

Suburban Senior Transportation Agency

The Suburban Senior Transportation Agency (SSTA) serves the needs of senior citizens in several suburban communities who need rides to medical appointments and for other necessities. SSTA operates 5 mini-buses and 10 wheelchair-accessible vans. The agency uses the mini-buses for transport to the senior centers and for weekly shopping shuttles. These routes have fixed pick-ups at assisted living facilities and will pick up home-bound seniors on demand. There are 15 routes in the communities served and run daily to the senior centers and once per-week for the shopping shuttles carrying about 1800 riders each week. When not on these regular routes, the mini-buses may be scheduled for excursions to special events. SSTA uses the wheel-chair accessible vans for on-demand appointments only. The agency employs 30 part-time drivers who are available to drive only on certain days and times. The agency also employs a full-time mechanic who does routine maintenance but is also available to drive in a pinch. A full-time dispatcher coordinates staffing, route scheduling, and communication with drivers and passengers about special pick-up arrangements. Mini-bus drivers may have special pick-ups added while en route and are contacted via cell-phone. Arrangement for a medical appointment pick-up must be made at least a day in advance. Scheduling of mini-buses for special events must be at least a week in advance. Drivers get their daily schedules via text messages.

Tasks

1. Create a use case description that details how the SSTA system handles special pick-up requests. Use the format of *Figure 6-13* found in *Section 6.8.1* of your text for your use case description.
2. Create a use case diagram for how the SSTA system handles special pick-up requests. *Figure 6-15* found in *Section 6.8.2* of your text is an example of this kind of system use case diagram. Be sure your diagram is consistent with what you have for Task 1.
3. Create a state transition diagram that describes typical typical driver states and how these change based on specific actions and events. *Figure 6-20* in *Section 6.8.5* of your text is an example of a state transition diagram.

