

This document defines the core functionalities of TriploA system: the notification subsystem that allows users to join or quit travels, and the basic definition of travel entity.

Travel

The **travel** entity represents, within the system, a trip proposal. Users can create travels as drafts that, once completed, can be published so as other users can retrieve them.

A published travel must at least have:

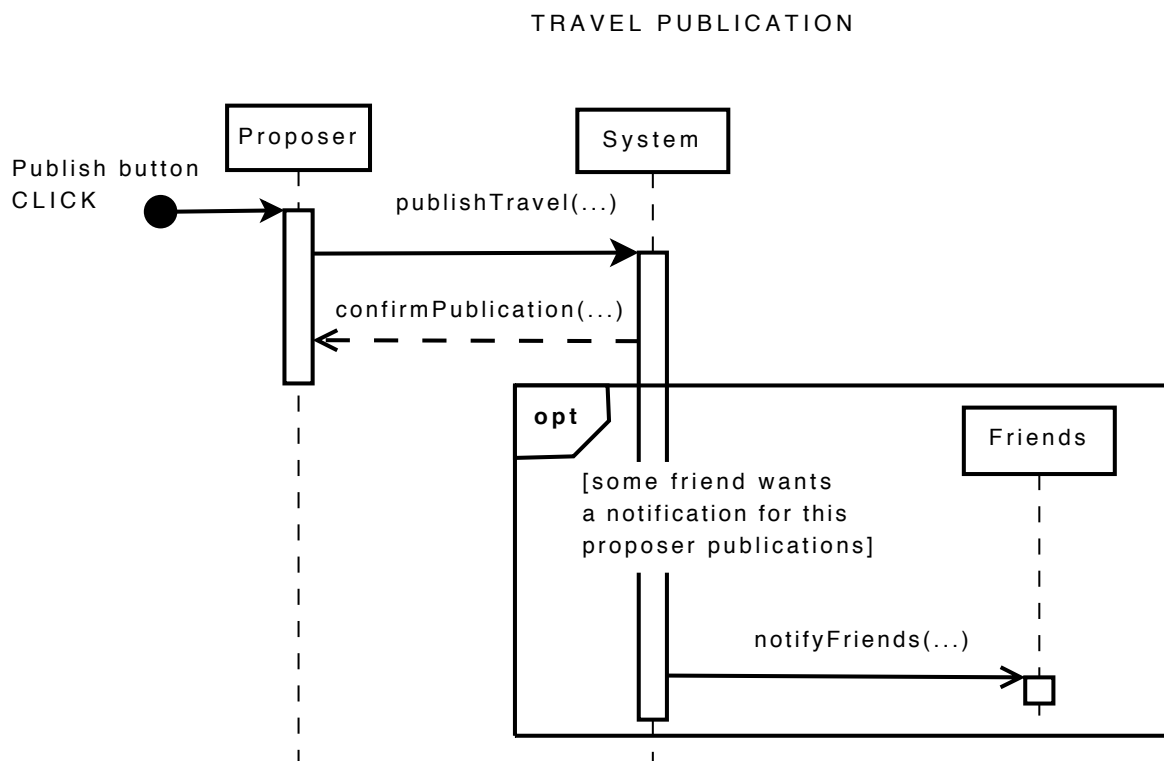
- an owner (**travel proposer**)
- a route
- date & time
- maximum number of stops (in order to taking on and off passengers)
- maximum deviations from the route

In addition a published travel could include:

