

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 (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 (patient_id, vet_id, serv_time, serv_date patient_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:

patient_id → patient_name

vet_id → vet_name

2NF

INVOICE (patient_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)

PATIENT (patient_id, patient_name)

VET (vet_id, vet_name)

Transitive Dependencies:

No transitive dependencies

3NF

INVOICE (patient_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)

PATIENT (Patient_id, patient_name)

VET (vet_id, vet_name)

Full Dependencies:

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

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 (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 (Patient_id, 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 (patient_id, patient_name)