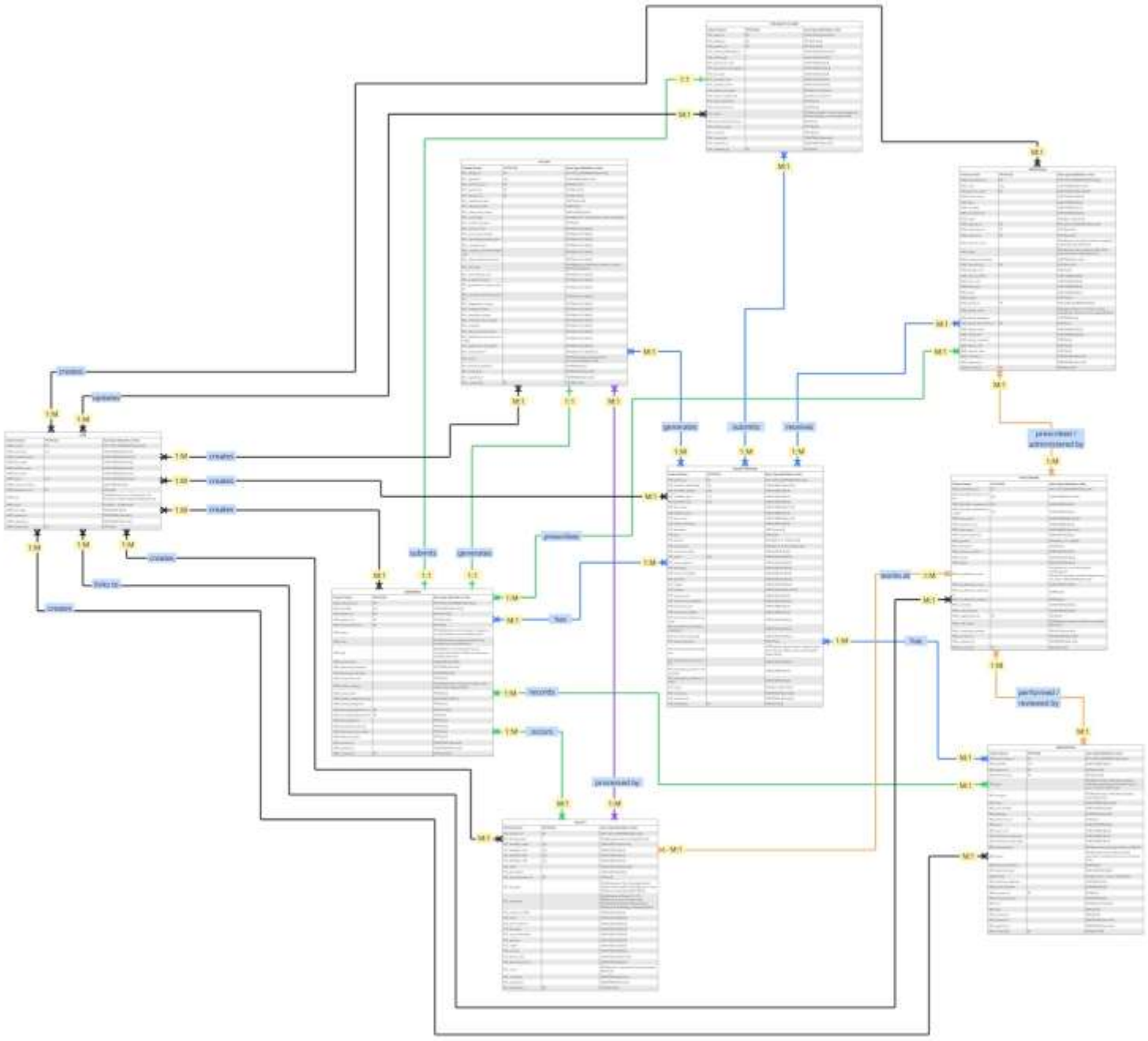
ENTITY RELATIONSHIP DIAGRAM – WAH4H



Link:

https://miro.com/welcomeonboard/dHBoN1JnSmxzd09yUGFDWTN0a0owQmZBem93MWpGMzBoMEMrU2UvZDd3dlRyaU9RdHFwY2NxenF5aG1yNHE4TDFGT1RTWEdseHJLWkdzc1VVZ0RpT1hDdUxwTmdCaTZLTWcrTXY2Ti9ReXpTTTZoekd1OXZVVUYwaWVPV3RmQVpNakdSWkpBejJWRjJhRnhhb1UwcS9BPT0hdjE=?share_link_id=24247924596

