Events](#)[Profile](#)[Status](#)

Simple Sidebar

The starting state of the menu will appear collapsed on smaller screens, and will appear non-collapsed on larger screens. When toggled using the button below, the menu will change.

Make sure to keep all page content within the `#page-content-wrapper`. The top navbar is optional, and just for demonstration. Just create an element with the `#menu-toggle` ID which will toggle the menu when clicked.

<https://github.com/BlackrockDigital/startbootstrap-simple-sidebar>

HTML

```
<div class="navbar navbar-default navbar-static-top">
  <div class="container">
    <div class="navbar-header">
      <a class="navbar-brand" href="#menu-toggle" id="menu-toggle"><span><i class="fa fa-fw fa-lg fa-navicon"></i></span></a>
    </div>
  </div>
</div>
```

HTML

```
<div id="wrapper">
  <!-- Sidebar -->
  <div id="sidebar-wrapper">
    <ul class="sidebar-nav">
      <li class="sidebar-brand">
        <a href="#">
          Start Bootstrap
        </a>
      </li>
      <li>
        <a href="#">Dashboard</a>
      </li>
      <li>
        <a href="#">Shortcuts</a>
      </li>
      <li>
        <a href="#">Overview</a>
      </li>
    </ul>
  </div>
<div id="page-content-wrapper">
  <div class="container-fluid">
    <div class="row">
      <div class="col-lg-12">
        <h1>Simple Sidebar</h1>
        <p>This template has a responsive menu toggling system. It is collapsed on smaller screens, and will appear normal on larger screens. When toggled using the button below, the menu will slide out onto the right side of the page. On small screens, the page content will be pushed off to the right as well. Make sure to keep all page content within the #page-content-wrapper.</p>
      </div>
    </div>
  </div>
</div>
```

HTML

JS

```
<!-- Menu Toggle Script -->
<script>
  $("#menu-toggle").click(function(e) {
    e.preventDefault();
    $("#wrapper").toggleClass("toggled");
  });
</script>
```

CSS

```
/* Sidebar */
#sidebar-wrapper {
  margin-top: 0px;
  z-index: 1;
  position: absolute;
  width: 0;
  height: 100%;
  overflow-y: hidden;
  background: #2C3E50;
  border: 2px solid red;
  opacity: 0.9;
}
```



Start Bootstrap

Dashboard

Shortcuts

Overview

Simple Sidebar

This template has a responsive menu toggling system. The menu will appear collapsed on smaller screens, and will appear non-collapsed on larger screens. When toggled using the button below, the menu will appear/disappear. On small screens, the page content will be pushed off canvas.

Make sure to keep all page content within the `#page-content-wrapper`.

iFrame: Embedding web page objects

以iFrame嵌入其他網頁物件

Iframe example
A PEN BY George Bora



Sign Up

Log In

HTML

```
1 <header>
2   Geroge
3 </header>
4
5 <div>
6 (your local weather)
7 </div>
8
9 <iframe src="http://www.weather.gov/"
  frameborder="0">
10 </iframe>
```

CSS

```
1 body {
2   background: black;
3   color:red;
4 }
5
6 header, div {
7   text-align:center;
8 }
9
10 header {
11   font-size:40px;
12   font-weight: 600;
13 }
14
15 iframe {
16   display:block;
17   margin-top: 20px;
18   margin-left: 200px;
19   width:850px;
20   height:300px;
21 }
```

JS

```
1
```

Geroge
(your local weather)



NATIONAL WEATHER SERVICE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Console Assets Comments ⌂ Shortcuts Embed Export Share

<https://codepen.io/GBora/pen/VLYyzY>

C3D3 and Airtable Integration in GetJSON

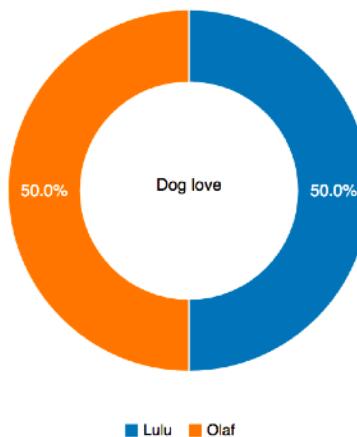
以GetJSON結合C3D3和Airtable來製作圖表

Jocellyn's Blog

Simple charts with C3 - in 5 minutes!

This article aims to explain how to use a cool library called [C3](#) for building simple charts. C3 is a javascript library which builds on top of [famous D3](#). You can find plenty of good sources (online or printed) on how to learn D3 and make complex visualizations with it, but for many people, these would be too advanced. Often you just need to add a [simple graph to a webpage](#) to show some statistics - a scatter plot or a bar chart.

C3 allows you to do just that without knowing all the complexity of D3 because it wraps all you need into a simple API. You do not need to handle the SVG elements manually, nor the hover effects, etc. The final result could look like this:



<http://jocellyn.cz/2014/07/25/simple-charts-with-c3.html>

Chart

Line Chart

Line chart with sequential data.

[View details »](#)

Simple XY Line Chart

Simple line chart with custom x.

[View details »](#)

Step Chart

Display as Step Chart.

[View details »](#)

Bar Chart

Display as Bar Chart

[View details »](#)

Timeseries Chart

Simple line chart with timeseries data.

[View details »](#)

Multiple XY Line Chart

Multiple line chart with multiple custom x.

[View details »](#)

Area Chart

Display as Area Chart.

[View details »](#)

Stacked Bar Chart

Display as Stacked Bar Chart.

[View details »](#)

Spline Chart

Display as Spline Chart.

[View details »](#)

Line Chart with Regions

Set regions for each data with style.

[View details »](#)

Stacked Area Chart

Display as Stacked Area Chart.

[View details »](#)

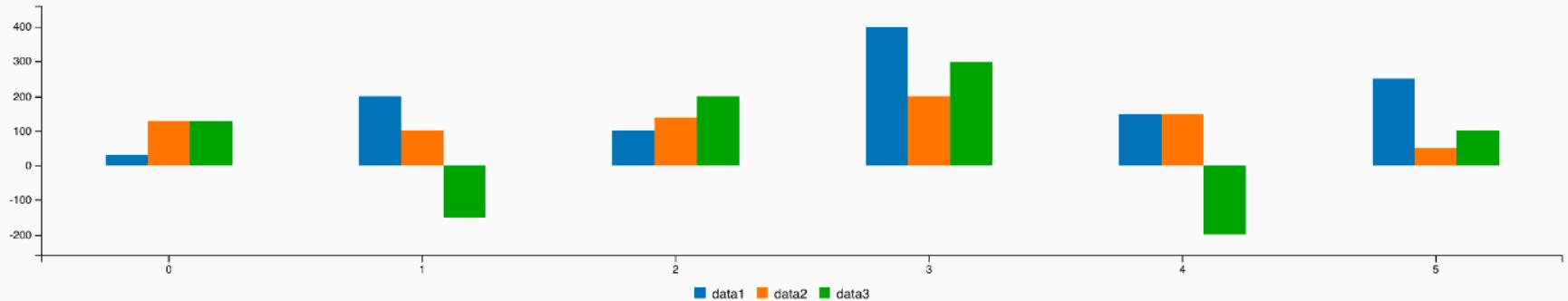
Scatter Plot

Display as Scatter Plot.

[View details »](#)

<https://c3js.org/examples.html#chart>

Bar Chart



```
# chart_bar.js
```

```
var chart = c3.generate({
  data: {
    columns: [
      ['data1', 30, 200, 100, 400, 150, 250],
      ['data2', 130, 100, 140, 200, 150, 50]
    ],
    type: 'bar'
  },
  bar: {
    width: {
      ratio: 0.5 // this makes bar width 50% of length between ticks
    }
  }
})
```

https://c3js.org/samples/chart_bar.html

[Home page](#)

[Airtable GetJSON](#)

Airtable GetJSON

Airtable API Demo

Using jQuery getJSON and
Airtable API for fun!

