Tutorial 3

Ex1:Recap, ER-Models,
Extra: Uniform templates

Exercises

- You don't have to submit the assignment (it's perfectly fine if you just solve it for yourself)
- We do not grade the assignments
  - We just look at the submitted tasks to see if there are any problems, general errors, etc.
- In general, the tasks are just for trial and error :)
- But you can always ask us (or look at the solutions first) if you have any difficulties

Exercise 1

- Well done! They look very good :)
- However, we noticed that only 6 of you submitted your exercises, which is perfectly fine. But it seems not everyone has even looked at the exercise yet.
- Even if you don't plan to submit it, we encourage you to at least give it a try. You learn best by doing things.

Exercise 1

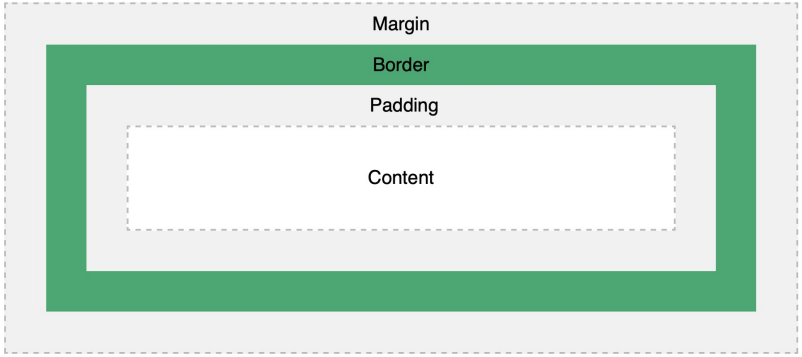
- Linking E-Mail address
  - <a href="mailto:example@gmail.com">Some text</a>
- Link to anything
  - <a href=”https://www.xyz.com”'>Some text</a>
- Favicon implementation
  - <link rel="icon" href="path/to/favicon.ico" type="image/x-icon">
  - (favicon does not need to be huge in size, this will only increase the loading time)
- Add whitespace after elements
  - 3 g salt vs 3 g salt

Exercise 1

- You can assign multiple classes → grouping
  - <h3 class="pumpkin subtopics">Pumpkin Pie</h3>
  - <h3 class="topping subtopics">Topping</h3>
    - ⇒ can add layout to both by using .subtopics and then assign color individually by using .pumpkin or .topping
- Make sure all tags have a corresponding closing tag
  - Even though the browser tries it’s best to render the HTML anyway

Padding and Margin

- Content - The content of the box, where text and images appear
- **Padding** - Clears an area around the content. The padding is transparent. It's the **space between an element's border and the element's content.**
- Border - A border that goes around the padding and content
- **Margin** - Clears an area outside the border. The margin is transparent. It's the s**pace around an element's border**.

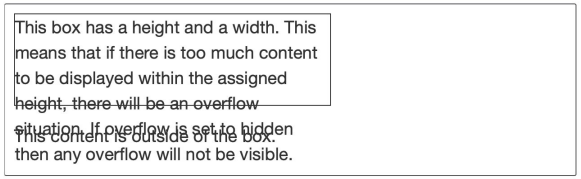


CSS Box Model

learn to create a website
add HTML to it
add CSS to it
add CSS to

CSS

- Overflowing content
  - CSS tries to avoid data loss
  - Can happen if too much text for a height restricted box or box too small for font



  - ⇒ overflow property
    - overflow-y: scroll; → add scrollbar on y-axis
    - overflow-x: scroll; → add scrollbar on x-axis
- You can try it out here

CSS

- Remember, the CSS rules are read from the top down, one at a time. This means that rules that are at the bottom override rules defined on the top
  - → Order the rules from most general to most specific
- If possible, use the same rules for multiple classes

```
header, main, footer {
    padding: 2em;
}
```

Reminder: Entity Relationship Model

1. What kind of Entity Relationships can we have?

Example:

- We have a Database at a vet which keeps track of its patients, their owners and their medical problems.
- A pet only has one owner but a owner can have multiple pets.
- One pet can have multiple illnesses and many pets can have the same illness.
- Each entity has some additional attributes describing it in more detail.

Reminder: Entity Relationship Model

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Example:

