

## Assignment 2: Due October 15

CPE 684,

### PART I

Following the design produced in Assignment 1, develop a refined design using design patterns. Show refinement steps based on applying patterns one by one. Each pattern should be targeted to specific design problem. Use patterns discussed in class such as *Observer*, *Strategy*, *State*, and *Command*. Document your design refinements and show clearly the design model as it evolves from one refinement to the next.

### Part II

Use the of statechart pattern language discussed in class to develop a design using the following statechart specification

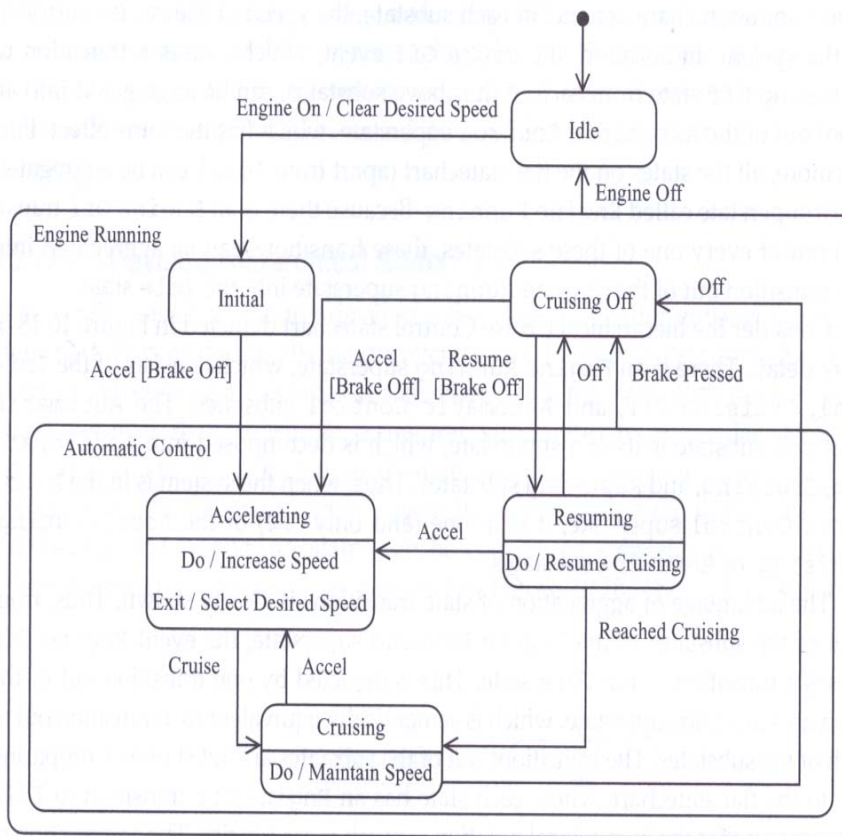
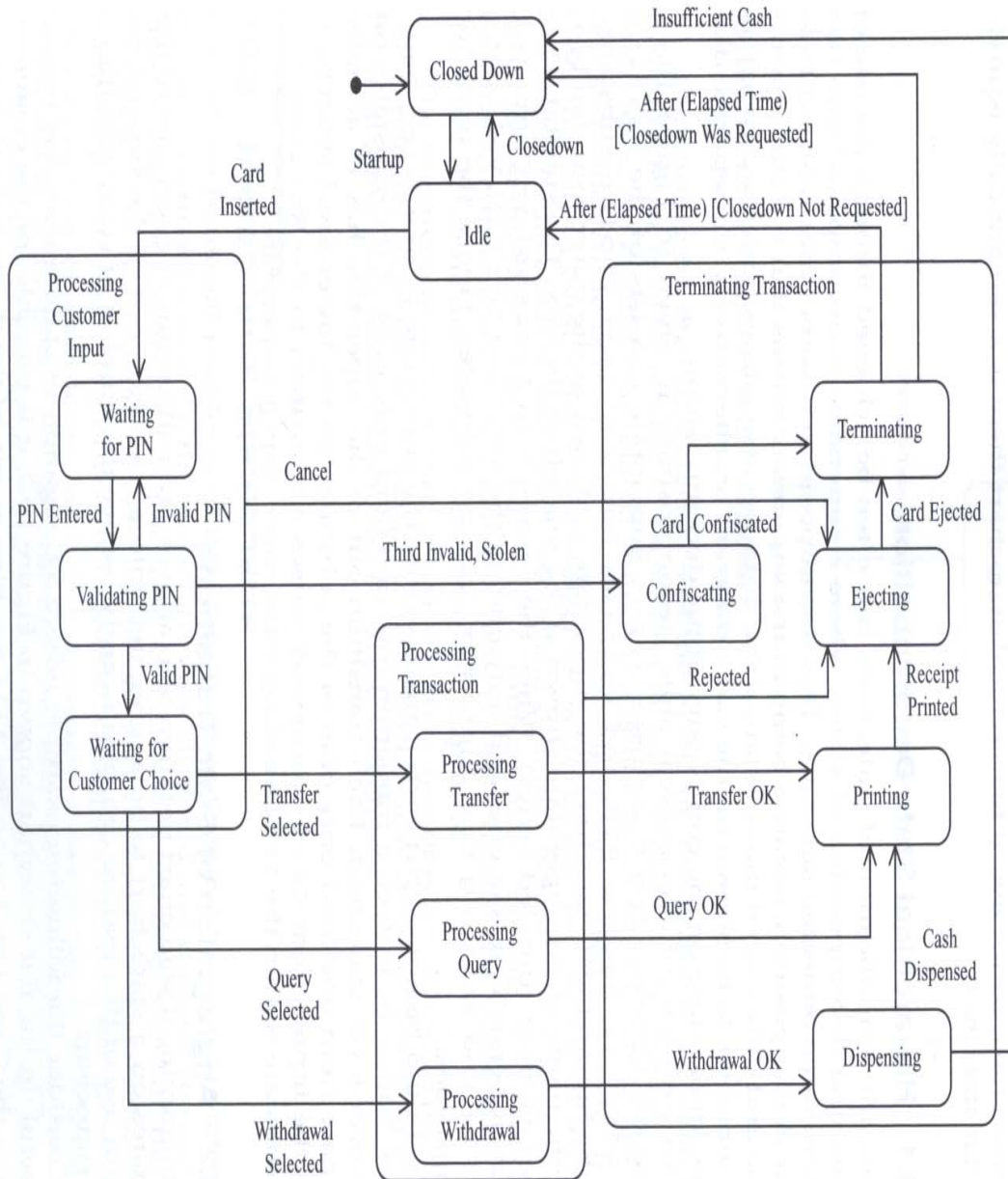


Figure 10.19 Hierarchical Cruise Control statechart with activities and exit action



**Figure 10.14** Example of hierarchical statechart