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**Proposal Phase
CSCI273 Project**

October 7, 2003

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List of Team Members & Initial Responsibilities

Team Members: Dominique Ralph, Archana Patel, Erik Sisco, Jill Jones, Abe Miessler

Team Leader: Dominique Ralph

Division of Labor (Proposal):

All: Mutual work on diagrams, concurrence on Background, Requirements, and Business Processes.

Jill: Background, history

Archana: Requirements

Erik: What's to be done, business processes

Dominique: diagrams, putting it all together

Abe: Joined group on October 2, 2003

Problem Statement/Requirements Definition

Hotels have been around for a very long time, using various methods of keeping records. Historically, hotels have kept paper records in filing cabinets. However, hotels are much larger now with many customers to keep track of with regard to types of accommodations, whether low budget, luxury, or somewhere in between, as well as smoking or non-smoking preferences. Keeping track of large customer bases and all their attendant details would require an inordinate space for file cabinets, not to mention the time employees would spend going back and forth to file cabinets looking up each client's information! JADE is a large new hotel, and requires more sophisticated methods of tracking customers and their preferences, as well as all the details about each customer and the rooms themselves. JADE is a complex of two towers, offering many differing types of accommodations with the prospect of a large customer base. JADE has decided to implement a relational database for record-keeping.

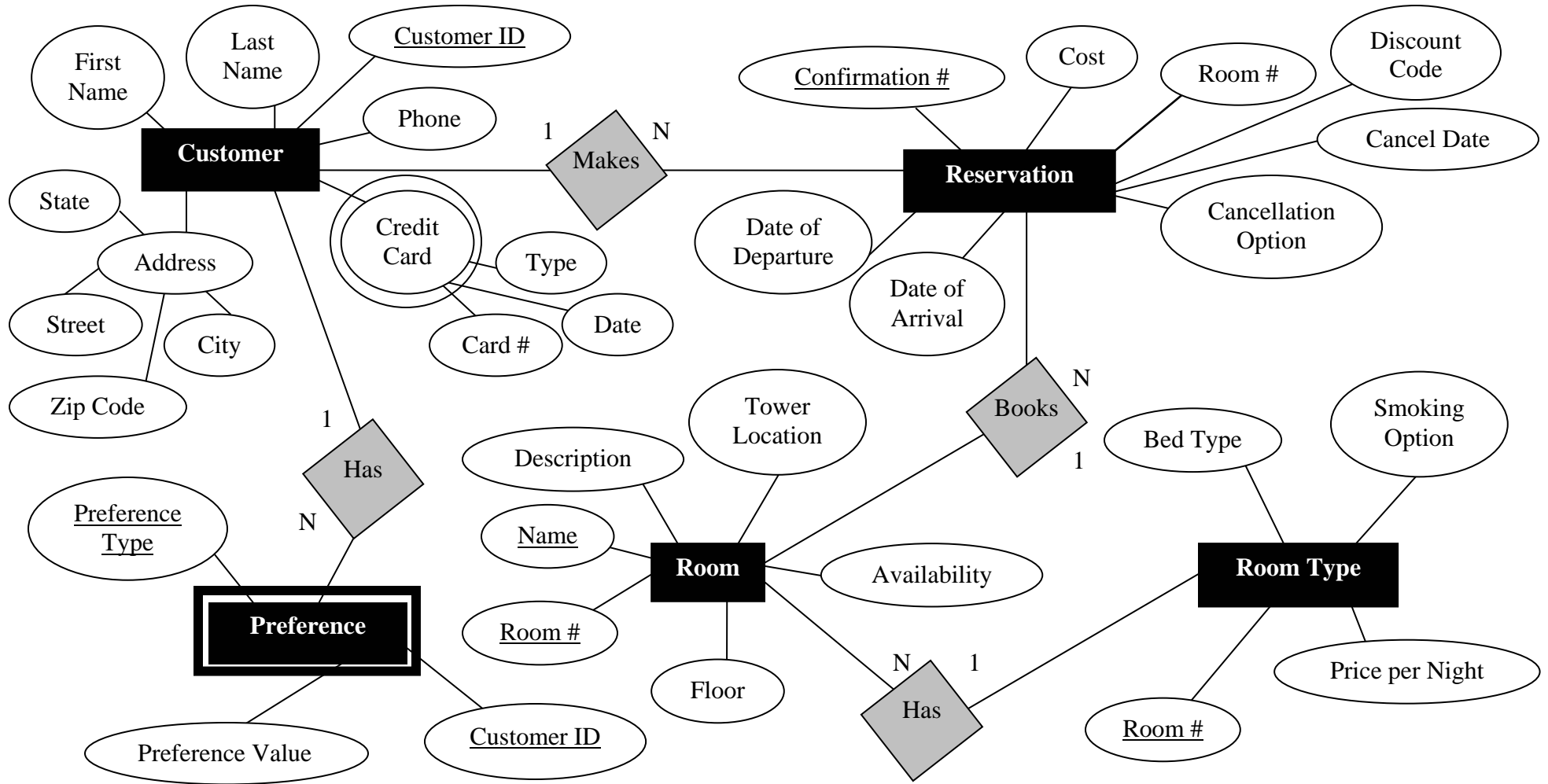
The general requirements for a new customer are: in order for the customer to make a reservation they need a first and last name, valid address, credit card number, and phone number. They will be informed about the two towers we have, the different room types available, and the prices for each of the room types. Then the customer can make an informed decision in what they want. After the reservation is complete the hotel database will assign a customer ID number to the new customer. But as far as the customer is concerned they are simply given a confirmation number for their reservation, which they present upon arrival.

