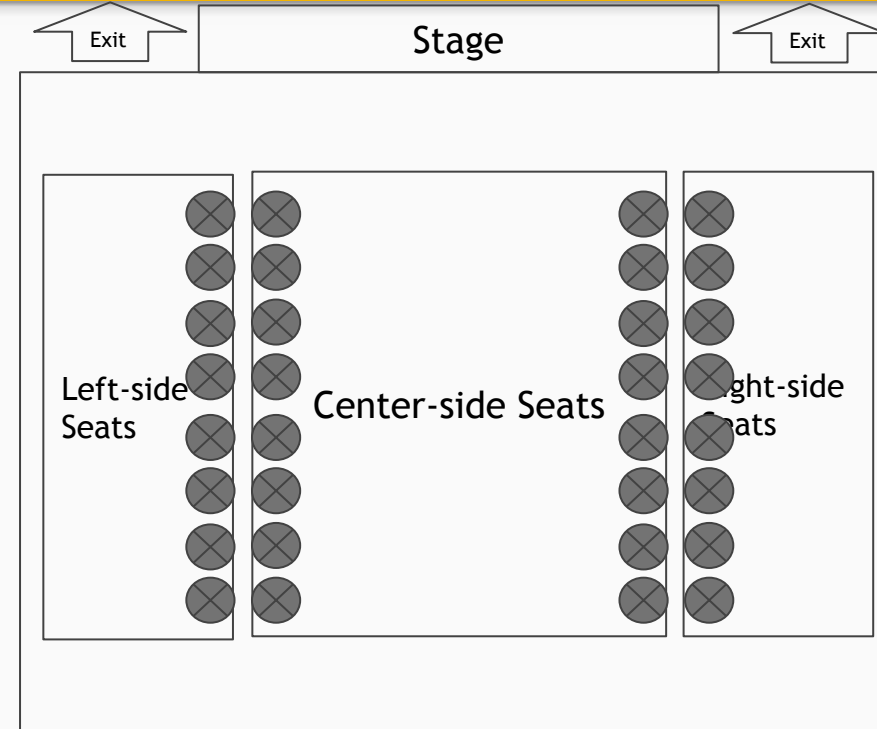


# Yasumoto International Academic Park - YIA LT6

Limited Mobile Signal. Please use [on-campus wifi](#).  
32 Sockets. But please bring your own charger.



⊗ = sockets

# More on API

CUHK MSc Data Science & Biz Stat. Program  
STAT5106 - Programming Techniques for Data Science  
Week 6 @ 24 Oct 2024

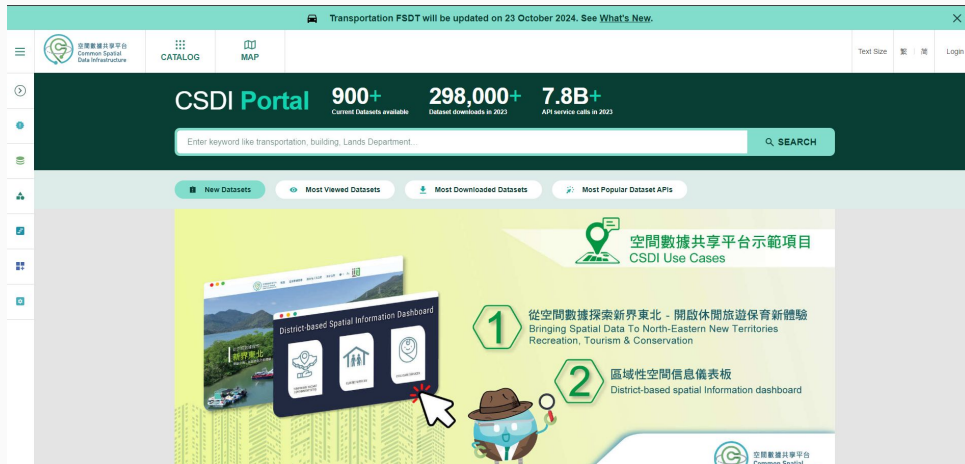
# Today API's Topic

[Data.gov.hk](https://data.gov.hk)



