## Normalisation

# 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  $\rightarrow$  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 → unit\_name, owner\_gname, owner\_fname, prefvet\_id, owner\_address

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

prefvet id  $\rightarrow$  prefvet name

#### Visit Invoice

#### UNF

INVOICE (Patient\_id, patient\_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 (<u>Patient id</u>, <u>vet id</u>, <u>serv time</u>, <u>serv date</u> patient\_name, vet\_name, amount\_due, payment\_method)

SERVICE (<u>serv\_code</u>,serv\_desc,serv\_cost)

DRUG (drug id, drug name, qty\_supplied, drug\_cost)

Partial Dependencies:

Patient\_id → patient\_name

Vet id  $\rightarrow$  vet name

## 2NF

INVOICE (<u>Patient id</u>, <u>vet id</u>, <u>serv time</u>, <u>serv date</u>, amount\_due, payment\_method)

SERVICE (<u>serv\_code</u>, serv\_desc,serv\_cost)

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

PATIENT (Patient id, patient name)

VET (vet id, vet name)

Transitive Dependencies:

No transitive dependencies

## 3NF

INVOICE (<u>Patient id</u>, <u>vet id</u>, <u>serv time</u>, <u>serv date</u>, amount\_due, payment\_method)

SERVICE (<u>serv\_code</u>, serv\_desc, serv\_cost)

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

PATIENT (Patient id, patient name)

VET (vet id, vet name)

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Full Dependencies:
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Patient_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 Patient_id → patient_name vet_id → vet_name
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## **COLLECTED 3NF RELATIONS:**

- 1.OWNER (<u>owner\_id</u>, owner\_gname, owner\_fname, prefvet\_id, owner\_address)
- 2.PET (<u>pet\_id</u>, pet\_gender, pet\_name, pet\_type, pet\_dob, pet\_status)
- 3.VET (prefvet id, prefvet\_name)
- 4.INVOICE (Patient id, vet id, serv time, serv date, amount\_due, payment\_method)
- 5.SERVICE (<u>serv\_code</u>, serv\_desc,serv\_cost)
- 6.DRUG (drug\_id, drug\_name,qty\_supplied,drug\_cost)
- 7.PATIENT (<u>Patient\_id</u>, patient\_name)
- 8.VET (vet id, vet name)

# **ATTRIBUTE SYNTHESIS**

- 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 & 8. VET (vet id, vet name)
- 4. INVOICE (Patient 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. PATIENT (<u>Patient id, patient\_name</u>)