

# FIT3171 Assignment 1B – Normalisation

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## Pet Ownership Details

### UNF

OWNER (owner\_id, owner\_gname, owner\_fname, prefvet\_id, prefvet\_name, owner\_address, (pet\_id, pet\_gender, pet\_name, pet\_type, pet\_dob, pet\_status))

### 1NF

OWNER (owner\_id, owner\_gname, owner\_fname, prefvet\_id, prefvet\_name, owner\_address)

PET (pet\_id, pet\_gender, pet\_name, pet\_type, pet\_dob, pet\_status)

Partial Dependencies:

No Partial Dependency

### 2NF

OWNER (owner\_id, owner\_gname, owner\_fname, prefvet\_id, prefvet\_name, owner\_address)

PET (pet\_id, pet\_gender, pet\_name, pet\_type, pet\_dob, pet\_status)

Transitive Dependencies:

prefvet\_id → prefvet\_name

### 3NF

OWNER (owner\_id, owner\_gname, owner\_fname, prefvet\_id, owner\_address)

PET (pet\_id, pet\_gender, pet\_name, pet\_type, pet\_dob, pet\_status)

VET (prefvet\_id, prefvet\_name)

Full Dependencies:

owner\_id → owner\_gname, owner\_fname, prefvet\_id, owner\_address

pet\_id → pet\_gender, pet\_name, pet\_type, pet\_dob, pet\_status

prefvet\_id → prefvet\_name

## Visit Invoice

### UNF

INVOICE (pet\_id, pt\_name, vet\_id, vet\_name, amount\_due, payment\_method, serv\_date, serv\_time, (serv\_code,serv\_desc,serv\_cost), (drug\_id,drug\_name,qty\_supplied,drug\_cost))

### 1NF

INVOICE (pet\_id, vet\_id, serv\_time, serv\_date pet\_name, vet\_name, amount\_due, payment\_method)

SERVICE (serv\_code, serv\_desc,serv\_cost)

DRUG (drug\_id, drug\_name,qty\_supplied,drug\_cost)

Partial Dependencies:

pet\_id → pet\_name

vet\_id → vet\_name

### 2NF

INVOICE (pet\_id, vet\_id, serv\_time, serv\_date, amount\_due, payment\_method)

SERVICE (serv\_code, serv\_desc,serv\_cost)

DRUG (drug\_id, drug\_name,qty\_supplied,drug\_cost)

PET (pet\_id, pet\_name)

VET (vet\_id, vet\_name)

Transitive Dependencies:

No transitive dependencies

### 3NF

INVOICE (pet\_id, vet\_id, serv\_time, serv\_date, amount\_due, payment\_method)

SERVICE (serv\_code, serv\_desc,serv\_cost)

DRUG (drug\_id, drug\_name,qty\_supplied,drug\_cost)

PET (Pet\_id, pet\_name)

VET (vet\_id, vet\_name)

### Full Dependencies:

Pet\_id, vet\_id, serv\_time, serv\_date → amount\_due, payment\_method

serv\_code → serv\_desc, serv\_cost

drug\_id → drug\_name, qty\_supplied, drug\_cost

Pet\_id → pet\_name

vet\_id → vet\_name

## COLLECTED 3NF RELATIONS

1. OWNER (owner\_id, owner\_gname, owner\_fname, prefvet\_id, owner\_address)
2. PET (pet\_id, pet\_gender, pet\_name, pet\_type, pet\_dob, pet\_status)
3. VET (prefvet\_id, prefvet\_name)
4. INVOICE (pet\_id, vet\_id, serv\_time, serv\_date, amount\_due, payment\_method)
5. SERVICE (serv\_code, serv\_desc, serv\_cost)
6. DRUG (drug\_id, drug\_name, qty\_supplied, drug\_cost)
7. PET (pet\_id, pet\_name)
8. VET (vet\_id, vet\_name)

## ATTRIBUTE SYNTHESIS

1. OWNER (owner\_id, owner\_gname, owner\_fname, prefvet\_id, owner\_address)
- 2 & 7 PET (pet\_id, pet\_name, pet\_gender, pet\_type, pet\_dob, pet\_status)
- 3 & 8. VET (vet\_id, vet\_name)
4. INVOICE (pet\_id, vet\_id, serv\_time, serv\_date, amount\_due, payment\_method)
5. SERVICE (serv\_code, serv\_desc, serv\_cost)
6. DRUG (drug\_id, drug\_name, qty\_supplied, drug\_cost)