The screenshot shows the Data.gov.hk homepage with a light blue background. At the top left is the logo '資料一線通 DATA.GOV.HK'. Below it, the text '發掘開放數據 DATA.GOV.HK' is displayed, followed by the tagline '數據驅動創新，信息帶動改變'. A blue button with the text '瀏覽更多 >' is positioned below the tagline. The main visual is a large 3D isometric illustration of data storage and processing, featuring server racks, a large blue 'D' logo, and various data-related icons. At the bottom, there is a search bar with the text '搜尋數據集' and a blue button labeled '搜尋'. To the right of the search bar is a dark blue button labeled '全部數據集'.

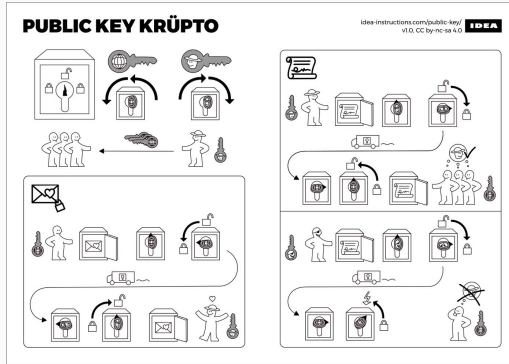
[CSDI](https://cspi.gov.hk)



The screenshot shows the CSDI Portal homepage. At the top, a teal banner contains the text 'Transportation FSDT will be updated on 23 October 2024. See What's New.' with a close button. Below the banner is a navigation bar with links for '空間數據共享平台 Common Spatial Data Infrastructure', 'CATALOG', and 'MAP'. The main header features the 'CSDI Portal' logo and three statistics: '900+ Current datasets available', '298,000+ Dataset downloads in 2023', and '7.8B+ API service calls in 2023'. A search bar with the placeholder text 'Enter keyword like transportation, building, Lands Department...' and a 'SEARCH' button is located below the statistics. The main content area has tabs for 'New Datasets', 'Most Viewed Datasets', 'Most Downloaded Datasets', and 'Most Popular Dataset APIs'. A featured section titled '空間數據共享平台示範項目 CSDI Use Cases' displays two use cases: '1 從空間數據探索新界東北 - 開啟休閒旅遊保育新體驗' and '2 區域性空間信息儀表板'. The bottom right corner features the '空間數據共享平台 Common Spatial' logo.

# To get start using API

## API Specification



Output = XML / JSON / CSV ?

```
<?xml version="1.0"?>
- <birds>
  - <owl id="1201">
    <species>Bubo bubo</species>
    <name>Eagle Owl</name>
    <region>Eurasia</region>
  </owl>
  - <owl id="1202">
    <species>Strix occidentalis</species>
    <name>Spotted Owl</name>
    <region>North America</region>
  </owl>
</birds>
```

## Data Dictionary



## Historical Versions

[https://api.data.gov.hk/v1/historical-archive/get-file?url=https%3A%2F%2Fdata.weather.gov.hk%2FweatherAPI%2Fcis%2Fcsvfile%2FKP%2FALL%2Fdaily\\_KP\\_RF\\_ALL.csv&time=20231001-1023](https://api.data.gov.hk/v1/historical-archive/get-file?url=https%3A%2F%2Fdata.weather.gov.hk%2FweatherAPI%2Fcis%2Fcsvfile%2FKP%2FALL%2Fdaily_KP_RF_ALL.csv&time=20231001-1023)

[https://api.data.gov.hk/v1/historical-archive/get-file?url=https%3A%2F%2Fdata.weather.gov.hk%2FweatherAPI%2Fcis%2Fcsvfile%2FKP%2FALL%2Fdaily\\_KP\\_RF\\_ALL.csv&time=20231002-1005](https://api.data.gov.hk/v1/historical-archive/get-file?url=https%3A%2F%2Fdata.weather.gov.hk%2FweatherAPI%2Fcis%2Fcsvfile%2FKP%2FALL%2Fdaily_KP_RF_ALL.csv&time=20231002-1005)

