COMP 7950 IT Project Skills
Individual Assignment - Data Visualization and Writing

Report Due	Section 1&2: 17:00, 15 October
	Section 3&4: 17:00, 19 November

What's the Objective?

In this assignment, you will practice discovering and communicating insights about a set of data by generating graphical visualizations of that data.

What tasks are involved?

Online course + One written report

How to take the online course?

Refer to the file "Student Guide for Online Learning Module - Data Visualization for Effective Communication" on BU Moodle

Note: Due to the fast update of software/tools, the software/tool interface may be slightly different from the captured video tutorials. You are highly recommended to watch the tutorial on the office websites of the software/tools.

What should be included in the report?

Produce at least THREE data visualization diagram/chart/graph/map/dashboard (static or dynamic) using **either one or more** of the following software/tools that we have introduced in online course:

- DataWrapper
- Tableau Public
- Microsoft Power BI

Besides including your data virilizations output, you may elaborate the insights from the data. You may explore, describe, compare, explain, summarize the findings such as pattern, trends, story, etc. from the visualized data.

The report should be **NO more than 4 pages** including your graphs and text.

Where can I find data?

You may obtain/choose your input data from any of the following:

- **data.gov.hk** (https://data.gov.hk/en/)
- **any other open sources**
- collect your own data by using survey

Some examples of input data:

(a) From data.gov.hk: "Hong Kong Resident Population by quinquennial age group, sex and whereabout"

(b) From data.gov.hk: "Domestic Export Statistics classified by Industrial Origin"

(c) From data.gov.hk: "Estimated total and per capita alcohol consumption"

(d) … …

Note

- Try to find **reliable** and **quality data**.
- You may need to re-organize, manipulate, clean or even remove some data in the downloaded Excel files, e.g., example (b) above.
- You are not allowed to simply reproduce the same graph using the same data as in our video tutorial. The data visualization should originally create by your own instead of copying directly from other resources.

What topics can I choose?

It is on your own choice, depending on what data do you choose to visualize, and write a data-driven report.

Your topic can be in but not limited to the following themes:

Finance and Banking…

Environment, Whether, Climate, Food, Sustainability…

IT and other technologies

Population, Housing, Social Welfare, Healthcare…

City, Transportation,

Law, Security, Employment,

Commerce, Industry, Development,

Education, Culture, Entertainment, Tourism…

… …

How will the report be graded?

Your **visualization output** and **report** will be graded by the following guidelines.

a. Whether you are clearly and effectively indicating the purpose of your diagram, e.g., appropriate type, clear title, label/description of important data points/lines/categories

b. Whether your output follows the general guidelines of data visualization

c. Professionality and appropriate complexity

d. Beauty and Creativity

e. Insight from Data

f. Professional formatting of the whole report

How to ensure the above points?

It may help to show your output to a classmate and ask whether he/she understands your diagram within a short time without much thinking. We **encourage exchanging opinions** to improve your work in this assignment.

How to submit my work?
Submit **TWO files** to BUeLearning.

        File 1: A **report in Word** format to Turnitin Submission Box 1;
        File 2: A **ZIP file** including the following source files to Submission Box 2:

1. your **Excel data file**, and
2. your **shared link to DataWrapper** output, and/or
3. your **downloaded Tableau Public workbook file** of your graph, and/or
4. your **shared link to Microsoft Power BI** output.

How to save and share my work (link or file)
We have prepared a Submission Guide as the following:

Note: Due to the fast update of software/tools, the software/tool interface may be slightly different from the captured images below. The instruction below is only for reference.

