

Lampang College of Commerce and Technology International Studies Program

Business Computer Application Project – 3204 – 2013

Hotel Reservation System

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Hotel Reservation System

A Project Presented

by

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Project Timeline

Activity	GY1				GY2			
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
• Develop items for survey	■	■						
• Review and revise items with experts' panel.		■	■					
• Pre-test items with representative sample of target population.		■						
• Program software to administer survey.			■	■				
• Prepare survey sites for study.			■	■				
• Recruit and train Study Reps.			■	■				
• Recruit 1,000 subjects and administer survey at 5 sites.				■	■	■	■	
• Statistical analysis of data.							■	■
• Preparation and submission of manuscripts to peer-reviewed journals.								■

Chapter 1

Company Profile

Hilton International Hotels wants to give new meaning to "global warming." The company operates more than 400 hotels in 80 countries. Its portfolio of brands includes Hilton (some 250 hotels), mid-scale Scandic (about 140 hotels), and 15 luxury Conrad hotels. In 2006, US-based Hilton Hotels paid \$5.7 billion to acquire Hilton International Hotels from what is now Ladbrokes. The selling company (formerly known as Hilton Group) had owned rights to the Hilton brand outside of the US. Hilton Hotels and Hilton Group were already allied, sharing marketing efforts and a reservation system.



Vision and Mission

To be the first choice of the world's travelers
Building on the rich heritage and strength of our brands by:

- Consistently delighting our customers
- Investing in our team members
- Delivering innovative products and services
- Expanding our family of brands
- Continuously improving performance in our balanced scorecard

Hilton's structure



Chapter 2

Problem Definition

Our design team has been approached by the management of a hotel to produce a software package that will control and facilitate many aspects operations including guest reservation, room allocation, billing system and food and beverage services. The customer is currently using an off the shelf product that is unfortunately not satisfying all of their needs and causing some administrative problems.

Background of the Customer

In conference with a key stakeholder of the hotel Mr. Cysneiros, we have been able to obtain a general overview of the company and identify their current high-level goals of the prospective system. Mr. Cysneiros indicated that the ultimate goal would be to stay in business and make money and that accomplishing this would be from pleasing their customers. From this information, implications for the new hotel system would be to design it in a way that achieves and ensures superior customer service as a key requirement. Also, the current hotel class rating given by Mr. Cysneiros is a luxury/economy four-star hotel with prices averaging roughly around \$120.00 per night. As a result of this information, our team concludes that the hotel is likely to receive a wide range of guests to their hotel and therefore a wide range of needs and accommodations. It is therefore an implication that flexibility of the hotel system is also required.

Strategic Direction of the Hotel

There is currently only one hotel in operations and are not expected to be looking towards expansion for at least 3-4 years. As a result, the main strategic objectives are for a multi-functional system, which will efficiently improve operations as well as accommodate additional functionality if the need arises in the future.

Constraints and Scheduling

Due to the customer using a commercial off the shelf product that is not meeting all of the hotels needs, they would prefer to have the product as soon as possible and definitely before one years time. At this point we have not identified a point at which the value of the product would decline precipitously.

Users and Basic Functionality

The design team will need to take into consideration both the hotels customer base as well as their employees as the user scope of the prospective system. The reason being that

the system will have to support both in house hotel functions as well as an Internet component that allows customers to book a reservation on-line. From the hotel employees' standpoint, the hotel employs basic to average users in regards to technology. From the customers' standpoint, usability is considered to range from basic users to experts. The stakeholder has also identified two classifications of customers that frequent the hotel, 'Normal' and 'VIP'. It is to the discretion of the hotel manager in deciding the customer to be given VIP status. The VIP's preferences in room and food as well as their name and credit card information are stored by the system as a result.

Hotel Operation Information

There are three different room rates all having 24hour cancellation policies. Walk-ins are welcome but reservations are preferred. When booking on-line or by phone a confirmation code is supplied. Customers are able to retrieve and change reservations on-line. Early check in is allowed if the room is ready. Late check out will also try to be accommodated. There is a restaurant in the hotel and charge can be billed to the room. Room service is supplied and each room is equipped with a mini-bar. Customers must pay upon check out.

Major Current Problems

The stakeholder also discussed several problems they are encountering with the current software.

