

PVT Exam: 19. April 2013

Closed book exam: No study aids may be used on this exam.

Please answer each question on a new piece of paper. You may write on the back of the papers. Sort the papers in order of questions before handing in.

The exam consist of four questions, the number of points is shown before each question.

F	Fx	E	D	C	B	A
<11	11-18	19-23	24-28	29-33	34-37	>37

The exam is graded on a scale from A to F with the above defined point ranges. Write concisely, no answer needs to take up more than two pages. You can answer in English or in Swedish

Question 1 (10 points, 1 for each definition)

Please define the following concepts, at least a couple of sentences for each.

1. Prototyping
2. Microblogging
3. System test(s)
4. Spike
5. Continuous builds
6. System architecture
7. Version management system
8. Legacy code
9. Tech Lead
10. Pair programing

Question 2 (6 points)

For each of the following statements motivate why it is true or false:

- A) The design pattern Model-View-Controller manages the three layers' presentation, business logic, and database in a structured way.
- B) Model classes in the Model-View-Controller pattern contain business logic.
- C) The presentation layer of an architecture usually contains calculations, for example how much discount a customer should get.

Question 3 (10 points)

Imagine you have to design a field experiment that investigates your new picture sharing application in relation to Instagram (an picture sharing social network application). The target group for your application is teenagers. You want to find out which application is more appropriate for sharing pictures when teenagers go out partying.

1. Describe the setup of the field experiment.

Hint: make sure to explain why it is a field experiment.

2. Describe the dependent and independent variable.

3. Imagine and describe a possible outcome

Hint: be creative, you decide on the quality of the picture sharing program.

Question 4 (9 points)

Part A (6 points)

Code reviews (granskningar och inspektioner) is covered in the book and was also discussed on a lecture. Which advantages do you get from code reviews? Any disadvantages?

Part B (3 points)

According to the book you should avoid the big (MAD) code reviews and make sure that your code reviews are light weight. This to some extend contradicts other proponents of reviews who claim that more formal types of reviews find more errors. More formal types of reviews tend to involve more people, and the reviewers are usually supposed to have gone through the code before the reviews.

What view do you take on formal vs. more light weight reviews? Why? Please observe that there is no right answer on this question, and that it hasn't been discussed in any detail in class. The grade will depend solely on your own arguments.

Question 5 (5 points)

Describe the main differences between traditional project management and agile project management.