- a rate (e.g per kilometer)
- a means of transportation
- total number of seats

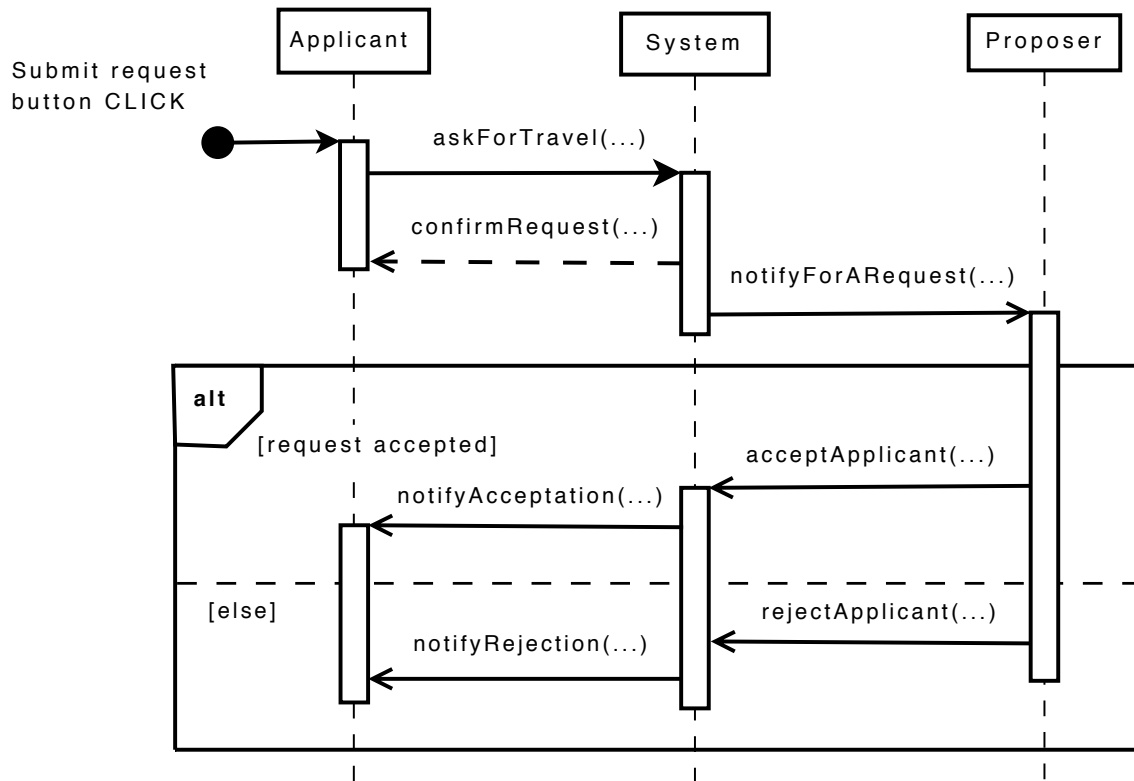
Travel drafts can be incomplete and are used during creation process, allowing users to break it into deferred steps.

Operations



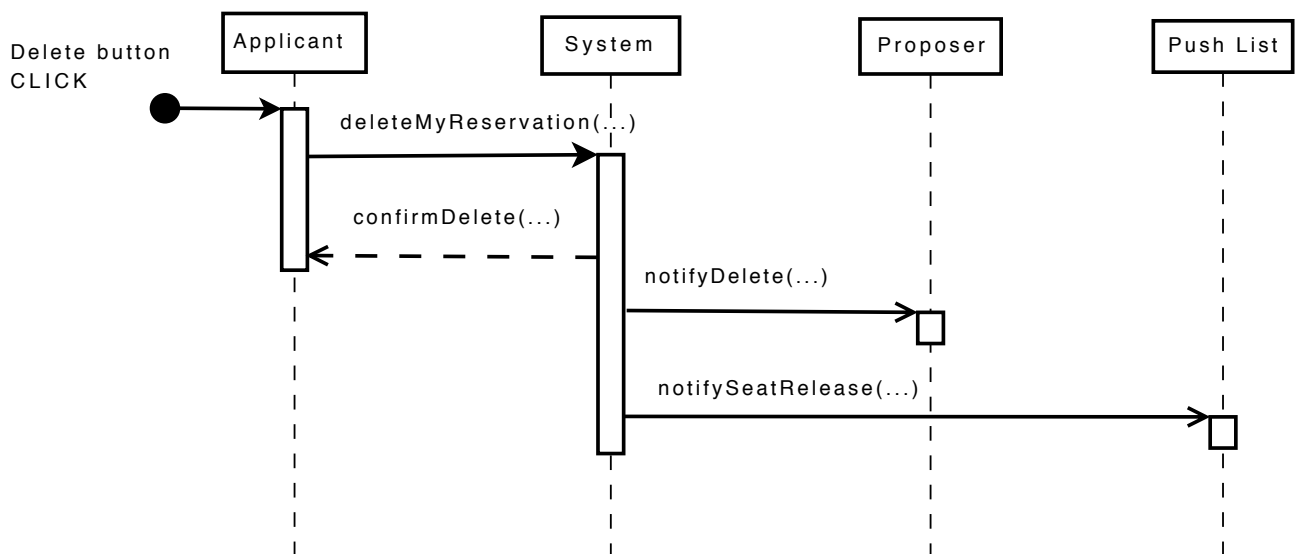
Once a travel has been published a user (**applicant**) can make a request to join the trip.