If the customer is a returning guest and wants to make a reservation all their information is already in the database. Therefore, all they need to present is the arrival and departure dates and the room type they want. In return we give them the price and a confirmation number, which again they present upon arrival.

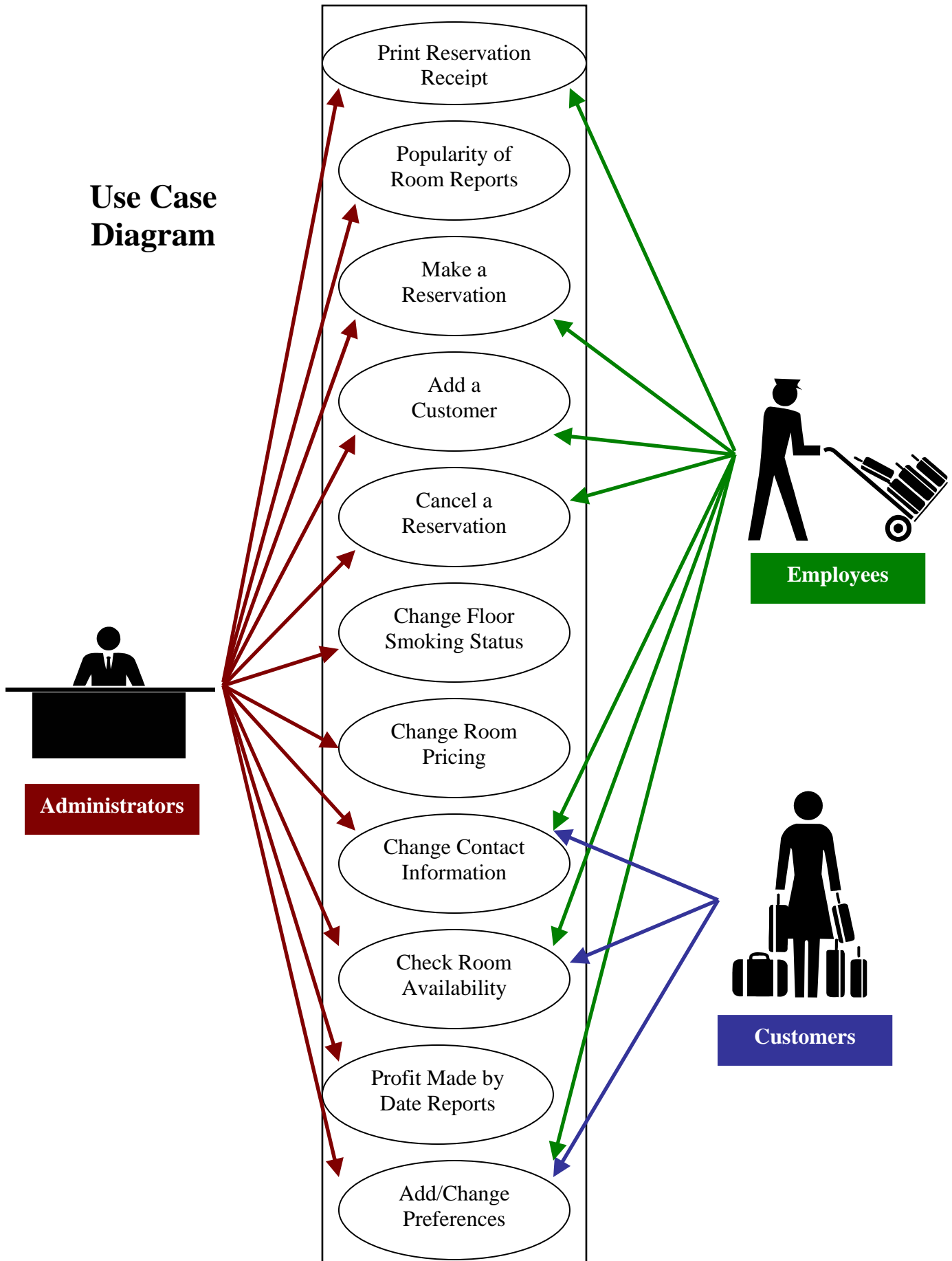
As the database development team, we will be creating a database which will have a three actor system. There will be the following actors: customer, employee, and administrator. Each will have a varied level of access to the details of the hotel and reservations made at the hotel. The customer will provide biographical information which will be entered in and alterable by any of the three actors. The main business process focused around the database will be creating reservations for J.A.D.E. hotel. After the employee submits the customer's preferences a query will be done to the database to find a suitable accommodation. As a secondary process we will allow modification of data states by the Administrator (i.e. change which floors are smoking/non-smoking).

