



“Resource Search - Shopping” was specified as part of the UbiCompForAll project in order to identify potential users of the technology that will be developed in the project and to generate design ideas for the services these users might compose.

Summary

Anne composes a service to assist her finding shops nearby which provide the goods on her shopping list. The service also provides a route for visiting the selected shops.

Problem description

This scenario is the last of three scenarios which are related in that they all contain some elements of resource search and are located in the city. This scenario focuses on planning of shopping, while the related scenarios cover parking, arranging meetings with friends and café table reservation.

Support for composing services containing an element of resource search and reservation is of interest for the end user who wants to simplify or automate frequent reservation tasks, and is also of interest for providers of the resources who benefit from the resources being booked.

This scenario is related to the domains of social shopping, travel, and resource allocation.

Main actor (s)

Anne (24) is a student in the master program in history. Anne rents an apartment within fifteen minutes walking distance from the city, together with two other students. She likes to meet friends and to go shopping, but always plan the shopping upfront.

Per (27) is a friend of Anne. He is a master of business administration. He lives alone in an apartment in the suburbs of the city. Per owns a car, and likes to drive when he visits the city. He is a helpful person, and enjoys spending time with his friends. Per prefers to improvise in his private life.

Activity scenario

After a visit to a café with her friends, Anne has planned to go shopping. She mentions this to Per, who offers to assist with his car. Anne has prepared a detailed shopping list. She uses her Shopping Route service to search for nearby providers of the goods on her shopping list, and to find an optimal shopping route which visits all the selected shops.

Composition scenario

Anne got the initial idea for the Shopping Route service one evening after she had spent the whole day walking from shop to shop trying to find everything she needed for a party she was throwing. She had started the day with a complete list of what she needed, but found it difficult to locate the goods. In some recent newsletter for the service composition software she remembered that several shops now provided a service for searching what goods they provide. She composed a first version of a service which found local goods nearby, and displayed the result as a list of shops and which goods they had. After trying this service for some weeks, she decided that it would be nice to improve the service by showing the shops on a map. She looked at some available service composition on the net, and found one service intended for tourists

which showed a map with selected sites of interest, and which also suggested a route for visiting all the sites. She then extended her goods location service with ideas from this map composition, and came up with a version of the Shopping Route which she has used since.

Alternative stories

- the shopping route could be further optimized by taking the weight and volume of the goods into consideration

Related scenarios

This scenario is part of a group of scenarios which are related in that they all contain some elements of resource search and are located in the city. The scenarios use (some of) the same actors, and tell a story in the following order:

- Resource Search – Parking
- Resource Search – Meeting
- Resource Search – Shopping (this scenario)

More details

This chapter presents a summary use case diagram for the shopping scenario and an overview of how the logic of the main scenario can be realised as a composition. The following use case shows the actors and use cases identified from the main and the alternative stories for the shopping scenario.

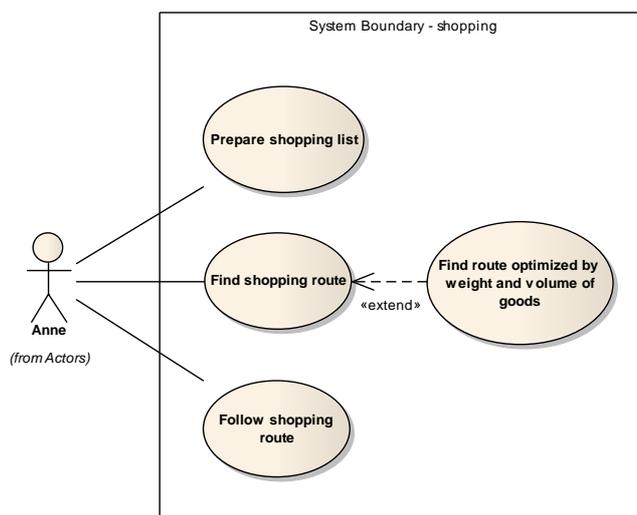


Figure 1 - Use case diagram for shopping scenario

The following sequence diagram shows the composition and interactions which cover the shopping scenario for Anne.

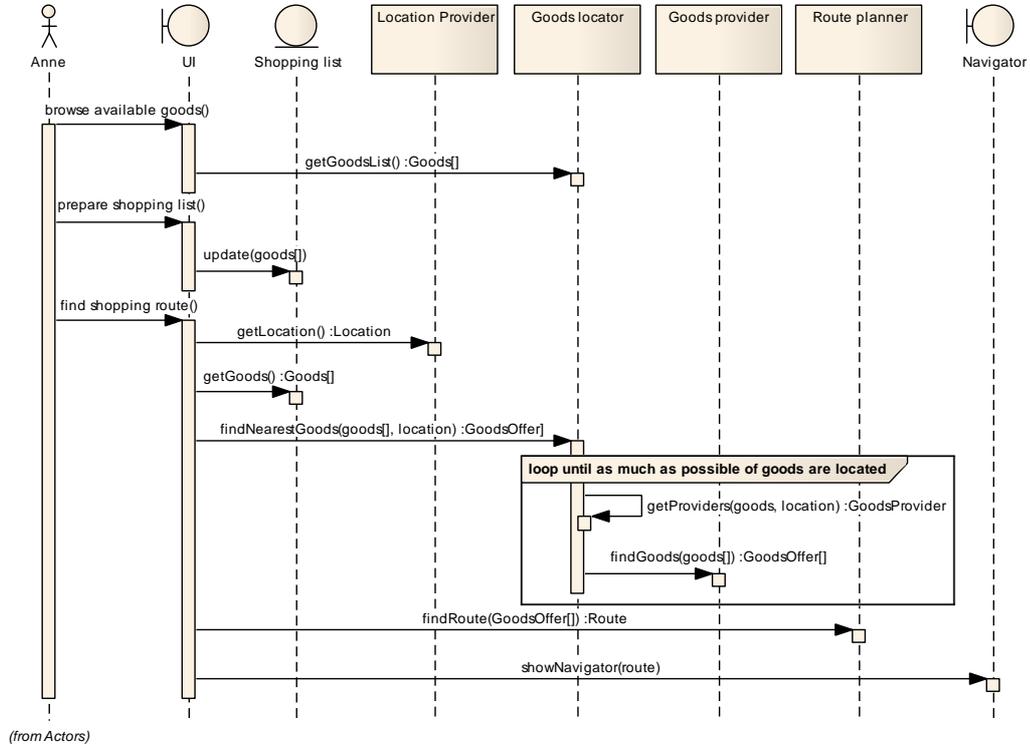


Figure 2 Sequence diagram for the main shopping activity scenario