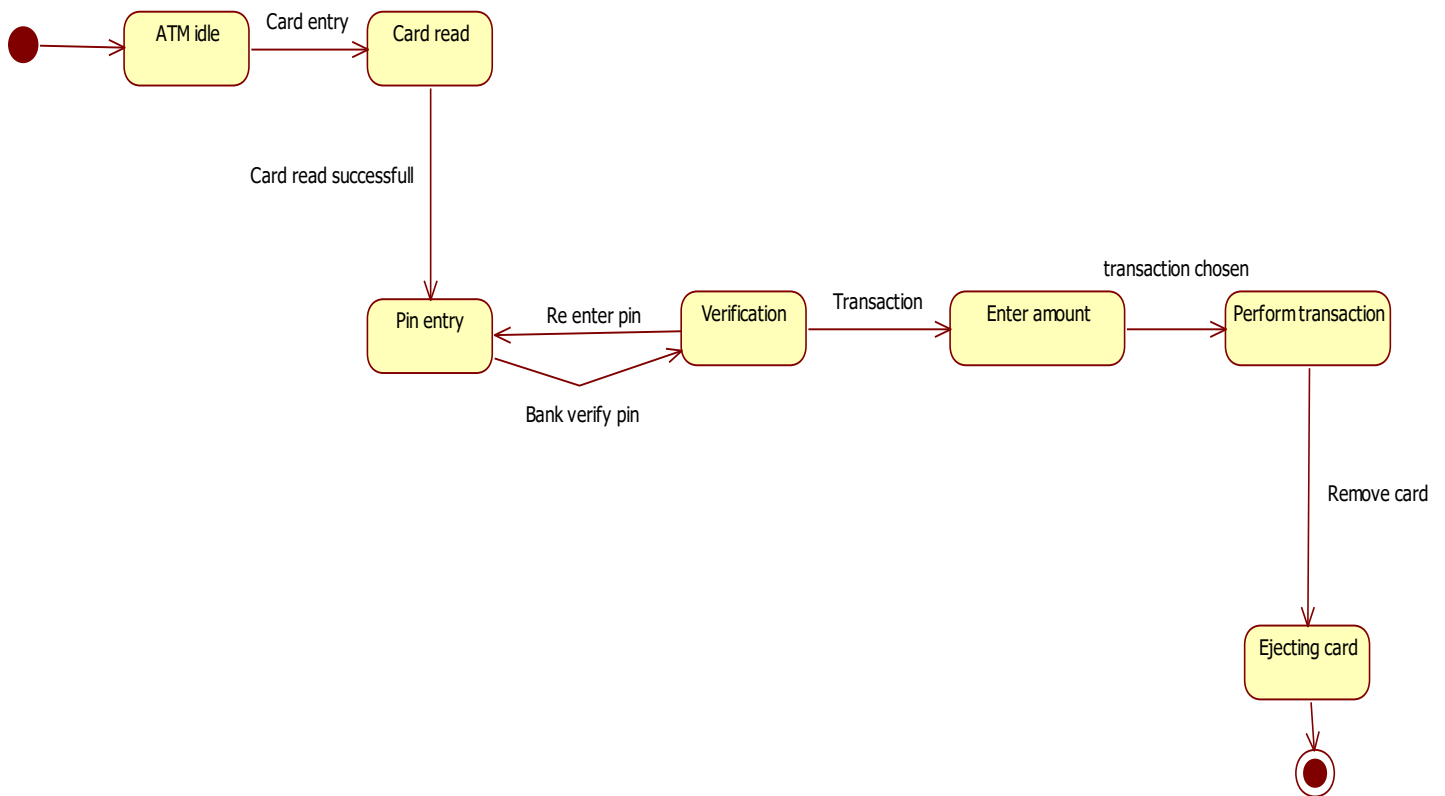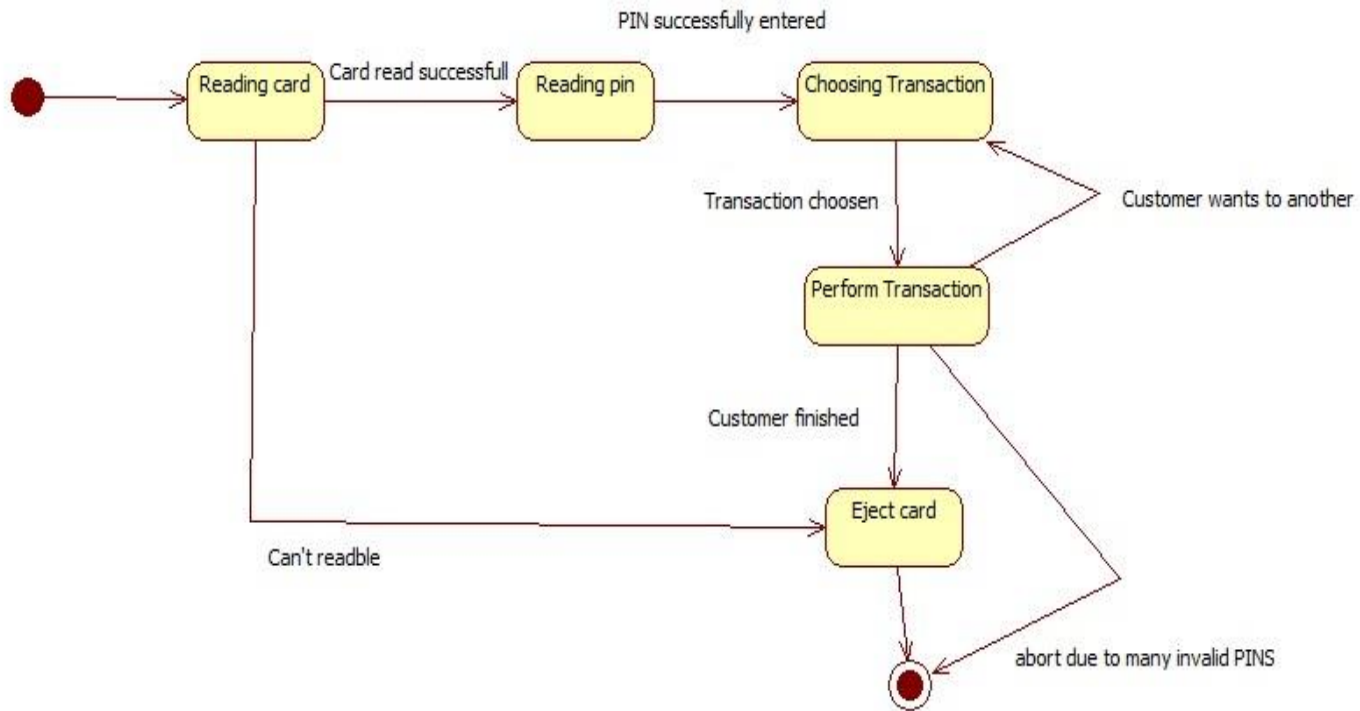# Practical-6
Aim: Draw the State-chart diagram for following case study

