

## Second use case: Bringing objects from another person

The use case which should be implemented can be described as follows: Hobbit should be repetitively asking User A if it should bring an object from User B, which is located at another place. First the user should be asked which objects should be picked up (e.g. "Which object do you want?"). User A then should use the robot's tablet to enter the name of the requested object. After that, Hobbit should navigate to the User B. User B then should be asked to handover the desired object. If it is answered positively, the object should be placed on Hobbit's tray and the robot navigates back to its previous location telling User A "Here you are" and placing the object on the table. If the object has not been handed over, an appropriate message should be displayed on the tablet (e.g. "I'm sorry, your partner couldn't handover the object") after navigating back.

Afterwards User A should be asked, if Hobbit should bring another item. The whole procedure should be performed as long as User A does not request any other object. After the final decline Hobbit should show a happy emotion. For a better understanding figure 1 provides the flowchart of this use case. The locations of User A and B can be considered as the following poses:

- User A:
  - `position:{x:1.0,y:2.0,x:0.0}`
  - `orientation:{x:0.0,y:0.0,z:0.0,w:1.0}`
- User B:
  - `position:{x:14.0,y:-5.0,x:0.0}`
  - `orientation:{x:0.0,y:0.0,z:0.0,w:0.6}`

Please implement a solution using the provided code editor, which lets Hobbit show the desired behaviour, with respect to the following conditions:

- Do exclusively use the provided editor for implementing your solution
- Start working by clicking the "Start" button of the interface
- Do not close the graphical editor during your work
- Click the "Stop" button when you finished implementation
- Click "Submit" to submit your solution

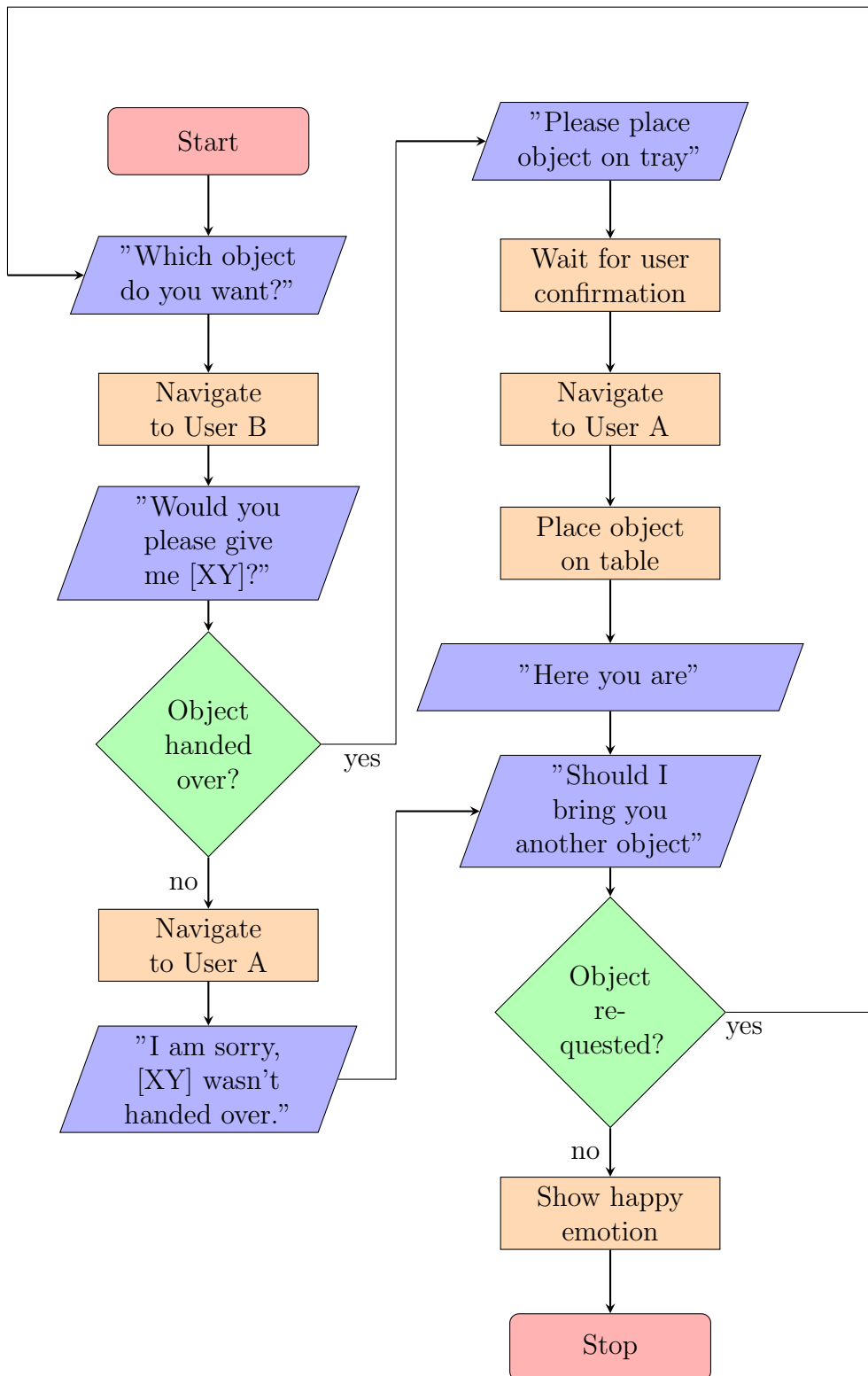


Figure 1: Flowchart of second use case