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Web Engineering
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Exercise 2

You are nearly there! Evaluate Thy Hotel now wants to make sure that their new web site is complete and up to the state-of-the-art. Exploiting new features of HTML5 and jQMultiTouch introduced in the lecture, the goal is to improve the user experience, in particular, on mobile touch devices.

This is the description of the second, and final, part of Exercise 2.

Exercise 2.1 *Panorama Viewer using jQuery*

Please refer to the description provided last week for the details of the first part of Exercise 2.

Exercise 2.2 *HTML5/jQMultiTouch*

The second part of Exercise 2 comprises the following four steps:

1. **Use HTML5 semantic tags** for semantic content structuring in all pages (index.html, reviewers.html, weekly.html). This means that you should identify the main components of each page and define them using the appropriate semantic tags (header, footer, article, section, aside, etc.). This may also mean to clean up the HTML and adjust the CSS in order to avoid the "Divitus" mentioned in the lecture.
2. **Develop an offline version of Evaluate Thy Hotel** using HTML5 manifest. In this step, you need to decide on what is cached, and justify your decisions.
3. **Implement momentum for the panorama viewer** using JavaScript/jQuery. It should take effect whenever the user drags the image leftwards or rightwards in the viewport and releases the mouse button.
4. **Implement simple (single- or multi-)touch gestures** using jQMultiTouch to navigate between all Evaluate Thy Hotel pages. In addition, it should also be possible to control the viewport in the panorama viewer using touch.

For the second step, you are referred to W3C Editor's draft HTML5 offline support[1] and an online tutorial[2] in addition to the lecture slides.

For the fourth step, we refer to the jQMultiTouch web site[3] and the second part of the lecture, "Beyond Responsive Design", where you can find additional information on jQMultiTouch. Note that jQMultiTouch is compatible with iDevices and most Android browsers, which you could use for testing the touch behaviour. However, there are known issues on Windows Phone/Windows 8 touch devices. Alternatively, by setting `$.touch.triggerMouseEvents = true`, jQMultiTouch can also simulate touch events in response to mouse input, which is sufficient for developing single-touch gestures and testing them on non-touch devices. **Please note that you should constrain the active area for touch inputs to specific DOM elements rather than using the entire document. Otherwise the potential for conflicts with default browser behaviour is much higher and you may need to use `$.touch.preventDefault = true`, which however disables scroll and zoom behaviour for the page!**

[1] http://www.w3.org/html/wg/drafts/html/master/browsers.html#offline
[2] http://www.html5rocks.com/en/tutorials/appcache/beginner
[3] http://dev.globis.ethz.ch/jqmultitouch

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 2. **The final team solution for Exercise 2.1 and 2.2 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 and 2.2, 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)

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

- HTML5 semantic tags in all pages (index.html, reviewers.html, weekly.html)
- Offline support for Evaluate Thy Hotel using HTML5 manifest (you decide on cached resources)
- Momentum implementation for the Panorama viewer (weekly.html)
- Simple (single- or multi-)touch gestures for navigating the Evaluate Thy Hotel website using jQMultiTouch (index.html, reviewers.html, weekly.html) and for sliding the panorama viewport.

Note: Excellent solutions can be awarded an extra point.