UNIVERSITÄT KOBLENZ · LANDAU

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Web Engineering

Winter Semester 2015/2016

Homework #3 (contains 5 exercises – 30 points) **Due on 02.12.2015, 12:00**

Please submit your solutions (.pdf) using the repository, in the folder that is provided for your group.

In Team: https://ist.uni-koblenz.de/teams/de/user/registration/s84gfhesga you can click on "Link zum SVN-Repository" (folder icon) in front of your group name to directly go to your own folder in the repository to submit the exercises.

You have to submit your solutions till the mentioned deadline (02.12.2015, 12:00). Submitting the solutions of the exercises and reaching **50%** of the **total points (which will be 150 points over the course of the semester)** of the exercises are mandatory **to be able to take part in the final exam**.

Bonus System: By reaching 75% of the total points of the exercises, increase your point score by 5% of the total number of points that can be reached in the exam.

By reaching 90% of the total points of the exercises, increase your point score by another 5% of the total number of points that can be reached in the exam.

We will discuss the solutions of this exercise in the exercise group. Each group should present their results at least two times over the course of the semester.

Exercise 1: HTTP

a. Is a HTTP-based communication between a client and a server synchronous or asynchronous? Explain (3 points)
b. Is the HypertextTransferProtocol stateless or stateful? Explain (3 points)

Exercise 2: JavaScript

a) How can external JavaScript files be included into HTML? Explain (2 points)
b) Where in a HTML page can JavaScript code be embedded? Explain (2 points)

Exercise 3: Styling

Open http://jsfiddle.net/fr2E7/ , develop a stylesheet which realizes the following statements:

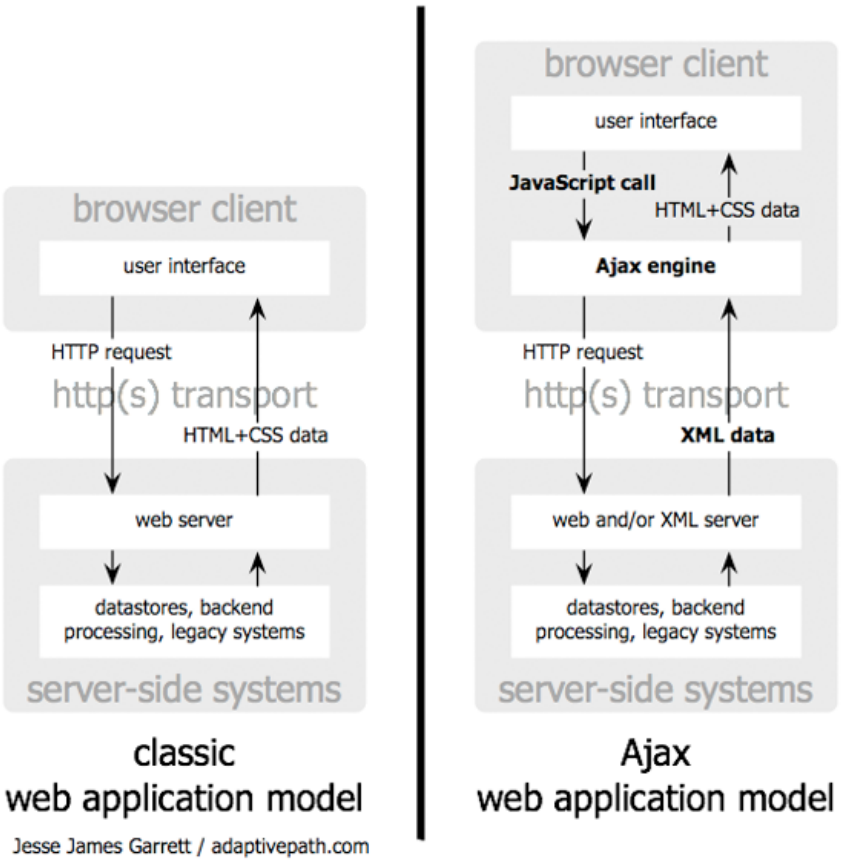
a) The table has a solid black border. (2 points)
b) The *th* element should have a solid black border at the bottom. (2 points)
c) Every *td* element in an even row should have a blue background and the text color should be white. (2 points)
d) The td elements of every third row should be bold and the text should be in the middle of the td element. (2 points)
e) The td element of the last row should have a grey background. (2 points)

The result should look like this:

You can either contain the source code in the .pdf file or submit it separately (for instance in a .txt file)

Exercise 4: Ajax

The following figure presents the classic web application model and the Ajax application model.

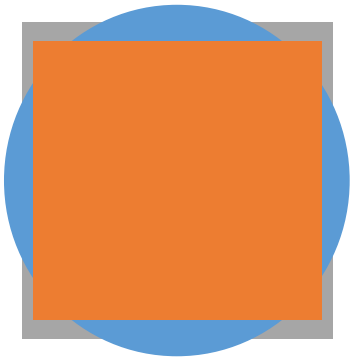


Considering this figure, please explain how Ajax differentiates from classic web application models from a) technical point of view b) user point of view. (4 points)

Provide an example of a web application which uses Ajax. (1 point)

Exercise 5: Java Applet

Make the following shape inside a Java Applet: (5 points)



Java Startup Help:

- You can obtain Java Installation and setup along with installation of IDE information from this link: https://blog.udemy.com/learn-java/

How to submit:

- You need to submit both HTML and Java source code files along with the .pdf file.
- You can either contain the source codes in the .pdf file or submit them separately (for instance in a .txt file)
- Hint: You can study the use of boxes and circles, and merge them in a way to make the aforementioned pattern.