[https://api.data.gov.hk/v1/historical-archive/get-file?url=https%3A%2F%2Fdata.weather.gov.hk%2FweatherAPI%2Fcis%2Fcsvfile%2FKP%2FALL%2Fdaily\\_KP\\_RF\\_ALL.csv&time=20231005-1005](https://api.data.gov.hk/v1/historical-archive/get-file?url=https%3A%2F%2Fdata.weather.gov.hk%2FweatherAPI%2Fcis%2Fcsvfile%2FKP%2FALL%2Fdaily_KP_RF_ALL.csv&time=20231005-1005)

[https://api.data.gov.hk/v1/historical-archive/get-file?url=https%3A%2F%2Fdata.weather.gov.hk%2FweatherAPI%2Fcis%2Fcsvfile%2FKP%2FALL%2Fdaily\\_KP\\_RF\\_ALL.csv&time=20231006-0957](https://api.data.gov.hk/v1/historical-archive/get-file?url=https%3A%2F%2Fdata.weather.gov.hk%2FweatherAPI%2Fcis%2Fcsvfile%2FKP%2FALL%2Fdaily_KP_RF_ALL.csv&time=20231006-0957)

[https://api.data.gov.hk/v1/historical-archive/get-file?url=https%3A%2F%2Fdata.weather.gov.hk%2FweatherAPI%2Fcis%2Fcsvfile%2FKP%2FALL%2Fdaily\\_KP\\_RF\\_ALL.csv&time=20231001-1036](https://api.data.gov.hk/v1/historical-archive/get-file?url=https%3A%2F%2Fdata.weather.gov.hk%2FweatherAPI%2Fcis%2Fcsvfile%2FKP%2FALL%2Fdaily_KP_RF_ALL.csv&time=20231001-1036)

[https://api.data.gov.hk/v1/historical-archive/get-file?url=https%3A%2F%2Fdata.weather.gov.hk%2FweatherAPI%2Fcis%2Fcsvfile%2FKP%2FALL%2Fdaily\\_KP\\_RF\\_ALL.csv&time=20231004-1038](https://api.data.gov.hk/v1/historical-archive/get-file?url=https%3A%2F%2Fdata.weather.gov.hk%2FweatherAPI%2Fcis%2Fcsvfile%2FKP%2FALL%2Fdaily_KP_RF_ALL.csv&time=20231004-1038)

# Azure APIs - for CUHKers only



香港中文大學統計學系

**Department of Statistics**

THE CHINESE UNIVERSITY OF HONG KONG



**Azure API Management**

CUHK API Portal for Teaching and Learning

[Quick Start](#)

[Sign up](#)

[Explore APIs](#)



# Start Coding...

Accessing Colab:

[Gov API Example](#), [Azure API for CUHKers only](#)

...

## X (Twitter) API



**Donald J. Trump** ✓

43K Tweets

Follow

Administration in history!

4.9K 10.1K 54.1K

[Show this thread](#)



**Donald J. Trump** ✓ @realDonaldTrump · 9h

I am pleased to announce that it is my intention to nominate Gene Scalia as the new Secretary of Labor. Gene has led a life of great success in the legal and labor field and is highly respected not only as a lawyer, but as a lawyer with great experience....

