

OPIM 5272 - Data Management and Business
Process Modeling
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Final Project Report

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Introduction

Our final project focuses on building information system for the local reputational pet hospital, it plans to expand the business recently due to the increase number of sales and customers. Their current main processes are as follows:

- Record new customers' information into the system
- Matching available doctors with customer's request
- Doctors start to provide treatment at scheduled time
- Manually record the next follow-up date
- Correct matches the billing and payment information

As our team's goal is to optimize their current process, therefore we generate several reports to help our client better control the whole process. What is more, in this report, we will analyze each report's business values in order to better serve the client needs.

Generate Reports

Report 1:

```
select customer.customer_id,customer.customer_Name,pet.pet_breed,customer.email
from CustomerInfo customer join PetInfo pet
on customer.customer_id=pet.customer_id ;
```

The first report we generate is about sending out advertising and promotions via email. Since we already gathered every walk in or phone calls customer's information, we can utilize the customer information base to send out the promotion more accurately. By doing so, we can know what kind of pet breed each customer has, and categorized them in different groups, like cats or dogs, large dog or small dog, and sends out the corresponding promotions or advertising to target users.

Report 2:

```
select aptm.doctor_id, doc.doctor_name,listagg(aptm.week,',') within group (order by
aptm.week) as Appointments_per_Week,
doc.shift_date
from Appointment aptm join Doctor doc
```

```

on aptm.doctor_id=doc.doctor_id
group by aptm.doctor_id,doc.shift_date,doc.doctor_name
;

```

For second report, we solve one of the pet hospital's current problems. Since the doctors could not work for seven days a week, they are expected to take turns to rest 2 days in a week. A problem occurred in this circumstance that a customer may not have the option to choose a favorable doctor or the doctor working time does not match with customer's time. This report has linked doctor available working time in the doctor system with customer appointment time with appointment system, which ensures that the appointment time of the customer matches the doctor's shift time. It can help the hospital confirm the appointment in a timely manner and reduce the risk of double appointments for same doctor at same time.

Report 3:

```

select *
from(select pet_id,pet_name,pet_breed,pet_birthdate
from PetInfo
where pet_id='&petid') a join
(select pet_id,doctor_id, Diagonosis_Instruction,drug_dosage,drug_description
from treatment_order
where pet_id='&petid') b
on a.pet_id=b.pet_id;

```

This third report intends to help doctor get a better idea of pet information before the treatment starts. With current system, pet information is independent with treatment history, doctors have to pull out two forms to know the all the information. This report has integrated the two parts into a single report, doctor could just enter the pet id in the system, then he will have a report that contains this pet previous treatment records in hospital and its breed, name, birth date etc. This could help to save doctor and customer's time and put more time on treatment process.

Report 4:

```

select a.customer_name,a.customer_phoneno,a.email,b.remaining_balance
from customerinfo a join payment b

```

```
on a.customer_id = b.customer_id  
where b.remaining_balance <> '$0.00'  
;
```

The last report we generate is regarding the delivery of payment status to customers. As in the hospital system, there are two status of payment, whether the payment is received or not. For those customers who only paid partial or no, the receptionist would contact them via phone or email to remind them to pay the fee before the due date. This report can help the employees know the number of customers who did not pay the full amount in a timely manner especially when the customer base is huge.