They include:

- Double booking
- Room fridge inventory (customers not properly being charged at time of check out for item used)
- Delay in restaurant bill being charged to room bill

Chapter 2.1

Terms and Terminology

1. **Check-In Time:** The time at which a customer enter the room.
2. **Hotel Categories:** Deluxe, first-class (superior or standard), moderate, and tourist class are generally the designations used. Still, standards vary widely from country to country. Tour operators may rate hotels by very different designations, though there is an Official Hotel and Resort Guide classification. Many countries rate hotels using the star system, where a deluxe hotel is rated five stars. In most countries, the typical American traveler would probably not be comfortable in anything below three stars, though I've stayed in many lower rated hotels without difficulty.
3. **Check-Out Time:** The time at which a customer leaves the hotel room.
4. **Service Charges and Taxes:** Service charges are a fixed percentage automatically added to room and meal charges. The city, state, or federal government sets taxes.
5. **Room Types:**
6. **Single:**
7. **Double:**

Chapter 3

Scope

The hotel application to be designed will meet the following overall objectives:

- a) Handle Guest Reservation Services and room allocation
- b) Have a Billing Subsystem to handle all transactions
- c) Control inventory in the areas of Food and Beverages
- d) Provide administrative reports regarding stock levels, purchase orders etc...
- e) Be an integrated system with on line capabilities
- f) Provide functionality from two perspectives 1) The hotel customer 2) The hotel staff.

Chapter 3.1

Proposed System

The proposed system will do the following functions:

1. Customer check-in and check-out.
2. Record customer information
3. Provide room information
4. Automate customer billing
5. Display reports

Chapter 4

Feasibility Study

4.1 Technical Feasibility

The necessary resources like hotel receptionist to provide information about the hotel reservation system, room informations – types of rooms, process of check-in and check-out and customer information to develop GUI applications in Visual Basic 6.0 and MS-ACCESS environments are available. The required hardware a Pentium machine and software required i.e. Visual Basic 6.0 and MS-OFFICE are available.

Hence there is no development risk associated with the software.

4.2 Operational Feasibility

The “Hotel Management System” will operate in Windows environment on a Pentium machine. It will be a reliable package that facilitates management of hotel information of Hilton hotel. It will provide greater extent of flexibility for user to automate the check-out billing for the customer. It will calculate the number of days a customer has stayed in the hotel and charge the customer accordingly.

Thus, it will meet all the required functionality and be operationally feasible.

4.3 Economical Feasibility

The “Hotel Management System” project is estimated to be a project to maintain information for 100 hotel rooms and about 100-150 customers everyday. The system will be help about 5 receptionists to check the room information and calculate the customer bills.

Considering the hardware requirements, software requirements, manual for users and training the staff estimated expense on this project is 30,000 Baht.

4.4 Motivational Feasibility

The “Hotel Management System” software will be used by the receptionists to check-in, check-out and billing customers, accounts personal and the other employess such as the managers to check the reports.

The software fulfills all necessary requirements for such application. It provides a graphical user interface that makes easier for the staff to use. It also provides easy to understand menu structure. It's easy to use nature makes it readily acceptable to the end users, who need not have much technical knowledge to use it.

4.5 Hardware & Software Feasibility

Hardware

Server

Processor:

Memory:

Space:

Client

Processor:

Memory:

Space:

Software

Front end: Visual Basic 6.0

Back end: MS_ACCESS

Operating System: Windows

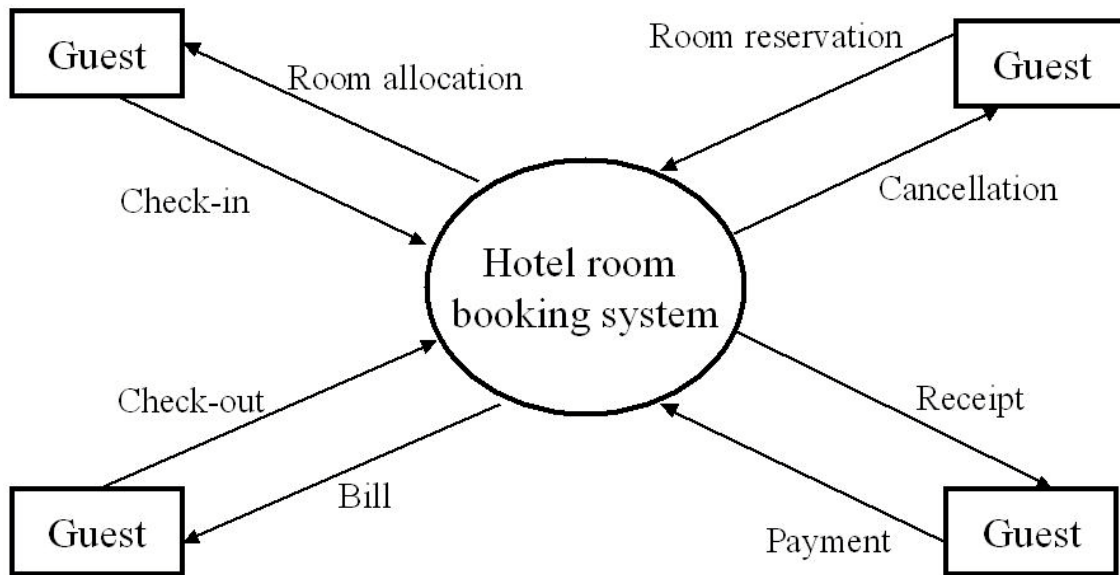
4.6 Assumptions & Limitations

- The data/information entered by the user is assumed to be correct.
- Room information and room rates are assumed to not change.

Chapter 5

Analysis

5.1 Context Diagram



Context Diagram of Hotel room booking system

Event	Process	Response	Output(s)
1: Customer wishes to reserve room	Room reservation	Make reservation	
2: Customer wishes to cancel booking	Cancellation	Note cancellation	
3: Customer checks in	Check-in	Allocate room	Room allocation
4: Customer checks out	Check-out	Bill customer	Bill
5: Customer pays bill	Payment	Acknowledge payment	Receipt