Airtable is a wonderful spreadsheet-like database with many useful features for data modeling and basic analytics. When used with other data visualization libraries, it can be a great tool for rapid prototyping

[Show Table](#)

[Show Total](#)

Show Total

Show 10 entries

Search:

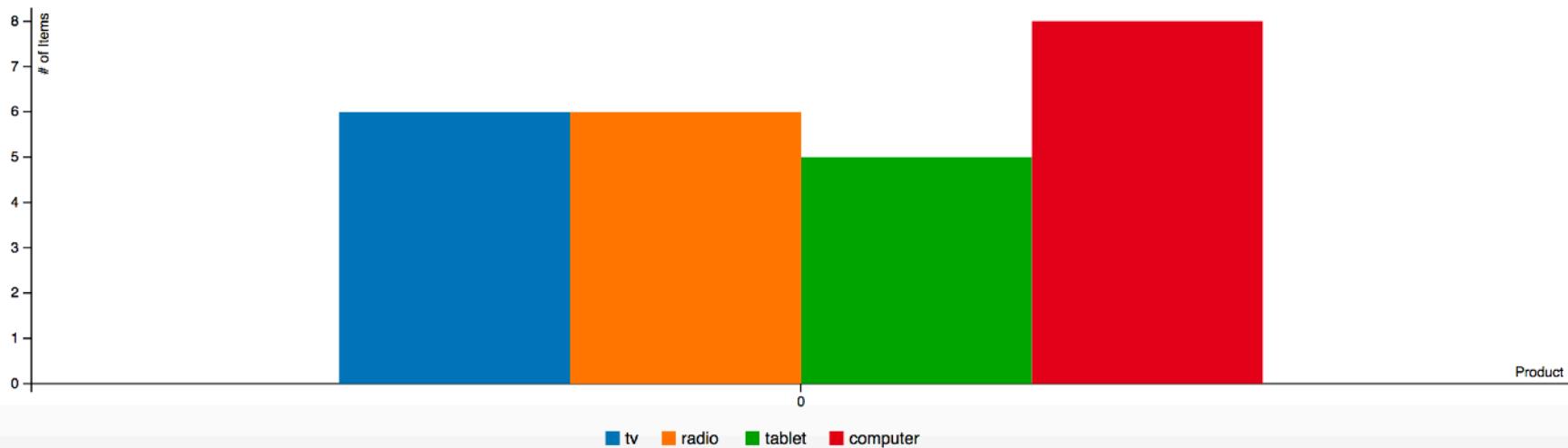
Product	Total Amount
computer	8
radio	6
tablet	5
tv	6

Showing 1 to 4 of 4 entries

Previous

1

Next



Using JS Array and GetJSON to Obtain Airtable API Data

以JS Array和GetJSON結合C3D3和Airtable API數據

Airtable GetJSON

Airtable API Demo

Using jQuery getJSON and
Airtable API for fun!

Airtable is a wonderful spreadsheet-like database with many useful features for data modeling and basic analytics. When used with other data visualization libraries, it can be a great tool for rapid prototyping

Show Table

Show 10 entries

Search:

Company ↴	Product ↴	Number ↴	Geo Code ↴	JSON	↪	Gender ↴	Name
Akzo	tv	12	Leeuwardenweg 179, arnhem, the netherlands	http://maps.googleapis.com/maps/api/geocode/json? sensor=false&address=Leeuwardenweg+179%2C+arnhem%2C+the+netherlands	↪	m	p. vanser
Akzo	radio	34	Leeuwardenweg 181, arnhem, the netherlands	http://maps.googleapis.com/maps/api/geocode/json? sensor=false&address=Leeuwardenweg+181%2C+arnhem%2C+the+netherlands	↪	m	p. jansse
Akzo	tv	43	Leeuwardenweg 178, arnhem, the netherlands	http://maps.googleapis.com/maps/api/geocode/json? sensor=false&address=Leeuwardenweg+178%2C+arnhem%2C+the+netherlands	↪	m	p. bansei
Akzo	tablet	9	Leeuwardenweg 183, arnhem, the netherlands	http://maps.googleapis.com/maps/api/geocode/json? sensor=false&address=Leeuwardenweg+183%2C+arnhem%2C+the+netherlands	↪	f	l. lokken

How does it work - getting Airtable data into JQuery DataTable?

Javascript sourced data

Using DataTables

Examples

[Basic initialisation](#)[Advanced initialisation](#)[Styling](#)

Data sources

[API](#)[Ajax](#)[Server-side](#)[Plug-ins](#)

Manual

Reference

Extensions

Plug-ins

[More Help](#)

Blog

Forums

Support

FAQs

At times you will wish to be able to create a table from dynamic information passed directly to DataTables, rather than having it read from the document. This is achieved using the `data Option` in the initialisation object, passing in an array of data to be used (like all other DataTables handled data, this can be arrays or objects using the `columns.data Option`).

A `table Tag` must be available on the page for DataTables to use. This examples shows an empty `table Tag` element being initialised as a DataTable with a set of data from a Javascript array. The columns in the table are dynamically created based on the `columns.title Option` configuration option.

Show `10` entries

Search:

Name	Position	Office	Extn.	Start date	Salary
Airi Satou	Accountant	Tokyo	5407	2008/11/28	\$162,700
Angelica Ramos	Chief Executive Officer (CEO)	London	5797	2009/10/09	\$1,200,000
Ashton Cox	Junior Technical Author	San Francisco	1562	2009/01/12	\$86,000
Bradley Greer	Software Engineer	London	2558	2012/10/13	\$132,000
Brenden Wagner	Software Engineer	San Francisco	1314	2011/06/07	\$206,850
Brielle Williamson	Integration Specialist	New York	4804	2012/12/02	\$372,000

https://datatables.net/examples/data_sources/js_array.html

Get DataTables

[Download](#)

[Purchase](#)

Caesar Vance	Pre-Sales Support	New York	8330	2011/12/12	\$106,450
Cedric Kelly	Senior Javascript Developer	Edinburgh	6224	2012/03/29	\$433,060
Charde Marshall	Regional Director	San Francisco	6741	2008/10/16	\$470,600
Colleen Hurst	Javascript Developer	San Francisco	2360	2009/09/15	\$205,500

Showing 1 to 10 of 36 entries

Previous 1 2 3 4 Next

[Javascript](#) [HTML](#) [CSS](#) [Comments \(0\)](#)

The Javascript shown below is used to initialise the table shown in this example:

```

1 var dataSet = [
2   [ "Tiger Nixon", "System Architect", "Edinburgh", "5421", "2011/04/25", "$320,800" ],
3   [ "Garrett Winters", "Accountant", "Tokyo", "8422", "2011/07/25", "$170,750" ],
4   [ "Ashton Cox", "Junior Technical Author", "San Francisco", "1562", "2009/01/12", "$86,000" ],
5   [ "Cedric Kelly", "Senior Javascript Developer", "Edinburgh", "6224", "2012/03/29", "$433,000" ],
6   [ "Airi Satou", "Accountant", "Tokyo", "5407", "2008/11/28", "$162,700" ],
7   [ "Brielle Williamson", "Integration Specialist", "New York", "4804", "2012/12/02", "$372,000" ],
8   [ "Herrod Chandler", "Sales Assistant", "San Francisco", "9608", "2012/08/06", "$137,500" ],
9   [ "Rhona Davidson", "Integration Specialist", "Tokyo", "6200", "2010/10/14", "$327,900" ],
10  [ "Colleen Hurst", "Javascript Developer", "San Francisco", "2360", "2009/09/15", "$205,500" ],
11  [ "Sonya Frost", "Software Engineer", "Edinburgh", "1667", "2008/12/13", "$103,600" ],
12  [ "Jena Gaines", "Office Manager", "London", "3814", "2008/12/19", "$90,560" ],
13  [ "Quinn Flynn", "Support Lead", "Edinburgh", "9497", "2013/03/03", "$342,000" ],
14  [ "Charde Marshall", "Regional Director", "San Francisco", "6741", "2008/10/16", "$470,600" ],
15  [ "Haley Kennedy", "Senior Marketing Designer", "London", "3597", "2012/12/18", "$313,500" ],
16  [ "Tatyana Fitzpatrick", "Regional Director", "London", "1965", "2010/03/17", "$385,750" ],
17  [ "Michael Silva", "Marketing Designer", "London", "1581", "2012/11/27", "$198,500" ],
18  [ "Paul Byrd", "Chief Financial Officer (CFO)", "New York", "3059", "2010/06/09", "$725,000" ],
19  [ "Gloria Little", "Systems Administrator", "New York", "1721", "2009/04/10", "$237,500" ],
20  [ "Bradley Greer", "Software Engineer", "London", "2558", "2012/10/13", "$132,000" ],
21  [ "Dai Rios", "Personnel Lead", "Edinburgh", "2298", "2012/09/26", "$217,500" ],
22  [ "Jenette Caldwell", "Development Lead", "New York", "1937", "2011/09/03", "$345,000" ],
23  [ "Yuri Berry", "Chief Marketing Officer (CMO)", "New York", "6154", "2009/06/25", "$675,000" ],
24  [ "Caesar Vance", "Pre-Sales Support", "New York", "8330", "2011/12/12", "$106,450" ],
25  [ "Doris Wilder", "Sales Assistant", "Sydney", "3023", "2010/09/20", "$85,600" ],
26  [ "Angelica Ramos", "Chief Executive Officer (CEO)", "London", "5797", "2009/10/09", "$1,200,000" ],
27  [ "Gavin Joyce", "Developer", "Edinburgh", "8822", "2010/12/22", "$92,575" ],