Table 1

USER		
Column Name	**PK/FK/UQ**	**Data Type (Nullable or Not)**
USER_user_id	PK	INT AUTO_INCREMENT [Not Null]
USER_username	UQ	VARCHAR(50) [Not Null]
USER_password_hash		VARCHAR(255) [Not Null]
USER_first_name		VARCHAR(50) [Not Null]
USER_middle_name		VARCHAR(50) [Not Null]
USER_last_name		VARCHAR(50) [Not Null]
USER_email	UQ	VARCHAR(100) [Not Null]
USER_contact_number		VARCHAR(15) [Null]
USER_practitioner_id	FK	INT [Null]
USER_role		ENUM(Doctor, Nurse, Pharmacist, Lab Technician, Admin, Billing Staff) [Not Null]
USER_status		ENUM(A, I, S) [Not Null]
USER_last_login		TIMESTAMP [Null]
USER_created_at		TIMESTAMP [Not Null]
USER_updated_at		TIMESTAMP [Not Null]
USER_created_by	FK	INT [Null]

Table 2

PATIENT_RECORDS		
Column Name	**PK/FK/UQ**	**Data Type (Nullable or Not)**
PAT_patient_id	PK	INT AUTO_INCREMENT [Not Null]
PAT_identifier_philhealth	UQ	VARCHAR(20) [Not Null]
PAT_identifier_philsys	UQ	VARCHAR(20) [Null]
PAT_identifier_pdd	UQ	VARCHAR(20) [Null]
PAT_identifier_nid	UQ	VARCHAR(20) [Null]
PAT_first_name		VARCHAR(50) [Not Null]
PAT_middle_name		VARCHAR(50) [Null]
PAT_last_name		VARCHAR(50) [Not Null]
PAT_name_extension		VARCHAR(10) [Null]
PAT_birthdate		DATE [Not Null]
PAT_age		INT [Null]
PAT_gender		ENUM(M, F, O, U) [Not Null]
PAT_civil_status		ENUM(S, M, D, W, U) [Not Null]
PAT_contact_number		VARCHAR(15) [Null]
PAT_email	UQ	VARCHAR(100) [Null]
PAT_street_address		VARCHAR(100) [Null]
PAT_barangay		VARCHAR(100) [Null]
PAT_city_municipality		VARCHAR(100) [Null]
PAT_province		VARCHAR(100) [Null]
PAT_region		VARCHAR(100) [Null]
PAT_country		VARCHAR(100) [Not Null]
PAT_postal_code		VARCHAR(10) [Null]
PAT_extension_occupation		VARCHAR(100) [Null]
PAT_extension_race		VARCHAR(50) [Null]
PAT_extension_religion		VARCHAR(50) [Null]
PAT_extension_indigenous_group		VARCHAR(100) [Null]
PAT_extension_educational_attainment		VARCHAR(100) [Null]
PAT_extension_language		VARCHAR(100) [Null]
PAT_known_allergies		TEXT [Null]
PAT_existing_medical_conditions		SET(Diabetes,Hypertension, Asthma,Cancer, Heart Disease,Tuberculosis, HIV,Hepatitis, Other) [Null]
PAT_emergency_contact_name		VARCHAR(100) [Null]
PAT_emergency_contact_relationship		VARCHAR(50) [Null]
PAT_emergency_contact_number		VARCHAR(15) [Null]
PAT_status		ENUM(A, I) [Not Null]
PAT_created_at		TIMESTAMP [Not Null]
PAT_updated_at		TIMESTAMP [Not Null]
PAT_created_by	FK	INT [Not Null]