5.2.1 Level 1

Diagram 1: New Membership

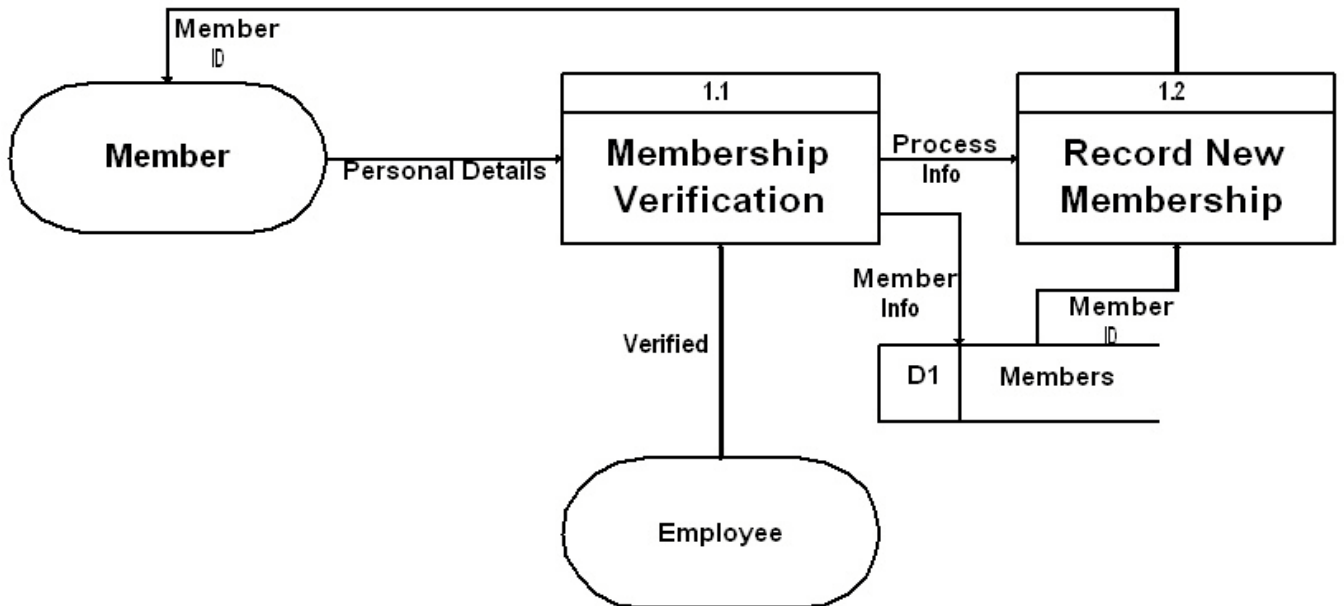


Diagram 2: Record New Video

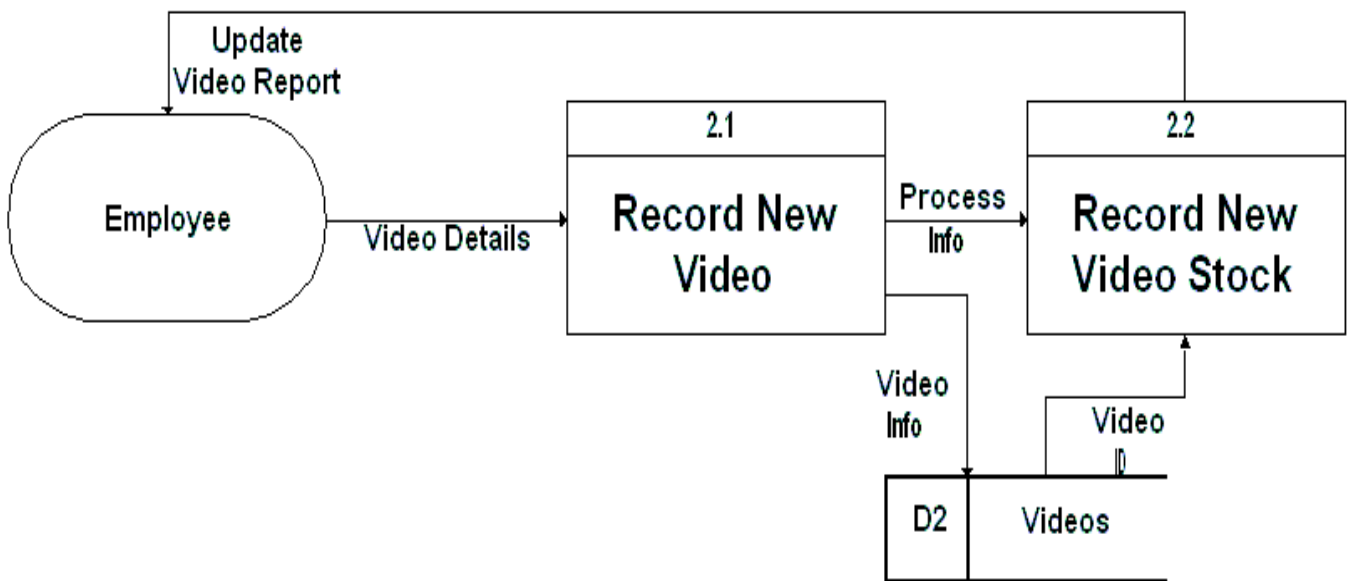


Diagram 3: Borrow / Loan Video

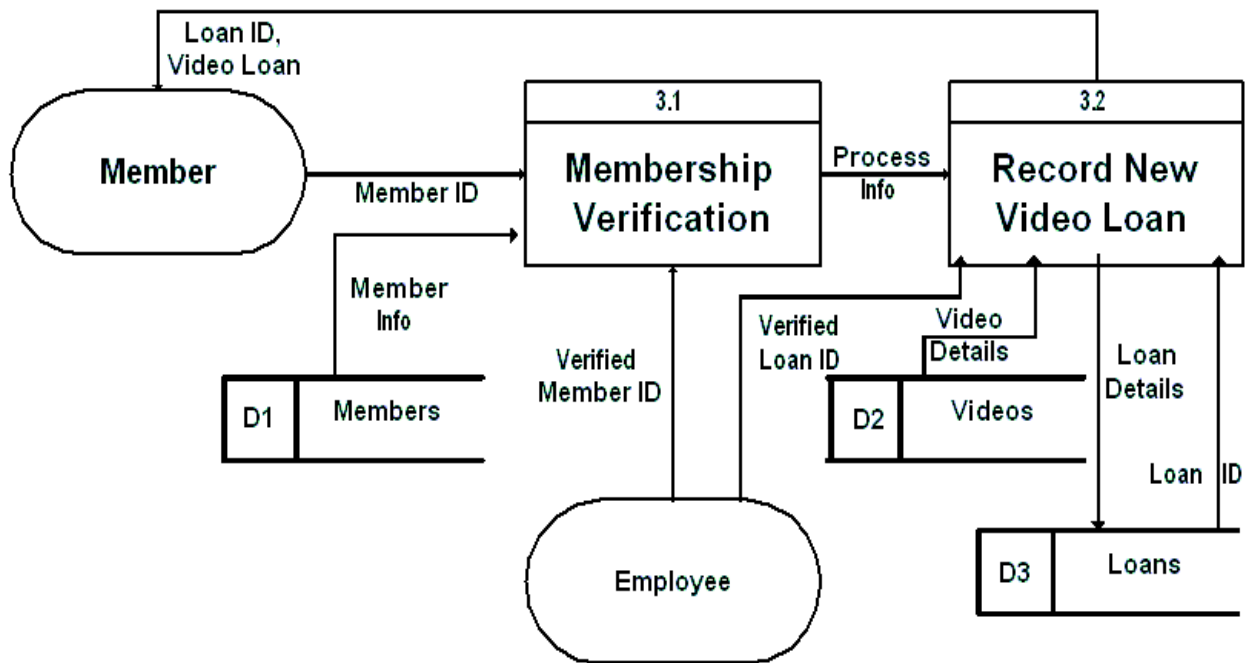
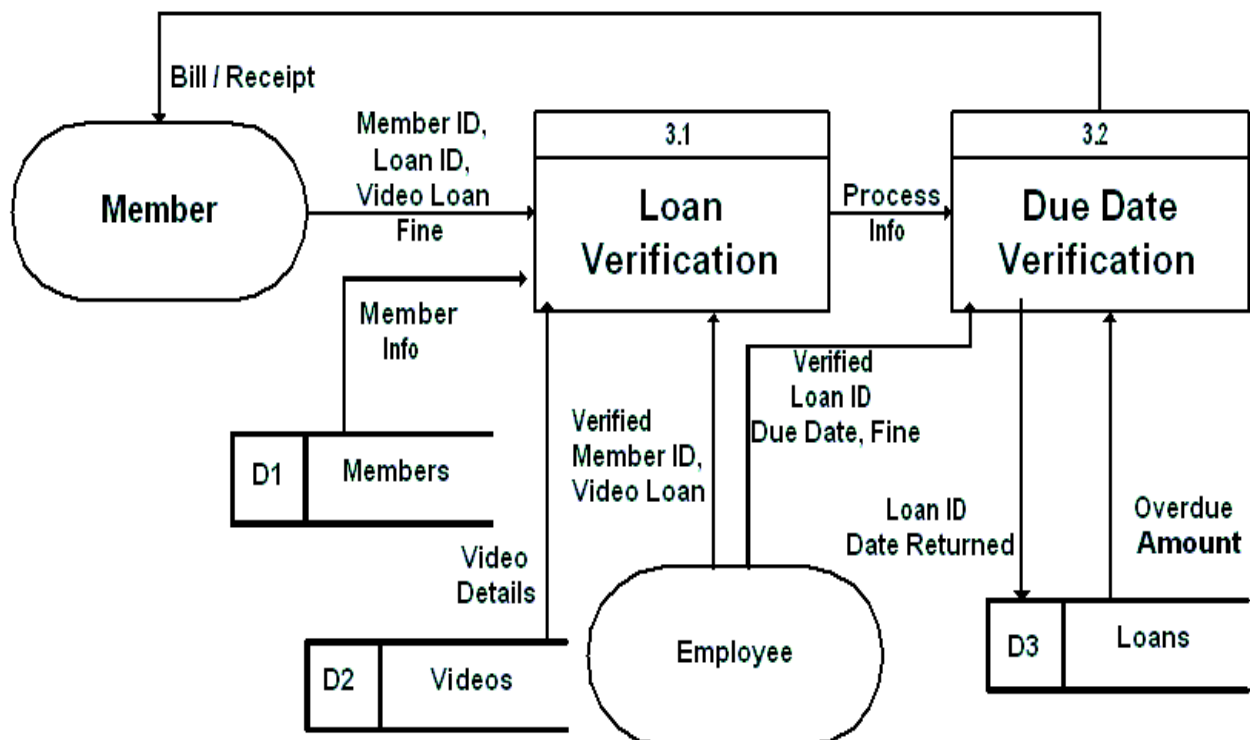


Diagram 4: Return Video



Data Dictionary

1. Data flows

Customer info: The information of customers

Customer order: The order made by customers

Query specifications: The specifications to query books

Book information: The information of books

Supplier information: The information of suppliers

Order for suppliers: The order for suppliers when a book is out of stock

Reviews: The information of reviews

Queries: The specifications to query all kinds of information in this DBMS.