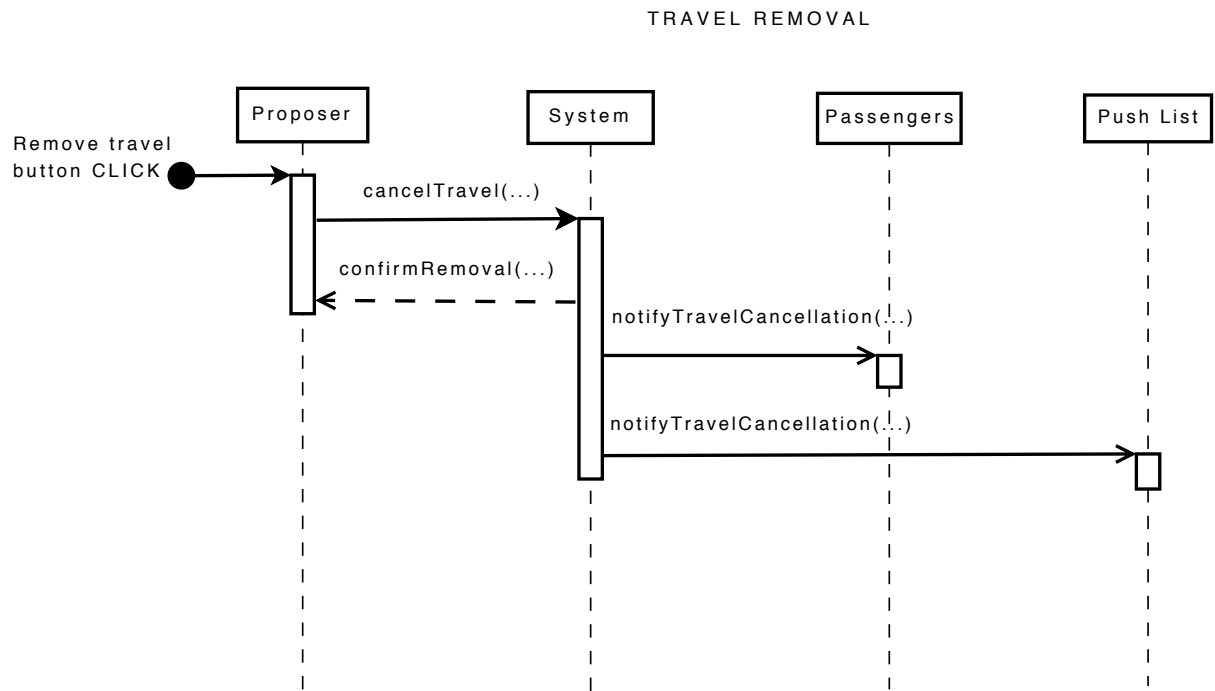
TRAVEL RESERVATION



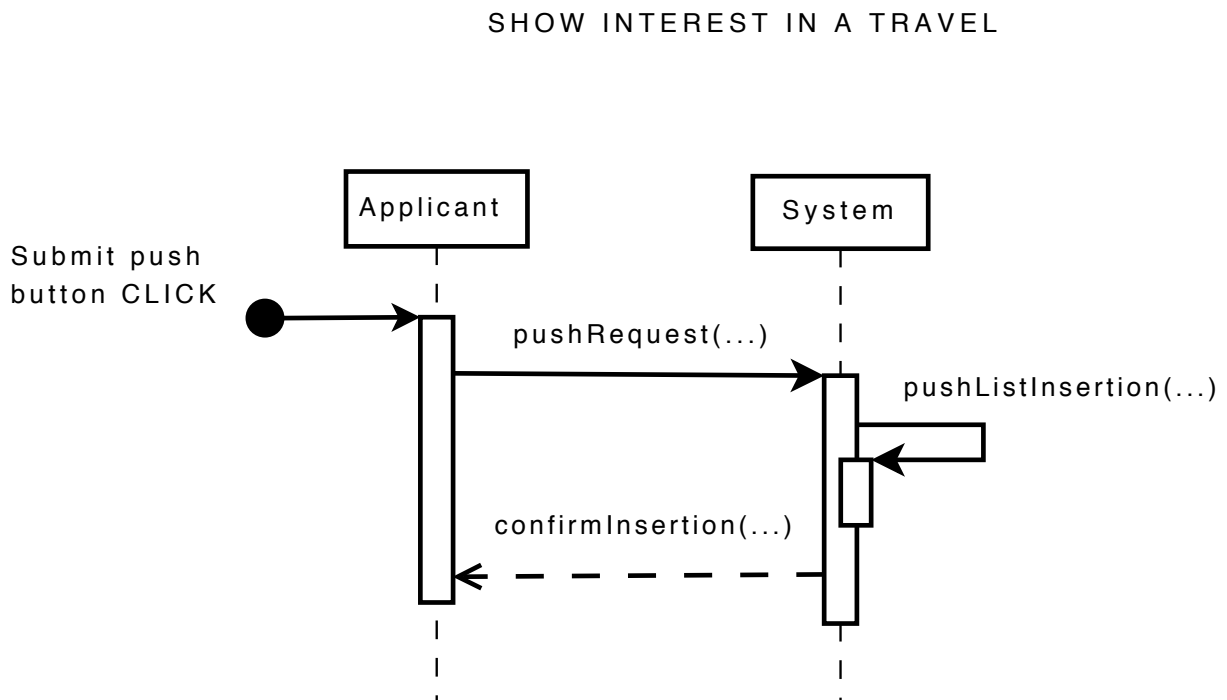
Once an applicant has joined the trip, becoming a **passenger**, he can quit the travel.