Table 3

ADMISSION		
Column Name	**PK/FK/UQ**	**Data Type (Nullable or Not)**
ADM_admission_id	PK	INT AUTO_INCREMENT [Not Null]
ADM_identifier	UQ	VARCHAR(50) [Not Null]
ADM_patient_id	FK	INT [Not Null]
ADM_location_id	FK	INT [Not Null]
ADM_room_location_id	FK	INT [Null]
ADM_status		ENUM(planned, arrived,triaged, in-progress, on-leave,finished, cancelled) [Not Null]
ADM_class		ENUM(inpatient, outpatient,ambulatory, emergency,virtual) [Not Null]
ADM_type		ENUM(Routine Checkup,Emergency, Surgery,Consultation, Follow-up,Admission, Transfer) [Not Null]
ADM_service_type		VARCHAR(100) [Null]
ADM_admission_datetime		DATETIME [Not Null]
ADM_discharge_datetime		DATETIME [Null]
ADM_reason_for_visit		TEXT [Null]
ADM_triage_category		ENUM(Immediate, Emergent,Urgent, Semi-Urgent, Non-Urgent) [Null]
ADM_triage_notes		TEXT [Null]
ADM_primary_diagnosis_code		VARCHAR(20) [Null]
ADM_primary_diagnosis		TEXT [Null]
ADM_attending_physician_id	FK	INT [Not Null]
ADM_consulting_physician_id	FK	INT [Null]
ADM_final_diagnosis		TEXT [Null]
ADM_discharge_summary		TEXT [Null]
ADM_discharge_instructions		TEXT [Null]
ADM_follow_up_plan		TEXT [Null]
ADM_created_at		TIMESTAMP [Not Null]
ADM_updated_at		TIMESTAMP [Not Null]
ADM_created_by	FK	INT [Not Null]

Table 4

OBSERVATION		
Column Name	**PK/FK/UQ**	**Data Type (Nullable or Not)**
OBS_observation_id	PK	INT AUTO_INCREMENT [Not Null]
OBS_identifier	UQ	VARCHAR(50) [Null]
OBS_patient_id	FK	INT [Not Null]
OBS_admission_id	FK	INT [Not Null]
OBS_type		ENUM(vital-signs, laboratory,imaging, radiology, pathology,ultrasound, xray, ct-scan, mri,other) [Not Null]
OBS_category		ENUM(vital-signs, laboratory,imaging, other) [Not Null]
OBS_code		VARCHAR(50) [Not Null]
OBS_code_display		VARCHAR(200) [Null]
OBS_datetime		DATETIME [Not Null]
OBS_performer_id	FK	INT [Null]
OBS_value		VARCHAR(255) [Null]
OBS_value_unit		VARCHAR(50) [Null]
OBS_reference_range_low		VARCHAR(50) [Null]
OBS_reference_range_high		VARCHAR(50) [Null]
OBS_interpretation		ENUM(normal, low, high,critical, null) [Null]
OBS_status		ENUM(registered, preliminary,final, amended, cancelled,entered-in-error) [Not Null]
OBS_clinical_indication		TEXT [Null]
OBS_specimen_type		VARCHAR(100) [Null]
OBS_priority		ENUM(routine, urgent, STAT) [Null]
OBS_collection_datetime		DATETIME [Null]
OBS_result_datetime		DATETIME [Null]
OBS_reviewer_id	FK	INT [Null]
OBS_review_datetime		DATETIME [Null]
OBS_cost		DECIMAL(10,2) [Null]
OBS_note		TEXT [Null]
OBS_conclusion		TEXT [Null]
OBS_created_at		TIMESTAMP [Not Null]
OBS_updated_at		TIMESTAMP [Not Null]
OBS_created_by	FK	INT [Not Null]

