The best defense is a good defense: adapting negotiation methods for tackling pressure over software project estimates

Supplementary material

This document contains the script for the focus group and the pool of supporting scenarios available.

Script (for the moderator)

1. [Main room, everyone] Resolve questions about the lenses.
2. [Main room, everyone] Explain the objective: to estimate a software task or project and define a final commitment (scope and deadline), considering that someone will play the role of a receptor of the estimate and everybody else will act as a technical team. The team is responsible for estimating and implementing the product according to the specification, adopting whichever team organization (regarding roles) and programming languages they want.
3. [Main room, everyone] Define the person to play the receptor role. Ask people to volunteer. If no one does, make a draw to choose who will assume the receptor's role. Also, make a draw to choose the scenario[1].
4. [Main room, everyone, via chat] Send everyone the software specification, and explain the initial scenes from the scenario (see specific instructions below).
5. [Main room, everyone] Ask the receptor to leave the main room (at Google Meet) and to go to the private room (at Whereby) for a quick meeting with the moderator. Meanwhile, estimators will read the specification and prepare their estimates.
6. [Private room, moderator, and receptor] Explain to the receptor the expected dynamics from him, according to the specific instructions of the scenario(see specific instructions below). The receptor shall study the scenario (to understand what to do) and the specification (see specific instructions below). Obs.: while the estimators are working on the estimates, the moderator must be available to the receptor to resolve any questions about the scenario.
7. [Main room, everyone] When the estimators signal that they finished the estimating task, ask the receptor to return to the main room (at Google Meet). Ask estimators to present their estimates to the receptor. Ask estimators and the receptor to work together to reach an agreement about the final commitment.
8. [Main room, everyone] After the estimators and the receptor signal that they reached a conclusion (no matter whether they agreed or not), ask them to answer the questionnaire.
9. [Main room, everyone] When everybody finishes answering the questionnaire, go to the debriefing step and ask them the following questions:
   a. What do you think we need to change/improve in the lenses or the booklet to make them usable in real scenarios that you face (or faced) when estimating and establishing a commitment? [if necessary, go through the lenses with them]

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[1] During the focus group that we executed, Scenario 3 was drawn at this step.

b. Do you have any suggestions to make the lenses more useful for the actual estimating and commitment establishment scenarios you face?

c. Do you have any suggestions to make the lenses more usable (easy to consult and apply) for the actual estimating and commitment establishment scenarios you face?

d. Do you have interesting examples (like the ones in the booklet) from your professional lives that can contribute to the lenses or the booklet? If yes, can you share them with us?

e. Is there anything else you would like to mention/discuss?

