

# Normalisation

## 1. Pet Ownership Details

### UNF

PET\_OWNER(owner\_id, owner\_gname, owner\_fname, owner\_street, owner\_town, owner\_postcode, vet\_id, vet\_name, (pet\_id, pet\_gender, pet\_name, pet\_type, pet\_dob, pet\_deceased))

### 1NF

PET\_OWNER(owner\_id, owner\_gname, owner\_fname, owner\_street, owner\_town, owner\_postcode, vet\_id, vet\_name)

PET(pet\_id, pet\_gender, pet\_name, pet\_type, pet\_dob, pet\_deceased, owner\_id)

Partial Dependencies:

No Partial Dependency

### 2NF

PET\_OWNER(owner\_id, owner\_gname, owner\_fname, owner\_street, owner\_town, owner\_postcode, vet\_id, vet\_name)

PET(pet\_id, pet\_gender, pet\_name, pet\_type, pet\_dob, pet\_deceased, owner\_id)

Transitive Dependencies:

vet\_id -> vet\_name

### 3NF

PET\_OWNER(owner\_id, owner\_gname, owner\_fname, owner\_street, owner\_town, owner\_postcode, vet\_id)

PET(pet\_id, pet\_gender, pet\_name, pet\_type, pet\_dob, pet\_deceased, owner\_id)

VETERINARIAN(vet\_id, vet\_name)

Full Dependencies:

owner\_id -> owner\_gname, owner\_fname, owner\_street, owner\_town, owner\_postcode, vet\_id

pet\_id -> pet\_gender, pet\_name, pet\_type, pet\_dob, pet\_deceased, owner\_id

vet\_id -> vet\_name

## 2. Visit Invoice

### UNF

VISIT(pet\_id, pet\_name, vet\_id, vet\_name, visit\_datetime, (service\_code, service\_description, service\_cost), (drug\_id, drug\_name, qty\_supplied, cost), visit\_cost, visit\_paymethod)

### 1NF

VISIT(pet\_id, pet\_name, vet\_id, vet\_name, visit\_datetime, visit\_cost, visit\_paymentmethod)

PRESCRIPTION\_SERVICE(vet\_id, visit\_datetime, service\_code, service\_description, ps\_cost)

PRESCRIPTION\_DRUG(vet\_id, visit\_datetime, drug\_id, drug\_name, pd\_qty\_supplied, pd\_cost)

Partial Dependencies:

pet\_id -> pet\_name (Candidate Key : pet\_id & visit\_datetime)

vet\_id -> vet\_name

service\_code -> service\_description

drug\_id -> drug\_name

### 2NF

VISIT(vet\_id, visit\_datetime, pet\_id, visit\_cost, visit\_paymentmethod)

PET(pet\_id, pet\_name)

VETERINARIAN(vet\_id, vet\_name)

PRESCRIPTION\_SERVICE(vet\_id, visit\_datetime, service\_code, ps\_cost)

SERVICE(service\_code, service\_description)

PRESCRIPTION\_DRUG(vet\_id, visit\_datetime, drug\_id, pd\_qty\_supplied, pd\_cost)

DRUG(drug\_id, drug\_name)

Transitive Dependencies:

No Transitive Dependency

### 3NF

VISIT(vet\_id, visit\_datetime, pet\_id, visit\_cost, visit\_paymentmethod)

PET(pet\_id, pet\_name)

VETERINARIAN(vet\_id, vet\_name)

PRESCRIPTION\_SERVICE(vet\_id, visit\_datetime, service\_code, ps\_cost)

SERVICE(service\_code, service\_description)

PRESCRIPTION\_DRUG(vet\_id, visit\_datetime, drug\_id, pd\_qty\_supplied, pd\_cost)

DRUG(drug\_id, drug\_name)

Full Dependencies:

vet\_id, visit\_datetime -> pet\_id, visit\_cost, visit\_paymentmethod

pet\_id -> pet\_name

vet\_id -> vet\_name

vet\_id, visit\_datetime, service\_code -> ps\_cost

service\_code -> service\_description

vet\_id, visit\_datetime, drug\_id -> pd\_qty\_supplied, pd\_cost

drug\_id -> drug\_name

### COLLECTED 3NF RELATIONS:

1. PET\_OWNER(owner\_id, owner\_gname, owner\_fname, owner\_street, owner\_town, owner\_postcode, vet\_id)
2. PET(pet\_id, pet\_gender, pet\_name, pet\_type, pet\_dob, pet\_deceased, owner\_id)
3. VETERINARIAN(vet\_id, vet\_name)
4. VISIT(vet\_id, visit\_datetime, pet\_id, visit\_cost, visit\_paymentmethod)
5. PET(pet\_id, pet\_name)
6. VETERINARIAN(vet\_id, vet\_name)
7. PRESCRIPTION\_SERVICE(vet\_id, visit\_datetime, service\_code, ps\_cost)
8. SERVICE(service\_code, service\_description)
9. PRESCRIPTION\_DRUG(vet\_id, visit\_datetime, drug\_id, pd\_qty\_supplied, pd\_cost)
10. DRUG(drug\_id, drug\_name)

#### ATTRIBUTE SYNTHESIS:

1. PET\_OWNER(owner\_id, owner\_gname, owner\_fname, owner\_street, owner\_town, owner\_postcode, vet\_id)
2. PET (pet\_id, pet\_gender, pet\_name, pet\_type, pet\_dob, pet\_deceased, owner\_id)
3. VETERINARIAN (vet\_id, vet\_name)
4. VISIT (vet\_id, visit\_datetime, pet\_id, visit\_cost, visit\_paymentmethod)
5. PRESCRIPTION\_SERVICE (vet\_id, visit\_datetime, service\_code, ps\_cost)
6. SERVICE (service\_code, service\_description)
7. PRESCRIPTION\_DRUG (vet\_id, visit\_datetime, drug\_id, pd\_qty\_supplied, pd\_cost)
8. DRUG (drug\_id, drug\_name)