1 The Point

On another PDF (point.pdf).

2 Weber's Law

a. **What does Weber's law describe? What does Fechner's law describe? What does the logarithm in Fechner's law mean?**

Weber's Law is the principal of "Just Notable Difference". It means that we judge based on relative, differences rather than absolute. Fechner's Law states that the humans' perception of loudness and brightness is proportional to the logarithm of the actual intensity measured with an accurate nonhuman instrument. The logarithm is a mathematical formula relating the perceived brightness to physical intensity.

b. **Write a game which draws visualizations of the same or similar number of points and asks the user to spot the difference. Use visualizations similar to the one below with random point positions as a baseline.**

Code for the game is in 'game_ex2a.ipynb'

3 Gestalt Theory

Which Gestalt laws are used in this example graphs? Which effect is created?

- Similarity
- Enclosure
- Closure
- Connection
- Past Experience

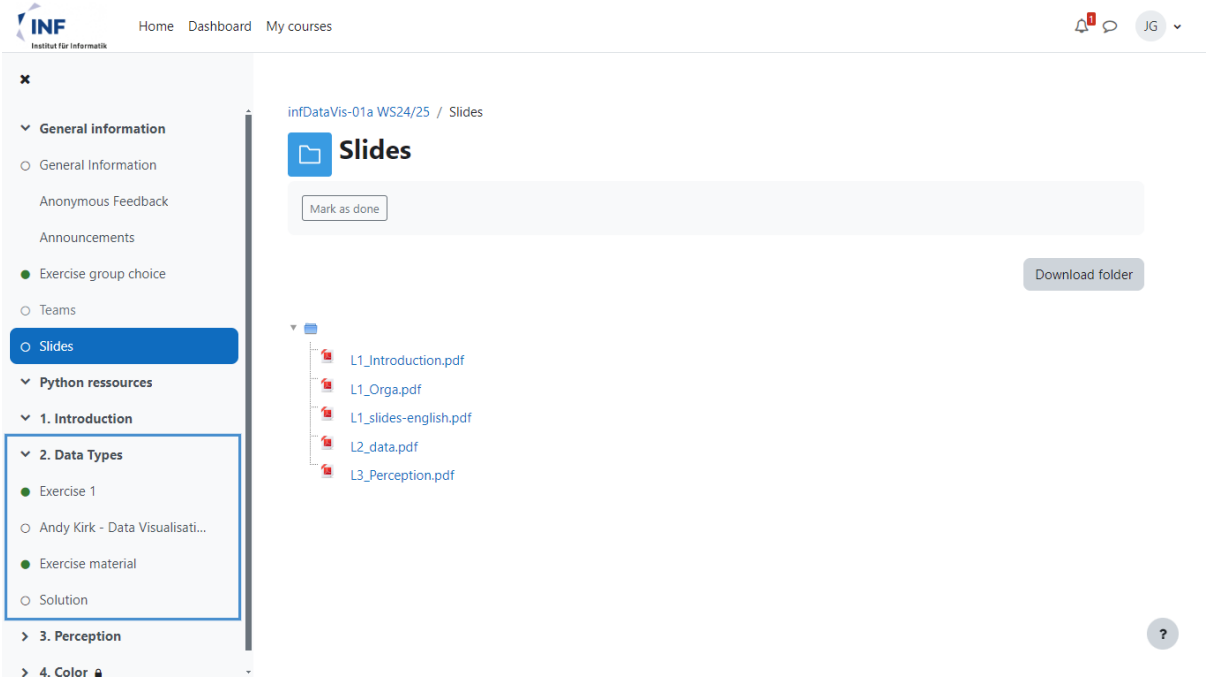
The effect created is just that a plot is visible when you look at the figure for the 1st time.