Scenarios and details for Steps 5 and 6

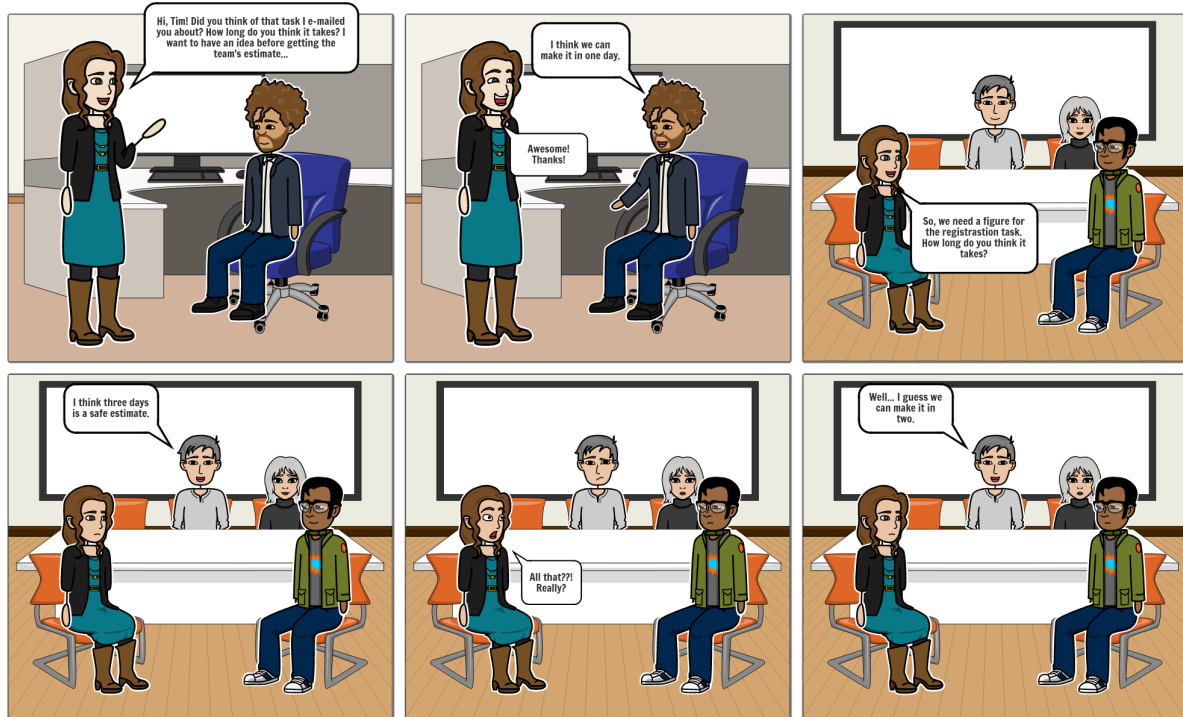**SCENARIO 1**: Defensible estimate - estimating a software task
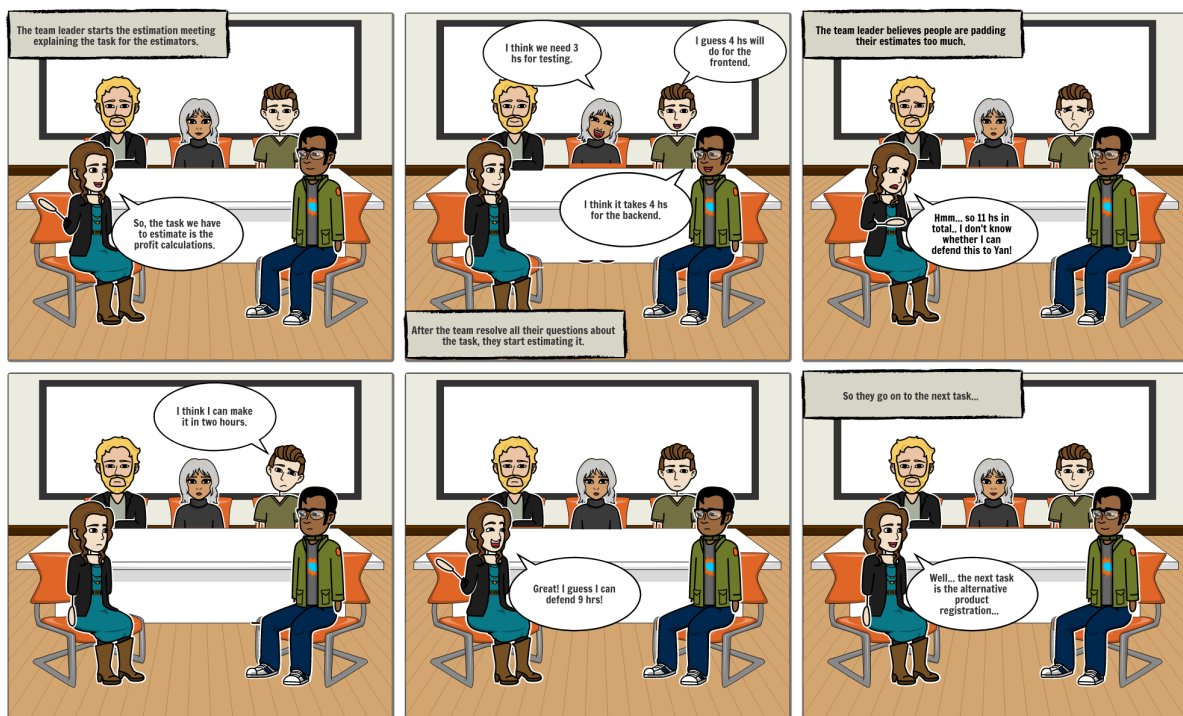
Create your own at Storyboard That

Specific instructions:

● **Step 5:**
  ○ Explain to the receptor that s/he is taking the seat of the team leader and that the scenario is about s/he pressuring for a reduction of the total estimate because it is not defensible. It does not matter if the receptor agrees with the value in the first moment.
  ○ If estimators convince s/he, it is ok to accept their estimate.
  ○ Consider the SeminarWeb specification entirely implemented up to Item 3. Therefore, estimators will estimate Items 4 e 5.

