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Web Engineering

Spring Term 2015

Exercise 1

This is the description of the second part of Exercise 1.

Exercise 1.1 *Design and Layout using CSS*

Please refer to the description provided last week for the details of the first part of Exercise 1.

Exercise 1.2 *Responsive Design*

Having recreated the design and layout based on the screen mockups in the first part of Exercise 1, now you need to make it *responsive*. The goal is to make sure that the site can be viewed on different types of mobile devices. In particular, you want that the design and layout adapts to the four viewing sizes in the way it is illustrated in Figure 1. Moreover, you would like to add some parallax effect to your web site to make it more modern and dynamic.

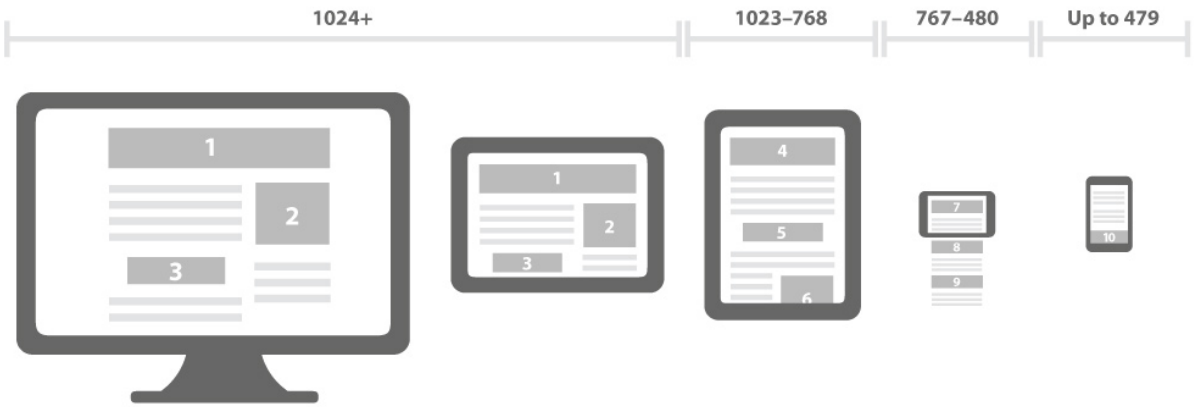

Figure 1: Proposed responsive design; all numbers are in pixels.

Based on the model above, you need to adjust the layout so that it adapts to five viewing conditions: desktop, tablet/-landscape, tablet/portrait, smartphone/landscape, smartphone/portrait. Note that the desktop and tablet/landscape are handled as the same viewing condition.

To guide how you should approach this task, please consider the following steps.

1. Using Flexbox and media queries, apply different CSS style rules to take into account the width of the browser window as well as portrait and landscape mode.
2. Based on the fluid grid concept, make sure that page element sizing is in relative units (percentages or ems), rather than absolute units (pixels or points).

3. This applies to both text and media. Flexible images are also sized in relative units (e.g. using a width of 100%). To prevent them from being displayed outside their containing element, please consider using maximum values for the width property as well.

4. Also adapt the layout and/or structure of elements.

5. Make use of the fixed background techniques to design a parallax background for your website.

Workmode and Grading. All exercises in the Web Engineering course are designed for teams of 3 students. Every member has to contribute to the team solution, and the assistants may ask about the role of each member and who contributed what.

This is the second and final part of Exercise 1. The two parts build on top of each other. **The final team solution for Exercise 1 will need to be presented during the exercise session on 17th of March 2016**. You do not need to hand in the source code, but the assistants may ask questions about how you implemented some of the features when you demo it in the exercise session. **We will use the following grading scheme.**

Grading Scheme For each part of the graded exercises, we provide a set of requirements which are going to be assessed separately. For each set of requirements, your group can get a certain amount of points. If you fulfill the requirements only partially or fail to answer corresponding questions during the presentation, points will be deducted. No or wrong solutions get zero points.

The number of requirements may differ between the parts and thus reflect their respective weights. For Exercises 1.1 and 1.2, the set of requirements are specified as follows:

Summary of Requirements - Part 1 (Max. points: 3)

- Design and layout implemented in CSS for the *home*, *about me* and *contact* sections. This means that you have at least finished the first part of Exercise 1, and have made appropriate use of HTML and CSS to recreate the layout illustrated in the mockup.
- Design and layout implemented in CSS for the remaining sections: *portfolio* and *blog*.

Summary of Requirements - Part 2 (Max. points: 3)

- Responsive design for all viewing conditions for the sections: *home*, *blog* and *contactme*. This implies that the layout of both text and media is controlled based on the fluid grid concept.
- Responsive design for all viewing conditions for the *aboutme* and *portfolio* sections. This implies that the layout of both text and media is controlled based on the fluid grid concept.
- Parallax background for the *Part Designer* sub-section. You can watch a *possible* solution for the parallax on our website[1].

Please note that the above list *is not* a complete set of *requirements*. To successfully complete the exercise, you should read the entire exercise description. For questions and/or doubts please contact one of the assistants.

Note that JavaScript and any kind of CSS Framework are not allowed. Your solution should make use only of HTML and CSS. You can, and should, make use of Flexbox[2] to develop your responsive solution.

[1] https://globis.ethz.ch/?attachment_id=1638
[2] https://css-tricks.com/snippets/css/a-guide-to-flexbox/