Bonus: Recreate broth graphs using randomized data

Code for the game is in 'lab2_task3.ipynb'

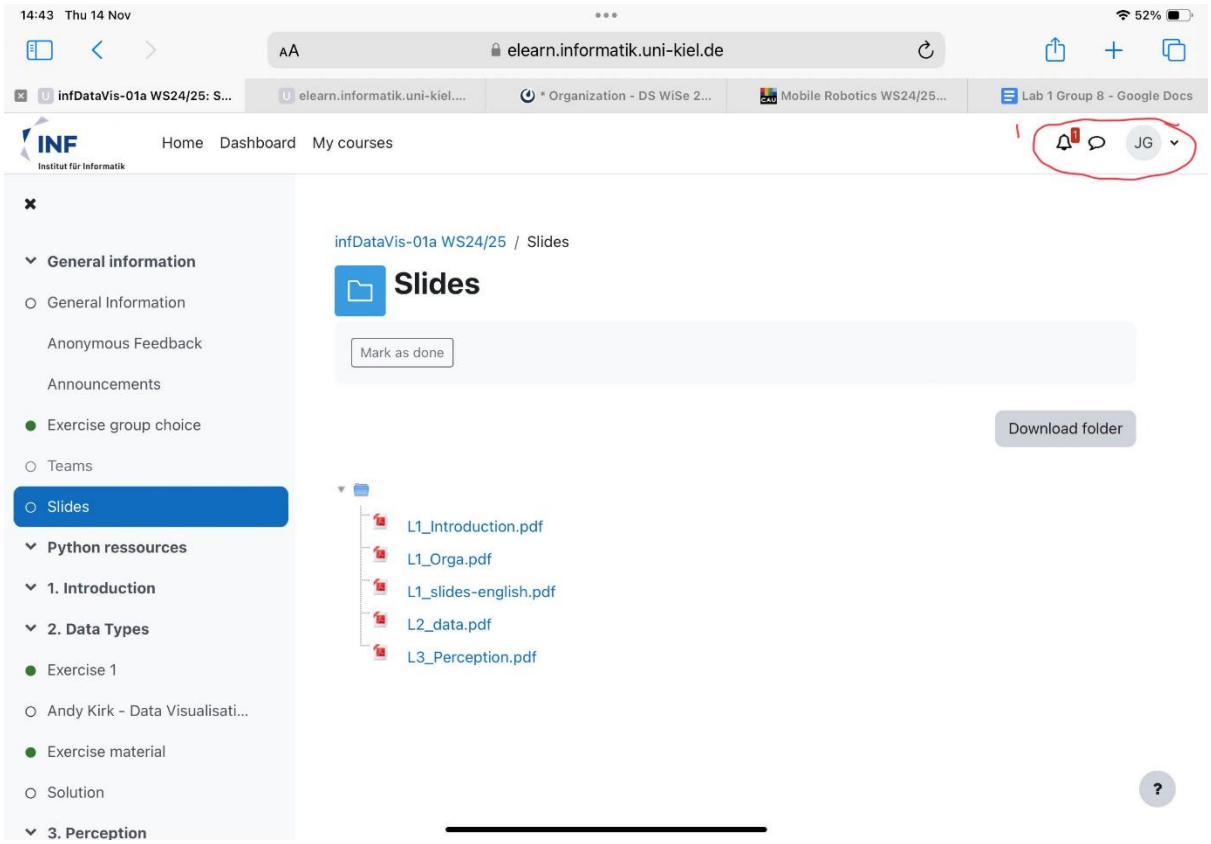
4 GESTALT THEORY – USER INTERFACE DESIGN

a. **Consider the moodle and look for Gestalt principles. Make a screenshot and highlight the Gestalt principles used in the user interface design with a short explanation.**

