

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_qtyup, 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_qtyup,
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)