ETH
Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich
Institute of Information Systems
Prof. Moira C. Norrie
Matthias Geel, Linda Di Geronimo, Alfonso Murolo

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Web Engineering
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Exercise 2

So far, so good. *Evaluate Thy Hotel* is quite happy with the first prototype! However, they have now planned a couple of extensions, where the main goal is to implement a panorama viewer in JavaScript, as well as exploiting new features of HTML5 and CSS3. Again, they need your help as a web developer to make sure that, even after the changes they have planned, the web site is still responsive and works well, in particular, on mobile devices.

Note: The goal of the second series of exercises is to deepen your knowledge of state-of-the-art web technologies. This is the description of the first part of Exercise 2 which is a continuation of your work from Exercise 1. If you have not solved Exercise 1 yet, you need to solve at least Exercise 1.1 or you will not be able to complete the current exercise.

Exercise 2.1 *Panorama Viewer using jQuery*

As the next step, *Evaluate Thy Hotel* wants to implement their own panorama viewer. They already had a look around at existing image panorama components such as Cyclotron[1]. However, they are not really happy with the existing solutions. Especially the lack of a navigator view to get oriented in a large panorama picture is something they miss in other solutions. Moreover, your solution should also support automatic sliding through the panorama.

Your task is to develop a new jQuery-based panorama viewer in JavaScript for *Evaluate Thy Hotel* (weekly.html) with the following properties:

1. **Interactive viewport** It should be possible to pan the viewport with the mouse to the left and to the right (vertical movement is optional).
2. **Navigator view** Below the viewport, there should be a small representation of the complete panorama. That view should be clickable to allow users to quickly jump to a specific position within the panorama. In addition, an overlay rectangle should indicate the position and size of the current viewport.
3. **Automatic sliding** When the page is loaded, the viewport should automatically pan from left to right (and back again) until the user interacts with the panorama viewer.
4. **Responsive design** The panorama viewer should adapt to mobile and tablet viewing conditions. Also take into account portrait and landscape mode.

In a first step, your solution could look similar to Figure 1. In a second step, you should make sure that the new panorama page is responsive by adapting to the viewing conditions introduced in Exercise 1.2. Since it is likely that not all adaptations can be done in CSS, you may need to use JavaScript to recalculate the sizes of some elements.

The screenshot presented in Figure 1 shows one possible solution. You are free perform your own customisations to the style of the panorama viewer.

Note also that you are encouraged to take inspiration from existing jQuery plug-ins. However, you must develop your own solution for the Evaluate Thy Hotel website independent of existing plug-ins, libraries and other solutions. The only dependency allowed is jQuery, but you are free to use any of its available functions in your implementation.

[1] https://github.com/mahonnaise/cyclotron

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 first part of Exercise 2. **The final team solution for Exercise 2 will need to be presented during the exercise session on 27 March 2014**. 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 specify the amount of points your team can achieve and a set of requirements. These requirements represent the minimal set of goals you need to accomplish to get full points. If you fulfil 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 maximum number of points may differ between parts and thus reflect their respective weights. For Exercises 2.1, the set of requirements are specified as follows:

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

- Fully working panorama viewer. This includes the interactive viewport, the clickable navigator view and the overlay rectangle (weekly.html)
- Automatic sliding of the panorama view (weekly.html)
- Responsive design for the panorama view across all viewing conditions introduced in Exercise 1.2 (weekly.html)

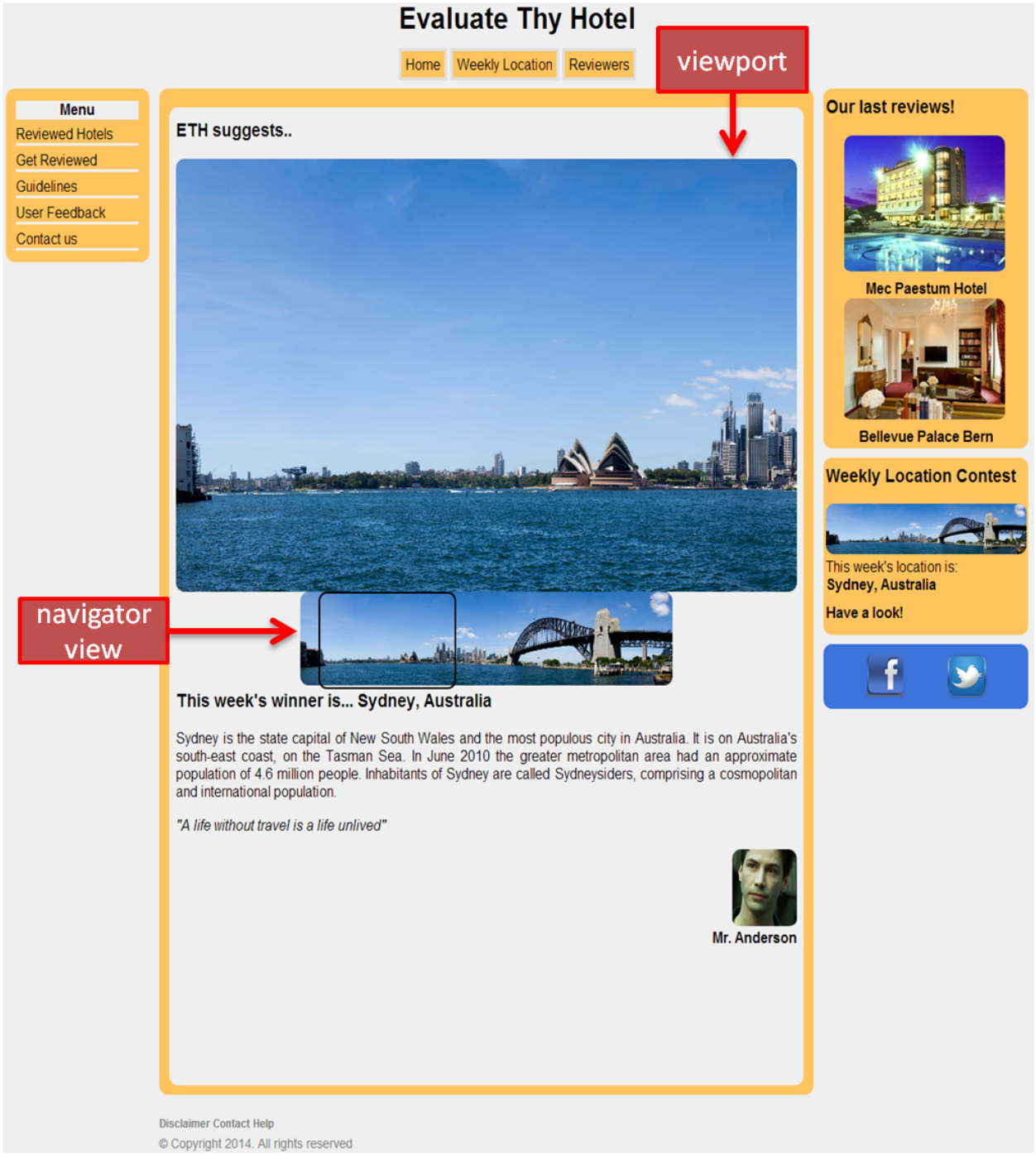

Figure 1: An interactive panorama viewer (weekly.html)