5.2K 13.6K 69.6K

[Show this thread](#)



**Donald J. Trump** ✓ @realDonaldTrump · 11h

Today, @FLOTUS Melania and I were honored to welcome members of Team USA to the @WhiteHouse for a great celebration of their success during the 2019 @SpecialOlympics @WorldGamesAD! Congratulations @specialolyUSA! #Cheer4USA

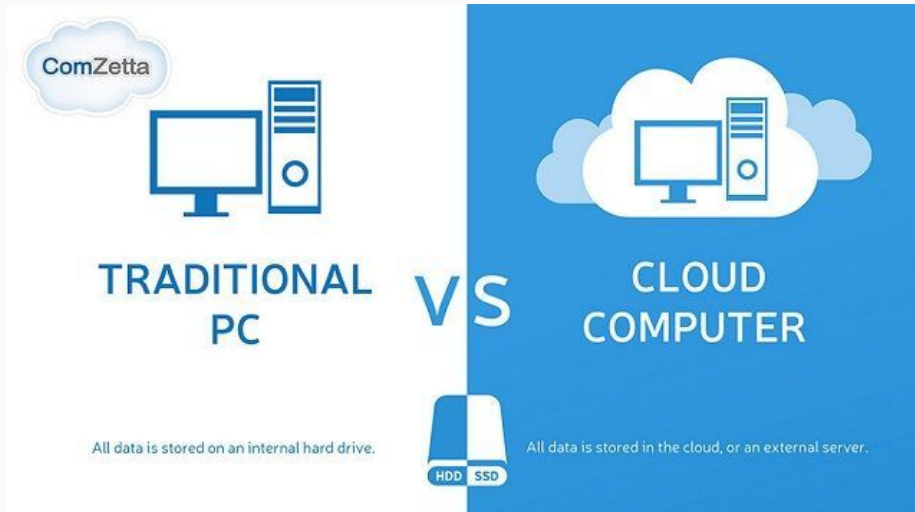








# Cloud Platform



connectio



## TRADITIONAL PC

All data is stored on an internal hard drive.



Equipment failure or theft usually means the loss of all or part of the data.



Each additional program requires installation & often expanded IT knowledge



You are forced to bear the costs of hardware & operating system; you also have to pay for almost any additional application you wish to install



Efficiency & speed of your computer depends on its parameters & computing power; if your equipment is old & inefficient, some applications may not work properly.



The operating system & software are inextricably linked to a specific device - if you do not have access to the device, you cannot access its resources



## CLOUD COMPUTER

All data is stored in cloud, or an external server.



Data is stored safely in the cloud; equipment failure or theft does not result in loss of data



You only need to install one application, which is a "Gateway" to our resources in the cloud, where a set of verified applications is already waiting for you.



One subscription fee gives you access to a computer with an operating system & an application package; performance parameters of the services, such as disk space, may be increased at any time.



Operation of the computer in the cloud is completely independent of parameters & computing power of the equipment you use



You can access your resources from anywhere, using any device with internet access