Table 5

MEDICATION		
Column Name	**PK/FK/UQ**	**Data Type (Nullable or Not)**
MED_medication_id	PK	INT AUTO_INCREMENT [Not Null]
MED_code	UQ	VARCHAR(50) [Not Null]
MED_generic_name	FK	VARCHAR(100) [Not [Null]
MED_brand_name		VARCHAR(100) [Null]
MED_form		VARCHAR(50) [Null]
MED_strength		VARCHAR(50) [Null]
MED_manufacturer		VARCHAR(100) [Null]
MED_status		ENUM(A, I) [Not Null]
MED_request_id	PK	INT AUTO_INCREMENT [Not Null]
MED_admission_id	FK	INT [Not Null]
MED_patient_id	FK	INT [Not Null]
MED_request_status		ENUM(active, on-hold,cancelled, completed, draft,unknown) [Not Null]
MED_intent		ENUM(order, plan, proposal,reflex, filler-order, instance-order) [Not Null]
MED_authored_datetime		DATETIME [Not Null]
MED_requester_id	FK	INT [Not Null]
MED_dosage_text		TEXT [Null]
MED_dose_quantity		VARCHAR(50) [Null]
MED_dose_unit		VARCHAR(30) [Null]
MED_frequency		VARCHAR(50) [Null]
MED_route		VARCHAR(50) [Null]
MED_reason		TEXT [Null]
MED_admin_id	PK	INT AUTO_INCREMENT [Null]
MED_admin_status		ENUM(in-progress, not-done,on-hold, completed, entered-in-error, stopped) [Null]
MED_admin_datetime		DATETIME [Null]
MED_admin_performer_id	FK	INT [Null]
MED_admin_route		VARCHAR(50) [Null]
MED_admin_site		VARCHAR(100) [Null]
MED_admin_response		TEXT [Null]
MED_admin_note		TEXT [Null]
MED_request_note		TEXT [Null]
MED_created_at		TIMESTAMP [Not Null]
MED_updated_at		TIMESTAMP [Not Null]
MED_created_by	FK	INT [Not Null]

Table 6

BILLING		
Column Name	**PK/FK/UQ**	**Data Type (Nullable or Not)**
BILL_billing_id	PK	INT AUTO_INCREMENT [Not Null]
BILL_identifier	UQ	VARCHAR(50) [Not Null]
BILL_admission_id	FK	INT [Not Null]
BILL_patient_id	FK	INT [Not Null]
BILL_location_id	FK	INT [Not Null]
BILL_admission_date		DATE [Not Null]
BILL_discharge_date		DATE [Null]
BILL_room_ward_name		VARCHAR(50) [Null]
BILL_room_type		ENUM(Private, Semi-Private, Ward, ICU) [Null]
BILL_number_of_days		INT [Null]
BILL_rate_per_day		DECIMAL(10,2) [Null]
BILL_total_room_charge		DECIMAL(10,2) [Null]
BILL_attending_physician_fee		DECIMAL(10,2) [Null]
BILL_specialist_fee		DECIMAL(10,2) [Null]
BILL_surgeon_anesthesiologist_fee		DECIMAL(10,2) [Null]
BILL_other_professional_fees		DECIMAL(10,2) [Null]
BILL_diet_type		ENUM(Regular, Soft,Renal, Diabetic,Cardiac, NPO, Other) [Null]
BILL_total_dietary_cost		DECIMAL(10,2) [Null]
BILL_supplies_charge		DECIMAL(10,2) [Null]
BILL_procedures_surgery_charge		DECIMAL(10,2) [Null]
BILL_nursing_monitoring_charge		DECIMAL(10,2) [Null]
BILL_diagnostics_charge		DECIMAL(10,2) [Null]
BILL_imaging_charge		DECIMAL(10,2) [Null]
BILL_medicine_charge		DECIMAL(10,2) [Null]
BILL_miscellaneous_charge		DECIMAL(10,2) [Null]
BILL_subtotal		DECIMAL(12,2) [Null]
BILL_discounts_deductions		DECIMAL(10,2) [Null]
BILL_philhealth_insurance_coverage		DECIMAL(10,2) [Null]
BILL_patient_out_of_pocket		DECIMAL(10,2) [Null]
BILL_total_amount		DECIMAL(12,2) [NotNull]
BILL_status		ENUM(pending,partial-payment, paid,cancelled) [Not Null]
BILL_finalized_datetime		DATETIME [Null]
BILL_created_at		TIMESTAMP [Not Null]
BILL_updated_at		TIMESTAMP [Not Null]
BILL_created_by	FK	INT [Not Null]

