

Normalisation

Group Name: A01_Group015

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1. Training course attendance:

UNF

TRAINING (train_id, train_title, train_duration, train_date_time, train_clinic_id, train_clinic_name, host_vet_id, host_vet_name (participant_vet_id, home_clinic_id, participant_vet_givname, participant_vet_famname, train_vet_completion, train_vet_expiry))

1NF

TRAINING (train_id, train_title, train_duration, train_date_time, train_clinic_id, train_clinic_name, host_vet_id, host_vet_name)

CK: train_id

TRAIN_VET (train_id, participant_vet_id, home_clinic_id, participant_vet_givname, participant_vet_famname, train_vet_completion, train_vet_expiry)

CK: train_id, participant_vet_id

Partial Dependencies:

participant_vet_id -> home_clinic_id, participant_vet_givname, participant_vet_famname

2NF:

TRAINING (train_id, train_title, train_duration, train_date_time, train_clinic_id, train_clinic_name, host_vet_id, host_vet_name)

TRAIN_VET (train_id, participant_vet_id, train_vet_completion, train_vet_expiry)

PARTICIPANT (participant_vet_id, home_clinic_id, participant_vet_givname, participant_vet_famname)

Transitive Dependencies:

train_clinic_id -> train_clinic_name

host_vet_id -> host_vet_name

3NF:

TRAINING (train_id, train_title, train_duration, train_date_time, train_clinic_id, host_vet_id)

TRAIN_VET (train_id, participant_vet_id, train_vet_completion, train_vet_expiry)

PARTICIPANT (participant_vet_id, home_clinic_id, participant_vet_givname, participant_vet_famname)

CLINIC (train_clinic_id, train_clinic_name)

HOST_VET (host_vet_id, host_vet_name)

Full Dependencies:

train_id -> train_title, train_duration, train_date_time, train_clinic_id, host_vet_id

train_id, participant_vet_id -> train_vet_completion, train_vet_expiry

participant_vet_id -> home_clinic_id, participant_vet_givname, participant_vet_famname

train_clinic_id -> train_clinic_name

host_vet_id -> host_vet_name

2. Clinic visit invoice:

UNF

VISIT (pet_id, pet_name, vet_id, vet_giv_name, vet_fam_name, owner_id, owner_giv_name, owner_fam_name, visit_date_time, (service_code, service_description, visit_line_cost), (drug_id, drug_name, visit_drug_qtysup, visit_drug_linecost), visit_total_amount, visit_payment_type)

1NF

VISIT (vet_id, visit_date_time, pet_id, pet_name, vet_giv_name, vet_fam_name, owner_id, owner_giv_name, owner_fam_name, visit_total_amount, visit_payment_type)

CK: vet_id, visit_date_time

pet_id, visit_date_time

VISIT_SERVICE (vet_id, visit_date_time, service_code, service_description, visit_service_linecost)

CK: vet_id, visit_date_time, service_code

VISIT_DRUG (vet_id, visit_date_time, drug_id, drug_name, visit_drug_qtysup, visit_drug_linecost)

CK: vet_id, visit_date_time, drug_id

Partial Dependencies:

vet_id -> vet_giv_name, vet_fam_name

service_code -> service_description

drug_id -> drug_name

pet_id -> pet_name

2NF

VISIT (vet_id, visit_date_time, pet_id, owner_id, owner_giv_name, owner_fam_name, visit_total_amount, visit_payment_type)

PET (pet_id, pet_name)

VISIT_SERVICE (vet_id, visit_date_time, service_code, visit_service_linecost)

VISIT_DRUG (vet_id, visit_date_time, drug_id, visit_drug_qtysup, visit_drug_linecost)

VET (vet_id, vet_giv_name, vet_fam_name)

SERVICE (service_code, service_description)

DRUG (drug_id, drug_name)

Transitive Dependencies:

owner_id -> owner_giv_name, owner_fam_name

3NF

VISIT (vet_id, visit_date_time, pet_id, owner_id, visit_total_amount, visit_payment_type)

VISIT_SERVICE (vet_id, visit_date_time, service_code, visit_service_linecost)

VISIT_DRUG (vet_id, visit_date_time, drug_id, visit_drug_qtysup, visit_drug_linecost)

VET (vet_id, vet_giv_name, vet_fam_name)

SERVICE (service_code, service_description)

DRUG (drug_id, drug_name)

PET (pet_id, pet_name)

OWNER (owner_id, owner_giv_name, owner_fam_name)

Full Dependencies:

vet_id, visit_date_time -> pet_id, owner_id, visit_total_amount, visit_payment_type

vet_id, visit_date_time, service_code -> visit_service_linecost

vet_id, visit_date_time, drug_id -> visit_drug_qtysup, visit_drug_linecost

vet_id -> vet_giv_name, vet_fam_name

service_code -> service_description

drug_id -> drug_name

pet_id -> pet_name

owner_id -> owner_giv_name, owner_fam_name

Collected 3NF:

1. TRAINING (train_id, train_title, train_duration, train_date_time, train_clinic_id, host_vet_id)
2. TRAIN_VET (train_id, participant_vet_id, train_vet_completion, train_vet_expiry)
3. PARTICIPANT (participant_vet_id, home_clinic_id, participant_vet_givname, participant_vet_famname)
4. CLINIC (train_clinic_id, train_clinic_name)
5. HOST_VET (host_vet_id, host_vet_name)
6. VISIT (vet_id, visit_date_time, pet_id, owner_id, visit_total_amount, visit_payment_type)
7. VISIT_SERVICE (vet_id, visit_date_time, service_code, visit_service_linecost)
8. VISIT_DRUG (vet_id, visit_date_time, drug_id, visit_drug_qtysup, visit_drug_linecost)
9. VET (vet_id, vet_giv_name, vet_fam_name)
10. SERVICE (service_code, service_description)
11. DRUG (drug_id, drug_name)
12. PET (pet_id, pet_name)
13. OWNER (owner_id, owner_giv_name, owner_fam_name)

Attribute Synthesis:

TRAINING (train_id, train_title, train_duration, train_date_time, clinic_id, vet_id)

TRAIN_VET (train_id, vet_id, train_vet_completion, train_vet_expiry)

VET (vet_id, vet_giv_name, vet_fam_name, clinic_id)

CLINIC (clinic_id, clinic_name)

VISIT (vet_id, visit_date_time, pet_id, owner_id, visit_total_amount, visit_payment_type)

VISIT_SERVICE (vet_id, visit_date_time, service_code, visit_service_linecost)

VISIT_DRUG (vet_id, visit_date_time, drug_id, visit_drug_qtysup, visit_drug_linecost)

SERVICE (service_code, service_description)

DRUG (drug_id, drug_name)

PET (pet_id, pet_name)

OWNER (owner_id, owner_giv_name, owner_fam_name)