```

https://datatables.net/examples/data_sources/js_array.html

```

8      [ "Herrod Chandler", "Sales Assistant", "San Francisco", "9608", "2012/08/06", "$137,500" ],
9      [ "Rhona Davidson", "Integration Specialist", "Tokyo", "6200", "2010/10/14", "$327,900" ],
10     [ "Colleen Hurst", "Javascript Developer", "San Francisco", "2360", "2009/09/15", "$205,500" ],
11     [ "Sonya Frost", "Software Engineer", "Edinburgh", "1667", "2008/12/13", "$103,600" ],
12     [ "Jena Gaines", "Office Manager", "London", "3814", "2008/12/19", "$90,560" ],
13     [ "Quinn Flynn", "Support Lead", "Edinburgh", "9497", "2013/03/03", "$342,000" ],
14     [ "Charde Marshall", "Regional Director", "San Francisco", "6741", "2008/10/16", "$470,600" ],
15     [ "Haley Kennedy", "Senior Marketing Designer", "London", "3597", "2012/12/18", "$313,500" ],
16     [ "Tatyana Fitzpatrick", "Regional Director", "London", "1965", "2010/03/17", "$385,750" ],
17     [ "Michael Silva", "Marketing Designer", "London", "1581", "2012/11/27", "$198,500" ],
18     [ "Paul Byrd", "Chief Financial Officer (CFO)", "New York", "3059", "2010/06/09", "$725,000" ],
19     [ "Gloria Little", "Systems Administrator", "New York", "1721", "2009/04/10", "$237,500" ],
20     [ "Bradley Greer", "Software Engineer", "London", "2558", "2012/10/13", "$132,000" ],
21     [ "Dai Rios", "Personnel Lead", "Edinburgh", "2290", "2012/09/26", "$217,500" ],
22     [ "Janette Caldwell", "Development Lead", "New York", "1937", "2011/09/03", "$345,000" ],
23     [ "Yuri Berry", "Chief Marketing Officer (CMO)", "New York", "6154", "2009/06/25", "$675,00" ],
24     [ "Caesar Vance", "Pre-Sales Support", "New York", "8330", "2011/12/12", "$106,450" ],
25     [ "Doris Wilder", "Sales Assistant", "Sydney", "3023", "2010/09/20", "$85,600" ],
26     [ "Angelica Ramos", "Chief Executive Officer (CEO)", "London", "5797", "2009/10/09", "$1,20" ],
27     [ "Gavin Joyce", "Developer", "Edinburgh", "8822", "2010/12/22", "$92,575" ],
28     [ "Jennifer Chang", "Regional Director", "Singapore", "9239", "2010/11/14", "$357,650" ],
29     [ "Brenden Wagner", "Software Engineer", "San Francisco", "1314", "2011/06/07", "$206,850" ],
30     [ "Fiona Green", "Chief Operating Officer (COO)", "San Francisco", "2947", "2010/03/11", "$" ],
31     [ "Shou Itou", "Regional Marketing", "Tokyo", "8899", "2011/08/14", "$163,000" ],
32     [ "Michelle House", "Integration Specialist", "Sydney", "2769", "2011/06/02", "$95,400" ],
33     [ "Suki Burks", "Developer", "London", "6832", "2009/10/22", "$114,500" ],
34     [ "Prescott Bartlett", "Technical Author", "London", "3606", "2011/05/07", "$145,000" ],
35     [ "Gavin Cortez", "Team Leader", "San Francisco", "2860", "2008/10/26", "$235,500" ],
36     [ "Martena Mccray", "Post-Sales support", "Edinburgh", "8240", "2011/03/09", "$324,050" ],
37     [ "Unity Butler", "Marketing Designer", "San Francisco", "5384", "2009/12/09", "$85,675" ],
38   ];
39
40 $(document).ready(function() {
41   $('#example').DataTable( {
42     data: dataSet,
43     columns: [
44       { title: "Name" },
45       { title: "Position" },
46       { title: "Office" },
47       { title: "Extn." },
48       { title: "Start date" },
49       { title: "Salary" }
50     ]
51   } );
52 });

```

https://datatables.net/examples/data_sources/js_array.html

```
17
18     $("button#get_data").click(function() {
19         var items = [];
20         var i = 0;
21         var airtable_read_endpoint = "https://api.airtable.com/v0/appKIU0zkdhT3";
22         var dataSet = [];
23         $.getJSON(airtable_read_endpoint, function(result) {
24             $.each(result.records, function(key,value) {
25                 items = [];
26                 items.push(value.fields.company);
27                 items.push(value.fields.product_code);
28                 items.push(value.fields.product_no);
29                 items.push(value.fields.geocode2);
30                 items.push(value.fields.json);
31                 items.push(value.fields.gender);
32                 items.push(value.fields.name);
33                 dataSet.push(items);
34                 console.log(items);
35             }); // end .each
36             console.log(dataSet);
37
```

JS

```
$('#table1').DataTable( {  
    data: dataSet,  
    retrieve: true,  
    columns: [  
        { title: "Company",  
            defaultContent:""},  
        { title: "Product",  
            defaultContent:""},  
        { title: "Number",  
            defaultContent:""},  
        { title: "Geo Code",  
            defaultContent:""},  
        { title: "JSON",  
            defaultContent:""},  
        { title: "Gender",  
            defaultContent:""},  
        { title: "Name",  
            defaultContent:""},  
    ]  
} );  
}); // end .getJSON  
}); // end button
```

```
<button type="button" class="btn btn-warning" id='get_data'>Show Table</button><br>  
<div class="table-responsive">  
| | | <table id="table1" width="100%" class="table table-bordered"></table>  
</div><!-- table responsive -->  
<button type="button" class="btn btn-warning" id='get_data2'>Show Total</button><br>  
<div class="table-responsive">  
| | | <table id="table2" width="100%" class="table table-bordered"></table>  
</div><!-- table responsive -->
```

HTML

The same logic can be applied to C3D3.

```


><p id="demo">Airtable is a wonderful spreadsheet-like
  <br/>!-- Sign and date the page, it's only polite! -->
  <button type="button" class="btn btn-warning" id='get_data'>Show Table</
  <div class="table-responsive">
    <table id="table1" width="100%" class="table table-bordered"></tab
  /div><!-- table responsive -->
  <button type="button" class="btn btn-warning" id='get_data2'>Show Total<
  <div class="table-responsive">
    <table id="table2" width="100%" class="table table-bordered"></tab
  /div><!-- table responsive -->
  <div id="chart"></div>


```

HTML

JS

```

$.getJSON(airtable_read_endpoint, function(result) {
  $.each(result.records, function(key,value) {
    items = [];
    items.push(value.fields.Name);
    items.push(value.fields.total_items_by_catego
  }); // end .each
  console.log(dataSet);

  $('#table2').DataTable( {
    data: dataSet,
    retrieve: true,
    columns: [
      { title: "Product",
        defaultContent:""},,
      { title: "Total Amount",
        defaultContent:"" },
    ]
  });
}

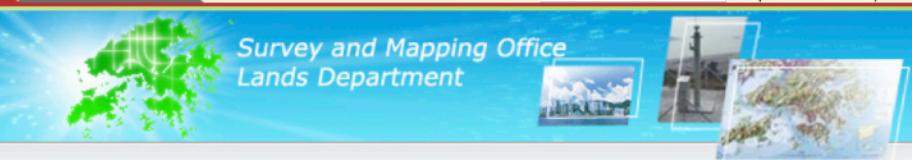
var chart = c3.generate({
  data: {
    columns: dataSet,
    type : 'bar'
  },
  axis: {
    x: {label: 'Product'},
    y: {label: '# of Items'}
  },
  bar: {
    title: "# of Items by Product Category:",
  }
}

