

Answers: Tropos

Questions proposed by:

Hadar, I., Reinhartz-Berger, I., Kuflik, T., Perini, A., Ricca, F., Susi, A.: **Comparing the comprehensibility of requirements models expressed in Use Case and Tropos: Results from a family of experiments.** Information and Software Technology. 55, 1823–1843 (2013).

1. How many actors, mentioned in the case study's story, have been modeled? What are their names? What are their names?

Waiter, Chef, Customer, Ingredients DB, Retailer, and E-restaurant (optional).

2. Are there actors in the model who are not mentioned in the case study's story? If so, name them.

e-Ordering Service.

3. Are there any actors, mentioned in the case study's story, who have NOT been modeled? If so, name them.

Owner and Restaurant DB (optional, to be consistent with the Ingredients DB).

4. Is there any functionality in the case study's story, which is NOT mentioned in the model? If so, describe it (them) in a few words

- Check if all the customers he/she served paid the bill.
- Waiter / chef manage information related to the orders.
- Call a waiter to prepare the bill.
- Customer ask waiter to help them in using the system.

5. How many relationships between actors appear in the model? Specify the number of dependencies per type.

- Goal dependency: 6
- Plan dependency: 2
- Resource dependency: 2

If both models are considered, answer (6, 4, 4) is also correct.

6. Which info can the e-Restaurant system get from Ingredients DB, according to the model only? Please provide a short description.

Information about the available ingredients.

7. How many relationships between the Waiter and the e-Restaurant system appear in the model?

- Goal dependency: 0
- Plan dependency: 2
- Resource dependency: 0

8. According to the model, describe the ways the Customer can place an order through the e-Restaurant system? What are they? Please provide short description

Call waiter or perform automatic order.

9. According to the model, who are the actors that provide the e-Restaurant system with the data about the available ingredients? Actor(s) name(s)

Ingredients DB and Retailer (optional, considering the decomposition).

10. According to the model, which type of information about dishes can the Customer get from the e-Restaurant system? Please provide a short description.

- Price, nutritional information, ingredients.

11. How do you modify the model to include a new fact such as that the e-Restaurant can give information about the “history of the dishes”? Make the modification directly on the model and describe here by words which modification you made

Actor diagram: -.

Goal diagram: new plan “give history of the dishes” as another means to goal “information about dishes obtained”.

12. How do you modify the model if the Customer has to complete the activity of placing an order using the e-Restaurant system, without calling the Waiter? Make the modification directly on the model and describe here by words which modification you made.

Actor diagram: remove plan “help customer”.

Goal diagram: remove plans “help customer” and “call waiter”.

13. How do you modify the model if the e-Restaurant system will get information about the status of the pending orders from the Ingredients DB instead of from the Retailer? Make the modification directly on the model and describe here by words which modification you made.

Actor diagram: change dependency “infos about ingredients in pending orders” to Ingredients DB; remove retailer.

Goal diagram: change dependency “infos about ingredients in pending orders” to Ingredients DB; remove retailer.

14. How do you modify the model to represent the fact that the bill preparation will be performed by the e-Restaurant system, without the intervention of the Waiter? Make the modification directly on the model and describe here by words which modification you made.

Actor diagram: remove plan dependency for “support bill preparation”.

Goal diagram: remove plan dependency for “support bill preparation”.