DELETE RESERVATION

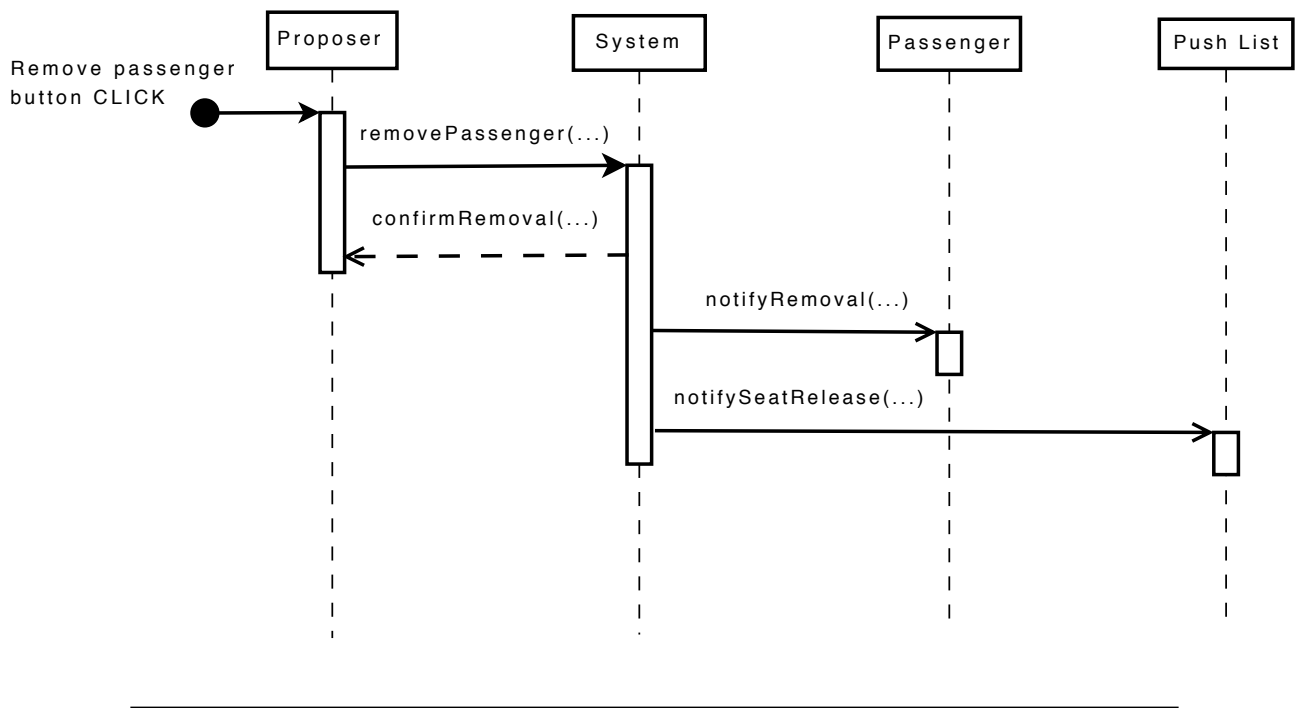




When a user wants to join a travel with no available seats, he can ask to be told to whether a seat turns available again.



PASSENGER REMOVAL



System notifications

System notifications offer the support to interaction protocol that implements core functionalities. Considering that some system operations (such as travel reservations) need users to reach an agreement, the system mediates these interactions through the system notifications. Thus notifications has semantics indicating an operation progress. The notification sequence determines the application workflow.

Customizable notifications

As a travel's proposer decides to make a change in his trip, system should send a notification to passengers involved in such a trip.

The set of changes includes:

- route
- stops number
- rate
- trip length
- departure time

For each travel, the user can customize (or leave defaults) the changes to be told about. Moreover the user can set an interest threshold for each aspect, e.g. the user may want to be notified about a rate change only if new rate seems too high to him.