(1). ATM System
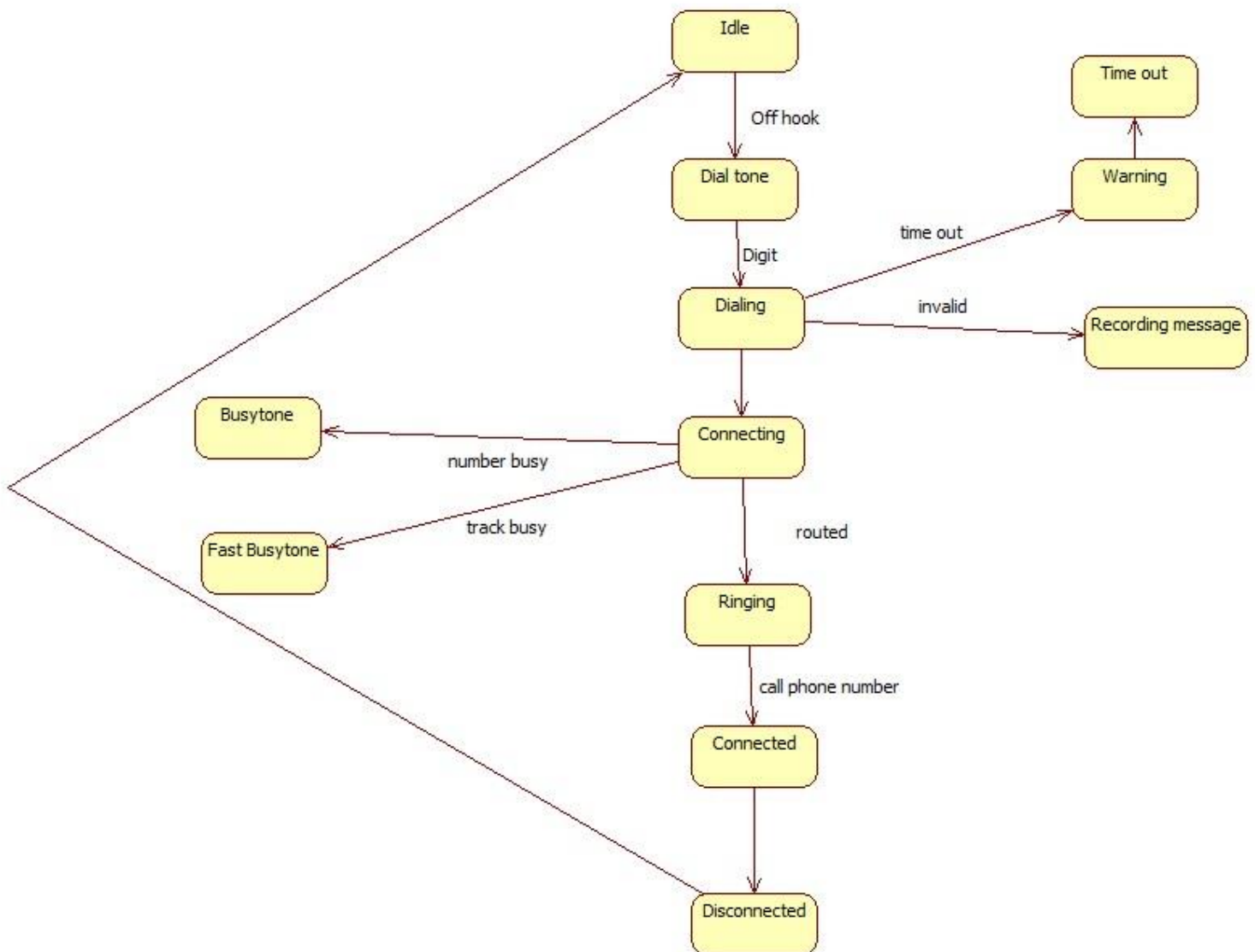
a. State diagram for one transaction in ATM