```

GEODATA MAPPING



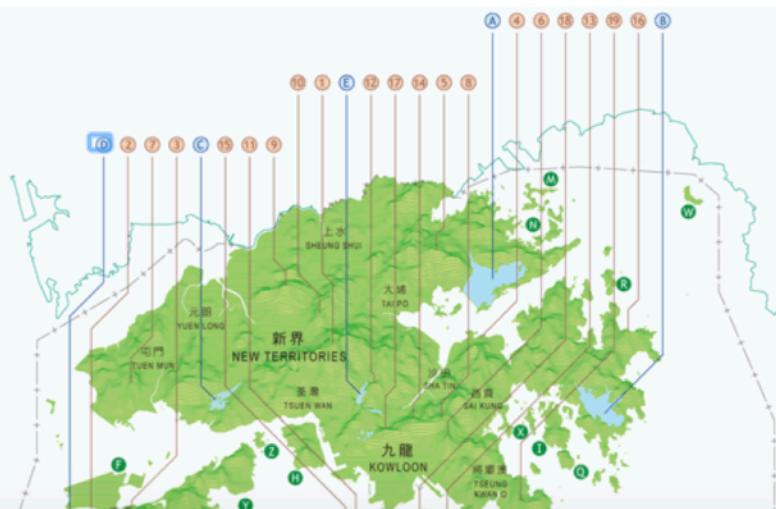
- Lands Department Home
- SMO Home
- What's New
- About SMO
- Maps and Services
- Geodetic Survey
- Satellite Positioning Reference Station Data Services
- GeoInfo Map
- Hong Kong GeoData Store
- Metadata
- LSO Corner
- Practice Notes and Publications
- Download Area
- Public Forms
- Links
- Contact SMO



Practice Notes and Publications

Publications

Hong Kong Geographic Data



<https://www.landsd.gov.hk/mapping/en/publications/district.htm>

HONG KONG GEODATA STORE

CSDI Portal (alpha version)

—

a public platform for exploring and downloading open spatial data

Find dataset



Explore all datasets

2

<https://geodata.gov.hk/gs/>



Explore all datasets

Explore Categories



Community
and Social
Welfare



Education



Environment



Government



Health



Land
Information



Recreation
and Culture



Sports



Technology



Transport



All



GeoData Query API

Query and retrieve spatial data

DATA PROVIDERS

DATA CATEGORIES

SEARCH

衛生
Health

Clinics / Health Centres under the Department of Health
衛生署轄下的診所及健康中心

Department of Health
Last Update: 2 Sep 2019
Last Review: 16 Oct 2019

General Outpatient Clinics under The Hospital Authority
醫院管理局轄下的普通科門診診所

Hospital Authority
Last Update: 22 Jan 2019
Last Review: 16 Oct 2019

Health Education Exhibition and Resource Centre
衛生教育展覽及資料中心

Food and Environmental Hygiene Department

2

Clinics / Health Centres under the Department of Health

[中文](#)


Showing 1 - 50 of 204 Record(s) ►

[API](#)

[Download Dataset ▾](#)



Dataset	數據集	Facility	Name	設施名稱	Address	地址	Category	類別	District	地區	Opening Hours	開放時間	Telephone
1	Clinics / Health Centres under the Department of Health	衛生署轄下的診所及健康中心	Aberdeen Elderly Health Centre	香港仔長者健康中心	G/F, Block B, Aberdeen Jockey Club Clinic, 10 Aberdeen Reservoir Road, Aberdeen, Hong Kong	香港仔水塘道10號香港仔賽馬會診所B座地下	ELDERLY HEALTH CENTRE	長者健康中心	SOUTHERN	南區	8:30AM - 5:30PM (Except weekend and public holidays.)	上午8:30 -下午5:30 (六、日及公眾假期休息)	2580 3554

G/F, Lions

8:30AM -

Finding the Latitude and Longitude Coordinates



google map



All

Maps

Images

News

Videos

More

Settings

Tools

SafeSearch on

About 7,200,000,000 results (0.58 seconds)

[Google Maps](#)

<https://maps.google.com> ▾

Find a place. Your location. Trails. Dedicated lanes. Bicycle-friendly roads. Dirt/unpaved trails. Live traffic. Fast. Slow. 2000 km. Set depart & arrive time.

Maps

Your location. Trails. Dedicated lanes. Bicycle-friendly roads ...

Map

Find local businesses, view maps and get driving directions in ...

My Maps

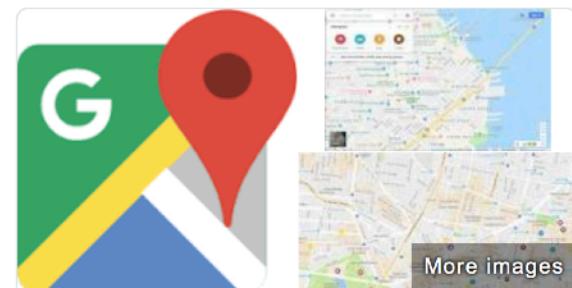
Discover the world with Google Maps. Experience Street View ...

[More results from google.com »](#)

Google Maps

<https://www.google.com.hk> ▾ maps

Find local businesses, view maps and get driving directions in [Google Maps](#).



Google Maps

[Website](#)

Google Maps is a web mapping service developed by Google. It offers satellite imagery, aerial photography, street maps, 360° panoramic views of streets, real-time traffic conditions, and route planning for traveling by foot, car, bicycle and air, or public transportation.

[Wikipedia](#)

Date launched: February 8, 2005

Owner: Google

0

The image shows a Google Maps interface with a search bar at the top left containing "Search Google Maps". Below the search bar are two cards: one for "Aberdeen Jockey Club General Out-Patient Clinic Abe..." and another for "Rainbow Chinese Cuisine Queen's Road East, Wan Chai". On the right side, there is a user profile icon.

Kowloon Tong

26°

Restaurants Hotels Bars Coffee

See more like this

Lei Cheng Uk Swimming Pool 李鄭屋游泳池

LEI CHENG UK 李鄭屋

Jockey Club Creative Arts Centre 賽馬會創意藝術中心

Shek Kip Mei Park 石硤尾公園

Senior Care

Sham Shui Po Station 深水埗站

Caltex Sham Shui Po 加德士深水埗油站

TONG MI 健尾

Reunification Pavilion, Lion Rock Country Park 回歸亭

Lion Rock Park Community Garden 獅子山公園社區園圃

Organic Resources

Hong Kong Baptist University

Morse Park 摩士公園

Lok Fu Park 樂富公園

NGA TSIN WAI 衙前圍村

SAN PO KONG 新蒲崗

Diamond Hill Station 鑽石山站

Temple Hill Fat Jong Temple 慈雲山法藏寺

Tsui Chuk Garden 翠竹花園

Our Lady of Maryknoll Hospital 聖母醫院

CHUK UN 黃大仙竹園

Fung Tak Rd

Yuk Wah St

Wan Lung St

Po Kong Village Road Sports Centre 蒲崗村道體育館

Po Kong Village Road Park 蒲崗村道公園

Map data ©2019 Google Hong Kong Terms Send feedback 500 m

A detailed description of the map area: The map shows the Kowloon Tong neighborhood and its surroundings. Key landmarks include the Reunification Pavilion, Lion Rock Park Community Garden, Organic Resources, Hong Kong Baptist University, Morse Park, Lok Fu Park, NGA TSIN WAI, SAN PO KONG, and Diamond Hill Station. The map also includes several playgrounds and parks like Tsui Chuk Garden and Ma Chai Hang Playground. Major roads shown include Fung Tak Rd, Yuk Wah St, Wan Lung St, and Prince Edward Rd E. The map is overlaid with a yellow route line and numbered junctions (1, 7, 9, 10, 11, 12, 13). A legend on the left indicates icons for Restaurants, Hotels, Bars, and Coffee. A weather widget shows 26° and a cloudy icon. A "See more like this" button is present. A "Satellite" view option is available in the bottom left corner.

