

Reasonability Checks for Candidate Classes

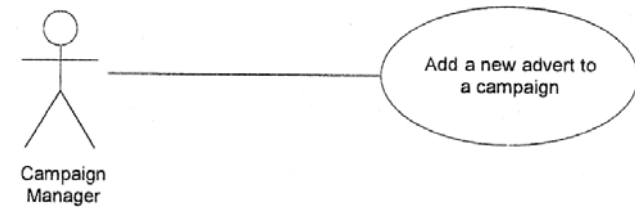
- A number of tests help to check whether a candidate class is reasonable
 - ◆ Is it beyond the scope of the system?
 - ◆ Does it refer to the system as a whole?
 - ◆ Does it duplicate another class?
 - ◆ Is it too vague?
 - ◆ Is it too tied up with physical inputs and outputs?
 - ◆ Is it really an attribute?
 - ◆ Is it really an operation?
 - ◆ Is it really an association?
- If any answer is 'Yes', consider modelling the potential class in some other way (or do not model it at all)

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Step 1: Start with one Use Case

- Consider the use Case Diagram for “Add a new advert to a campaign”.

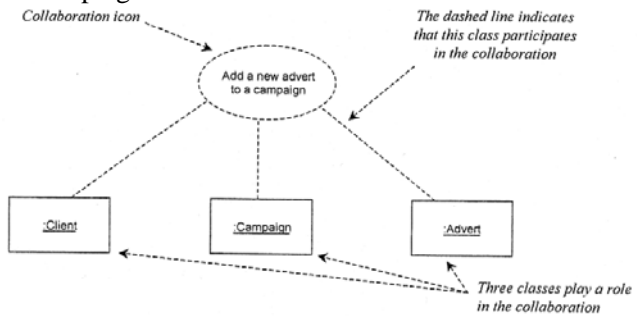


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Step 2: Use Case Collaboration

- Collaboration for “Add a new advert to a campaign”.

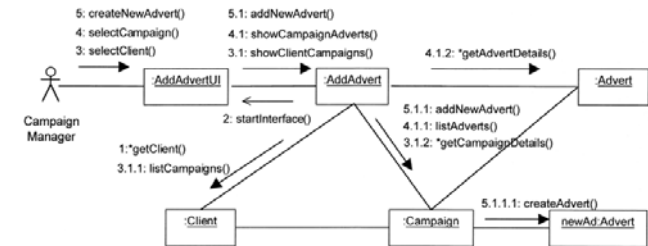


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Step 3: Draw a Collaboration Diagram

- Collaboration Diagram for “Add a new advert to a campaign”

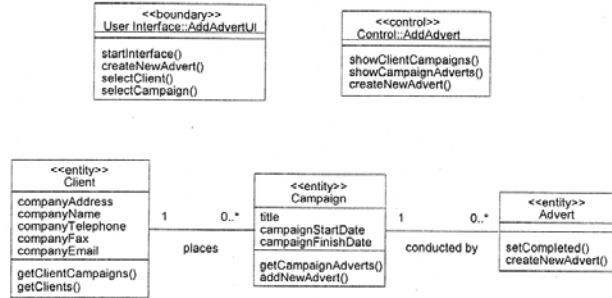


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Step 4: Translate into Class Diagram

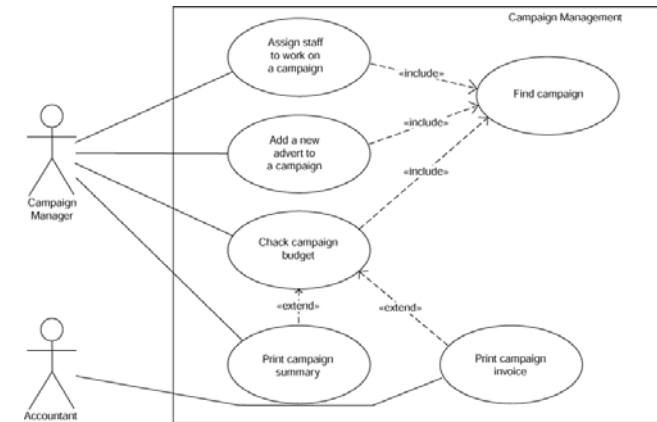
- Analysis Class Diagram for “Add a new advert to a campaign”



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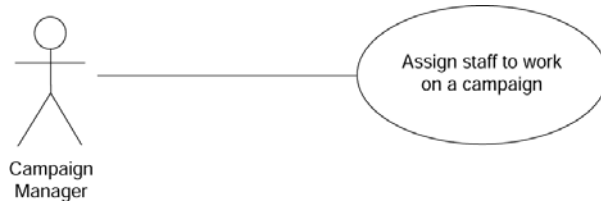
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Example: Drawing a Class Diagram



