UNIVERSITY OF COLOMBO, SRI LANKA

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IT3106: Object Oriented Analysis and Design

CASE STUDY

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PetGuardian Hub, situated in the Western Province, is a leading pet care center providing premium boarding and grooming services for pets. Pet owners bring their pets for grooming and boarding while they are out. PetGuardian Hub has different sizes of cages, such as small, medium, and large, with different facilities, such as A/C or non-A/C. The center offers two food options for pet owners, the center can provide food for the borded pets, or alternatively, the owners can supply their own pet food. The pet caretaker shares the weekly food menu with the pet owners for their reference. Additionally, if there are any special requirements, pet owners can inform the pet caretaker.

At present, the center manages the activities manually, but there is a desire to implement an automated system. After closely observing the company's operations and engaging in discussions with employees, the analysts discovered the following processes:

Pet Owner Registration: To request pet boarding or grooming services, pet owners are required to register by providing details such as their NIC, name, address and telephone number. After completing the pet owner registration, the pet is registered by providing the details of the pet.

Pet Registration: The company provides services for cats and dogs only. The required pet information includes the pet's name, gender, age and breed.

Pet Boarding Service: Pet owners can board their pets in available cages. The pet caretaker gets details on the pets to be boarded, such as their check-in and check-out dates, cage size(s), preferences for A/C or non-A/C cages, and the preferred food option.

Pet Grooming Services: The center provides the following grooming services for pets, including nail trimming, bathing, drying and fur styling. Pet owners can select the specific grooming services they desire and choose a preferred time slot for their appointments. The grooming service manager who is

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responsible for maintaining the grooming services allocate the time slot and assigns the grooming service staff for each service.

Payments: When the pet owners give their reservation or appointment details, they have to pay the full amount for services in advance. The center would like to give a discount for special matters.

The following modules are identified as the requirements in the software to be developed:

Master Module: The administrator should be able to insert, delete, update, view and search pet owner details, pet details, reservation details, appointment details and generate various reports etc.

Registration Module: Pet owners have the option to register with the system by providing their personal details along with information about their pets. Additionally, if a pet owner encounters any difficulty in registering, the receptionist is equipped to enroll both the pet owner and their pet's details to the system.

Pet Boarding Service Reservation Module: Pet owners can make online reservations for borading. The receptionist also should be able to add the reservation details to the system when a pet owner has any difficulties in making a reservation. After the reservation is confirmed, an SMS containing the reservation details is automatically dispatched to the pet owner.

Cancellation Pet Boarding Service Reservation Module: Cancellations can be allowed before the check-in date. If the cancellation is done within 24 hours before the check-in date, 8% of the reservation fee will be charged as the cancellation fee. Otherwise If the cancellation is done after the check-in date, 40% of the reservation fee will be charged as a cancellation fee. The company can reimburse the balance after providing the bank details by the pet owner.

Pet Grooming Service Appointment Module: Pet owners can make online appointments for grooming services. The receptionist should also be able to add the appointment details to the system when a pet owner has any difficulties making an appointment. After the reservation is confirmed, an SMS containing the reservation details is automatically dispatched to the pet owner.

Payment Module: The pet owner should be able to pay after the reservation or appointment details are entered into the system. If he/she pays using his/her credit card, a 5% discount is given. A 2% discount will be given for debit card payments. Cash payments can be made only at the PetGaurdian Hub's reception. No discount will be given for cash payments. The receptionist handles the payment. and the receptionist will enter the payment details such as payment type (cash/cedit/debit) and total amount into the system.

Pet Caretaker Module: The pet caretaker possesses the capability to insert, delete, update, view, and search information related to cages and weekly menu details through the system. Additionally, he/she can check the availability of cages and view details regarding pet owners.

Report Module: Reports regarding registrations, reservations, appointments, payments, cancellations, cage maintenance, etc. could be generated using this module.

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