Aberdeen Jockey Club General Office

Search

Directions Save Nearby Send to your phone Share Add a label

Reunification Pavilion, Lion Rock Country Park

Lion Rock Park Community Garden

Temple Hill Fat Jong Temple

Our Lady of Maryknoll Hospital

CHUK UN

Ma Chai Hang Playground

Tsui Chuk Garden

Po Kong Village Road Sports Centre

Po Kong Village Road Park

Diamond Hill Station

KOWLOON TONG

PARC OASIS

LO FUNG AM

NGA TSIN WAI

SAN PO KONG

KOWLOON CITY

Map data ©2019 Google Hong Kong Terms Send feedback 500 m

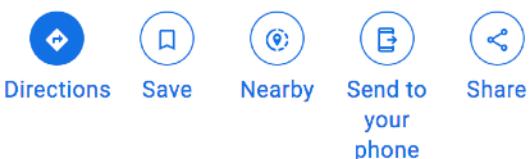


Aberdeen Jockey Club General Out-Patient Clinic

香港仔賽馬會普通科門診診所

4.3 ★★★★★ (7)

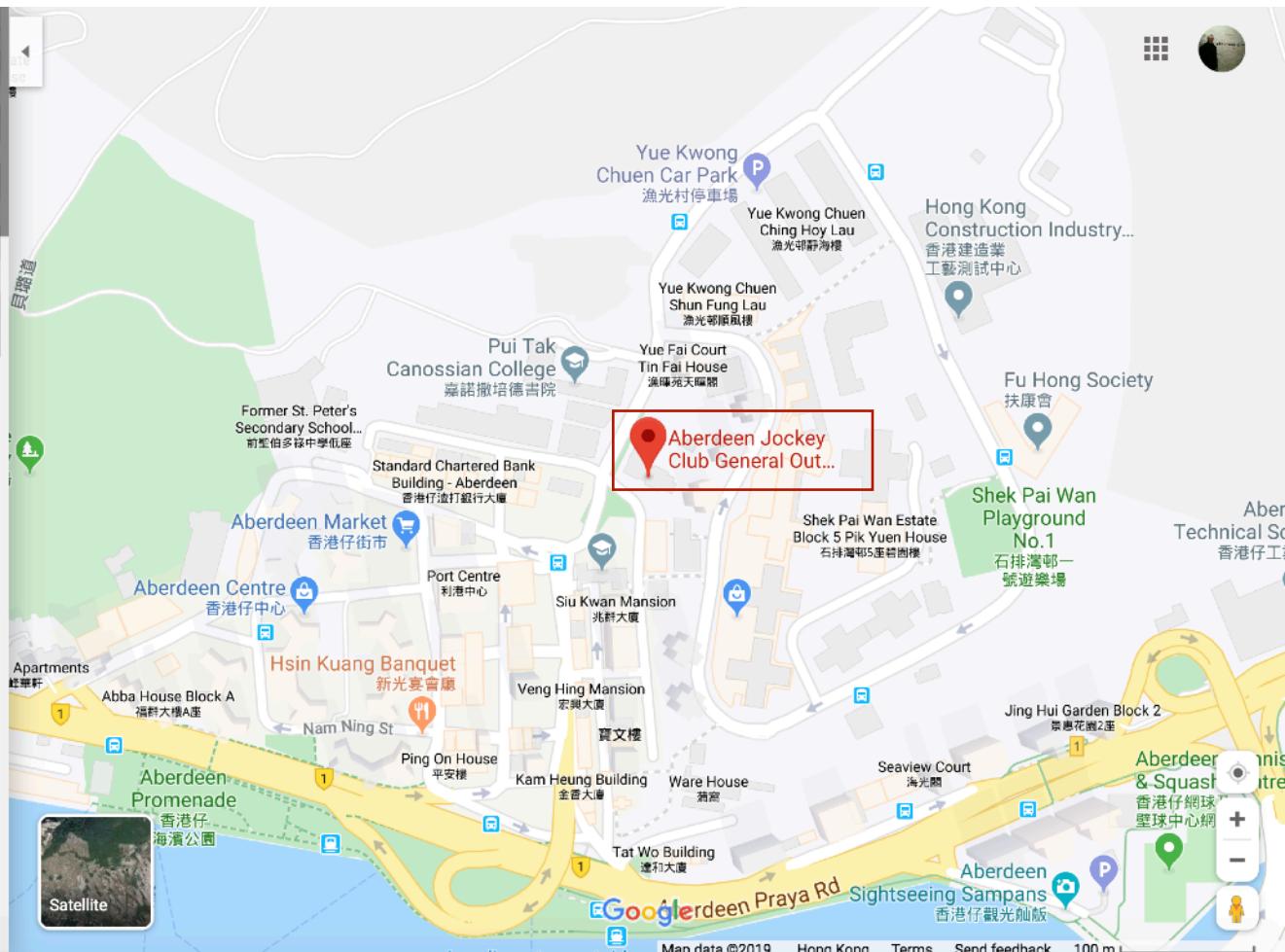
Medical clinic



10 Aberdeen Reservoir Rd, Aberdeen

65X4+VH Hong Kong

ha.org.hk



Aberdeen Jockey Club General Out-Patient Clinic

香港仔賽馬會普通科門診診所

4.3 ★★★★★ (7)

Medical clinic

Directions Save Nearby Send to your phone Share

10 Aberdeen Reservoir Rd, Aberdeen
65X4+VH Hong Kong
ha.org.hk

Map showing the location of Aberdeen Jockey Club General Out-Patient Clinic in Aberdeen, Hong Kong. The map highlights several landmarks and buildings, including:

- Former St. Peter's Secondary School...
- Pui Tak Canossian College
- Standard Chartered Bank Building - Aberdeen
- Aberdeen Market
- Port Centre
- Siu Kwan Mans
- Hsin Kuang Banquet
- Veng Hing Mansion
- Kam Heung Building
- Abba House Block A
- Nam Ning St
- Ping On House
- Aberdeen Promenade
- Jing Hui Garden Block 2
- Aberdeen Ding Sampan
- Fu Hong Society
- Yue Kwong Chuen
- Ching Hoy Lau
- Yue Fai Court
- Tin Fai House
- Hong Kong Construction Industry...
- Wai Pai Wan playgrou...
- Aberdeen Technical Sc...

The map also includes a "What's here?" button, search nearby, print, add missing place, add your business, report a data problem, and measure distance options.

Map data ©2019 Hong Kong Terms Send feedback 100 m

The screenshot shows a Google Maps interface with a yellow header bar. The search bar at the top contains the text "Aberdeen Jockey Club General Off". Below the search bar is a street view image of a building entrance. To the left of the map, there is a sidebar with the title "Aberdeen" and several action buttons: "Directions", "Save", "Nearby", "Send to your phone", and "Share". Below these buttons is a "Add a label" button. The main area is a map of the Aberdeen district in Hong Kong, showing various landmarks and buildings. A red marker indicates the location of the "Aberdeen Jockey Club General Office". A callout box provides the address "16-10 Aberdeen Reservoir Rd, Aberdeen" and the coordinates "22.250197, 114.156396", which are highlighted with a red border. The map also includes a "Satellite" view option.