● **Step 6:**
  ○ Show everyone the scenario up to Scene 2 (from left to right, top to bottom).
  ○ Explain to estimators that SeminarWeb was completely implemented up to Item 3. Therefore, and that they must estimate Items 4 e 5 as a single task.

Also, explain that they will have to work with the receptor trying to agree on a final estimate to present to the higher manager.

SCENARIO 2: Pressure increases productivity - estimating a software task
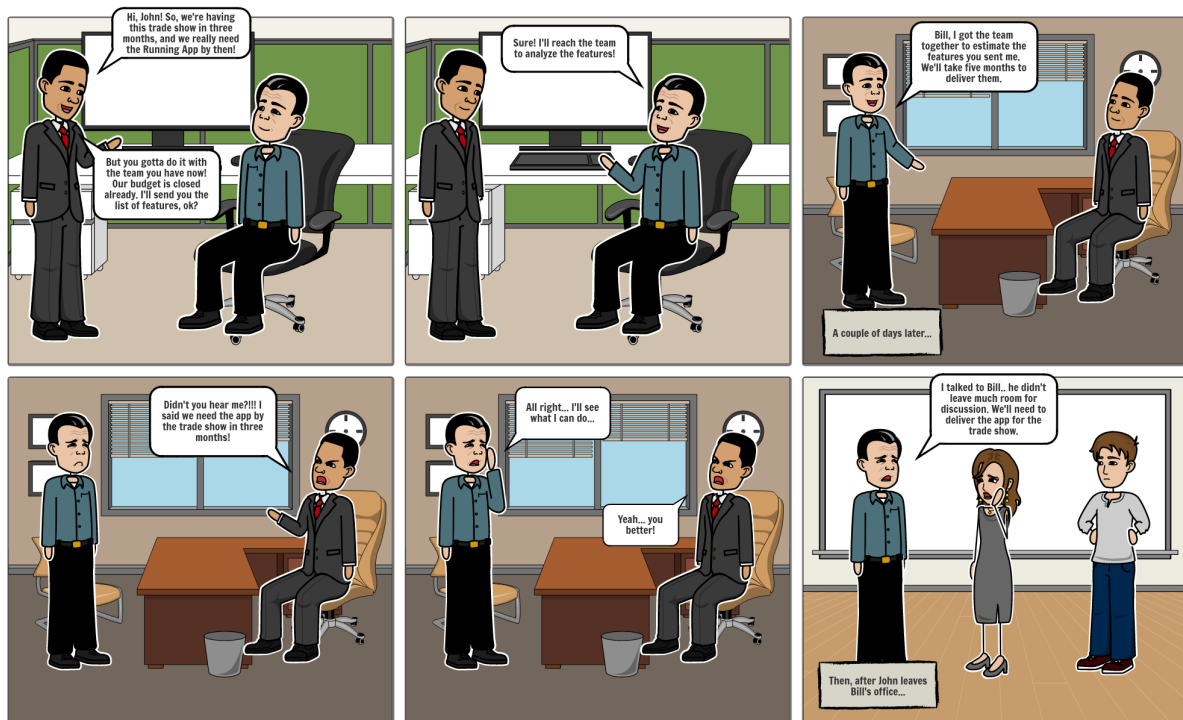

Create your own at Storyboard That

Specific instructions:
- **Step 5:**
  - Explain to the receptor that s/he is taking the seat of the team leader. Explain that the scenario is about the fact that a senior developer already gave him/her a lower estimate for the same task compared with the estimate that the estimators will provide. Ask the receptor to put pressure over the estimators, trying to reduce their estimate because of this.
  - If estimators convince s/he, it is ok to accept their estimate.
  - Consider the SeminarWeb specification completely implemented up to Item 3. Therefore, estimators will estimate Items 4 e 5.
- **Step 6:**
  - Show everyone the scenario up to Scene 3 (from left to right, top to bottom).
  - Explain to estimators that SeminarWeb was completely implemented up to Item 3. Therefore, and that they must estimate Items 4 e 5 as a single task. Also, explain that they will have to work with the receptor trying to agree on a final estimate to present to the higher manager.

