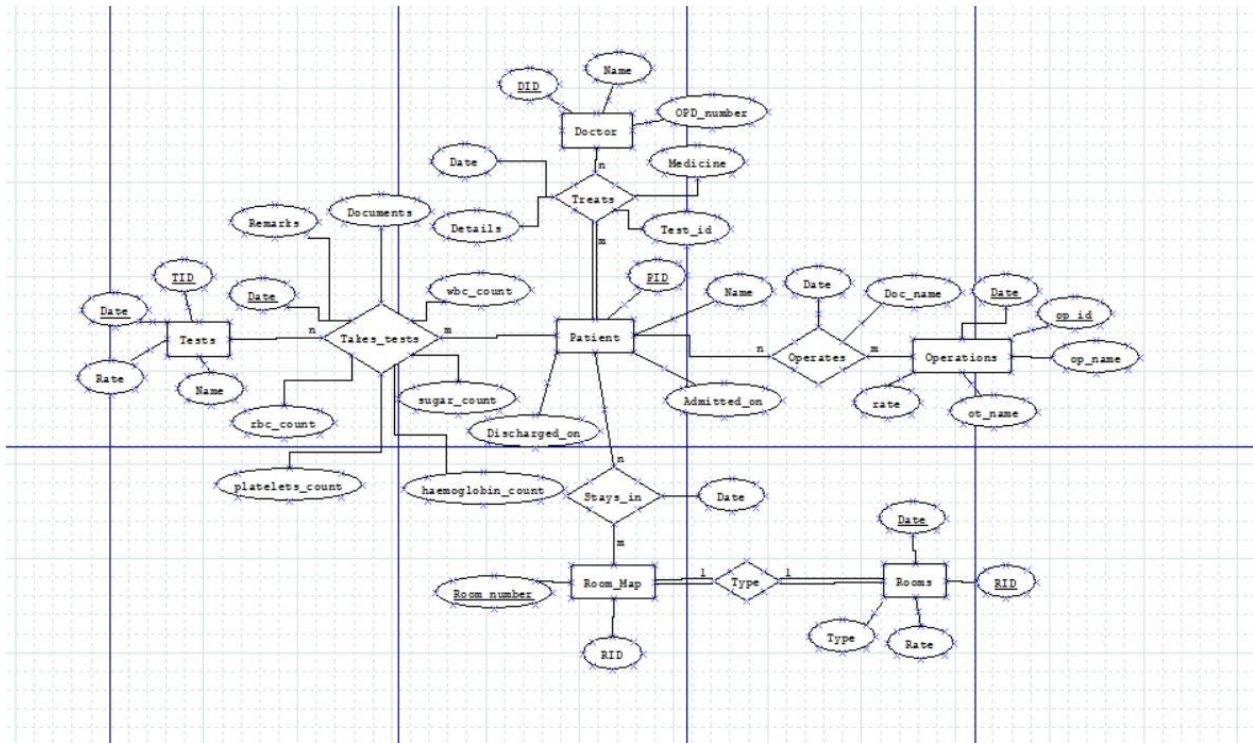
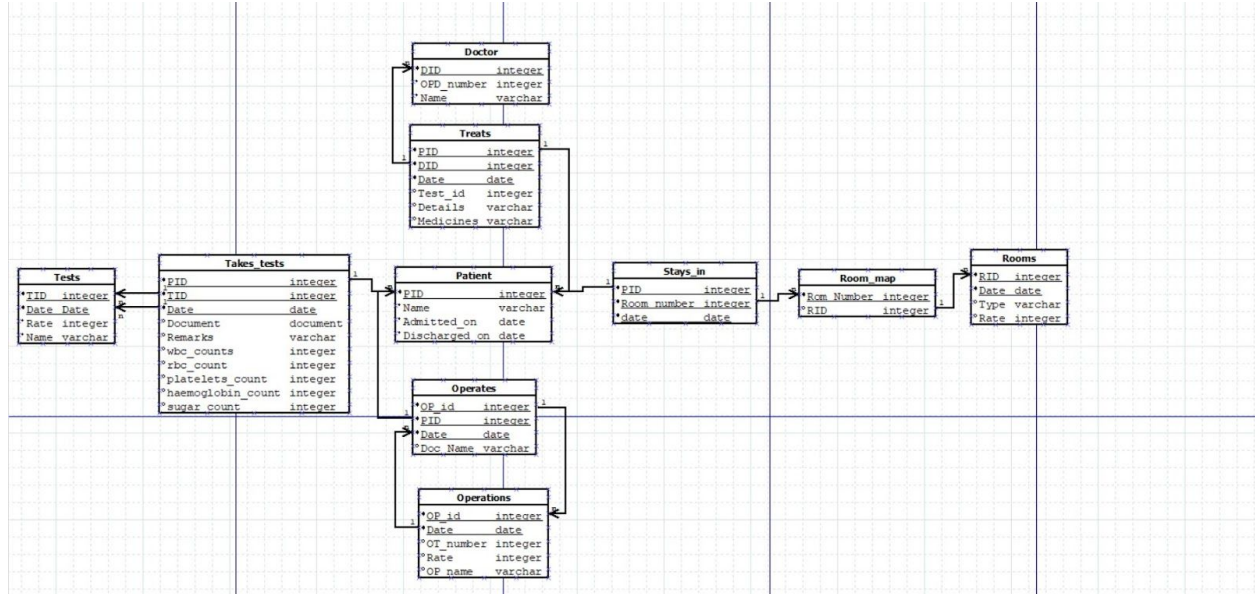