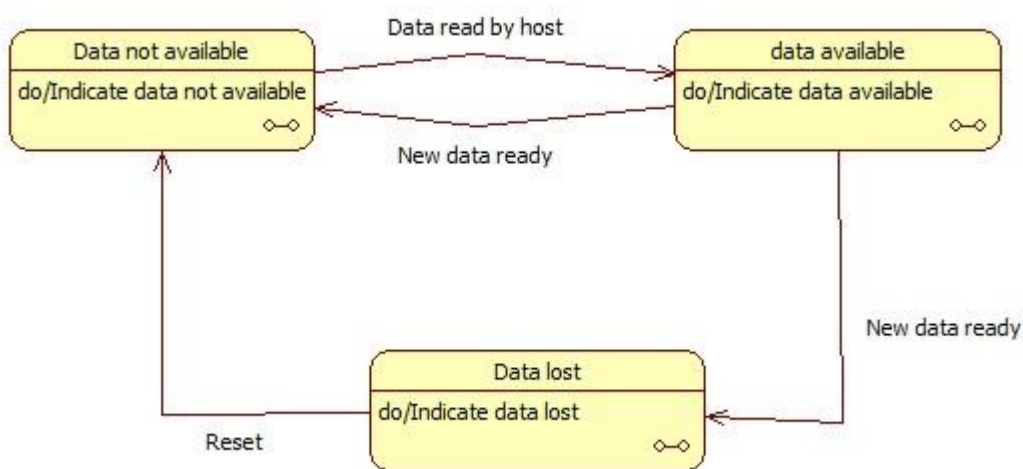**b. State diagram for one Session in ATM**