Example: Drawing a Class Diagram

- Consider the following use case and draw the class diagram for it



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Example: Drawing a Class Diagram

- We need to identify the Use Case Description

Use Case description: Assign staff to work on a campaign

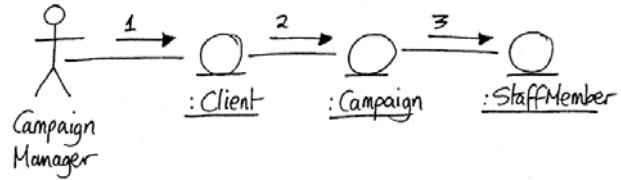
Actor Action	System Responses
1. None	2. Displays list if client management
3. The actor (a campaign manager selects the client name	4. Lists the titles of all campaigns for that client
5. Selects the relevant campaign	6. Displays a list of all staff members not already allocated to this campaign
7. Highlights the staff members to be assigned to this campaign	8. Presents a message confirming that staff have been allocated

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Example: Drawing a Class Diagram

- Initial collaboration diagram for “Assign staff to work on a campaign”

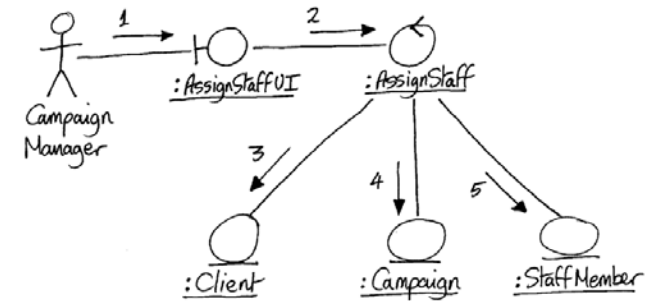


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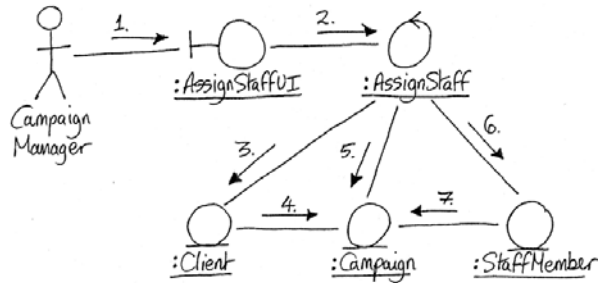
Example: Drawing a Class Diagram

- Boundary and control objects added, giving a different view on how the object interaction might



Example: Drawing a Class Diagram

- Further refinement has introduced links between some entity objects

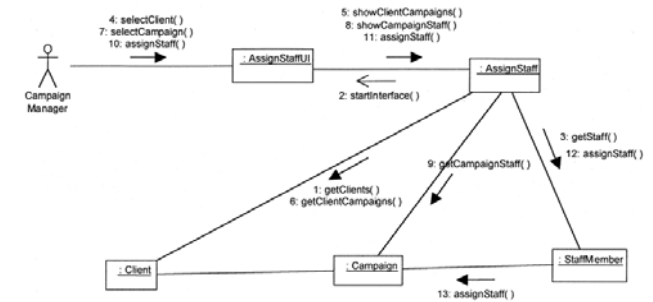


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Example: Drawing a Class Diagram

- Semi-final collaboration diagram for Assign staff to work on a campaign.

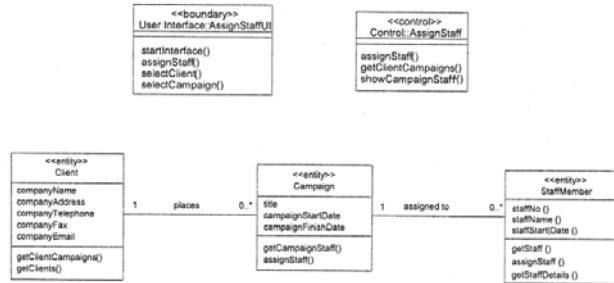


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Example: Drawing a Class Diagram

- Class Diagram for the use case Assign staff to work on a campaign.



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Collaboration Diagram vs. Class Diagram

- A collaboration diagram typically shows instances and links, while a class diagram typically shows only classes and their associations.
- A collaboration diagram shows only those objects that participate in a specific interaction, while a class diagram typically shows a structure that may be capable of supporting different interactions.
- A collaboration diagram shows messages between objects, while a class diagram does not.

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