GROUP NAME : A01_GROUP007

MEMBERS :
1) JING ZENG
2) SHRUTHI SHASHIDHARA SHASTRY
3) SHABARISH SAI SUBRAMANIAN

Training course attendence:

UNF:

TRAINING（training_id, training_name, training_duration, spec_vet_id, spec_vet_gname,spec_vet_fname, training_datetime, clinic_id, clinic_name, (vet_id, home_clinic_id, vet_gname,vet_fname, training_completed, training_expirydate)）

1NF:

TRAINING (training_id, training_name, training_duration, spec_vet_id, spec_vet_gname,spec_vet_fname, training_datetime, clinic_id, clinic_name）

Candidate keys:

1. training_id

2. spec_vet_id, training_datetime

PARTICIPANT(training_id ,vet_id, home_clinic_id, vet_gname,vet_fname, training_completed, training_expirydate)

*Candidate keys***:**

1. vet_id, tarining_id

Partial dependencies :

 vet_id -> vet_gname,vet_fname, home_clinic_id

spec_vet_id -> spec_vet_gname,spec_vet_fname

2NF:

TRAINING (training_id, training_name, training_duration, spec_vet_id, training_datetime, clinic_id, clinic_name）

PARTICIPANT(training_id ,vet_id, training_completed, training_expirydate)

VET(vet_id , vet_gname,vet_fname, home_clinic_id)

SPECIALIST_VET(spec_vet_id,spec_vet_gname,spec_vet_fname)

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Transitive dependencies:

clinic_id->clinic_name

3NF :

TRAINING (<u>training_id</u>, training_name, training_duration, spec_vet_id, training_datetime, clinic_id)

PARTICIPANT(<u>training_id</u> ,<u>vet_id</u>, training_completed, training_expirydate)

VET(<u>vet_id</u> , vet_gname,vet_fname, home_clinic_id)

SPECIALIST_VET(<u>spec_vet_id</u>,spec_vet_gname,spec_vet_fname)

CLINIC(<u>clinic_id</u>,clinic_name)

Full dependencies

training_id -> training_name, training_duration, spec_vet_id, training_datetime, clinic_id

training_id ,vet_id -> training_completed, training_expirydate

vet_id -> vet_gname,vet_fname, home_clinic_id

spec_vet_id -> spec_vet_gname,spec_vet_fname

clinic_id -> clinic_name

Clinic visit invoice:

UNF:

VISIT(pet_id, pet_name, owner_id, owner_gname, owner_fname, vet_id, vet_gname,vet_fname, visit_datetime, (service_code, service_desc, service_line_cost), (drug_id, drug_name,drug_qty_supplied, drug_line_cost), total_amount, paid_by)

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1NF :

VISIT(<u>vet_id,</u> <u>visit_datetime,</u> pet_id,pet_name, owner_id, owner_gname, owner_fname, ,vet_gname,vet_fname, visit_total_amount ,visit_paid_by)

VISIT_SERVICE(<u>service_code</u>, <u>vet_id, visit_datetime</u>, service_desc, service_line_cost)

VISIT_DRUG(<u>drug_id</u>, v<u>et_id, visit_datetime</u> ,drug_name,drug_qty_supplied, drug_line_cost)

Candidate keys for VISIT:

1. pet_id, visit_datetime

2.vet_id, visit_datetime

Candidate key for VISIT_SERVICE:

1.service_code, vet_id, visit_datetime

Candidate key for VISIT_DRUG :

1.drug_id , vet_id, visit_datetime

Partial dependencies:

pet_id -> pet_name,owner_id, owner_gname, owner_fname

vet_id -> vet_gname,vet_fname

service_code -> service_desc

drug_id -> drug_name

2NF:

VISIT(<u>vet_id,</u> <u>visit_datetime,</u> pet_id, total_amount ,paid_by)

VISIT_SERVICE(<u>service_code</u>, <u>vet_id, visit_datetime</u>, service_line_cost)

VISIT_DRUG(<u>drug_id</u>, v<u>et_id, visit_datetime</u> ,drug_qty_supplied, drug_line_cost)

SERVICE(<u>service_code</u>, service_desc)

PET(<u>pet_id,</u>pet_name,owner_id, owner_gname, owner_fname)

DRUG(<u>drug_id,</u> drug_name)

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VET(Vet_id ,vet_gname,vet_fname)

Transitive dependencies:

owner_id -> owner_gname, owner_fname

3NF:

VISIT(vet_id, visit_datetime, pet_id,total_amount ,paid_by)

VISIT_SERVICE(service_code, vet_id, visit_datetime, service_line_cost)

VISIT_DRUG(drug_id, vet_id, visit_datetime ,drug_qty_supplied, drug_line_cost)

SERVICE(service_code, service_desc)

PET(pet_id,pet_name,owner_id)

DRUG(drug_id, drug_name)

VET(Vet_id ,vet_gname,vet_fname)

OWNER(owner_id , owner_gname, owner_fname)

Full dependencies:

vet_id, visit_datetime ->pet_id, total_amount ,paid_by

service_code, vet_id, visit_datetime -> service_line_cost

drug_id, vet_id, visit_datetime -> drug_qty_supplied, drug_line_cost

service_code -> service_desc

pet_id -> pet_name,owner_id

drug_id-> drug_name

vet_id -> vet_gname,vet_fname

owner_id -> owner_gname, owner_fname

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Attribute systhesis:

1.TRAINING (training_id, training_name, training_duration, spec_vet_id, training_datetime, clinic_id)

2.PARTICIPANT(training_id ,vet_id, training_completed, training_expirydate)

3.VET(vet_id , vet_gname,vet_fname, home_clinic_id)

4.SPECIALIST_VET(spec_vet_id,spec_vet_gname,spec_vet_fname)

5.CLINIC(clinic_id,clinic_name)

6.VISIT(vet_id, visit_datetime, pet_id, total_amount ,paid_by)

7. SERVICE_CHARGE (service_code, vet_id, visit_datetime, service_line_cost)

8.PRESCRIPTION(drug_id, vet_id, visit_datetime ,drug_qty_supplied, drug_line_cost)

9.SERVICE(service_code, service_desc)

10.PET(pet_id,pet_name,owner_id)

11.DRUG(drug_id, drug_name)

12.VET(Vet_id ,vet_gname,vet_fname)

13.OWNER(owner_id , owner_gname, owner_fname)

Combining 3,4 and 12 we get VET(vet_id ,vet_gname,vet_fname,home_clinic_id)

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FINAL 3NF after attribute synthesis:

1.TRAINING (training_id, training_name, training_duration, vet_id, training_datetime, clinic_id）

(**As spec_vet_id is same as vet_id we have changed spec_vet_id to vet_id in TRAINING**)

2.PARTICIPANT(training_id ,vet_id, part_training_completed, part_training_expirydate)

3.VET(vet_id , vet_gname,vet_fname, clinic_id)

(**As home_clinic_id is same as clinic_id we have changed the home_clinic_id to clinic_id in VET**)

4.CLINIC(clinic_id,clinic_name)

5. VISIT(vet_id, visit_date_time, pet_id, visit_total_amount ,visit_paid_by)

6. SERVICE_CHARGE (service_code, vet_id, visit_datetime, service_line_cost)

7.PRESCRIPTION(drug_id, vet_id, visit_datetime ,drug_qty_supplied, drug_line_cost)

8.SERVICE(service_code, service_desc)

9.PET(pet_id,pet_name,owner_id)

10.DRUG(drug_id, drug_name)

11.OWNER(owner_id , owner_gname, owner_fname)