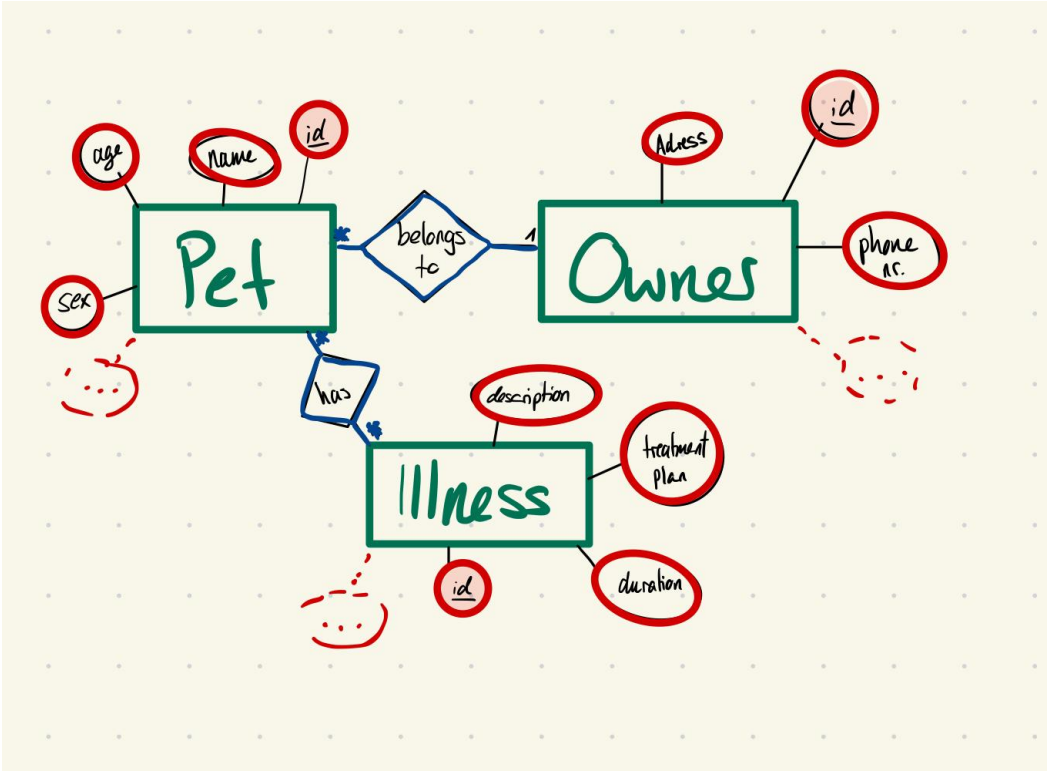
- We have a Database at a vet which keeps track of its patients, their owners and their medical problems.
- A pet only has one owner but a owner can have multiple pets. (1 owner to many pets)
- One pet can have multiple illnesses and many pets can have the same illness. (Many to many relationship)
- Each entity has some additional attributes describing it in more detail.

→ See next slide for possible ERD

Possible Solution

Making use of Foreign keys

And relationship tables to reduce repetitions.



Extra: Uniform Templates for your Flask App

Get to know flask templates better: Templates — Flask Documentation (2.3.x)

- Parent template → extends children
- Define content blocks
  - everything outside of those blocks in the parent html will be extended to every child html
  - Everything inside the blocks can be edited and personalized for each child html

(Demo) simple flask example app using a base template for uniform look over multiple pages.

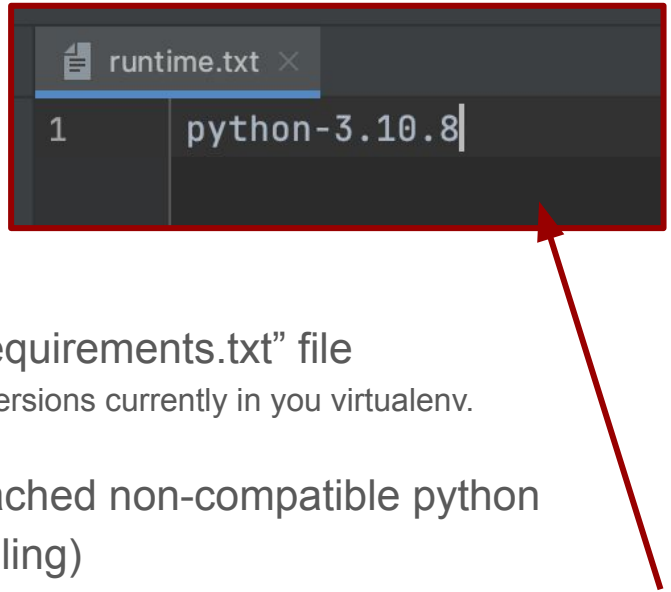
Exercise 2

- Out now, you can submit it until Wednesday, October 11, 12:00.
- Design an html page according to an image
- It does not have to be an exact copy, just more or less :)

Please give it a try :)

Appendix

Possible Deployment Fails



- **Check** the failed “Job” report
- **Check** if VPN is connected
- **Check** if new import statements were added to the “requirements.txt” file
  - Enter “Pip freeze” to get a list of all imported modules and their versions currently in you virtualenv.
  - For example add your “pyscopg[binary] / psycopg2” version
- Sometimes it can happen that during deployment a cached non-compatible python version is used during (e.g. version 3.11 can cause failing)
  - To fix that, add a “runtime.txt” file on the same level as your requirements file and define the desired python version (anything between 3.8-3.10) should work ok.
- After adding the DB env. Variables forgot to update the .yml file for “script”:

```
script:
  - git push dokku@localhost:$CI_PROJECT_NAME-$CI_PROJECT_ID HEAD:refs/heads/master
```

```
script:
  - git-push main
```