APPENDIX

A

Users' Requirements Specification for *DreamHome* Case Study

Objectives

In this appendix you will learn:

* The data and transaction requirements for the Branch and Staff user views of the *DreamHome* case study described in Section 11.4.

This appendix describes the users' requirements specification for the Branch and Staff user views of the *DreamHome* database system. For each collection of user views, the "Data Requirements" section describes the data used and the "Data Transactions" section provides examples of how the data is used.

A.1 Branch User Views of *DreamHome*

A.1.1 Data Requirements

Branches

DreamHome has branch offices in cities throughout the United Kingdom. Each branch office is allocated members of staff, including a Manager, who manages the operations of the office. The data describing a branch office includes a unique branch number, address (street, city, and postcode), telephone numbers (up to a maximum of three), and the name of the member of staff who currently manges the office. Additional data is held on each Manager, which includes the date that the Manager assumed his or her position at the current branch office, and a monthly bonus payment based upon his or her performance in the property for rent market.

Staff

Members of staff with the role of Supervisor are responsible for the day-to-day activities of an allocated group of staff called Assistants (up to a maximum of 10, at any one time). Not all members of staff are assigned to a Supervisor. The data stored regarding each member of staff includes staff number, name, address, position, salary, name of Supervisor (where applicable), and the details of the branch office at which a member of staff is currently working. The staff number is unique across all branches of *DreamHome*.

Properties for rent

Each branch office offers a range of properties for rent. The data stored for each property includes property number, address (street, city, postcode), type, number of rooms, monthly rent, and the details of the property owner. The property number is unique across all branch offices. The management of a property is assigned to a member of staff whenever it is rented out or requires to be rented out. A member of staff may manage a maximum of 100 properties for rent at any one time.

When a given property is available for rent, the property details will be displayed on the *DreamHome* Web site and, when necessary, as advertisements in local and national newspapers.

Property owners

The details of property owners are also stored. There are two main types of property owner: private owners and business owners. The data stored for private owners includes owner number, name, address, telephone number, email, and password. The data stored on business owners includes name of business, type of business, address, telephone number, email, password, and contact name. The password will allow owners access to parts of the *DreamHome* database using the Web.

Clients

DreamHome refers to members of the public interested in renting property as clients. To become a client, a person must first register at a branch office of *DreamHome*. The data stored on clients includes client number, name, telephone number, email, preferred type of accommodation, and the maximum rent that the client is prepared to pay. Also stored is the name of the member of staff who processed the registration, the date the client joined, and some details on the branch office at which the client registered. The client number is unique across all *DreamHome* branches.

Leases

When a property is rented out, a lease is drawn up between the client and the property. The data listed in detail on the lease includes lease number, client number, name and address, property number and address, monthly rent, method of payment, an indication of whether the deposit has been paid deposit (calculated as twice the monthly rent), duration of lease, and the start and end dates of the lease period.

Newspapers

When required, the details of properties for rent are advertised in local and national newspapers. The data stored includes the property number, address, type, number of rooms, rent, the date advertised, the name of the newspaper, and the cost to advertise. The data stored on each newspaper includes the newspaper name, address, telephone number, and contact name.

A.1.2 Transaction Requirements (Sample)

Data entry

Enter the details of a new branch (such as branch B003 in Glasgow).
Enter the details of a new member of staff at a branch (such as Ann Beech at branch B003).
Enter the details of a lease between a client and property (such as client Mike Ritchie renting out property number PG4 from the 10-May-12 to 9-May-13).
Enter the details of a property advertised in a newspaper (such as property number PG4 advertised in the Glasgow Daily newspaper on the 06-May-12).

Data update/deletion

Update/delete the details of a branch.
Update/delete the details of a member of staff at a branch.
Update/delete the details of a given lease at a given branch.
Update/delete the details of a newspaper advertisement at a given branch.

Data queries

Examples of queries required by the Branch user views:

(a) List the details of branches in a given city.
(b) Identify the total number of branches in each city.
(c) List the name, position, and salary of staff at a given branch, ordered by staff name.
(d) Identify the total number of staff and the sum of their salaries.
(e) Identify the total number of staff in each position at branches in Glasgow.
(f) List the name of each Manager at each branch, ordered by branch address.
(g) List the names of staff supervised by a named Supervisor.
(h) List the property number, address, type, and rent of all properties in Glasgow, ordered by rental amount.
(i) List the details of properties for rent managed by a named member of staff.
(j) Identify the total number of properties assigned to each member of staff at a given branch.
(k) List the details of properties provided by business owners at a given branch.
(l) Identify the total number of properties of each type at all branches.
(m) Identify the details of private property owners that provide more than one property for rent.
(n) Identify flats with at least three rooms and with a monthly rent no higher than £500 in Aberdeen.
(o) List the number, name, and telephone number of clients and their property preferences at a given branch.
(p) Identify the properties that have been advertised more than the average number of times.
(q) List the details of leases due to expire next month at a given branch.