The problem of slow paper filing systems will be solved with merely accessing the database containing the customer and room entities rather than referencing multiple physical filing systems. The process of querying the hotel for a reservation shall need to be rather timely (less than 20 seconds) to facilitate speedy transactions between the employee and the customer. There are no necessary time constraints on the administrator-specific tasks though integrity of the reservation system will have to remain intact (i.e. if a person has reserved a non-smoking room and the administrator changes the floor to a smoking floor, then the confirmation number given to the customer shall then refer to a new room number which takes into account their room preferences). We will assume that the customer knows what his/her preferences are and he/she has all of their biographical information available for entry. The majority of stored information will be mandatory (i.e. we cannot have null for first and last names). The interface will have to be as simple and straightforward as possible (limit it to about 2 screens, one for initial customer data and for final reservation data) to allow ease of use by the employees and administrators.

Entity-Relationship Model



Use Case Diagram



Narrative Description of Project Use Cases

Use case 1: **Make a Reservation**

Actor(s): Hotel Employees, Administrators

Description: Employee/Admin will be prompted with menu screen. After choosing “Employee” and “Make a Reservation”, they will enter in the Customer ID Number. (Note: If it is a new customer, they must enter in the Customer Information before making a reservation – see Use Case: Add a Customer). The screen should populate the customer’s first and last name, address, phone number, and credit card information. Employee must enter in the date of arrival and departure, tower choice, and room type. The room number will be populated by availability, so they may choose any room number in the list. After clicking button “Reserve Room Now”, a confirmation number will be created.

Use case 2: **Add a Customer**

Actor(s): Hotel Employees, Administrators

Description: Employee/Admin will be prompted with menu screen. After choosing “Employee” and “Add a Customer”, they will enter in the first and last name, address, city, state, zip code, phone number, and credit card information. After clicking button “Add Customer Now”, a customer ID number will be created.

Use case 3: **Cancel a Reservation**

Actor(s): Hotel Employees, Administrators

Description: Employee/Admin will be prompted with menu screen. After choosing “Employee” and “Cancel a Reservation”, they will enter in the confirmation number. After clicking button “Cancel Reservation Now”, a cancellation number/date will be created.

Use case 4: **Change Floor Smoking/Non Smoking Status**

Actor(s): Administrators

Description: Administrators will be prompted with menu screen. After choosing “Administrators”, and “Change Floor Status”, they will select the floor to change and enter in either S or NS. After clicking button “Change Floor Status”, the floor will be changed to new status.

Use case 5: **Change Room Pricing**

Actor(s): Administrators

Description: Administrators will be prompted with menu screen. After choosing “Administrators”, and “Change Room Pricing”, they will select the room type and enter in new price. After clicking button “Change Room Pricing”, the price for the room type will be updated.

Use case 6: **Change Contact Information**

Actor(s): Customers, Employees, Administrators

Description: They will be prompted with menu screen. After choosing “Change Contact Information”, they will enter in the Customer ID. Select from the menu what needs

to be changed. They will enter in the new changes for customer. After clicking button “Change Contact Info Now”, the customer information will be updated.

Use case 7: **Add Customer Preferences**

Actor(s): Customers, Employees, Administrators

Description: They will be prompted with menu screen. After choosing “Add Customer Preferences”, they will enter in the Customer ID. Select the number of items requested for each preference. After clicking button “Add Customer Preferences”, the customer preferences will be added.

Use case 8: **Change Customer Preferences**

Actor(s): Customers, Employees, Administrators

Description: They will be prompted with menu screen. After choosing “Change Customer Preferences”, they will enter in the Customer ID. Select the preference that needs to be changed. Enter in new amount for that preference. After clicking button “Change Customer Preferences”, the customer preferences will be updated.

Use case 9: **Check Availability of Hotel**

Actor(s): Customers, Employees, Administrators

Description: They will be prompted with menu screen. After choosing “Check Availability”, they will choose tower they would like to stay in. After clicking button “Check Availability”, the page should display the room types, prices for room types, and number of rooms available.

Use case 10: **Profit by Date Report**

Actor(s): Administrators

Description: Administrators will be prompted with menu screen. After choosing “Profit by Date”, they will enter the start and end dates (this time frame will show the profit made). After clicking button “Show Me the Money”, the page should display the room types and profit made for those types.

Use case 11: **Reservation Receipts Reporting**

Actor(s): Employees, Administrators

Description: Employees and Administrators will be prompted with menu screen. After making a reservation, they will enter the customer’s ID number where the reservation receipt page should display and print out the most current reservation information.

Use case 12: **Popularity of Rooms Report by Date and/or Time**

Actor(s): Administrators

Description: Administrators will be prompted with menu screen. After choosing “Popularity of Rooms Report”, they will enter the start and end dates (this time frame will show the profit made) and/or choose a time from (e.g. 9AM to 11AM). After clicking button “Print Report”, the page should display and print out the room types and amount of reservations made for those types.