Information Visualization Assignment 2

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In this assignment, you will use your knowledge of D3.js and JavaScript to do the given tasks. You will see 2 folders that contain each task(1-1, 1-2), report template(report.docx), and this instruction(instruction.pdf). Follow the instructions below to complete the tasks. If you have any questions about this assignment, please ask TA via the PLMS discussion board or email.

1 Drawing with D3.js (24pts)

In this section, you will draw a famous video game character, Kirby. In the directory 1-1, you will see 4 files(assignment1-1.html, index.js, starrod.svg, styles.css) and 2 example images. You should draw Kirby following the instructions below:

Figure 1: Reference image the assignment 1-1

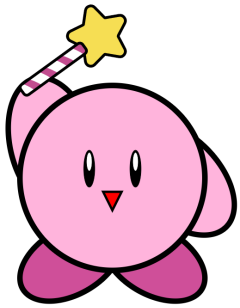

Figure 2: Example drawn by TA

- Your drawing must include a body, 2 arms, 2 feet, 2 eyes(with pupil), and a mouth. (4pts for each part)
- Your drawing must include a star rod which is provided by an external SVG file(starrod.svg). Kirby must hold it with his arm. (4pts)
- You should write your code in index.js and styles.css. You should **NOT** edit assignment1-1.html. You should use d3.js functions to draw shapes. (-4pts if you violate)

- Except for the eyes and the star rod, every part must contain an outline. (-2pts if you violate)
- Put each component considering the depth order. The arms and the feet must be behind the body and the star rod must be in front of the arms. The eyes and the mouth must be in front of the body. (-4pts if you violate)
- You should use the color code given in index.js. (-2pts if you violate)

Figure 1 shows the reference image of this assignment and Figure 2 shows the example which follows the rules.

2 Data Processing with JavaScript (8pts)

In this section, you will perform data processing with JavaScript. In the directory 1-2, you will see 3 files(assignment1-2.html, index.js, styles.css) and an example image. In index.js, you will see a sample dataset that contains the date and temperature, and a sample code that draws a simple line chart. You should perform the task with the instructions below:

- You should delete data that contain Null values. (3pts)
- You should parse the string in date value into the Date object. (3pts)
- You should sort the dataset in chronological order. (2pts)
- You should write code only in the indicated area on index.js. You should not edit other parts and assignment1-2.html. (-3pts if you violate)

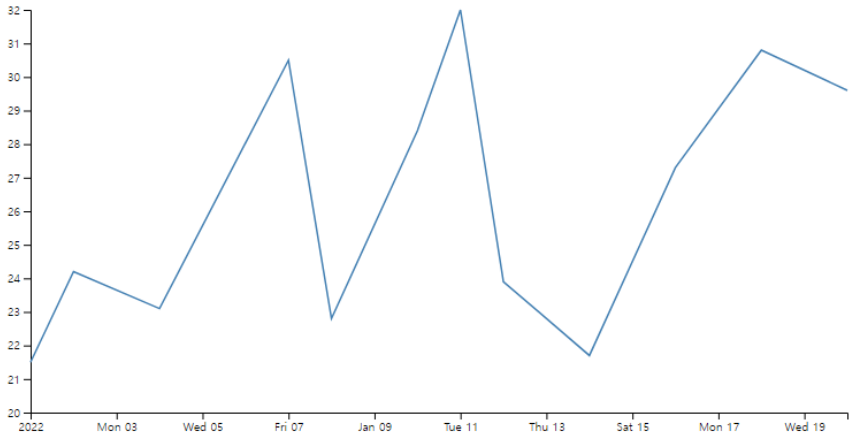

Figure 3: Expected line chart

After you finish the tasks, you will see the chart same as Figure 3.

3 Writing a Report (8pts)

Write a brief report summarizing your experience with Assignment 1-1 and Assignment 1-2. Your report should describe the challenges you faced while implementing the tasks and how you resolved them. You must include at least **two challenges and their solutions**.

Your report should be written in English or Korean, with a length of **at least 10 sentences and no more than 2 pages** (-4pts if you violate).

4 Submission

After you complete tasks, you should zip all the files into **YourStudentId_YourName.zip**. (e.g. 20251234_JohnDoe). Your file must look like this:

```
YourStudentId_YourName.zip
├─ 1-1
│  ├─ assignment1-1.html
│  ├─ example1_1.PNG (Not essential)
│  ├─ example1_2.PNG (Not essential)
│  ├─ index.js
│  ├─ starrod.svg
│  └─ styles.css
├─ 1-2
│  ├─ assignment1-2.html
│  ├─ example2.PNG (Not essential)
│  ├─ index.js
│  └─ styles.css
├─ Report.docx
└─ Instruction.pdf (Not essential)
```

You should upload this file via PLMS. Late submissions will be penalized by **a 20% deduction per day**.