

Assignment B01

- a) Name three advantages of the *Software as a Service* model as presented in the lecture. (3 points)
 - b) Name three challenges of the *Software as a Service* model as presented in the lecture. (3 points)
 - c) Name two implications of *Software as a Service* for the service providers as presented in the lecture. (2 points)
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Assignment B02

- a) Name the five key issues of customer-centered web design as presented in the lecture. (5 points)
- b) Briefly describe the disciplines *information architecture*, *navigation design*, and *graphic design*. (3 points)

Assignment B03

- a) Briefly describe user-centered design. What is the difference to customer-centered design? (2 points)
 - b) Briefly describe company-centered design. What is a common problem in this design approach? (2 points)
 - c) What is a principle in the context of the design process? (1 point)
 - d) Name the two principles which are at the heart of customer-centered design. Briefly describe how you have applied one of those principles in the design process of your own web application. (3 points)
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Assignment B04

- a) Briefly describe the term *Design Pattern* in general. What does a Web design pattern as presented in the lecture reflect from a customer's point of view? (2 points)
- b) Name four of the six parts of a pattern as presented in the lecture. (2 points)
- c) Briefly explain how you applied one of the web design patterns in your own web application. (2 points)
- d) How much do patterns change over time in your opinion? Justify your answer by one concrete example. (2 points)

Assignment B05

- a) Name the four competing elements of every Web design. (2 points)
 - b) Briefly describe the meaning of the Web design principle “Understand your customer’s tasks”, and give one example. (2 points).
 - c) In the context of task training, briefly describe the two principles “ease of learning” and “ease of use”. (2 points)
 - d) Which elements should be the driving factor in a Web site’s design, and which one should not? (2 points)
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Assignment B06

- a) Briefly describe the goal of the task analysis as presented in the lecture. What is a typical question you would ask about the people using the website? (2 points)
- b) Write a scenario for your own web application capturing the most important aspects which are typically told by scenarios. (6 points)

Assignment B07

- a) Briefly describe ethnographic research. What are strength of “ethnographically inspired” field studies? (2 point)
 - b) Is the ethnographic research suitable for your web application’s business idea? If yes, give an example. If no, briefly describe why not. (3 points)
 - c) What is the purpose of affinity diagrams? Briefly describe two ways of structuring information in affinity diagrams. (3 points)
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Assignment B08

- a) Name and briefly describe the three steps of an iterative design process as presented in the lecture. (6 points)
- b) Briefly describe two reasons for using an iterative design process as presented in the lecture. (2 points)

Assignment B09

- a) Give four examples of measurable design goals. (2 points)
 - b) Briefly describe rapid prototyping. What is the benefit of rapid prototyping? (2 points)
 - c) Name the seven phases of the process for developing customer-centered sites in the right order. (4 points)
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Assignment B10

- a) What means “stateless” in the context of REST? (1 point)
- b) Briefly describe the benefits of a stateless client-server architecture regarding visibility, reliability, and scalability as presented in the lecture. (3 points)
- c) Briefly describe a disadvantage of stateless client-server architectures as presented in the lecture. (1 point)
- d) Briefly describe two benefits and one disadvantage of caching in the context of REST. (3 points)

Assignment B11

- a) Name and briefly describe the main problem domains as defined by the REST triangle. (3 points)
 - b) When requesting www.wikipedia.org via your web browser, which are the values of the three parts of the REST triangle? (1 point)
 - c) Briefly describe the REST methods GET, PUT, POST, and DELETE. (4 points)
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Assignment B12

- a) Name and briefly describe the three layers of web documents as presented in the lecture. (3 points)
- b) Name two benefits of separating the three layers of web documents as presented in the lecture. (2 points)
- c) What is the main goal of HTML5? Furthermore, name four new features of HTML5 compared to its previous version. (3 points)

Assignment B13

- a) Briefly describe CSS. What is the main reason for avoiding CSS inline styles? (2 points)
- b) How are CSS declarations, declaration blocks, properties, selectors, style sheets, rules, and values related to each other? (3 points)
- c) Consider the following HTML heading element:

`<h2 id='h2id' class='h2class'>SEBA Master</h2>`

Give an example for a type selector, a class selector, and an ID selector by defining a CSS rule coloring this heading's text blue by using each of these selector kinds. (3 points)

Assignment B14

- a) Briefly describe the Document Object Model (DOM) as presented in the lecture. (1 point)
- b) Briefly describe two reasons why you shouldn't use the DOM API directly. What should be done instead? (2 points)
- c) Give a JavaScript code snippet to open a browser alert displaying the text "SEBA Master" on clicking an element with id "hello" by using jQuery (you can omit the surrounding *ready* function). (3 points)
- d) What does the application of the Twitter Bootstrap class *col-md-6* to a *div*-element imply? (2 points)

Assignment B15

- a) Briefly describe how AngularJS implements the model-view-controller (MVC) pattern. (3 points)
- b) According to the lecture: What are the two benefits of the MVC pattern in AngularJS? (2 points)
- c) Consider the following AngularJS scope object:

```
{ "exercises" : [ { "nr" : 1, "title" : "Business model" },  
                  { "nr" : 2, "title" : "Mock-ups" },  
                  { "nr" : 3, "title" : "Prototype" },  
                  { "nr" : 4, "title" : "Final presentation" } ],  
  "exerciseOrder" : "nr" }
```

Give the definition of an AngularJS template for a HTML list showing the titles of all exercises ordered by the given *exerciseOrder* (Hint: Use the *ngRepeat* directive). (3 points)

Assignment B16

- a) Briefly describe one-way and two-way data binding in AngularJS, and explain the difference between them as presented in the lecture. (2 points)
- b) Name and briefly describe two kinds of components which can be organized within AngularJS modules. (4 points)
- c) Name two advantages and two disadvantages of AngularJS as presented in the lecture. (2 points)