# Phase 1: Introduce Your Roles (Teamwork)

### Duration

This phase should take about 2 minutes.

## Task

At the beginning, each collaborative modelling session participant introduces herself. Therefore, she answers the following questions:

- 1. What is your name?
- 2. What is your role in the organization?
- 3. What responsibilities does your role entail?
- 4. Which key activities do you undertake in the context of your responsibilities?

## Examples

"Hi! My name is Mary, and I am an UX designer. I take responsibility for creating a design which combines functionality and aesthetics. Therefore, I build mock-ups of the app and conduct interviews to analyse how individuals interact with the prototypical mock-ups."

"Hi! My name is Jesper, and I am a software developer. I take responsibility for implementing a running version of a defined feature. Either I build a production-ready or a prototypical implementation. For both cases, I draw on the provided mock-ups and the textual feature description to understand what should be implemented."

# Phase 2: Define the Scope (Teamwork)

### Duration

This phase should take about 5 to 10 minutes.

#### Task

In this phase, you ensure that all participants intent on modelling the same process. Therefore, you build a high-level overview on the process by answering the following questions:

- 1. What triggers the process?
- 2. What is the goal of the process?
- 3. What is the process about? Especially, what are key activities? What does the process' scope includes and what not?

Thereby, you should remember and recapitulate a simple or well-known past case of the process. Then, you can orientate on this example to derive the answers for the given questions.

It is recommended to capture your findings as bullet points on the whiteboard.

## Example

"Today, we want to model the process on how we design, evaluate and implement a new feature to evolve our application. For instance, we published a feature which allows our users to track their daily water consumption. Our process started with a feature recommendation. The involved UX designer created some mock-ups and asked the software developers to build a prototype. During the user testing, the UX designers found out that users expect simpler access to the water tracking, wherefore, the UX designers adapted the mock-ups. Finally, the software developers built a production-ready implementation. The completion of this implementation marked the end of the considered process."

# Phase 3: Formalize the Trigger Event (Teamwork)

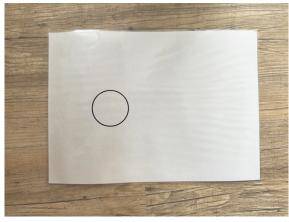
### Duration

This phase should take about 3 minutes.

#### Task

In this phase, you formalize your findings about what triggers the process by filling out the start fragment template. Therefore, you write down the name of the start event with a whiteboard marker and use sticky notes to map out the data objects and their corresponding states which the start event yields. For defining the input and output relations, you draw arrows with a whiteboard marker.

Please don't hesitate to continuously adjust your shaping of the template to visualize your conversation and its outcomes. For instance,



Empty start fragment template

you can easily add or remove data objects by adding and removing sticky notes. Attach the filled out start fragment on the whiteboard.

Finally, you start drawing the domain model as well as the first object lifecycle diagrams: For each data object which you define in the start fragment, you create a corresponding entity in the domain model. Likewise, you start an object lifecycle diagram for each entity in the domain model and add all yet known states. Please draw the object lifecycle diagrams as well as the domain model on the whiteboard with the help of a whiteboard marker.

# Example



# Phase 4: Formalize the Termination Condition (Teamwork)

## **Duration**

This phase should take about 3 minutes.

#### Task

In this phase, you formalize your findings on what marks the end of the considered process. Please write down the termination condition on the whiteboard with the help of a whiteboard marker. For formulating the termination condition, you may introduce further data objects which are not yet part of the evolving fCM model.

Do not forget to update the domain model and the object lifecycles with the new states and data objects.

Please don't hesitate to adjust continuously the evolving model to visualize your conversation and its outcomes.

# Example

Feature[implemented] OR Feature[rejected]

# Phase 5: Prepare Fragments (Individual Work)

### Duration

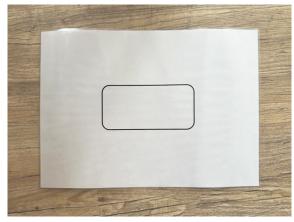
This phase should take about 10 to 15 minutes.

## Task

Now, the starting point and the goal of the process is formalized. In this phase, each teammate creates individually a set of fragments which maps out her activities.

Thereby, each fragment contains exactly one activity as well as its corresponding input and output data objects.

To capture your ideas, please use the fragment templates, where you need to add the name of the activity with a whiteboard marker. Furthermore, you use sticky notes to map out the data objects. Finally, you draw Empty fragment template arrows with a whiteboard marker between



the sticky notes and the activity to symbolize the input and output relations.

You can enrich the data objects with their corresponding states. However, it is not strictly required.

### Hint

If you conduct multiple consecutive activities which do not depend on data objects produced by other activities, you may merge them into a single higher-level activity.

# Examples



# Phase 6: Simulate a Case (Teamwork)

#### Duration

This phase should take about 15 to 20 minutes.

#### Task

This phase orientates on a card playing game whose goal is to transition the start condition to the termination condition. Therefore, you play the created fragments which you prepared in the previous phase.

A round in the card playing game is structured as follows:

- A participant recognizes that she owns a fragment F which may promote the
  process course and is not yet presented on the whiteboard. Then, she asks for
  leading this round. If multiple participants want to lead the round, the group
  decides who should lead the round.
- 2. The leading participant shows the fragment F to the group and explains its content as well as why it promotes the process. The group either accepts or rejects the proposal. If the group rejects the proposal, the round ends. Else, the leading participant adds the fragment to whiteboard.
- 3. The leading participant updates the domain model, adds corresponding states to the data objects in the fragments and updates the object life cycle diagrams. In the meanwhile, the other participants review their fragments and update them accordingly to the changes on the whiteboard. For instance, a participant may recognize that she named a data object differently than it is defined by the evolving model on the whiteboard.

The card playing game ends as soon as the termination condition is reached. Please don't hesitate to adopt the evolving model on the whiteboard, if necessary. For instance, you can discard an obsolete fragment.

#### Hint

You can incorporate some form of role playing to make the card playing more interactive.

# Example

"Using the "Feature" data object, I can create mock-ups which visualizes the envisioned feature. Do all of you accept my proposal? If so, I add my related fragment to the whiteboard. My planned state "envisioned" matches to the existing state of the "Feature" data object, wherefore, I do not need to adapt its lifecycle. However, my fragment produces the new data object "Mock-up", wherefore, I add it to our class diagram, propose its initial state and capture my proposal in a new object life cycle diagram."

# Phase 7: Recapitulate the Case (Teamwork)

# **Duration**

This phase should take about 2 minutes.

#### Task

Select one participant who summarizes the current state on the whiteboard.

# Example

"Our yet modelled case starts with an envisioned feature. The UX designers build a set of mock-ups which they test during user interviews. Before the UX designers let the software developers create a production-ready implementation, they refine the mock-ups between multiple rounds of user interviews. The case ends when the software developers finish their implementation of the feature described by the mock-ups."

# Phase 8: Accommodate Remaining Fragments (Teamwork)

### Duration

This phase should take about 5 minutes.

#### Task

After phase 6, there may be fragments left in your hands which were not yet placed on the whiteboard. In this phase, these fragments will be addressed. You can either discard the remaining fragments or add them to the whiteboard according to the card game which you played in phase 6. Thereby, it is allowed to change existing elements of the evolving model.

This phase ends as soon as no participant has any fragments left in hand or does not want to make additional modifications to the model.

## Example

"Basing on a user interview, I can also reject a feature. Thus, I add a fragment which takes our data object "Feature" and a data object "User Interview" and translates the "Feature" data object into the "rejected" state".