Aberdeen Jockey Club General Off

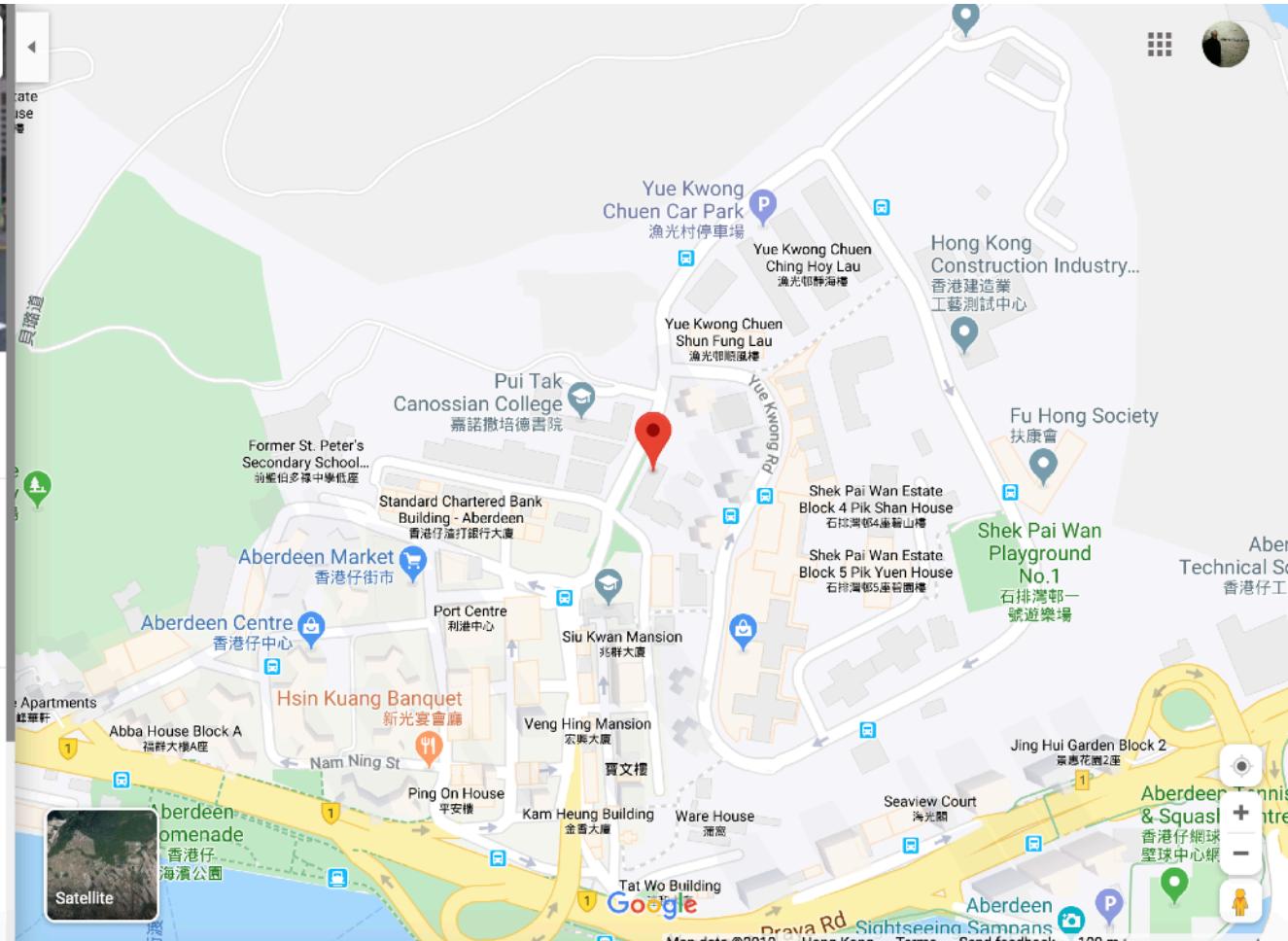
Aberdeen

Directions Save Nearby Send to your phone Share Add a label

Photos

16-10 Aberdeen Reservoir Rd, Aberdeen
22.250197, 114.156396

Map data ©2019 Hong Kong Terms Send feedback 100 m



Leaflet and Airtable Integration in GetJSON

以GetJSON結合Leaflet和Airtable來製作地圖

Using Leaflet and Open Street Map



an open-source JavaScript library
for mobile-friendly interactive maps

[Overview](#) [Tutorials](#) [Docs](#) [Download](#) [Plugins](#) [Blog](#)

May 8, 2019 — [Leaflet 1.5.1](#) has been released!

Leaflet is the leading open-source JavaScript library for mobile-friendly interactive maps. Weighing just about 38 KB of JS, it has all the mapping [features](#) most developers ever need.

Leaflet is designed with *simplicity, performance* and *usability* in mind. It works efficiently across all major desktop and mobile platforms, can be extended with lots of [plugins](#), has a beautiful, easy to use and [well-documented API](#) and a simple, readable [source code](#) that is a joy to [contribute](#) to.

<https://leafletjs.com/>



Setting up Airtable for Latitude & Longitude Location Tracking

Open Refine Import ▾

HELP ? 🔍 🔔 🔑

Product

Roll-up

Venues

SHARE



BLOCKS

Grid view



	Name	# Lng	url	Pic	img_url
1	North Point District	22.287111	114.191667 https://en.wikipedia.org/w...		https://dl.airtable.com/attachments/e685bbc78ed3...
2	Mong Kok	22.322500	114.170556 https://en.wikipedia.org/w...		https://dl.airtable.com/attachments/7fd289e11d22...
3	Happy Valley	22.266667	114.183333 https://en.wikipedia.org/w...		https://dl.airtable.com/attachments/018c45cd64b2...
4	Victoria Peak	22.275469	114.143828 https://en.wikipedia.org/w...		https://dl.airtable.com/attachments/10ffd6880934...
5	Lan Kwai Fong	22.280972	114.155528 https://en.wikipedia.org/w...		https://dl.airtable.com/attachments/9efc1776d58a...

Open Refine Import

HELP ? 🔍 🔔

SHARE 🔍 🔔 BLOCKS



Product

Roll-up

Venues



2 hidden fields

Filter

Group

Sort

Color



	A Name	# Lat	# Lng	url	Pic	img_url
1	North Point District			1667 https://en.wikipedia.org/w...		https://dl.airtable.com/.attachments/e685bbc78ed...
2	Mong Kok			0556 https://en.wikipedia.org/w...		https://dl.airtable.com/.attachments/7fd289e11d2...
3	Happy Valley			3333 https://en.wikipedia.org/w...		https://dl.airtable.com/.attachments/018c45cd64b...
4	Victoria Peak			3828 https://en.wikipedia.org/w...		https://dl.airtable.com/.attachments/10ffd688093...
5	Lan Kwai Fong			5528 https://en.wikipedia.org/w...		https://dl.airtable.com/.attachments/9efc1776d58...

Lat

Number

Format

Default

Decimal (1.0)

Precision

1.000000

Allow negative numbers

Cancel

Save

Open Refine Import

Product Roll-up Venues +

SHARE 🔍 BLOCKS

Grid view 2 hidden fields Filter Group Sort Color ...

	Name	Lng	url	Pic	img_url
1	North Point District	114.191667	https://en.wikipedia.org/w...		
2	Mong Kok	114.170556	https://en.wikipedia.org/w...		
3	Happy Valley	114.183333	https://en.wikipedia.org/w...		
4	Victoria Peak	114.143828	https://en.wikipedia.org/w...		
5	Lan Kwai Fong	114.155528	https://en.wikipedia.org/w...		

img_url

Formula

Compute a value in each record based on other fields in the same record. For more information on formulas and a complete function reference, see the [Formula Field Reference](#).

Formula Formatting

`MID(Pic,FIND(",Pic)+1,(FIND(")",Pic)-1)-(FIND(",Pic)))`

Cancel Save

<https://community.airtable.com/t/extracting-single-image-attachment-url/5477>

**Declare the starting parameters for the map and
the source of the map tiles.**

Search

Where is this?

Go



Welcome to OpenStreetMap!

OpenStreetMap is a map of the world, created by people like you and free to use under an open licence.

Hosting is supported by [UCL](#), [Bytemark Hosting](#), and other [partners](#).

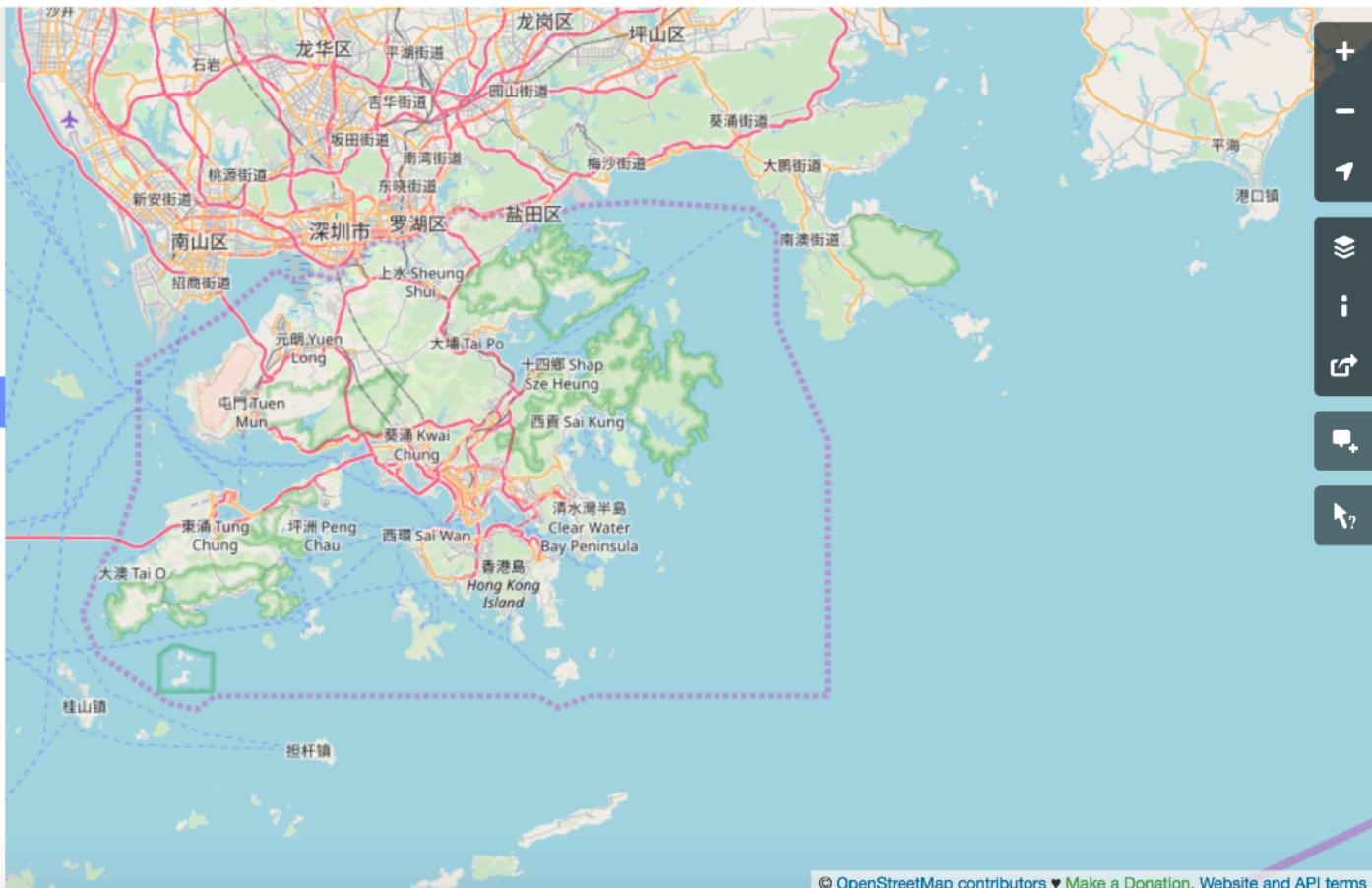
[Learn More](#)[Start Mapping](#)