Datawrapper

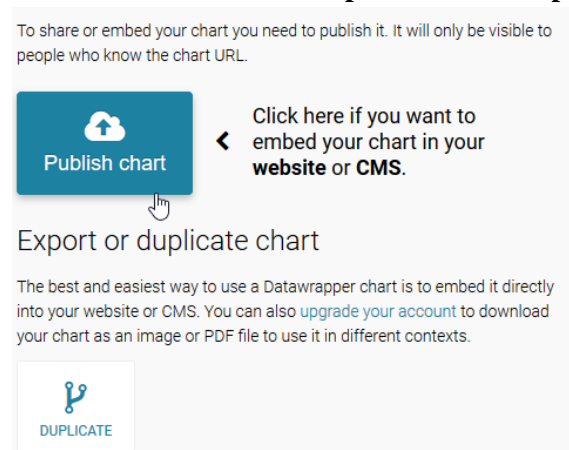At the end of the visualization **enter your email** and click on **send my embed code**.

a) **If you didn't register a Datawrapper account yet**, you will receive a link in your email to activate your account and create a password.
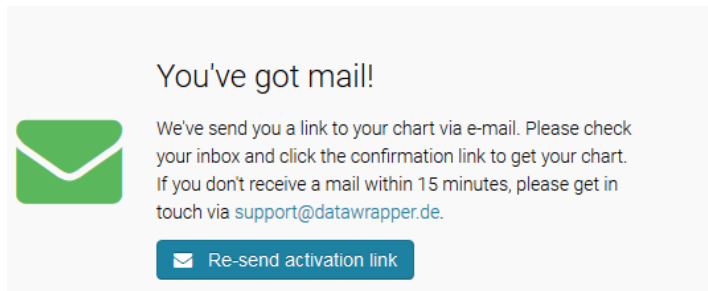
Set your password in this screen
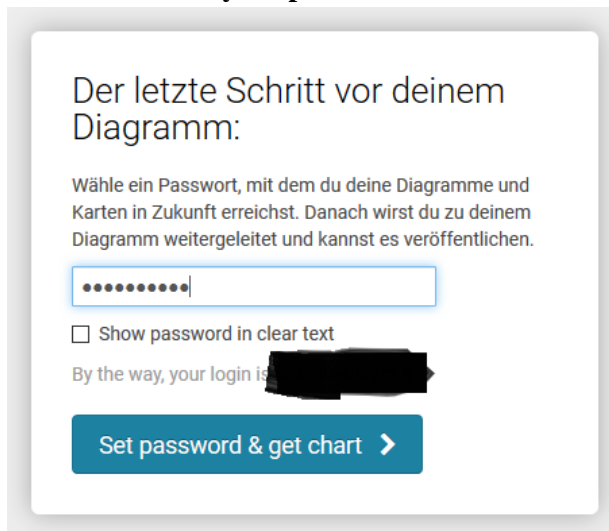
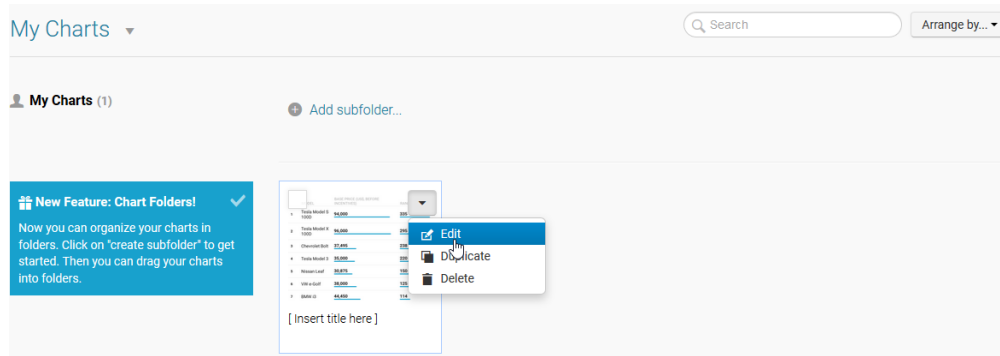Then click on **publish chart to proceed**

b) **If you already register a Datawrapper account**, login with your information and you will find the visualization in *My charts* section of your personal account.