Table 7

PHILHEALTH_CLAIMS		
Column Name	**PK/FK/UQ**	**Data Type (Nullable or Not)**
PHC_claim_id	PK	VARCHAR(20) [Not Null]
PHC_billing_id	FK	INT [Not Null]
PHC_patient_id	FK	INT [Not Null]
PHC_patient_philhealth_id		VARCHAR(20) [Not Null]
PHC_claim_type		VARCHAR(100) [Null]
PHC_procedure_code		VARCHAR(20) [Null]
PHC_procedure_description		VARCHAR(200) [Null]
PHC_icd_code		VARCHAR(20) [Null]
PHC_hospital_code		VARCHAR(20) [Null]
PHC_hospital_name		VARCHAR(100) [Null]
PHC_amount_claimed		DECIMAL(10,2) [Null]
PHC_amount_approved		DECIMAL(10,2) [Null]
PHC_date_submitted		DATE [Null]
PHC_date_processed		DATE [Null]
PHC_status		ENUM(submitted, under-review, approved, denied,pending, returned) [Not Null]
PHC_processing_time_days		INT [Null]
PHC_denial_reason		TEXT [Null]
PHC_remarks		TEXT [Null]
PHC_created_at		TIMESTAMP [Not Null]
PHC_updated_at		TIMESTAMP [Not Null]
PHC_updated_by	FK	INT [Null]

Table 8

PRACTITIONER		
Column Name	**PK/FK/UQ**	**Data Type (Nullable or Not)**
PRAC_practitioner_id	PK	INT AUTO_INCREMENT [Not Null]
PRAC_identifier_license_number	UQ	VARCHAR(50) [Not Null]
PRAC_identifier_employee_id	UQ	VARCHAR(50) [Null]
PRAC_identifier_philhealth_provider	UQ	VARCHAR(20) [Null]
PRAC_first_name		VARCHAR(50) [Not Null]
PRAC_middle_name		VARCHAR(50) [Null]
PRAC_last_name		VARCHAR(50) [Not Null]
PRAC_name_extension		VARCHAR(10) [Null]
PRAC_gender		ENUM(M, F, O, U) [Null]
PRAC_birthdate		DATE [Null]
PRAC_contact_number		VARCHAR(15) [Null]
PRAC_email		VARCHAR(100) [Null]
PRAC_active		BOOLEAN [Not Null]
PRAC_qualification_code		ENUM(Doctor, Nurse,Pharmacist, LabTechnician, MedicalTechnologist,Anesthesiologist,Surgeon, Admin, BillingStaff) [Not Null]
PRAC_qualification_issuer		VARCHAR(100) [Null]
PRAC_qualification_valid_from		DATE [Null]
PRAC_qualification_valid_to		DATE [Null]
PRAC_specialty		VARCHAR(100) [Null]
PRAC_sub_specialty		VARCHAR(100) [Null]
PRAC_organization_id	FK	INT [Null]
PRAC_role_status		ENUM(active, inactive,on-leave, suspended) [Not Null]
PRAC_credentials_verified		BOOLEAN [Not Null]
PRAC_created_at		TIMESTAMP [Not Null]
PRAC_updated_at		TIMESTAMP [Not Null]
PRAC_created_by	FK	INT [Not Null]

Table 9

FACILITY		
Column Name	**PK/FK/UQ**	**Data Type (Nullable or Not)**
FAC_location_id	PK	INT AUTO_INCREMENT [Not Null]
FAC_location_type		ENUM(organization, facility) [Not Null]
FAC_identifier_code	UQ	VARCHAR(20) [Not Null]
FAC_identifier_doh	UQ	VARCHAR(20) [Null]
FAC_identifier_doh	UQ	VARCHAR(20) [Null]
FAC_identifier_nhfr	UQ	VARCHAR(20) [Null]
FAC_name		VARCHAR(100) [Not Null]
FAC_description		VARCHAR(200) [Null]
FAC_parent_location_id	FK	INT [Null]
FAC_org_type		ENUM(Hospital, Clinic, BarangayHealth Station, Rural Health Unit,Diagnostic Center, Pharmacy, Laboratory,Other) [Null]
FAC_room_type		ENUM(Inpatient Room, ICU, ER, OR,Recovery, Ward, Private, Semi-Private,General Ward, Delivery Room, DialysisUnit, Radiology, Laboratory) [Null]
FAC_contact_number		VARCHAR(15) [Null]
FAC_email		VARCHAR(100) [Null]
FAC_street_address		VARCHAR(100) [Null]
FAC_barangay		VARCHAR(100) [Null]
FAC_city_municipality		VARCHAR(100) [Null]
FAC_province		VARCHAR(100) [Null]
FAC_region		VARCHAR(100) [Null]
FAC_country		VARCHAR(100) [Null]
FAC_postal_code		VARCHAR(10) [Not Null]
FAC_operating_hours		VARCHAR(100) [Null]
FAC_status		ENUM(active, suspended, inactive,planned) [Not Null]
FAC_created_at		TIMESTAMP [Not Null]
FAC_updated_at		TIMESTAMP [Not Null]
FAC_created_by	FK	INT [Not Null]