SOTM



Dhaka, Bangladesh 2019

10 km
5 mi



© OpenStreetMap contributors • [Make a Donation](#). [Website](#) and [API terms](#)

<https://www.openstreetmap.org>



Leaflet Tips and Tricks

[Buy on Leanpub](#)

Table of Contents

Acknowledgements

Make sure you get the most up to date copy
of Leaflet Tips and Tricks

Introduction

What is leaflet.js?

What do you need to get started?

Start With a Simple Map

We will walk through the building of a simple web page using an HTML file. The page will host a Leaflet map so that we can understand all the different portions of the file and the processes that needs to be gone through to make it happen.

- This wont be an *exact* template for building on, since there are some liberties that are taken, but it will do the job and provides a base for explanation of the process and it will demonstrate how easy it can be.

The following is the full code listing of the file `simple-map.html` that we will be examining:

```
<!DOCTYPE html>
<html>
<head>
  <title>Simple Leaflet Map</title>
  <meta charset="utf-8" />
  <link
    rel="stylesheet"
    href="http://cdn.leafletjs.com/leaflet-0.7/leaflet.css"
  />
</head>
```

[https://leanpub.com/leaflet-tips-and-tricks/
read#leanpub-auto-start-with-a-simple-map](https://leanpub.com/leaflet-tips-and-tricks/read#leanpub-auto-start-with-a-simple-map)

```

<!DOCTYPE html>
<html>
<head>
    <title>Simple Leaflet Map</title>
    <meta charset="utf-8" />
    <link
        rel="stylesheet"
        href="http://cdn.leafletjs.com/leaflet-0.7/leaflet.css"
    />
</head>
<body>
    <div id="map" style="width: 600px; height: 400px"></div>
    <script
        src="http://cdn.leafletjs.com/leaflet-0.7/leaflet.js">
    </script>

    <script>
        var map = L.map('map').setView([-41.2858, 174.78682], 14);
        mapLink =
            <a href="http://openstreetmap.org">OpenStreetMap</a>;
        L.tileLayer(
            'http://(s).tile.openstreetmap.org/{z}/{x}/{y}.png', {
                attribution: 'Map data © ' + mapLink,
                maxZoom: 18,
            }).addTo(map);
    </script>
</body>
</html>

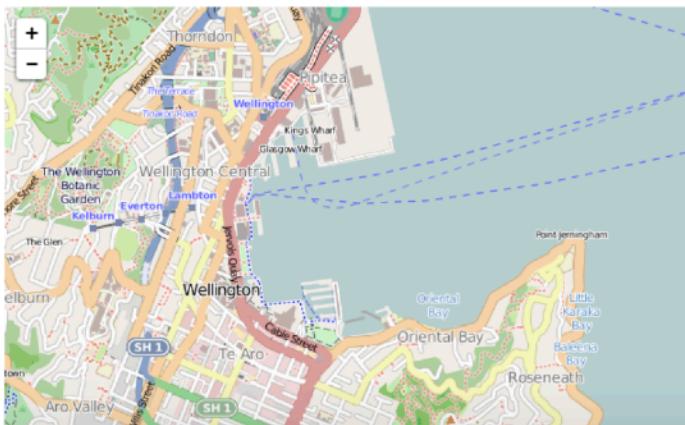
```

1

2

3

The output that it will produce on a web page will look like this;



1. Define the selector
2. Declare the initial map view.
3. Provide the source of the map titles (e.g. Open Street Map).

Adding a marker to our map

At some stage we will most likely want to add a marker to our map to pinpoint something. Leaflet makes the process nice and easy by including a [marker function with several options](#);

In its most simple form the following is the full code to show a map with a marker;

```
<!DOCTYPE html>
<html>
<head>
  <title>Marker Leaflet Map</title>
  <meta charset="utf-8" />
  <link
    rel="stylesheet"
    href="http://cdn.leafletjs.com/leaflet-0.7/leaflet.css"
  />
</head>
<body>
  <div id="map" style="width: 600px; height: 400px"></div>

  <script
    src="http://cdn.leafletjs.com/leaflet-0.7/leaflet.js">
  </script>

  <script>
    var map = L.map('map').setView([-41.2858, 174.78682], 14);
    mapLink =
      '<a href="http://openstreetmap.org">OpenStreetMap</a>';
    L.tileLayer(
      'http://{s}.tile.openstreetmap.org/{z}/{x}/{y}.png', {
        attribution: 'Map data © ' + mapLink,
        maxZoom: 18,
      }).addTo(map);
    var marker = L.marker([-41.29042, 174.78219])
      .addTo(map);
  </script>
</body>
</html>
```

1. Define the selector
2. Declare the initial map view.
3. Provide the source of the map titles (e.g. Open Street Map).
4. Add a marker to the map view.

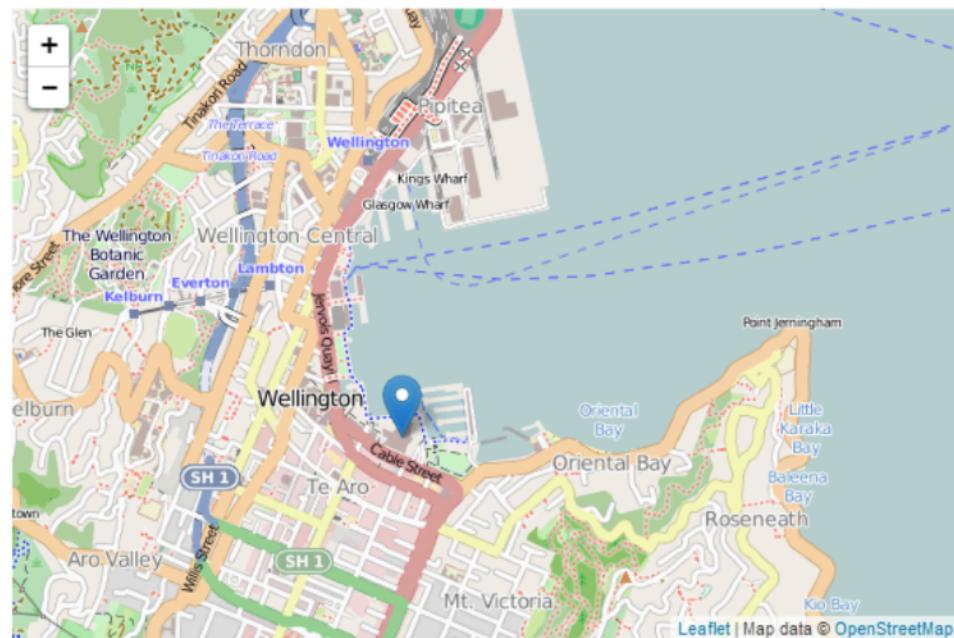
4

[https://leanpub.com/leaflet-tips-and-tricks/
read#leanpub-auto-adding-a-marker-to-our-map](https://leanpub.com/leaflet-tips-and-tricks/read#leanpub-auto-adding-a-marker-to-our-map)

```
var marker = L.marker([-41.29042, 174.78219])
  .addTo(map);
```

Here we are declaring a variable with the `L.marker` method at a point of latitude -41.29042 and longitude 174.78219. Then we simply add that to our map by adding `.addTo(map)`.

