

NORMALISATION

ADMISSION PROCCHARGE SHEET FORM

UNF:

ADMISSION_PROCEDURE_CHARGE_SHEET (pat_id, pat_name, admission_datetime, supervising_doc_id, supervising_doc_name, (proc_code, proc_name, requested_by_id, requested_by_name, carried_out_by_id, carried_out_by_name, carried_out_on, proc_charge, total_extras_charge (item_code, item_desc, qty, total_item_charge)))

Repeating groups:

(proc_code, proc_name, requested_by, carried_out_by, carried_out_on, proc_charge, total_extras_charge
(item_code, item_desc, qty, total_item_charge))

1NF:

ADMISSION (pat_id, admission_datetime, pat_name, supervising_doc_id, supervising_doc_name)
PROCDET (pat_id, admission_datetime, carried_out_on, proc_code, proc_name, requested_by_id, requested_by_name, carried_out_by_id, carried_out_by_name, proc_charge, total_extras_charge)
ITEMCHARGE (pat_id, admission_datetime, carried_out_on, item_code, item_desc, qty, total_item_charge)

DEPENDENCIES:

PARTIAL:

ADMISSION

pat_id -> pat_name

ITEMCHARGE

item_code -> item_desc

TRANSITIVE:

ADMISSION

supervising_doc_id -> supervising_doc_name

PROCDET

proc_code -> proc_name

requested_by_id -> requested_by_name

carried_out_by_id -> carried_out_by_name

FULL:

ADMISSION

pat_id, admission_datetime -> supervising_doc_id

PROCDET

pat_id, admission_datetime, carried_out_on -> proc_code, proc_charge, requested_by_id, carried_out_by_id, total_extras_charge

ITEMCHARGE

pat_id, admission_datetime, carried_out_on, item_code -> qty, total_item_charge

2NF:

ADMISSION (pat_id, admission_datetime, supervising_doc_id, supervising_doc_name)

PATIENT (pat_id, pat_name)

PROCDET (pat_id, admission_datetime, carried_out_on, proc_code, proc_name, proc_charge, requested_by_id, requested_by_name, carried_out_by_id, carried_out_by_name, total_extras_charge)

ITEMCHARGE (pat_id, admission_datetime, carried_out_on, item_code, qty, total_item_charge)

ITEM (item_code, item_desc)

3NF:

ADMISSION (pat_id, admission_datetime, supervising_doc_id)

SUPERVISING_DOCTOR (supervising_doc_id, supervising_doc_name)

PATIENT (pat_id, pat_name)

PROCDET (pat_id, admission_datetime, carried_out_on, proc_code, proc_charge, requested_by_id, carried_out_by_id, total_extras_charge)

REQUESTED_BY_DOCTOR (requested_by_id, requested_by_name)

CARRIED_OUT_BY_DOCTOR (carried_out_by_id, carried_out_by_name)

PROC (proc_code, proc_name)

ITEMCHARGE (pat_id, admission_datetime, carried_out_on, item_code, qty, total_item_charge)

ITEM (item_code, item_desc)

As supervising_doc_id/name, requested_by_id/name and carried_out_by_id/name are nothing but doctor id/name in various roles, they can be referred from a single entity DOCTOR.

Final 3NF:

ADMISSION (pat_id, admission_datetime, supervising_doc_id)

DOCTOR (doc_id, doc_name)

PATIENT (pat_id, pat_name)

PROCDET (pat_id, admission_datetime, carried_out_on, proc_code, proc_charge, requested_by_id, carried_out_by_id, total_extras_charge)

PROC (proc_code, proc_name)

ITEMCHARGE (pat_id, admission_datetime, carried_out_on, item_code, qty, total_item_charge)

ITEM (item_code, item_desc)

NURSE WARD ASSIGNMENT FORM

UNF:

NURSE_WARDASSIGN_FORM (nurse_id, nurse_fname, nurse_lname, nurse_phno, nurse_child_cert, (ward_code, ward_name, date_assigned, date_completed))

Repeating groups:

(ward_code, ward_name, date_assigned, date_completed)

1NF:

NURSE (nurse_id, nurse_fname, nurse_lname, nurse_phno, nurse_child_cert)
WARDASSIGN (nurse_id, date_assigned, ward_code, ward_name, date_completed)

DEPENDENCIES:

FULL:

NURSE

nurse_id -> nurse_fname, nurse_lname, nurse_phno, nurse_child_cert

WARDASSIGN

nurse_id, date assigned -> ward_code, date_completed

TRANSITIVE:

WARDASSIGN

ward_code -> ward_name

As there are no partial dependencies, 2NF is same as 1NF.

2NF:

NURSE (nurse_id, nurse_fname, nurse_lname, nurse_phno, nurse_child_cert)
WARDASSIGN (nurse_id, date_assigned, ward_code, ward_name, date_completed)

3NF:

NURSE (nurse_id, nurse_fname, nurse_lname, nurse_phno, nurse_child_cert)
WARDASSIGN (nurse_id, date_assigned, ward_code, date_completed)
WARD (ward_code, ward_name)

COLLECTED 3NF RELATIONS

1. ADMISSION (pat_id, admission_datetime, supervising_doc_id)
2. DOCTOR (doc_id, doc_name)
3. PATIENT (pat_id, pat_name)
4. PROCDET (pat_id, admission_datetime, carried out on, proc_code, proc_charge, requested_by_id, carried_out_by_id, total_extras_charge)
5. PROC (proc_code, proc_name)
6. ITEMCHARGE (pat_id, admission_datetime, carried out on, item code, qty, total_item_charge)
7. ITEM (item_code, item_desc)
8. NURSE (nurse_id, nurse_fname, nurse_lname, nurse_phno, nurse_child_cert)
9. WARDASSIGN (nurse_id, date assigned, ward_code, date_completed)
10. WARD (ward_code, ward_name)