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Exercises in Modeling Methods in Computer Science, Winter 2005/06
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Exercise 10Submit until **17.01.2006, 4 p.m.**

Task 21: State diagrams

- (a) Model the “life” of a single submitted piece of homework as a state diagram. For simplicity, you may assume that the submitted homework consists of one task only. Explain the states, which you use in your diagram, in additional text (i.e. comments to help us understand the meaning of your states).
- (b) Model the way of an e-mail message from the sender to the recipient in a state diagram. Start with the sender hitting the **send** button in his/her e-mail client, and finish with the state of affairs when the message has finally reached the recipient’s e-mail client. Comment the individual states (additional text, as in part a)).

5 + 5 = 10 Points

Task 22: Activity diagrams

- (a) Create an activity diagram for the homework exercise cycle. Start with “publish on the Web” (i.e. the tasks of exercise X are published on the lecture website), and finish with the two alternatives “Collect in the exercise” (i.e. the students collect their corrected homework in the exercise), and “collect during consultation hours” (i.e. the students collect their corrected homework during the tutor’s consultation hours). Explain the meaning of the individual activities in your diagram (in additional text).
- (b) Extend the diagram from part a) by adding the following two activities:
- “Check the correction” — the tutor checks a piece of homework, if the students are not satisfied with the first correction
 - “Adjust points” — if a task has indeed been corrected in a wrong way, then the points in the database have to be adjusted

Add further activities if necessary.

6 + 4 = 10 Points