

FIT3171 Assignment 1B – Normalisation

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Pet Ownership Details

UNF

OWNER (owner_id, owner_gname, owner_fname, owner_prefvet_id, owner_prefvet_name, owner_address, (pet_id, pet_gender, pet_name, pet_type, pet_dob, pet_status))

1NF

OWNER (owner_id, owner_gname, owner_fname, owner_prefvet_id, owner_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, owner_prefvet_id, owner_prefvet_name, owner_address)

PET (pet_id, pet_gender, pet_name, pet_type, pet_dob, pet_status)

Transitive Dependencies:

owner_prefvet_id → owner_prefvet_name

3NF

OWNER (owner_id, owner_gname, owner_fname, owner_prefvet_id, owner_address)

PET (pet_id, pet_gender, pet_name, pet_type, pet_dob, pet_status)

VET (owner_prefvet_id, owner_prefvet_name)

Full Dependencies:

owner_id → owner_gname, owner_fname, owner_prefvet_id, owner_address

pet_id → pet_gender, pet_name, pet_type, pet_dob, pet_status

owner_prefvet_id → owner_prefvet_name

Visit Invoice

UNF

INVOICE (pet_id, pt_name, vet_id, vet_name, invoice_amount_due, invoice_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, invoice_amount_due, invoice_payment_method)

SERVICE (serv_code, serv_desc, serv_cost)

DRUG (drug_id, drug_name, drug_qty_supplied, drug_cost)

Partial Dependencies:

pet_id → pet_name

vet_id → vet_name

2NF

INVOICE (pet_id, vet_id, serv_time, serv_date, invoice_amount_due, invoice_payment_method)

SERVICE (serv_code, serv_desc, serv_cost)

DRUG (drug_id, drug_name, drug_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, invoice_amount_due, invoice_payment_method)

SERVICE (serv_code, serv_desc, serv_cost)

DRUG (drug_id, drug_name, drug_qty_supplied, drug_cost)

PET (Pet_id, pet_name)

VET (vet_id, vet_name)

Full Dependencies:

Pet_id, vet_id, serv_time, serv_date → invoice_amount_due, invoice_payment_method

serv_code → serv_desc, serv_cost

drug_id → drug_name, drug_qty_supplied, drug_cost

Pet_id → pet_name

vet_id → vet_name

COLLECTED 3NF RELATIONS.

1. OWNER (owner_id, owner_gname, owner_fname, owner_prefvet_id, owner_address)
2. PET (pet_id, pet_gender, pet_name, pet_type, pet_dob, pet_status)
3. VET (owner_prefvet_id, owner_prefvet_name)
4. INVOICE (pet_id, vet_id, serv_time, serv_date, invoice_amount_due, invoice_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)

ATTRIBUTE SYNTHESIS

1. OWNER (owner_id, owner_gname, owner_fname, owner_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, invoice_amount_due,
invoice_payment_method)

5. SERVICE (serv_code, serv_desc, serv_cost)

6. DRUG (drug_id, drug_name, drug_qty_supplied, drug_cost)