

Homework 5

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14.1. a (An electronic chess companion)

This should be an event-driven system, because the device's purpose is centered around reacting to asynchronous external actions by the user.

14.1. b (An airplane flight simulator for a video game)

This system should be implemented with an event-driven architecture that uses a centralized repository for the terrain. Once again, the system should be event-driven, because the display software's purpose is to dynamically react to and compensate for asynchronous external actions by the user.

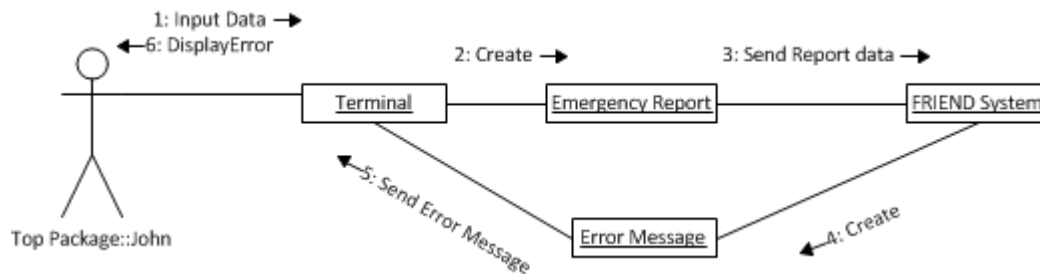
14.1. c (A floppy disk controller chip)

This system should have centralized control, inline with the manager model, as all functionality to be included will be sequential and premeditated. The functions will be called procedurally by a manager entity, which will be the interface between the controller and the external computer system.

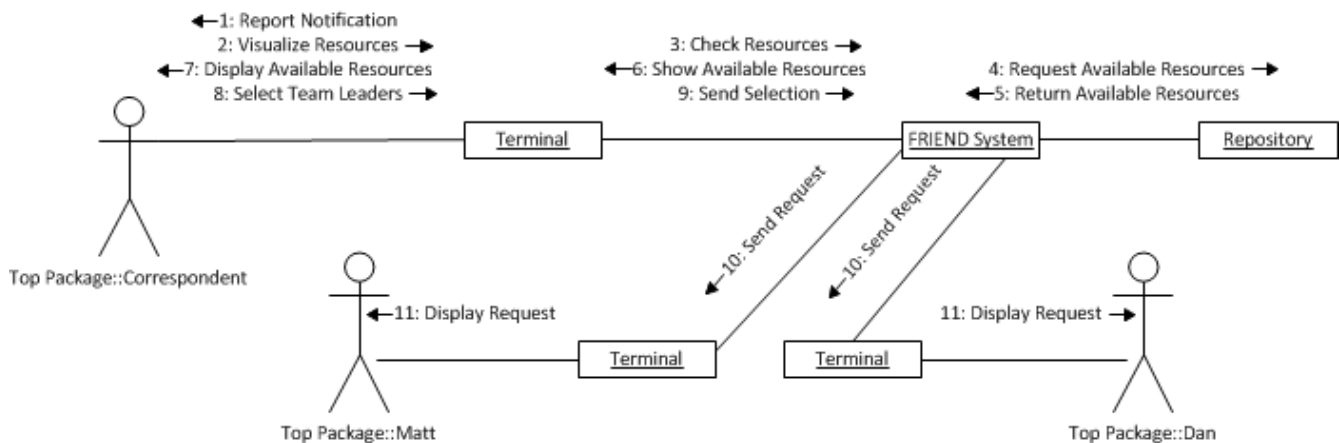
14.1. d (A sonar system)

The sonar system should also be implemented as a centralized manager control system. The sonar system runs passively, and the portion described in **14.1d** would have no need to react to events, as it is simply sending out signals, receiving signals, and then computing a distance repeatedly. A separate system would be awaiting a “hit,” and would potentially be event-driven.

