

SIT103

Information and Database Retrieval

Tutorial 4 - Normalisation

Question 1. Suppose your client asked to design a database using following information.

INVOICE

HILLTOP ANIMAL HOSPITAL
INVOICE # 987

DATE: JAN 13/2002

MR. RICHARD COOK
123 THIS STREET
MY CITY, ONTARIO
Z5Z 6G6

<u>PET</u>	<u>PROCEDURE</u>	<u>AMOUNT</u>
ROVER	RABIES VACCINATION	30.00
MORRIS	RABIES VACCINATION	24.00
	TOTAL	54.00
	TAX (8%)	<u>4.32</u>
	AMOUNT OWING	<u>58.32</u>

1. Identify attributes for the table(s).
2. Normalise the relational schema (including 3rd Normal form)

Question 2. The table shown in Figure 1 is susceptible to update anomalies. Provide examples of insertion, deletion, and modification anomalies.

Identify dependencies and perform normalisation.

staffNo	dentistName	patientNo	patientName	appointment date time	surgeryNo
S1011	Tony Smith	P100	Gillian White	12-Aug-03 10.00	S10
S1011	Tony Smith	P105	Jill Bell	13-Aug-03 12.00	S15
S1024	Helen Pearson	P108	Ian MacKay	12-Sept-03 10.00	S10
S1024	Helen Pearson	P108	Ian MacKay	14-Sept-03 10.00	S10
S1032	Robin Plevin	P105	Jill Bell	14-Oct-03 16.30	S15
S1032	Robin Plevin	P110	John Walker	15-Oct-03 18.00	S13

Figure 1. Details of patient dental appointments