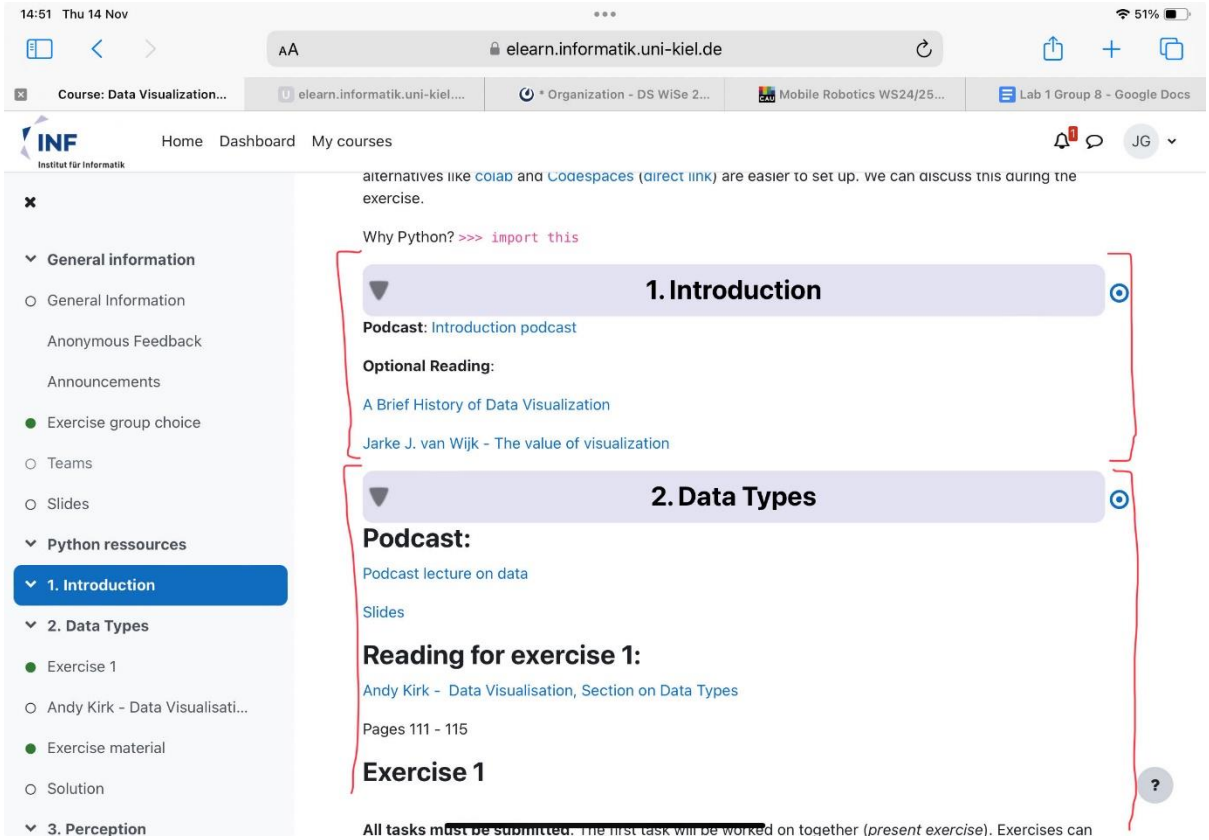


1. Law of Past Experience: You know that the headings of each ‘menu’ have and arrow next to them, allowing for a dropdown, revealing more subheadings.
   The green circle also indicates that the activity is done.
   The red number next to the bell means that there are unseen messages.
2. Law of Enclosure: A box appears around the dropdown menu of each heading.
3. Figure and Ground: The red background is in fact visible as a background for the number of unseen notifications, and not the main figure.
4. Law of Proximity: You know there are different sections to the website, such as the ribbon, dropdown menu, and main display of information.
5. Law of Common Fate: the dropdown menu moves all together when you scroll up or down.

b. Optimize the design of the Moodle by editing the screenshot! Explain your optimization by using Gestalt theory principles.



They should have a similar distance between each other (Law of Similarity).



The sections could be framed, to more clearly indicate the sections (Law of Enclosure).

5 OPTIONAL: GESTALT THEORY

Open your eyes! Look for Gestalt laws in CAU buildings/hallways/rooms. Highlight the Gestalt principles used by the architect with a short explanation.

Law of Symmetry, Similarity, Figure and Ground

Law of Similarity, Symmetry, Proximity, Past Experience

Similarity, Symmetry, Prägnanz, Enclosure

Symmetry, Similarity, Figure and Ground, Proximity, Enclosure

Past Experience, Figure and Ground, Similarity