Figure 5.1 Chart decomposing an organization into its component bodies.
Use-Case Diagram

Student Registration System

student

billing system

register for classes

Admission and records

generate classlists

departments
Use-Case Diagram

Video System

vendors
place video in system
become a member

customer
rent a video
return a video

employee
update/remove members

manager
set video type/price
update/remove videos

produce reports
Use-Case Diagram

Railroad Ticket System

credit card companies

purchase ticket

passenger

Maintain schedules

railroad
Use-Case Diagram

Newspaper Delivery System
Use Case Diagram
SafeHome Security as a Non-Embedded System

- homeowner
  - Accept Commands
  - Setup System
    - Security System
    - Monitor Status
  - sensors
  - Alarm
SafeHome – Embedded System
Use Case Diagram
Use-Case Diagram

Simplified Inventory System
Context Diagram

Simplified Student Registration System
Videos "R" Us
Context Diagram

Customer

Employee

Manger

Bar Codes

Video Vendors

Videos "R" Us

received

video info

member info

membership info/card

rented this week list

overdue listing

overdue forgive list

video return info

customer membership numbers

Videos with bar codes
Context Diagram
Lecture Presentation System

User

command

Slide Show System

response

User
Context Diagram

Simplified Student Registration System -2-
Railroad Ticket System

Passenger
- destination
- pin #
- credit card
- ticket
- destinations

Ticket System
- verification
- various credit companies files
- Credit Card # Pin # Ticket Cost
- schedules
- accounting prices info

Credit Card Companies
- member's credit standing

Railroad

Context Diagram
Context Diagram

Customer

available publications

subscriptions and personal info

payment

vacations

Publishers

available publications

Newspaper Delivery System

orders

Delivery Person

daily delivery list

bills

Newsagent

summary listing
Safehome Software -- Non-Embedded System

User

user commands and data

Safehome Software

assigned numbers

Connection Established

sensor status

Security Monitoring System

audible alarm event

location and nature of event

Context Diagram
Safehome Software -- Embedded System

Control Panel Keypad

Assigned Numbers

Sensors

Dial tone

Telephone Line

Alarm

Control Panel Display

Safehome Software

user commands and data

alarm type

display info

telephone number tones

sensor status
Context Diagram
Simplified Inventory System

Vendors

Order verification

Order file

Orders

Purchasing

Inventory System

Parts

Invoice unordered parts

Payment

Shop Floor Workers

Stock parts

Requisition

Payment made

General ledger

Accounting

Reorder request