## Branch

| Column Name | Data type | Size | Constraints                         |  |
|-------------|-----------|------|-------------------------------------|--|
| branchNo    | CHAR      | 4    | Primary key, NOT NULL, Start with B |  |
| street      | VARCHAR   | 30   | NOT NULL                            |  |
| city        | VARCHAR   | 20   | NOT NULL                            |  |
| state       | CHAR      | 2    | NOT NULL                            |  |
| zipCode     | CHAR      | 5    | NOT NULL UNIQUE                     |  |
| mgrStaffNo  | CHAR      | 5    | Foreign key, NOT NULL               |  |

## Director

| Column Name  | Data type | Size | Constraints                           |
|--------------|-----------|------|---------------------------------------|
| directorNo   | CHAR      |      | 5 Primary key, NOT NULL, Start with D |
| directorName | VARCHAR   | . 3  | NOT NULL                              |

## Video

| Column Name | Data type | Size | Constraints           |
|-------------|-----------|------|-----------------------|
| catalogNo   | CHAR      | -6   | Primary key,NOT NULL  |
| title       | VARCHAR   | 40   | NOT NULL              |
| category    | VARCHAR   | . 10 | NOT NULL              |
| dailyRental | DECIMAL   | 4,2  | NOT NULL DEFAULT 5.00 |
| price       | DECIMAL   | 4,2  |                       |
| directorNo  | CHAR      | 5    | Foreign key, NOT NULL |

### Staff

| Stan        |           |      |                                     |
|-------------|-----------|------|-------------------------------------|
| Column Name | Data type | Size | Constraints                         |
| staffNo     | VARCHAR   | 5    | Primary key, NOT NULL, Start with S |
| name-       | VARCHAR   | 40   | NOT NULL -                          |
| position    | VARCHAR   | 40   | NOT NULL                            |
| salary      | NUMBER    | 5    | NOT NULL                            |
| branchNo    | CHAR      | 4    | Foreign key,NOT NULL                |

### Actor

| Actor       |           |      |                                     |
|-------------|-----------|------|-------------------------------------|
| Column Name | Data type | Size | Constraints                         |
| actorNo     | VARCHAR   | 5    | Primary key, NOT NULL, Start with A |
| actorName   | VARCHAR   | 40   | NOT NULL                            |

## Role

| Noic        |           |      |                                       |
|-------------|-----------|------|---------------------------------------|
| Column Name | Data Type | Size | Constraints                           |
| actorNo     | VARCHAR   | 5    | Composite key, NOT NULL, Start with A |
| catalogNo   | CHAR      | 6    | Composite key, NOT NULL               |
| character   | VARCHAR   | 40   | NOT NUL                               |

# Member

| Column Name | Data Type | Size | Constraints                         |
|-------------|-----------|------|-------------------------------------|
| memberNo    | VARCHAR   | 7    | Primary key, NOT NULL, Start with M |
| fName       | VARCHAR   |      | NOT NULL                            |
| lName       | VARCHAR   | 40   | NOT NULL                            |
| address     | VARCHAR   | 40   | NOT NULL                            |

Registration

| Column Name | Data Type | Size | Constraints                           |
|-------------|-----------|------|---------------------------------------|
| branchNo    | CHAR      | 4    | Composite key, NOT NULL, Start with B |
| memberNo    | VARCHAR   | 7    | Composite key, NOT NULL, Start with M |
| staffNo     | VARCHAR   | 5    | Foreign key, NOT NULL                 |
| dateJoined  | . DATE    |      | NOT NULL .                            |

RentalAgreement

| Column Name | Data Type | Size | Constraints                         |
|-------------|-----------|------|-------------------------------------|
| rentalNo    | VARCHAR   | 7    | Primary key, NOT NULL, Start with R |
| dateOut     | DATE      |      | NOT NULL -                          |
| dateReturn  | DATE      |      | NOT NULL                            |
| memberNo    | VARCHAR   | 7    | Foreign key, NOT NULL, Start with M |
| videoNo     | NUMBER    | 6    | Foreign key, NOT NULL               |

### VideoForRent

| Video: orneric |           |      |                                     |
|----------------|-----------|------|-------------------------------------|
| Column Name    | Data Type | Size | Constraints                         |
| videoNo        | NUMBER    | 7    | Primary key,NOT NULL                |
| available      | CHAR      | 1    | yes(Y)/no(N),Default 'N'            |
| catalogNo      | CHAR      | 6    | Foreign key, NOT NULL               |
| branchNo       | CHAR      | . 4  | Foreign key, NOT NULL, Start with B |

Figure 2.4

An example of the *StayHome* video rental database.