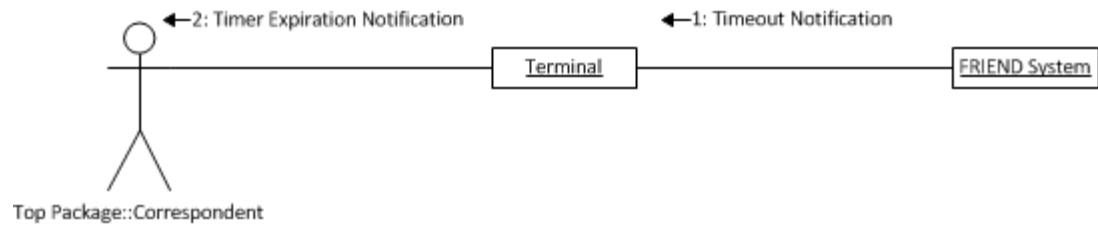
Scenario 1



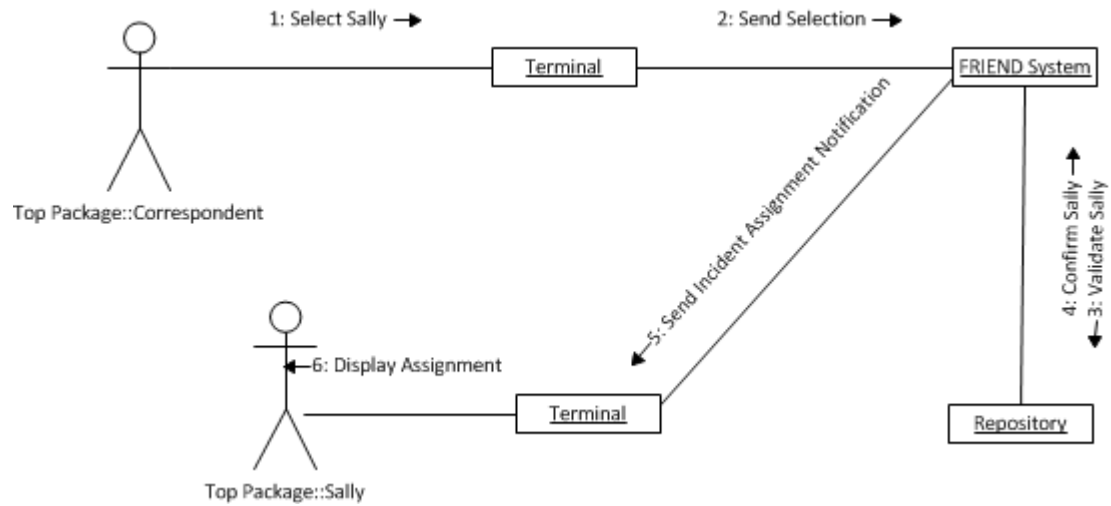
Scenario 2



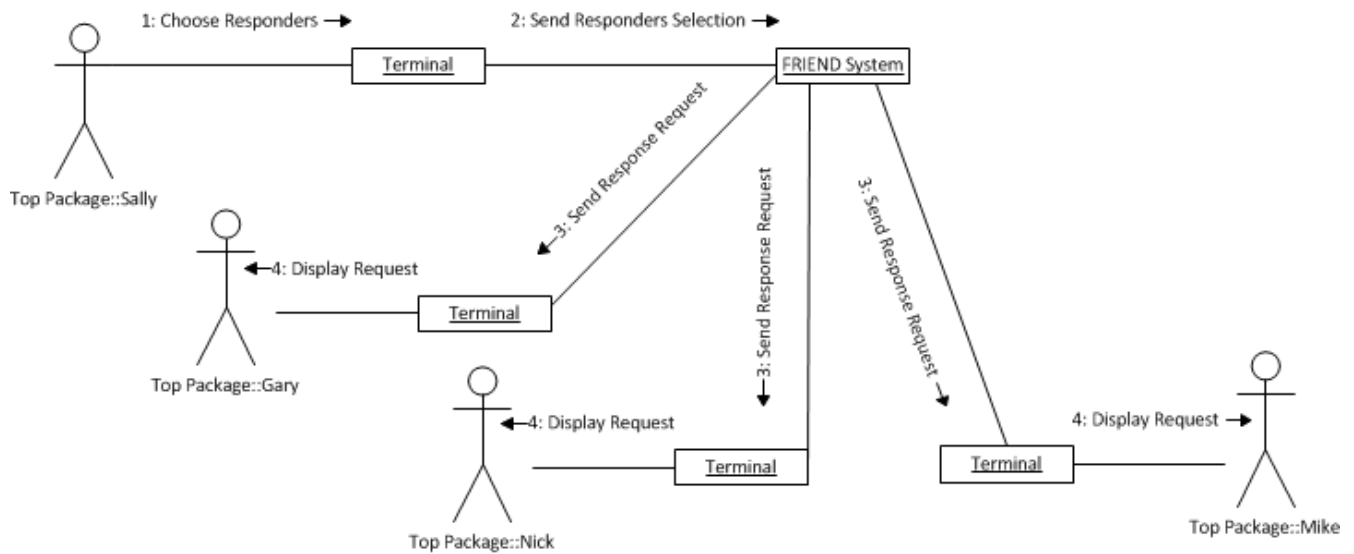
Scenario 3



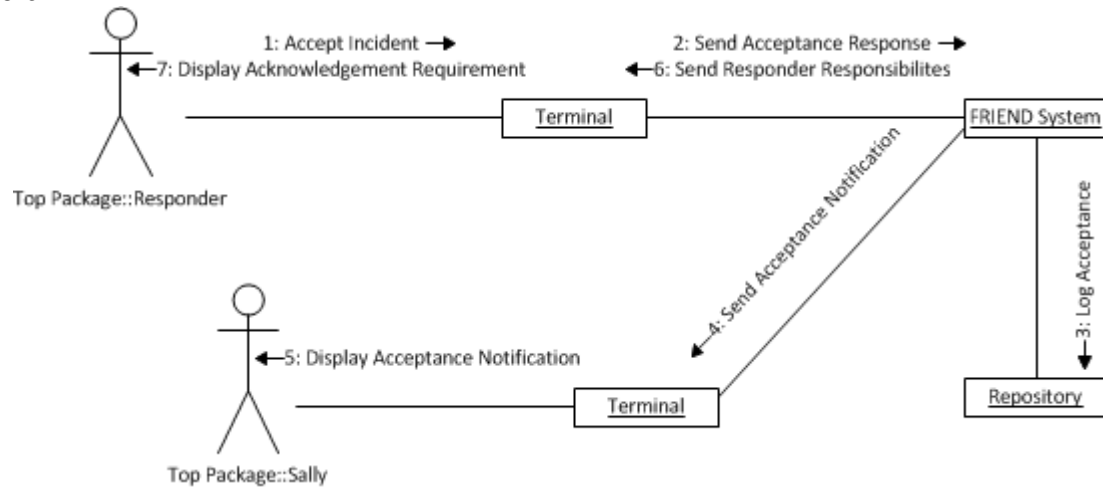
