FIT3171 Assignment 1B – Normalisation

**Name: Bassel Emadeldin Hamed Hamed Abdelkader**

**ID: 29796776**

# 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)