/ ConnectioITpytltd

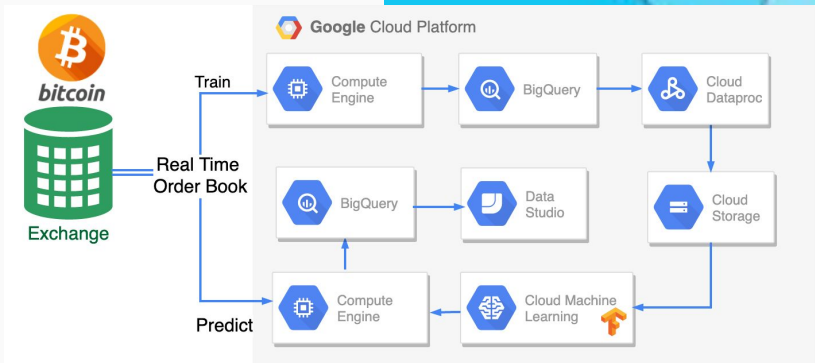
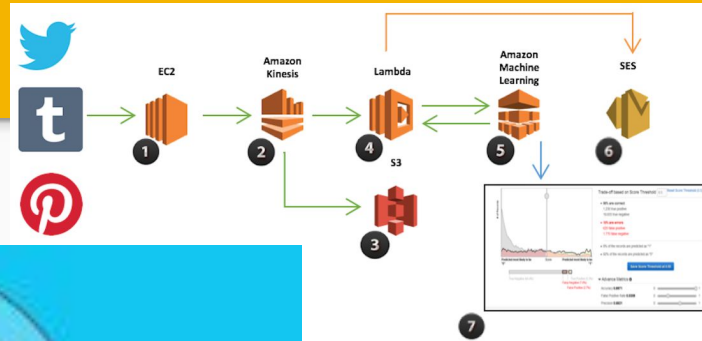
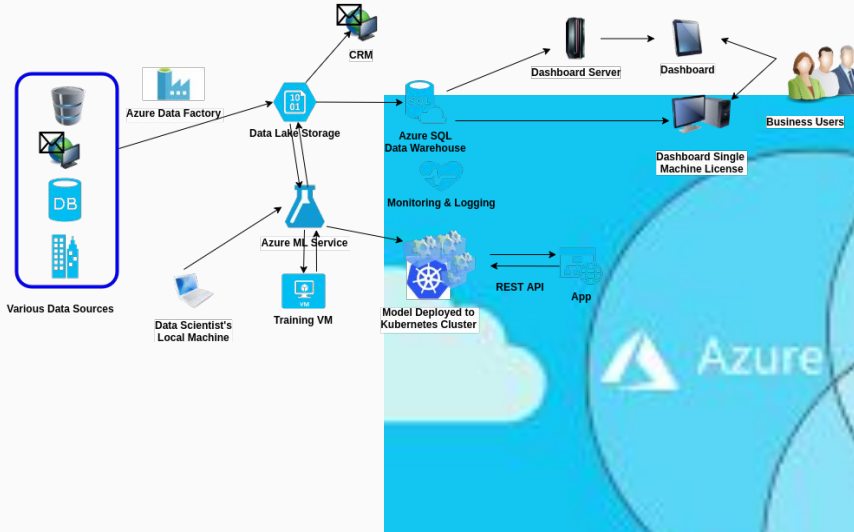


info@connectio.co.in



www.connectio.in

# Cloud Platform



## Free Website Example - wars.vote4.hk (already down)



The slide features a central browser window showing a website with the following text:

- ↳ lesson learned from [wars.vote4.hk](#)
- ↳ journey on [wars.vote4.hk](#)
- ↳ a little demo on github template

Below the browser window is a small black box with the text: "register on github & try it out."