TABLE 1: USER

Column Name	PK/FK/UQ	Data Type	Nullable	Description
USER_user_id	PK	INT AUTO_INCREMENT	Not Null	User ID
USER_username	UQ	VARCHAR(50)	Not Null	Username
USER_password_hash		VARCHAR(255)	Not Null	Password hash
USER_first_name		VARCHAR(50)	Not Null	First name
USER_middle_name		VARCHAR(50)	Null	Middle name
USER_last_name		VARCHAR(50)	Not Null	Last name
USER_email	UQ	VARCHAR(100)	Not Null	Email address
USER_contact_number		VARCHAR(15)	Null	Contact number
USER_practitioner_id	FK	INT	Null	Linked practitioner
USER_role		ENUM(Doctor, Nurse, Pharmacist, Lab Technician, Medical Technologist, Admin, Billing Staff, System Administrator)	Not Null	User role/function
USER_status		ENUM(A, I, S)	Not Null	Status (A=Active, I=Inactive, S=Suspended)
USER_last_login		TIMESTAMP	Null	Last login timestamp
USER_created_at		TIMESTAMP	Not Null	Record creation timestamp
USER_updated_at		TIMESTAMP	Not Null	Record update timestamp
USER_created_by	FK	INT	Null	User who created this record

TABLE 2: PATIENT_RECORDS

Column Name	PK/FK/UQ	Data Type	Nullable	Description
PAT_patient_id	PK	INT AUTO_INCREMENT	Not Null	Patient ID
PAT_identifier_philhealth	UQ	VARCHAR(20)	Not Null	PhilHealth ID (PH Core)
PAT_identifier_philsys	UQ	VARCHAR(20)	Null	PhilSys ID (PH Core)
PAT_identifier_pdd	UQ	VARCHAR(20)	Null	PDD Registration Number
PAT_identifier_nid	UQ	VARCHAR(20)	Null	National ID (PH Core)
PAT_first_name		VARCHAR(50)	Not Null	First name
PAT_middle_name		VARCHAR(50)	Null	Middle name
PAT_last_name		VARCHAR(50)	Not Null	Last name
PAT_name_extension		VARCHAR(10)	Null	Name extension (Jr., Sr., III)
PAT_birthdate		DATE	Not Null	Date of birth
PAT_age		INT	Null	Age (calculated from birthdate)
PAT_gender		ENUM(M, F, O, U)	Not Null	Gender (M=Male, F=Female, O=Other, U=Unknown)
PAT_civil_status		ENUM(S, M, D, W, U)	Not Null	Civil status (S=Single, M=Married, D=Divorced, W=Widowed, U=Unknown)
PAT_contact_number		VARCHAR(15)	Null	Mobile/Contact number
PAT_email	UQ	VARCHAR(100)	Null	Email address
PAT_street_address		VARCHAR(100)	Null	Street address
PAT_barangay		VARCHAR(100)	Null	Barangay (PH Core Standard)
PAT_city_municipality		VARCHAR(100)	Null	City/Municipality (PH Core)
PAT_province		VARCHAR(100)	Null	Province (PH Core Standard)
PAT_region		VARCHAR(100)	Null	Region (PH Core Standard)