2. Data stores

Customer datastore: Store all the information about customers

Customer order datastore: Store all the orders made by the customers

Book record: Store all the information about books

Write record: Store all the information about writers

Suppliers: Store all the information about suppliers

Pricelist: Store the prices provided by different suppliers

Reviews: Store all the information about reviews

3. Processes

1. Edit customer profiler

input: customer info

output: customer datastore

brief description: Customer inputs his own information to update the profiler

2. Customer make order

input: customer order, customer datastore, book record

output: customer order datastore

brief description: Customer inputs his order, then the process will refer to current customer datastore and book record to update the customer order datastore.

3. Customer searches

input: query specifications

output: book record

brief description: Customer inputs a query for books

4. Maintain book records

input: book information, book record, writer records

output: book record, writer records

brief description: Employee of everest.com inputs the book information, the process will refer to current book record and writer records to update the book record and writer records.

5. Maintain supplier info

input: supplier info, suppliers, pricelist

output: suppliers, pricelist

brief description: The employee inputs the supplier info, then process will refer to current suppliers and pricelist to update the suppliers and pricelist.

6. Make order to supplier

input: order for suppliers, book record, suppliers, pricelist

output: orders sent to suppliers

brief description: The employee inputs order for suppliers, then process will refer to current book record, suppliers and pricelist and output the orders to be sent to the suppliers.

7. Maintain reviews

input: reviews, book record

output: reviews

brief description: The employee inputs the reviews' information, the process will refer the book record to update review datastore.

8. Process queries

input: queries

output: all kind of records

brief description: The employee inputs queries to get records.