Click on *edit* as shown in picture

Then proceed to *publish & embed*

In both cases you will reach the publishing page where you can **copy the link** to share the visualization with your instructor.
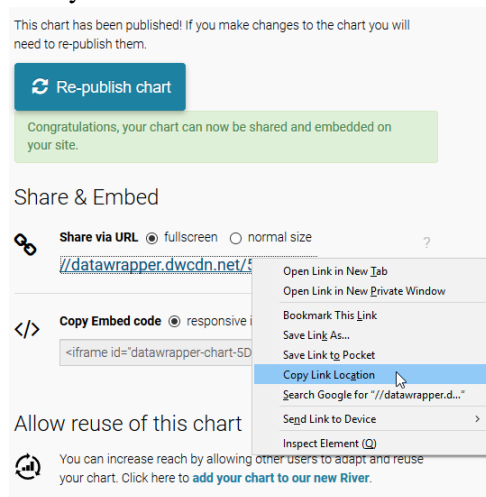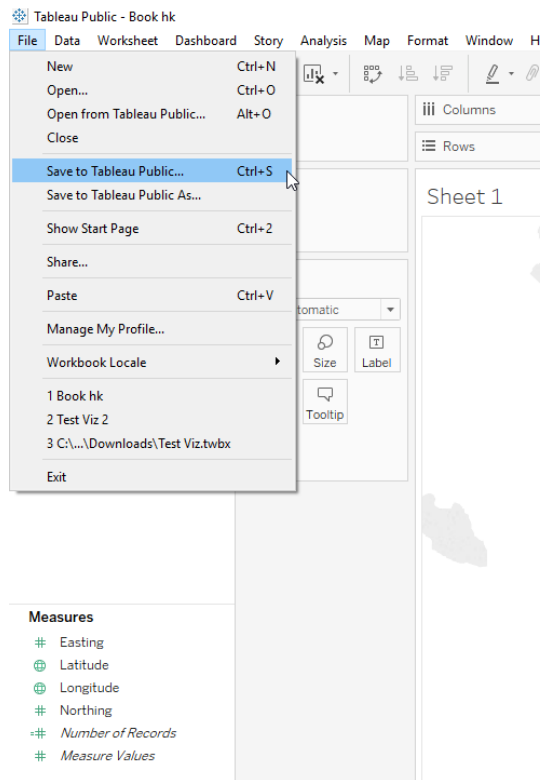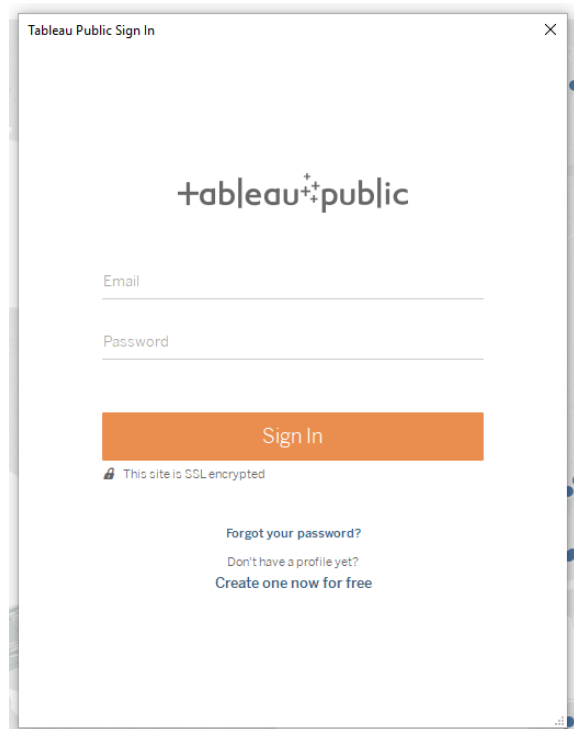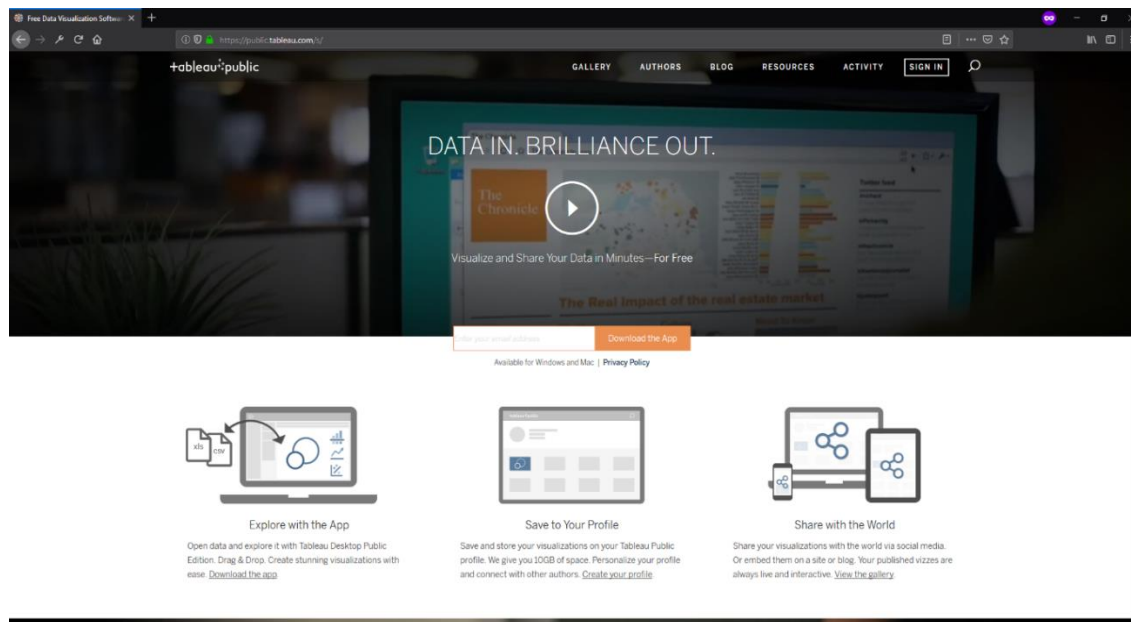