ER Diagram



Relational Schema



Functional dependencies and Normalization Proofs

TABLE: PATIENTS(pid,name,admitted_on,discharged_on)

pid-> name
pid->admitted_on
pid->discharged_on

KEY: pid
Normal Form: BCNF

TABLE: ROOMS(rid,_date,type,rate)

rid->type
rid->rate

type->rid
type->rate

KEY: rid / type
Normal Form: BCNF

TABLE ROOM_MAP(room_number,rid)

room_number->rid

KEY: room_number
Normal Form: BCNF

TABLE STAYS_IN(pid,room_number,_date)

{pid,date}->room_number

KEY: {pid,date}
Normal Form: BCNF

TABLE: DOCTOR(did,name,opd_number)

did->name

did->opd_number

KEY: did

Normal Form: BCNF

TABLE: TREATS(pid,did,medicines,test_id,details,_date)

{pid,did,_date}->medicines

{pid,did,_date}->test_id

{pid,did,_date}->details

KEY: {pid,did,_date}

Normal Form: BCNF

TABLE: OPERATIONS(op_id,_date,op_name,ot_number,rate)

op_id->op_name

{op_id,_date}->rate

{op_id,_date}->ot_number

op_name->op_id

{op_name,_date}->rate

{op_name,_date}->ot_number

KEY: {op_id,_date} / {op_name,_date}

Normal Form: BCNF

TABLE: OPERATES(op_id,pid,doc_name,_date)

{op_id,pid,_date}->doc_name

KEY: {op_id,pid,_date}

Normal Form: BCNF

TABLE: TESTS(tid,_date,name,rate)

tid->name

{tid,_date}->rate

name->tid
{name,_date}->rate

KEY: {tid,_date} / {name,_date}
Normal Form: BCNF

TABLE:

TAKES_TESTS(pid,tid,_date,document,remarks,wbc_count,rbc_count,haemoglobin_count,sugar_count)

{pid,tid,_date}->document
{pid,tid,_date}->remarks
{pid,tid,_date}->wbc_count
{pid,tid,_date}->rbc_count
{pid,tid,_date}->haemoglobin_count
{pid,tid,_date}->sugar_count

KEY: {pid,tid,_date}
Normal Form: BCNF