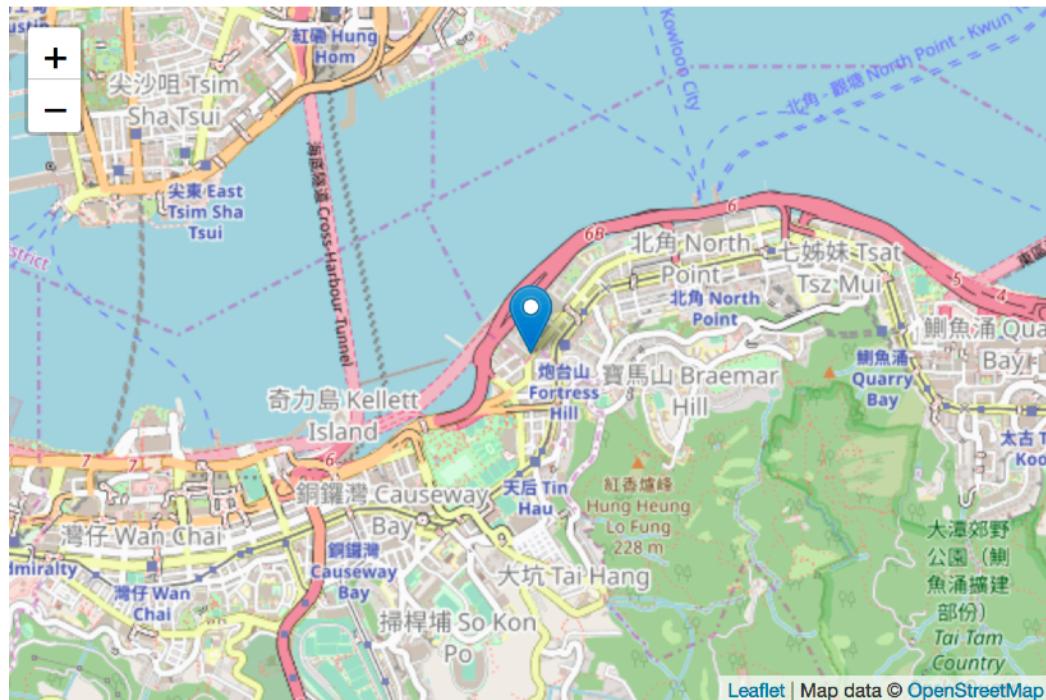
And here's our map complete with marker...



Map with marker

Adding GetJSON to Integrate with Airtable

Leaflet Example



Leaflet | Map data © OpenStreetMap

```
<meta name="viewport" content="width=device-width, initial-scale=1.0, maximum-scale=1.0, user-scalable=no" />
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
<script src="https://cdnjs.cloudflare.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/leaflet/1.3.4/leaflet.css">
<script src="https://cdnjs.cloudflare.com/ajax/libs/leaflet/1.3.4/leaflet.js"></script>
<script src="https://api.tiles.mapbox.com/mapbox.js/plugins/leaflet-markercluster/v0.4.0/leaflet.markercluster.js">
</script>
</head>

<body>
<h1>Leaflet Example</h1>
<div id="map" style="width: 600px; height: 400px"></div>
<script>
var mapboxTiles = L.tileLayer('http://{s}.tile.openstreetmap.org/{z}/{x}/{y}.png', {attribution: 'Map data &copy;',
  href="http://openstreetmap.org">OpenStreetMap</a>', maxZoom: 18,});
var map = L.map('map')
  .addLayer(mapboxTiles)
  .setView([22.287111, 114.191667], 14);

var marker = L.marker([22.287111, 114.191667], {draggable: true})
  .bindPopup( '<a href="https://en.wikipedia.org/wiki/North_Point" target="_blank">North Point</a>')
  .addTo(map);

</script>
```

```
<script>
var mapboxTiles = L.tileLayer('https://s.tile.openstreetmap.org/{z}/{x}/{y}.png')
```

tribution: 'Map data ©

2

```
var map = L.map('map')
    .addLayer(mapboxTiles)
    .setView([22.287111, 114.191667], 13);
```

3

JS

```
var items = [];
var airtable_read_endpoint = "https://api.airtable.com/v0/appKIU0zkdHt3AVTL/Venues?api_key=keycj6dRwXwYLEjiv";
```

4

```
var data = [];

$.getJSON(airtable_read_endpoint, function(result) {
    $.each(result.records, function(key,value) {
        items = {};
        items["name"] = value.fields.Name;
        items["url"] = value.fields.url;
        items["image_url"] = value.fields.img_url;
        items["latitud"] = value.fields.Lat;
        items["longitud"] = value.fields.Lng;
        data.push(items);
        console.log(items);
    }); // end .each
}); // end getJSON
</script>
```

5

1

HTML

```
<h1>Leaflet Example</h1>
<div class="row">
    <div class="col-xs-12 col-sm-12 col-md-12">
        <button type="button" class="btn btn-warning" id='roll'></button>
        <div id="map" style="width: 600px; height: 400px"></div>
    </div><!-- column -->
</div><!-- row -->
```

```
<script>
function show_districts(){
    for (var i in data) {
        var latlng = L.latLng({ lat: data[i].latitud, lng: data[i].longitud });
        L.marker( latlng )
            .bindPopup( '<a href="' + data[i].url + '" target="_blank">' + '' )
            .addTo(map);
    }
}
</script>
```

6

JS

Using jQuery getJSON and
Airtable API for fun!

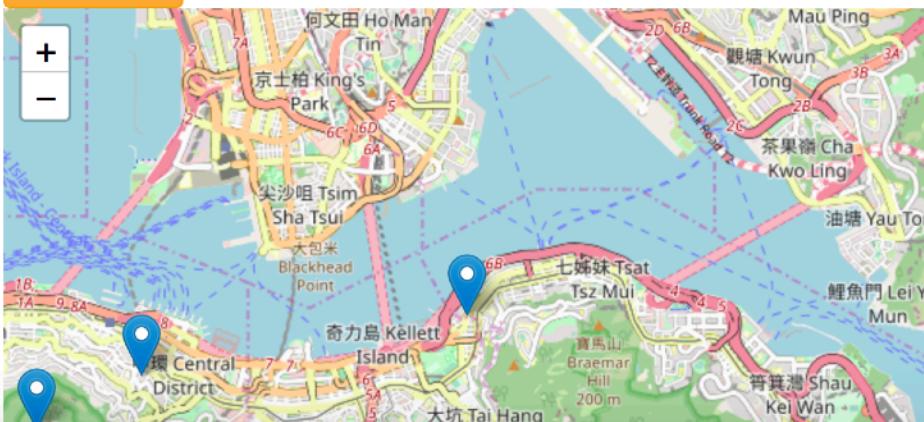
Airtable is a wonderful spreadsheet-like database with many useful features for data modeling and basic analytics. When used with other data visualization libraries, it can be a great tool for rapid prototyping

Show Table

Show Total

Leaflet Example

Show Districts



1. Define the selector
2. Declare the initial map view.
3. Provide the source of the map titles (e.g. Open Street Map).
4. Define Airtable API request
5. Fetch data set into JS array.
6. Add a marker to the map view based of the data set array.

JAVASCRIPT LIBRARIES AND FRAMEWORK USED IN OUR CLASS

1. jQuery (<https://jquery.com/>)
2. Bootstrap (<http://getbootstrap.com/>)
3. D3 (<https://d3js.org/>)
4. C3 (<http://c3js.org/>)
5. Leaflet (<http://leafletjs.com/>)
6. DataTableJS (<https://datatables.net/>)

Assignment #7

- a. Apply what you have learned to create a mobile-first design to embed a chart and a map into the user interface.**
- b. Use jQuery GetJSON method to fetch Airtable API data (in JSON format) into a JavaScript array for rendering the chart and map.**

THE END