Tableau Public

Save your visualization to Tableau Public using the **File menu**
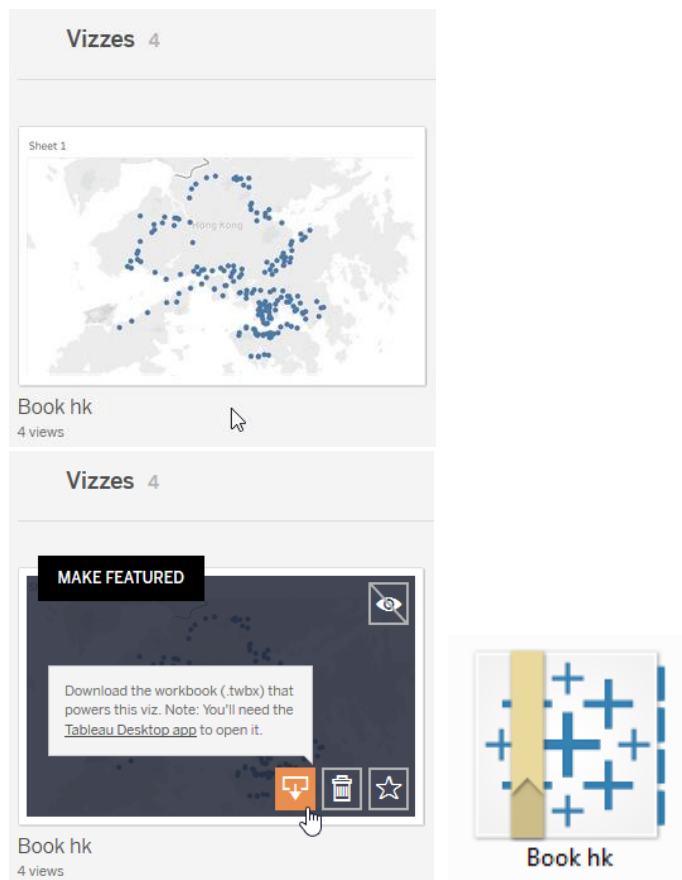
Login with your account **or signup** for a new one:

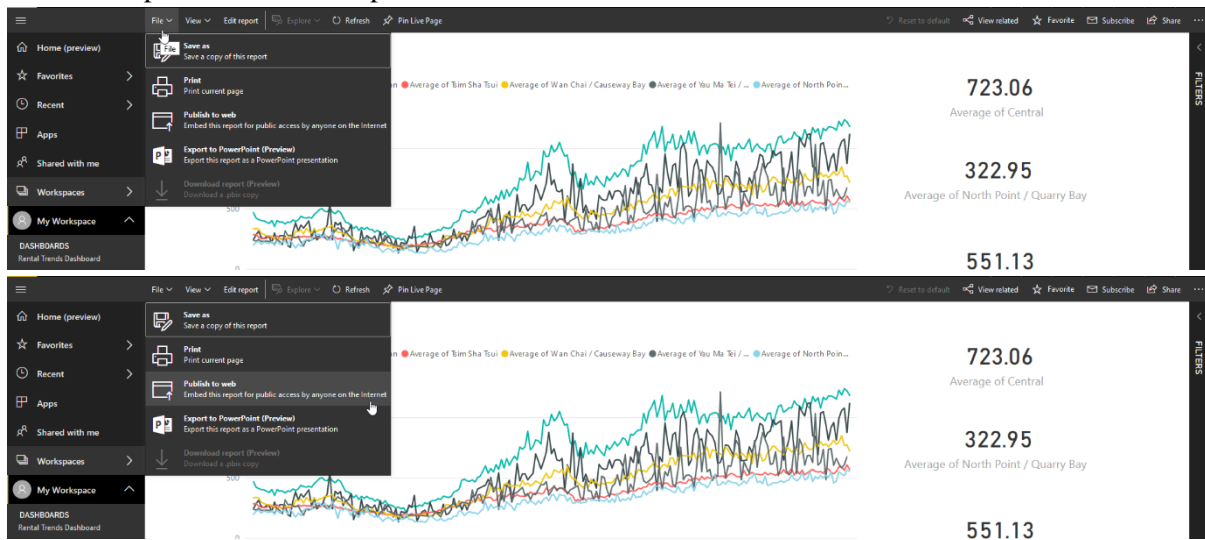Visit public.tableau.com website and login with your account

From your visualizations list, go over the one you want to share and click the button to **download the workbook file**
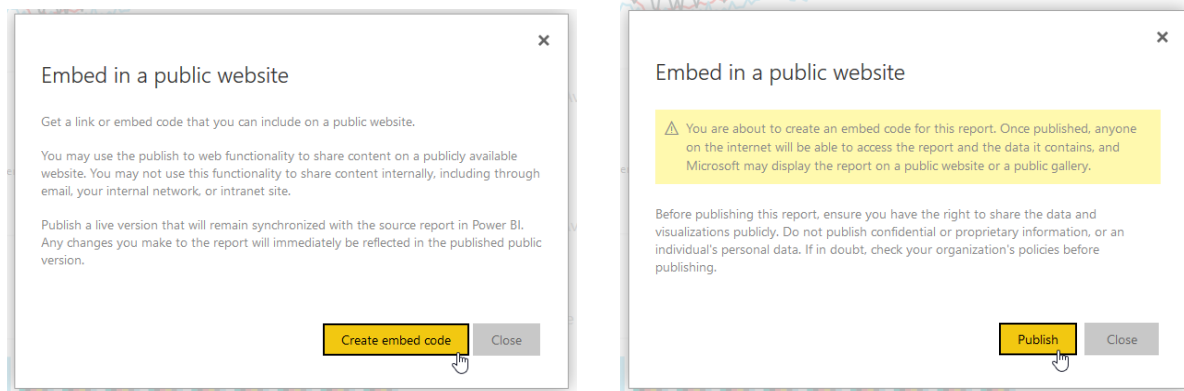

Send the **workbook** file to your instructor

Microsoft Power BI

From the report visualization open the *File* **menu** and select *Publish to Web*

Follow the steps

then **copy the link** to share using the right mouse click, paste this link into an email for the instructor