

Software Engineering with Objects and Components 1

Second Tutorial: Practical Work

Please read this tutorial sheet before you arrive at the tutorial. You are required to do some preparation for the tutorial – please try to do it.

Before the tutorial:

1. Get together briefly with your team and pull together your work on the use cases for your facet of the system. This should be readable by other teams, it needs not to be complete or polished. You should bring this description to your tutorial. **Hint:** use the templates (i.e., Volere and Use case) tailored for your purposes.
2. Prepare a presentation of your use cases. Your presentation should include the following:
 - The name of the tutorial group; the team identifier (i.e., S, P or A).
 - The names of each of your team members.
 - The use cases you have produced.
3. On your own, read over the description of the sub-systems the other teams in your tutorial are working on.

The aims of this tutorial are:

1. To presents your initial work on collecting the system requirements and representing the use cases.
2. To provide some diverse input to other teams in your tutorial group on the structure of their use cases for their subsystem.
3. To practice creating class models from use cases
4. To begin to identify the responsibilities for the classes in your class model.

After the tutorial:

1. Next week, each of the teams will have 10 minutes to present their class models for the system.
2. You should begin to prepare this as early as possible. Again, the use cases and class model need not be complete or very polished but by 15th October you should be close to completing deliverable 1.

Team Resources

- 1 instruction sheet (this page)
- 1 blank OHP slide
- 1 non-permanent OHP pen
- a preliminary requirements/use cases document (of another team)
- 5 minutes presentation time (for use cases)
- 15 minutes preparation time (for class diagrams)
- 5 minutes presentation time (for class diagrams)

Instructions

Phase I Each team will have 5 minutes to present their use cases. During the presentation your document (i.e., requirements and use cases) will be available to the other teams.

Phase II Each team will have 15 minutes to prepare a preliminary class model for a sub-system belonging to some *other* team in the tutorial group. Each team will have the documents of the team they are modelling (e.g., if you are S and are trying to model P, you will have P's document).

You have 15 minutes to create a class model for the sub-system and prepare a short presentation to the rest of the group. Each team will give its presentation in order as specified by the tutor. Your presentation should include the following:

- The name of the tutorial group; the team identifier (i.e., S, P or A).
- The names of each of your team members.
- The class model you have produced.

A Preliminary Class Model for Someone Else's System Facet

The activity is structured in the following way (note that this is very tightly timed – your tutor will enforce these so the activity fits in the available time):

Preliminaries: Get into your teams.

5 mins *Individually* each member of the team attempts to identify the main classes by analysing the noun phrases used in the use case.

5 mins *The whole team* merges the individual lists to create a consolidated list of classes for the system. Consider the list of classes – try to identify associations between the classes. Include the associations only if your team agrees.

5 mins *The whole team* constructs one OHP slide with the constructed class diagram

5 mins *Each team in turn* is given 5 mins to present their prototype class model for the subsystem they have been allocated.

Finally: At the end of the tutorial the slide with the summary class model belongs to the group who created the use case on which the model is based.

Tutorial Outcomes

By the end of this tutorial your group should

1. Have some feedback on your use cases.
2. Experienced some of the issues in constructing class models.
3. Have a preliminary class model for your part of the system that has been created by a different team.
4. Your team should also begin to identify the responsibilities of each class in the model.

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