Scenario 4



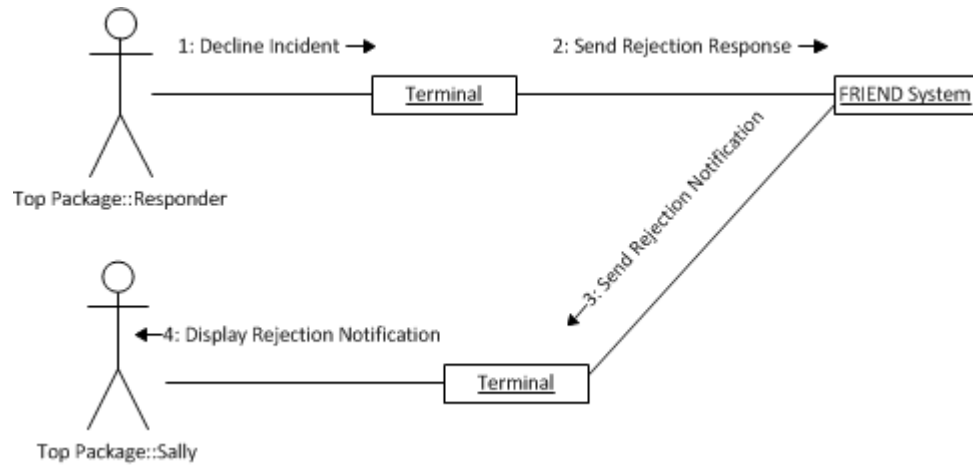
Scenario 5



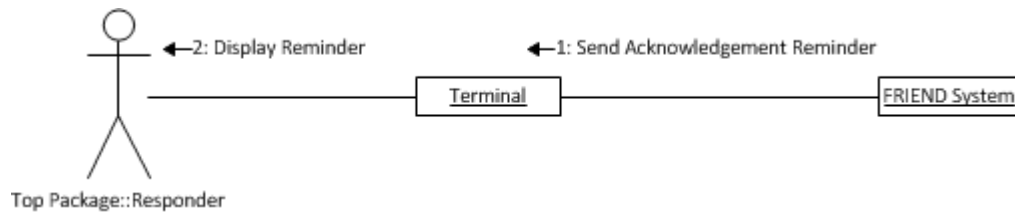
Scenario 6



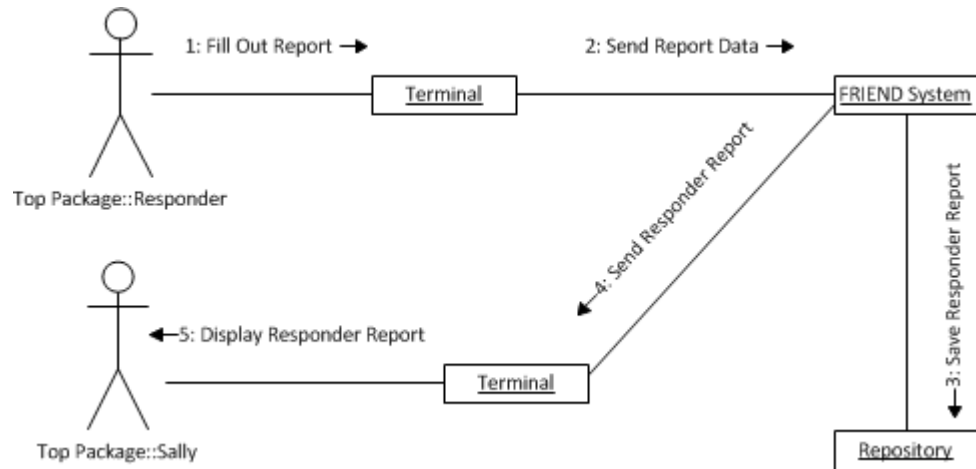
Scenario 7



Scenario 8



Scenario 9



Scenario 10