5.3 Entity Relationships Diagram

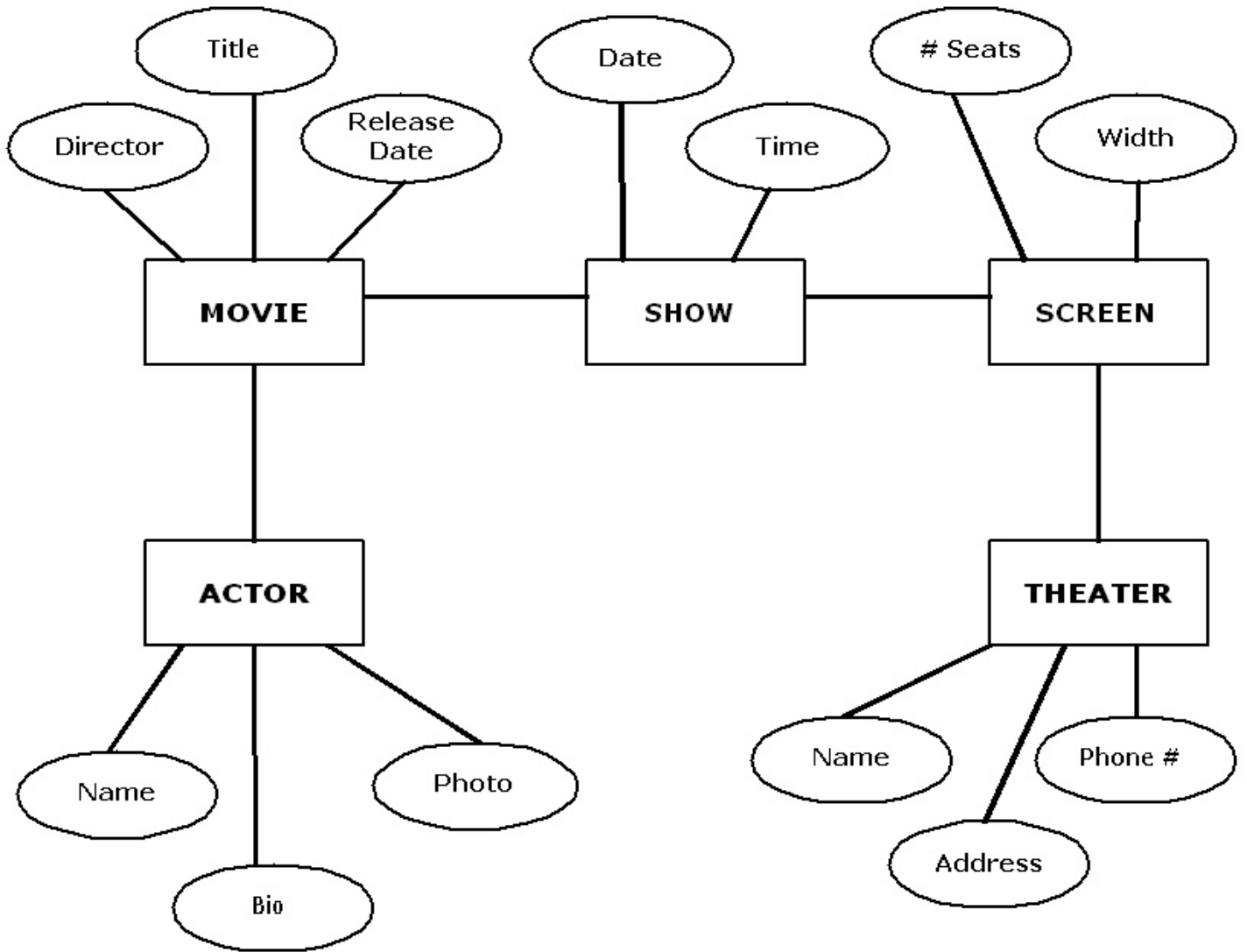


Figure: ER Diagram of attribute & entity

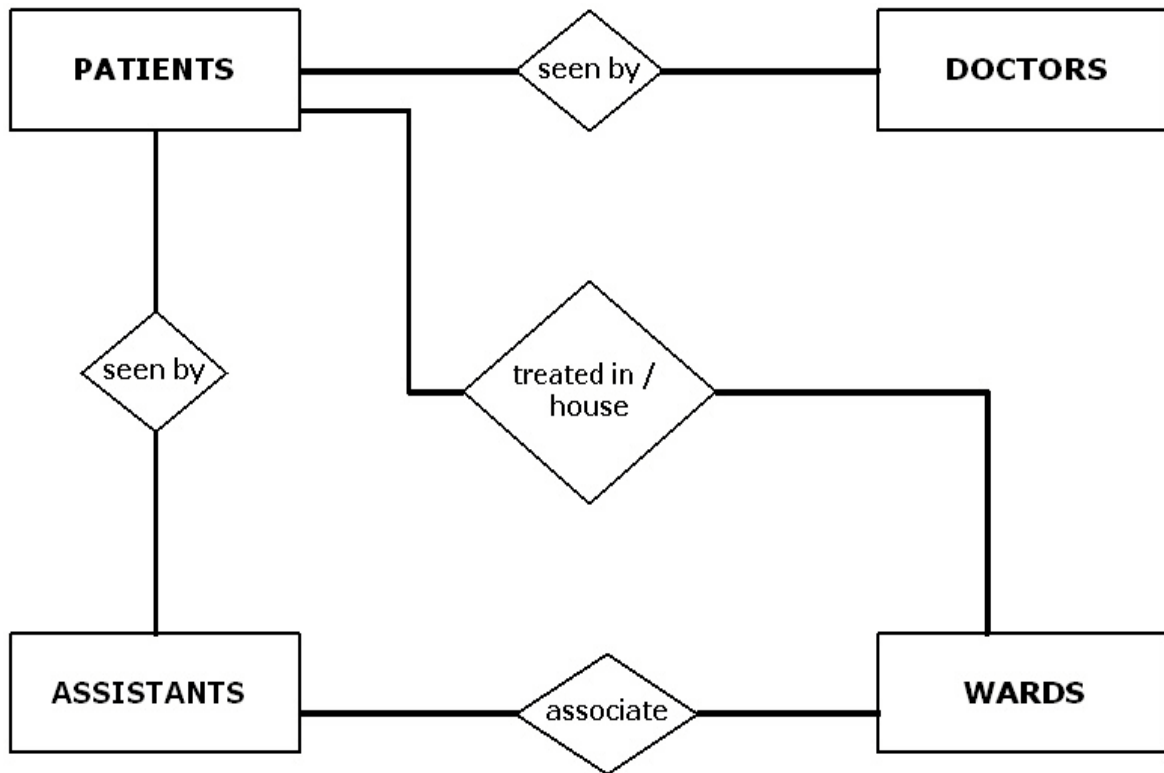