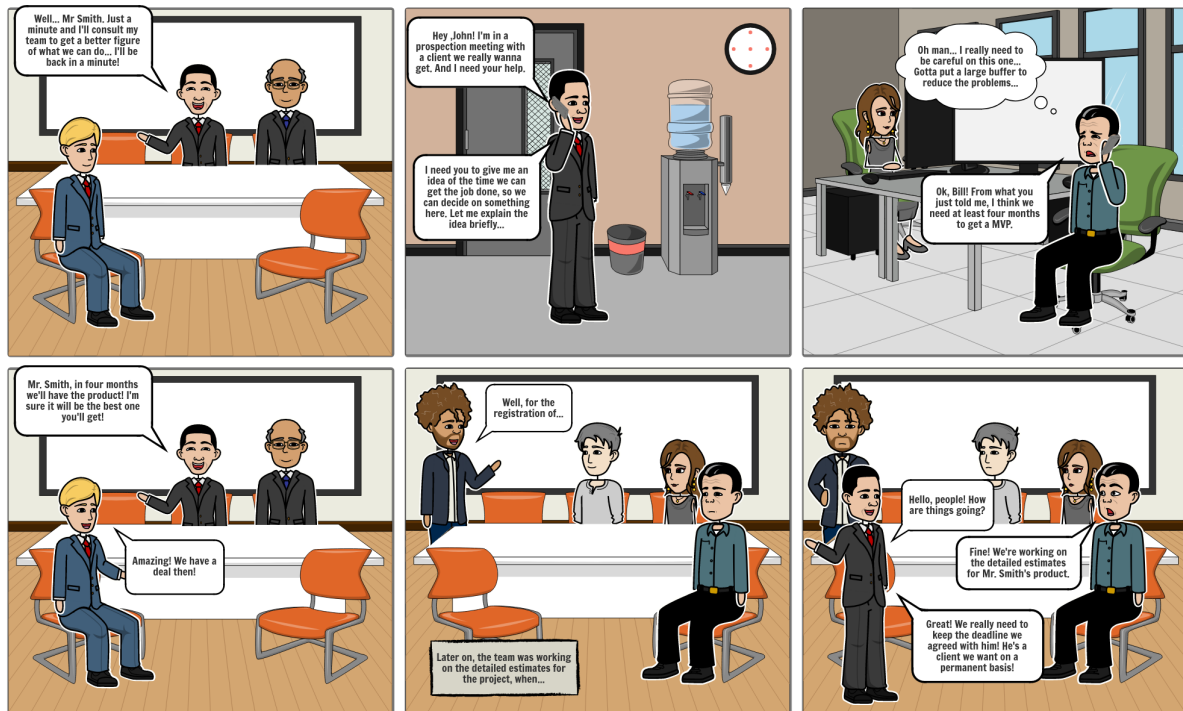**SCENARIO 3**: Tradeshow - estimating a software project

Create your own at Storyboard That

Specific instructions:
- **Step 5:**
    - Explain to the receptor that s/he is taking the seat of Bill. Also explain that the scenario is about the fact that the tradeshow has a fixed date and is highly desirable to have the system completely implemented until there. Ask the receptor to put pressure over the estimators, trying to reduce their estimate because of this. Ask him/her to consider that the estimate provided by estimators does not allow for the complete delivery of the system until the desired date (i.e., explain that the deadline in the storyboard is just an example).
    - If estimators convince the receptor that the deadline is unfeasible, it is ok to accept their estimate and reduce scope.
- **Step 6:**
    - Show everyone the scenario up to Scene 3 (from left to right, top to bottom).
    - Explain to estimators that they must provide an estimate to implement SeminarWeb completely. Also, explain that they will have to reach an agreement with the receptor regarding a final estimate.

SCENARIO 4: Ballpark estimate turns into a commitment - estimating a software project

Specific instructions:

- **Step 5:**
  - Explain to the receptor that s/he is taking the seat of Bill. Also explain that the scenario is about the fact that s/he made a commitment about a deadline with a crucial client. Ask the receptor to put pressure over the estimators, trying to make them reduce their estimate to attain the previous commitment, no matter what. Ask him/her to consider that the estimate provided by estimators does not allow for the complete delivery of the system until the desired date (i.e., explain that the deadline in the storyboard is just an example).
  - If estimators convince the receptor that the deadline is unfeasible, it is ok to accept their estimate and to reduce scope.
- **Step 6:**
  - Show everyone the scenario up to Scene 5 (from left to right, top to bottom).
  - Explain to estimators that they must provide an estimate to implement SeminarWeb completely. Also, explain that they will have to reach an agreement with the receptor regarding a final estimate.