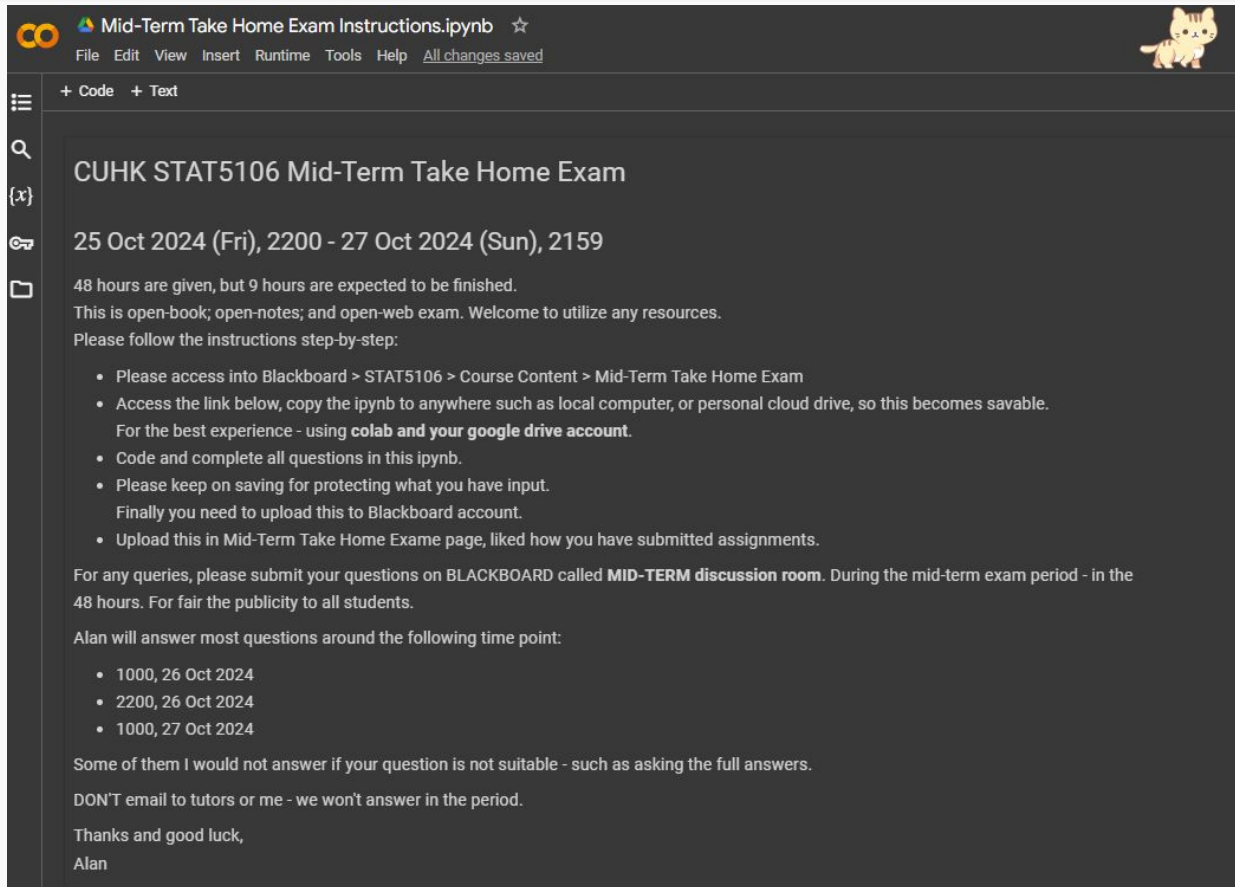
To the right of the browser window is a video feed of a man speaking, with the name "Nand Wong" displayed below it.

Below the video feed is a QR code and the text "Nand Wong".

At the bottom left, there is a yellow cartoon cat mascot and the text: "Launch wars.vote4.hk within 2 days with \$0 cost" and "Nand Wong (@NandWong) Hong Kong".

At the bottom right, the text "HKOSCON2020" is displayed next to another yellow cartoon cat mascot.

# Recall the Mid-Term Exam



Mid-Term Take Home Exam Instructions.ipynb ☆

File Edit View Insert Runtime Tools Help [All changes saved](#)

+ Code + Text

## CUHK STAT5106 Mid-Term Take Home Exam

25 Oct 2024 (Fri), 2200 - 27 Oct 2024 (Sun), 2159

48 hours are given, but 9 hours are expected to be finished.

This is open-book; open-notes; and open-web exam. Welcome to utilize any resources.

Please follow the instructions step-by-step:

- Please access into Blackboard > STAT5106 > Course Content > Mid-Term Take Home Exam
- Access the link below, copy the ipynb to anywhere such as local computer, or personal cloud drive, so this becomes savable.  
For the best experience - using **colab** and **your google drive account**.
- Code and complete all questions in this ipynb.
- Please keep on saving for protecting what you have input.  
Finally you need to upload this to Blackboard account.
- Upload this in Mid-Term Take Home Exam page, liked how you have submitted assignments.

For any queries, please submit your questions on BLACKBOARD called **MID-TERM discussion room**. During the mid-term exam period - in the 48 hours. For fair the publicity to all students.

Alan will answer most questions around the following time point:

- 1000, 26 Oct 2024
- 2200, 26 Oct 2024
- 1000, 27 Oct 2024

Some of them I would not answer if your question is not suitable - such as asking the full answers.

DON'T email to tutors or me - we won't answer in the period.

Thanks and good luck,  
Alan

To be continue...

Mid-Term on 25 Oct; 2200 - 27 Oct; 2159

Good luck !