#### Branch

| branchNo | street            | city     | state | zipCode | mgrStaffNo |
|----------|-------------------|----------|-------|---------|------------|
| B001     | - 8 Jefferson Way | Portland | OR    | 97201   | S1500      |
| B002     | City Center Plaza | Seattle  | WA    | 98122   | S0010      |
| B003     | 14 – 8th Avenue   | New York | NY    | 10012   | S0415      |
| B004     | 16 – 14th Avenue  | Seattle  | WA    | 98128   | S2250      |

## · Staff

| staffNo | name          | position   | salary . | branchNo |
|---------|---------------|------------|----------|----------|
| \$1500  | Tom Daniels   | Manager    | 46000    | B001     |
| S0003   | Sally Adams   | Assistant  | 30000    | B001     |
| S0010   | Mary Martinez | Manager    | 50000    | B002     |
| S3250   | Robert Chin   | Supervisor | 32000    | B002     |
| S2250   | Sally Stern   | Manager    | 48000    | B004     |
| S0415   | Art Peters    | Manager    | 41000    | вооз     |

### Video

| catalogNo | title             | category | dailyRental | price | directorNo |
|-----------|-------------------|----------|-------------|-------|------------|
| 207132    | Die Another Day   | Action   | 5.00        | 21.99 | D1001      |
| 902355    | Harry Potter      | Children | 4.50        | 14.50 | D7834      |
| 330553    | Lord of the Rings | Fantasy  | 5.00        | 31.99 | D4576      |
| 781132    | Shrek             | Children | 4.00        | 18.50 | D0078      |
| 445624    | Men in Black II   | Action   | 4.00        | 29.99 | D5743      |
| 1100-     | Independence Day  | Sci-Fi   | 4.50        | 32.99 | D3765      |
| 634817    | Independence Day  | Jei II   |             |       |            |

### Director

| directorNo | directorName     |  |
|------------|------------------|--|
| D1001      | Lee Tamahori     |  |
| D7834      | Chris Columbus   |  |
| D4576      | Peter Jackson    |  |
| D0078      | Andrew Adamson   |  |
| D5743      | Barry Sonnenfeld |  |
| D3765      | Roland Emmerick  |  |
|            |                  |  |

#### Actor

| actorNo | actorName        |
|---------|------------------|
| A1002   | Pierce Brosnan   |
| A3006   | Elijah Wood      |
| A2019   | Will Smith       |
| A7525   | Tommy Lee Jones  |
| A4343   | Mike Myers       |
| A8401   | Daniel Radcliffe |
|         |                  |

#### Role

| actorNo | catalogNo | character            |
|---------|-----------|----------------------|
| A1002   | 207132    | James Bond           |
| A3006   | 330553    | Frodo Baggins        |
| A3006   | 902355    | Harry Potter         |
| A2019   | 634817    | Captain Steve Hiller |
| A2019   | 445624    | Agent J              |
| A7525   | 445624    | Agent K              |
| A4343   | 781132    | Shrek                |

### Member

| *****    |        |         |                                       |
|----------|--------|---------|---------------------------------------|
| memberNo | fName  | lName * | address                               |
| M250178  | Bob    | Adams   | 57 – 11th Avenue, Seattle, WA 98105   |
| M166884  | Art    | Peters  | 89 Redmond Rd, Portland, OR 97117     |
| M115656  | Serena | Parker  | 22 W. Capital Way, Portland, OR 97201 |
| M284354  | Don    | Nelson  | 123 Suffolk Lane, Seattle, WA 98117   |

# Figure 2.4

# Continued

## Registration

| branchNo | memberNo | staffNo | dateJoined        |
|----------|----------|---------|-------------------|
| В002     | M250178  | S3250   | 1 <b>-</b> Jul-01 |
| В001     | M166884  | S0003 · | 4-Sep-02          |
| В001     | M115656  | S0003   | 12-May-00         |
| В002     | M284354  | S3250   | 9-Oct-01          |

# RentalAgreement

| rentalNo | dateOut   | dateReturn | memberNo | videoNo |
|----------|-----------|------------|----------|---------|
| R753461  | 4-Feb-03  | 6-Feb-03   | M284354  | 245456  |
| R753462  | 4-Feb-03  | 6-Feb-03   | M284354  | 243431  |
| R668256  | 5-Feb-03  | 7-Feb-03   | M115656  | 199004  |
|          | 2-Feb-03  | 7          | M115656  | 178643  |
| R668189  | 2-1-60-03 |            |          |         |

#### VideoForRent

| available | catalogNo | branchNo                         |
|-----------|-----------|----------------------------------|
| Y         | 207132    | B001                             |
| Y         | 207132    | В002                             |
| N         | 634817    | B001                             |
| Y         | 634817    | B002                             |
|           | Y<br>Y    | Y 207132<br>Y 207132<br>N 634817 |