Figure: ER Diagram to show relationship between the entities

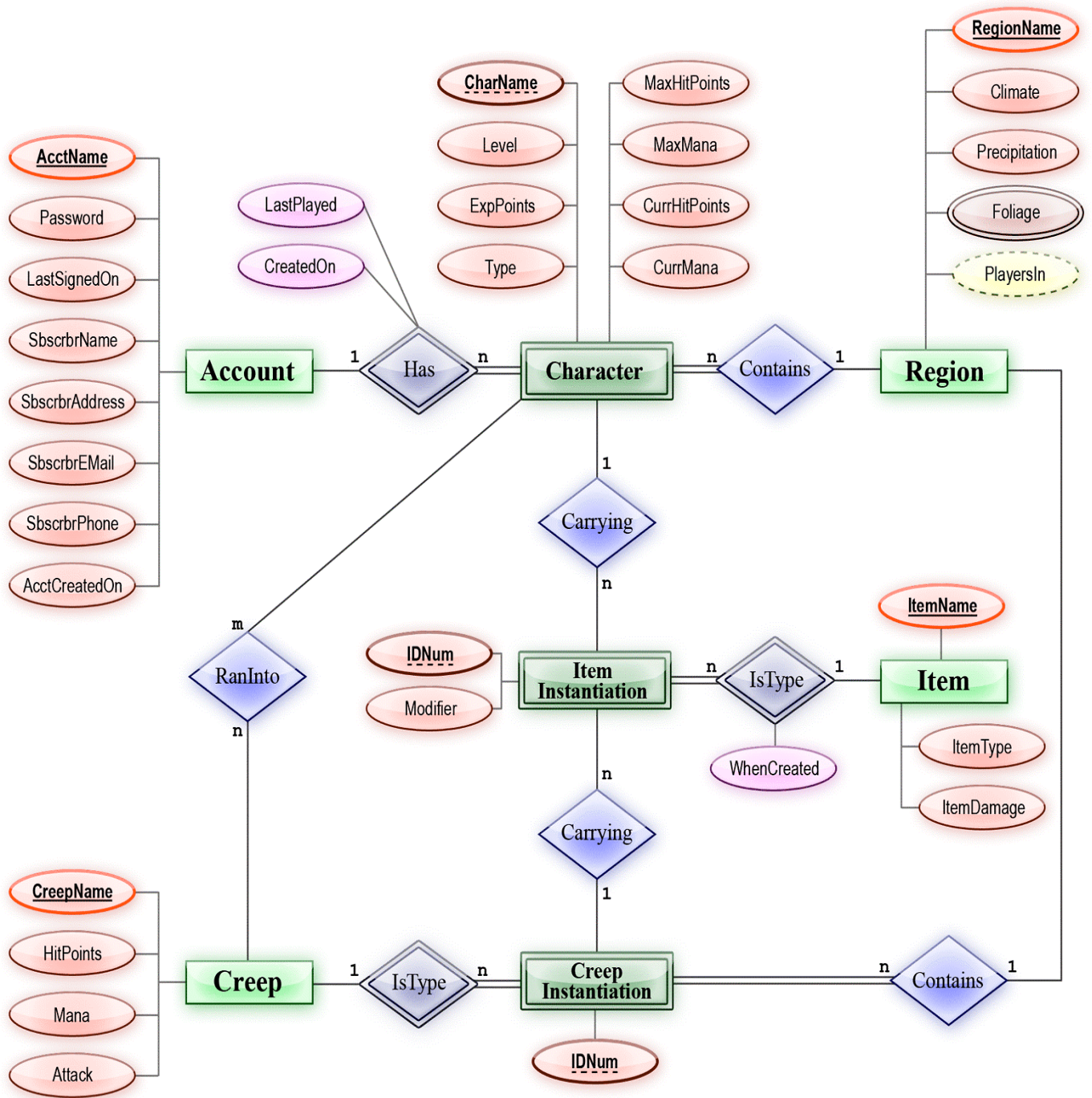


Figure: ER-Diagram