



*Tasks 1-3 are designed as live exercises for the tutorial session – for this, we will split up in breakup groups. It's not required to submit anything for these tasks. Task 4 is to be completed offline and to be submitted until the deadline.*

### Task 1: Feature interactions

Come up with your own example for a feature interaction of the follow kinds:

- between two features
- between three or more features (higher-order feature interaction)

### Task 2: Dealing with feature interactions

- a) Name three solutions for dealing with feature interactions *without negatively affecting code quality*.
- b) What other solutions exist? For each of them, in which way is code quality affected?

### Task 3: Consequences of feature interactions

- a) What consequences can feature interactions have for the development of a software product line?
- b) How can you reduce the number of expected feature interactions?

### Task 4: Reflection on your FOP- and AOP-based solutions

Reflect on your FOP- and AOP-based implementations of the chat product line in assignments 6 and 7. Consider the following tasks:

- a) Which of the following did your solutions contain? Give concrete examples for each (where applicable)!
  - static and dynamic feature interactions
  - domain and implementation feature interactions
  - instances of the “optional feature” problem
- b) Based on our discussion of solutions for dealing with feature interactions and their benefits/drawbacks, critically reflect on your chosen solutions. Would you still implement your solutions in the same way?

Submit a report (PDF) in which you address both tasks.