PAT_country		VARCHAR(100)	Not Null	Country (default: Philippines)
PAT_postal_code		VARCHAR(10)	Null	Postal code
PAT_extension_occupation		VARCHAR(100)	Null	Occupation (PH Core Extension)
PAT_extension_race		VARCHAR(50)	Null	Race/Ethnicity (PH Core Extension)
PAT_extension_religion		VARCHAR(50)	Null	Religion (PH Core Extension)
PAT_extension_indigenous_group		VARCHAR(100)	Null	Indigenous Group (PH Core Extension)
PAT_extension_educational_attainment		VARCHAR(100)	Null	Educational Attainment (PH Core Extension)
PAT_extension_language		VARCHAR(100)	Null	Preferred Language (PH Core Extension)
PAT_extension_disability		VARCHAR(100)	Null	Disability Status (PH Core Extension)
PAT_known_allergies		TEXT	Null	Known allergies
PAT_existing_medical_conditions		SET(...)	Null	Medical conditions
PAT_emergency_contact_name		VARCHAR(100)	Null	Emergency contact name
PAT_emergency_contact_relationship		VARCHAR(50)	Null	Relationship to patient
PAT_emergency_contact_number		VARCHAR(15)	Null	Emergency contact number
PAT_status		ENUM(A, I)	Not Null	Status (A=Active, I=Inactive)
PAT_created_at		TIMESTAMP	Not Null	Record creation timestamp
PAT_updated_at		TIMESTAMP	Not Null	Record update timestamp
PAT_created_by	FK	INT	Not Null	User who created record

TABLE 3: ADMISSION

Column Name	PK/FK/UQ	Data Type	Nullable	Description
ADM_admission_id	PK	INT AUTO_INCREMENT	Not Null	Admission ID
ADM_identifier	UQ	VARCHAR(50)	Not Null	Admission/Case number
ADM_patient_id	FK	INT	Not Null	Patient ID (→ PATIENT_RECORDS)
ADM_location_id	FK	INT	Not Null	Facility/Organization ID (→ LOCATION)
ADM_room_location_id	FK	INT	Null	Room/Ward location (→ LOCATION)
ADM_status		ENUM(...)	Not Null	Admission status (PH Core standard)
ADM_class		ENUM(...)	Not Null	Admission class (PH Core standard)
ADM_type		ENUM(...)	Not Null	Admission type
ADM_service_type		VARCHAR(100)	Null	Service type/Department
ADM_admission_datetime		DATETIME	Not Null	Admission date and time
ADM_discharge_datetime		DATETIME	Null	Discharge date and time
ADM_reason_for_visit		TEXT	Null	Chief complaint/Reason for visit
ADM_triage_category		ENUM(...)	Null	Triage category
ADM_triage_notes		TEXT	Null	Triage assessment notes
ADM_primary_diagnosis_code		VARCHAR(20)	Null	Primary diagnosis ICD-10 code
ADM_primary_diagnosis		TEXT	Null	Primary diagnosis text
ADM_attending_physician_id	FK	INT	Not Null	Attending physician (→ PRACTITIONER)
ADM_consulting_physician_id	FK	INT	Null	Consulting physician (→ PRACTITIONER)
ADM_final_diagnosis		TEXT	Null	Final diagnosis/Summary
ADM_discharge_summary		TEXT	Null	Discharge summary
ADM_discharge_instructions		TEXT	Null	Discharge instructions
ADM_follow_up_plan		TEXT	Null	Follow-up plan
ADM_created_at		TIMESTAMP	Not Null	Record creation timestamp
ADM_updated_at		TIMESTAMP	Not Null	Record update timestamp
ADM_created_by	FK	INT	Not Null	User who created record (→ USER)