(2). Telephone Answering Machine

The machine detects an incoming call on the first ring and answers the call with a prerecorded announcement. When the announcement is complete, the machine records the caller's message. When the caller hands up, the machine hangs up and shuts off. Place the following in the diagram: call detected, answer call, play announcement, record message, caller hands up, announcement complete
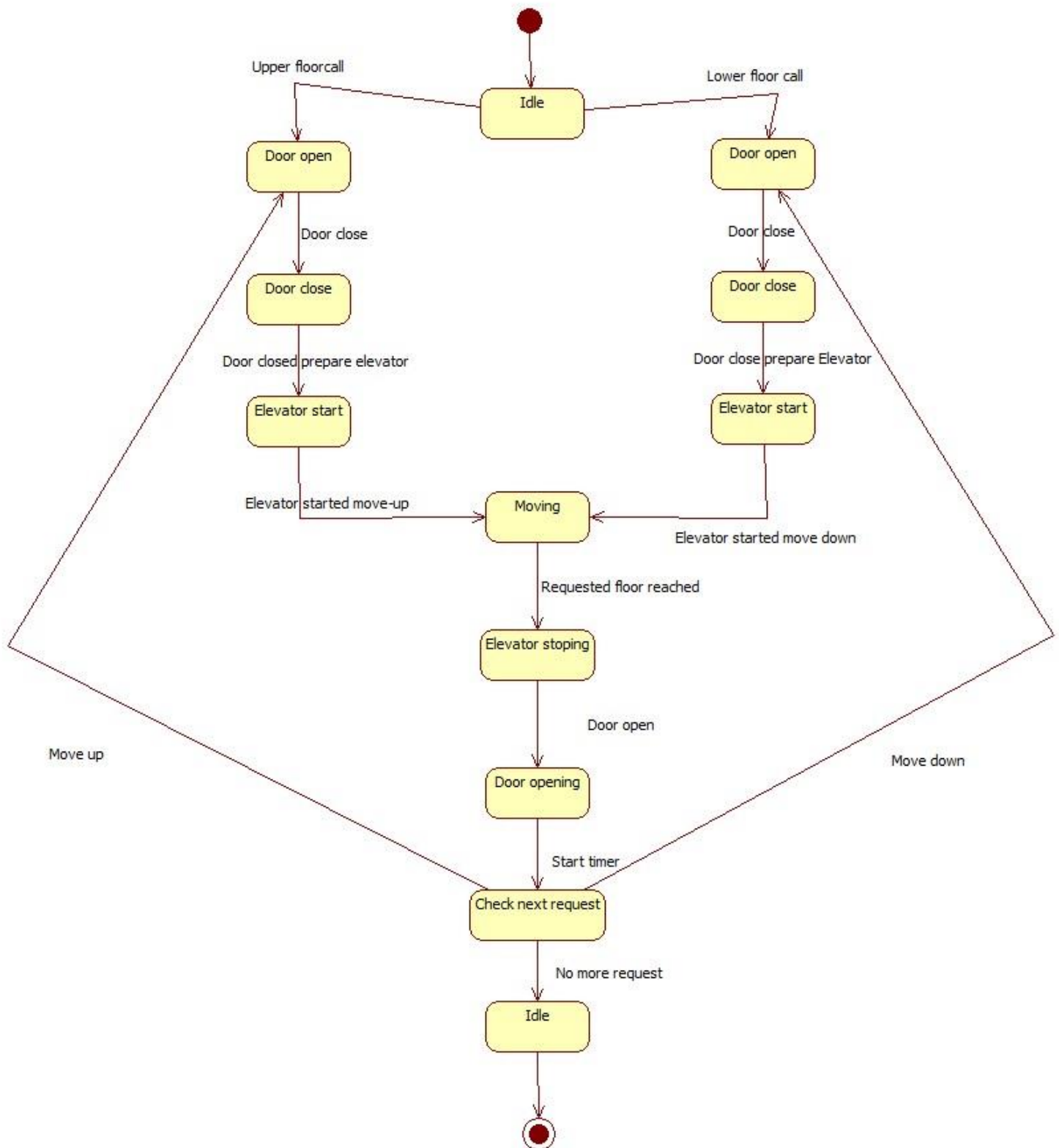
(3). Data Transfer Protocol

In a personal computer, a disk controller is typically used to transfer a stream of bytes from a floppy disc drive to a memory buffer with the help of a host such as central processing unit (CPU) or a direct memory access (DMA) controller. The controller signals the host each time a new byte is available. The data must then be read and stored before another byte is available. The data must then be read and stored before another byte is ready. When the disk controller senses the data has been read it indicates that data is not available, in preparation for the next byte. If any byte is not read before the next one comes along, the disk controller asserts a data lost error signal until the disk controller is reset. Add the following to the diagram: reset, indicate data not available, indicate data available, data read by host, new data ready, indicate data lost.

(4). Elevator System

Draw the state Diagram for an elevator. The elevator starts at the first floor. It can be moving up or down.If the elevator is idle on one floor, a timeout event occurs after a period of time and moves the elevator back to the first floor. (assume suitable course of events and corresponding states)

(5). Hospital Management System:

In a hospital, When a patient is admitted the admin staff of a hospital will make an entry about patient details to register the patient and generate the patient id. Each admitted patient in the hospital will be identified by that unique patient id itself. Then the patient will be admitted for the treatment. The doctor will make certain visits to each patient. The patient will undergo for certain operation, reports and medicines as per the doctor's advice. The patient will be under supervision of doctor unless he will be cured and ask for the permission of discharging. When the doctor will issue discharge permission then and only the patient could discharge from the ward. After getting discharge the patient have to pay bills and the admin department will issue a discharge ticket for each discharged patient.