Arkiv

Exam in course 1MD034, System design with a user perspective

Location: Polacksbacken

Time: 2022-03-11, 08:00 - 13:00

Your anonymous exam code:

Term and year when you were first registered for the course	Study programs (or similar)
Time for submission	Table number

INSTRUCTIONS
Check that you have received the correct exam information! No helping material is allowed. The entire exam must always be submitted and the cover page must be completed even if no questions have been completed. Write your anonymous exam code on each sheet. Do not write on the back of the pages and do not use a red pencil. The exam will NOT be corrected if you have not registered for the course. The final result (points and grades) will be displayed at Studium after the result has been reported to Ladok.

FREE TEXT QUESTIONS
Answer the questions within the space provided on the sheets. Inconsistent answers and answers with irrelevant information may lead to point deductions.

MULTIPLE-CHOICE QUESTIONS
In multiple-choice questions, select all correct options. Selection of each wrong alternative may lead to point deductions (the minimum points in a question is 0) If you think that an answer option can be interpreted in several ways, mark the answer option and use the area below the question to clarify how you interpreted it.

POINTS AND SCORE AND PRELIMINARY RATING LIMITS
In the exam, two types of points are given. The triangles △ (total of 41 points) correspond to basic knowledge in the course and the squares □ (22 in total) implementation and analysis.

- For grade 3, 29 △ points are required.
- For grade 4, 29 △ points and 12 □ points are required.
- For grade 5, 29 △ points and 16 □ points are required.

POINTS OBTAINED

	1	2	3	4	5	6	7	8	9			Σ
△												
□										10	11	

Grade:

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1. What are the three common roles in a Scrum team and what are their respective responsibilities?
   (1 point per role, 1 point per area of responsibility))

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2. Name the *four values* in the Agile Manifesto(2001)!

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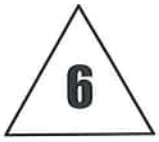
3. Briefly describe two different methods for evaluating the usability of a system, a product or a service and when they are suitable for use!

(2 points per description, 1 point per appropriate use)



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4. Give examples of three different ethical aspects that are important to consider in system development! For each aspect, also give an example of how a system's design can have a positive or a negative effect (eg via so-called dark patterns).

   (2p per correct perspective / aspect + 1p per relevant example)

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5. What are the four questions asked in each step of an interaction where an action is required by a user when evaluating with the *Cognitive Walkthrough method*? (1 p per correct choice, Obs! More than 4 marked boxes or each wrong choice will lead to minus points)

- ☐ If the correct action is performed, will the user see that progress is being made toward the solution of the task?
- ☐ Will the user try to achieve the right effect?
- ☐ Will the user form a correct mental model?
- ☐ Will the user's mental model assist the user in identifying the correct action?
- ☐ Will users associate the correct action with the effect that they are trying to achieve?
- ☐ If the user does the right thing, will the interface reflect this?
- ☐ Will the user notice that the correct action is available?
- ☐ Will the user know what to do at this step?

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6. Imagine that you are going to recruit participants for a think-aloud evaluation of a medial health record system. Which four alternatives of the following background characteristics are most important to consider? (1 p per correct choice, Obs! More than 4 marked boxes or each wrong choice will lead to minus points)

- ☐ Sex
- ☐ Age
- ☐ Length
- ☐ Weight
- ☐ Profession
- ☐ Educational level
- ☐ Income
- ☐ IQ
- ☐ Ethnical background
- ☐ Digital competence
- ☐ Personality
- ☐ Food preferences

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7. If you fail to recruit representative participants for your think-aloud evaluation of the medical health record system, what are the biggest threats when the product is completed? (Several alternatives might be correct) (wrong choice will lead to minus points)

- ☐ Your software will miss the target
- ☐ Your reputation as a designer or system developer will be destroyed for all future
- ☐ The software will be used inappropriately
- ☐ The medical terminology might be wrong
- ☐ Your partner will break up with you
- ☐ The medical staff will use workarounds when using the product
- ☐ The medical staff will be stressed out or frustrated when using the product
- ☐ The medical staff might do failures in the system that affect the patients care
- ☐ There are no threats, a good designer or system developer will conduct a good medical record system without input from potential users.

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8. Why is it often beneficial to use prototyping in system design? Give three motives. (1 p per motive/example)

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9. Describe two motives why it sometimes is a good idea to restrict the autonomy of the user? (1 p per motive/example)

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10. This task tests understanding of higher grades and is only corrected if the sum of previous tasks reaches the pass mark.
In the course lectures, we discussed Nielsen's and Molich's 10 Usability heuristics/ principles for interaction design.
    - Describe 5 of the 10 heuristics?
    - How would you implement those 5 heuristics in your course project (Speed dating)?
      You can illustrate your solution with sketches if you think it is appropriate.

(1 point for each heuristic and 1 point for implementation)

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11. This task tests understanding of higher grades and is only corrected if the sum of previous tasks reaches the pass mark.

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Name and describe the six dimensions of the usage quality prisma (sv. brukskvalitetsprisma). Then exemplify how you accounted for each dimension in your projects, or motivate why you did not account for a specific dimension. (1 p per dimension + 1 point per example)

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