

# FIT3171 A1B – 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)

OWNERSHIP\_RECORD (owner\_id, pet\_id, pet\_gender, pet\_name, pet\_type, pet\_dob, pet\_status)

Partial Dependencies:

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

### 2NF

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

OWNERSHIP\_RECORD (owner\_id, pet\_id)

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)

OWNERSHIP\_RECORD (owner\_id, pet\_id)

Full Dependencies:

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

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

prevet\_id → prevet\_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, drug\_qty\_supplied, drug\_cost))

1NF

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

SERVICE\_RECORD (pet\_id, serv\_date, serv\_time, serv\_code, serv\_desc, serv\_cost)

DRUG\_RECORD (pet\_id, serv\_date, serv\_time, drug\_id, drug\_name, drug\_qty\_supplied, drug\_cost)

Partial Dependencies:

pet\_id → pet\_name

vet\_id → vet\_name

serv\_code → serv\_desc, serv\_cost

drug\_id → drug\_name, drug\_cost

2NF

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

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

SERVICE\_RECORD (pet\_id, serv\_date, serv\_time, serv\_code)

DRUG\_RECORD (pet\_id, serv\_date, serv\_time, drug\_id, drug\_name, drug\_qty\_supplied)

PET (pet\_id, pet\_name)

VET (vet\_id, vet\_name)

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

Transitive Dependencies:

No transitive dependencies

### 3NF

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

SERVICE\_RECORD (pet\_id, serv\_date, serv\_time, serv\_code,)

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

DRUG\_RECORD (pet\_id, invoice\_date, invoice\_time, drug\_id, drug\_qty\_supplied)

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

PET (pet\_id, pet\_name)

VET (vet\_id, vet\_name)

Full Dependencies:

pet\_id, invoice\_date, invoice\_time → serv\_total\_due, serv\_pay\_method

vet\_id → vet\_name

pet\_id → pet\_name

serv\_code → serv\_desc, serv\_cost

pet\_id, invoice\_date, invoice\_time, drug\_id → drug\_qty\_supplied

drug\_id → drug\_name, drug\_cost

### 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, drug\_qty\_supplied, drug\_cost)
7. PET (pet\_id, pet\_name)
8. VET (vet\_id, vet\_name)
9. SERVICE\_RECORD (pet\_id, invoice\_date, invoice\_time, serv\_code)
10. DRUG\_RECORD (pet\_id, invoice\_date, invoice\_time, drug\_id, drug\_qty\_supplied)
11. OWNERSHIP\_RECORD (owner\_id, pet\_id)

### 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, drug\_qty\_supplied, drug\_cost)
- 9. SERVICE\_RECORD (pet\_id, invoice\_date, invoice\_time, serv\_code)
- 10. DRUG\_RECORD (pet\_id, invoice\_date, invoice\_time, drug\_id, drug\_qty\_supplied)
- 11. OWNERSHIP\_RECORD (owner\_id, pet\_id)