Use Case Diagram Ceremony

Elicit a description of an existing or future system in a manner with facilitates rapidly building and sharing a mutual understanding of the system.

Purpose

To describe the users of a system, the system boundaries, and the user interactions with the system.

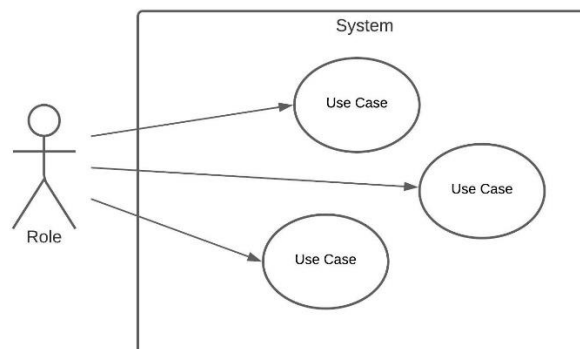### Preparation

None required.

Participants (roles)

Modeler, Scribe, Participants

Pattern

Open—Modeler announces the system the group is to describe together. The facilitator draws a large rectangle and puts the system name inside the top.

Execute—Modeler asks the Participants "Who uses this system?"

When the Participants call out a user the modeler draws a stick figure outside of the box and labels it with the role name. If the Participants called out a proper name then the Modeler requests a role name, "What is a role the user plays when they use the system?"

The Scribe is also recording their own diagram and notes from the conversation.

The Modeler then asks "What is something the user does when using the system? What

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is a reason a user might have to use the system?"

The Participants call out an activity or reason (called a use case in this diagram).

The Modeler writes the activity inside of the box and draws an oval around the activity, then the Modeler draws an arrow from the user stick figure to the oval.

The Modeler then ask "Is there anything else about this activity?"

The Scribe records any additional information volunteered by the participants.

The Modeler then ask "Is there anything else the user does with this system?"

The Modeler keeps adding use cases (ovals with activities inside) until the Participants cannot think of any more use cases for this role. Then the Modeler asks "Is there anyone else who uses this system?"

If the Participants identify another user then the process of drawing roles and drawing use cases continues with each new user. The process continues as long as the Participants can quickly and easily identify new roles and new use cases.

Close—Modeler announces the end of the session, the potential time of the next session, and how the model will be shared with the Participants.

Product

A Use Case Diagram of a system for one or more roles.

Tips

Select the system to be modelled in advance of the modelling session.

Set the duration for the modelling session in advance, usually 1 to 3 hours.

After asking "Who" (role) does "What" (activity/use case) the modeler may wish to ask "And why does this role do this activity?" Although the answer is not recorded in the diagram it can be written down by the Scribe in this formation:
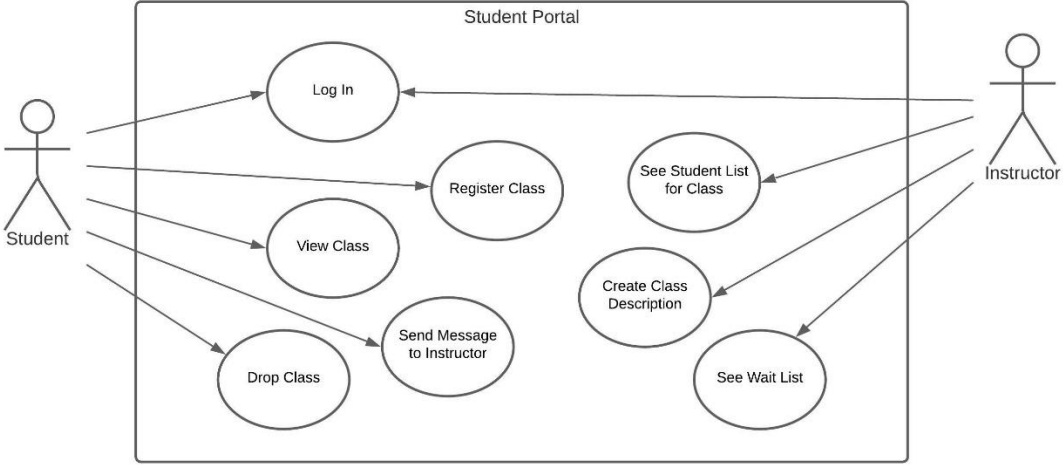
Who: (role)
Does What: (activity)
Why?: (benefit, reason)

It can be powerful to ask the why question multiple times to get deeper into the users' potential motivations and goals.

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The Modeler should be trained in basic Use Case UML notation. All that is required to facilitate a good session can be seen in the diagram below. There are additional ways to enhance this diagram in the official notation. However most of the enhancements should not be used in this ceremony.

If a diagram gets too full then start a new diagram. It is OK to produce multiple diagrams.

A nice book on UML is *UML Distilled: A Brief Guide to the Standard Object Modeling Language* by Martin Fowler. We recommend the first edition, if you can find it, as each subsequent edition became less distilled.

Another nice book on UML is *The Elements of UML™ Style* by Scott W. Ambler. We also recommend the first edition for this book.