

Software Engineering with Objects and Components 1
Second Tutorial: Practical Work
22 Oct 2003

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 need not be complete or polished. You should bring this description to your tutorial.
2. 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 practice creating class models from use cases.
2. To provide some diverse input to other teams in your tutorial group on the structure of the class models for their subsystem.
3. 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 and use cases 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 6th November you should be close to completing deliverable 1.

Team Resources

- 1 instruction sheet (this page)
- 1 blank OHP slide
- 1 non-permanent OHP pen
- 20 minutes preparation time
- 5 minutes presentation time

Instructions

Each team will have 20 minutes to prepare a preliminary class model for a sub-system belonging to some *other* team in the tutorial group.

You have 20 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 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, then cyclically permute your preliminary use cases (i.e. if your tutorial has groups S, L, A, then team S gets team L's use case, team L gets team A's use case and team A gets team S's use case.)

5 mins Read the use case you have just received.

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.

5 mins *In pairs* consider the list of classes – try to identify associations between the classes. Take it in turns to propose an association and justify it to your partner – include it in your list only if your partner agrees. If your team has an odd number of members make one team a threesome.

5 mins *The whole team* constructs one OHP slide with their class model formed by merging the list of associations generated by the pairs.

15–20 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. Experienced some of the issues in constructing class models.
2. Have a preliminary class model for your part of the system that has been created by a different team.
3. Your team should also begin to identify the responsibilities of each class in the model.

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OCTOBER 21, 2003