TABLE 4: OBSERVATION

Column Name	PK/FK/UQ	Data Type	Nullable	Description
OBS_observation_id	PK	INT AUTO_INCREMENT	Not Null	Observation/Test ID
OBS_identifier	UQ	VARCHAR(50)	Null	Lab report/Test identifier
OBS_patient_id	FK	INT	Not Null	Patient ID (→ PATIENT_RECORDS)
OBS_admission_id	FK	INT	Not Null	Admission ID (→ ADMISSION)
OBS_type		ENUM(...)	Not Null	Observation type (PH Core aligned)
OBS_category		ENUM(...)	Not Null	Category
OBS_code		VARCHAR(50)	Not Null	LOINC code
OBS_code_display		VARCHAR(200)	Null	Code display name
OBS_datetime		DATETIME	Not Null	Observation date and time
OBS_performer_id	FK	INT	Null	Performer/Technician (→ PRACTITIONER)
OBS_value		VARCHAR(255)	Null	Observation/Result value
OBS_value_unit		VARCHAR(50)	Null	Unit of measurement
OBS_reference_range_low		VARCHAR(50)	Null	Reference range - low value
OBS_reference_range_high		VARCHAR(50)	Null	Reference range - high value
OBS_interpretation		ENUM(...)	Null	Interpretation (PH Core standard)
OBS_status		ENUM(...)	Not Null	Status (PH Core standard)
OBS_clinical_indication		TEXT	Null	Clinical indication/Reason
OBS_specimen_type		VARCHAR(100)	Null	Specimen type (for laboratory)
OBS_priority		ENUM(...)	Null	Priority level
OBS_collection_datetime		DATETIME	Null	Specimen collection date and time
OBS_result_datetime		DATETIME	Null	Result date and time
OBS_reviewer_id	FK	INT	Null	Reviewer/Pathologist (→ PRACTITIONER)
OBS_review_datetime		DATETIME	Null	Review date and time
OBS_cost		DECIMAL(10,2)	Null	Test/Examination cost
OBS_note		TEXT	Null	Additional clinical notes
OBS_conclusion		TEXT	Null	Conclusion/Diagnosis
OBS_created_at		TIMESTAMP	Not Null	Record creation timestamp
OBS_updated_at		TIMESTAMP	Not Null	Record update timestamp
OBS_created_by	FK	INT	Not Null	Who created record

TABLE 5: MEDICATION

Column Name	PK/FK/UQ	Data Type	Nullable	Description
MED_medication_id	PK	INT AUTO_INCREMENT	Not Null	Medication ID
MED_code	UQ	VARCHAR(50)	Not Null	Medication code/SKU
MED_generic_name		VARCHAR(100)	Not Null	Generic name
MED_brand_name		VARCHAR(100)	Null	Brand name
MED_form		VARCHAR(50)	Null	Form (tablet, capsule, injection, etc.)
MED_strength		VARCHAR(50)	Null	Strength (e.g., 500mg, 10mcg)
MED_manufacturer		VARCHAR(100)	Null	Manufacturer name
MED_status		ENUM(A, I)	Not Null	Status (A=Active, I=Inactive)
MED_request_id	PK	INT AUTO_INCREMENT	Not Null	Request ID (for prescription tracking)
MED_admission_id	FK	INT	Not Null	Admission ID (→ ADMISSION)
MED_patient_id	FK	INT	Not Null	Patient ID (→ PATIENT_RECORDS)
MED_request_status		ENUM(...)	Not Null	Request status (PH Core standard)
MED_intent		ENUM(...)	Not Null	Request intent
MED_authored_datetime		DATETIME	Not Null	Prescription date and time
MED_requester_id	FK	INT	Not Null	Prescriber (→ PRACTITIONER)
MED_dosage_text		TEXT	Null	Dosage instructions
MED_dose_quantity		VARCHAR(50)	Null	Dose quantity
MED_dose_unit		VARCHAR(30)	Null	Dose unit (mg, ml, tablet, etc.)
MED_frequency		VARCHAR(50)	Null	Frequency (e.g., twice daily, q6h)
MED_route		VARCHAR(50)	Null	Route of administration
MED_reason		TEXT	Null	Reason for medication/Indication
MED_admin_id	PK	INT AUTO_INCREMENT	Null	Administration ID
MED_admin_status		ENUM(...)	Null	Administration status
MED_admin_datetime		DATETIME	Null	Administration date and time
MED_admin_performer_id	FK	INT	Null	Person who administered
MED_admin_route		VARCHAR(50)	Null	Actual route administered
MED_admin_site		VARCHAR(100)	Null	Administration site
MED_admin_response		TEXT	Null	Patient response/Adverse

				effects
MED_admin_note		TEXT	Null	Administration notes
MED_request_note		TEXT	Null	Request/Prescription notes
MED_created_at		TIMESTAMP	Not Null	Record creation timestamp
MED_updated_at		TIMESTAMP	Not Null	Record update timestamp
MED_created_by	FK	INT	Not Null	User who created record (→ USER)

TABLE 6: BILLING

Column Name	PK/FK/UQ	Data Type	Nullable	Description
BILL_billing_id	PK	INT AUTO_INCREMENT	Not Null	Billing ID
BILL_identifier	UQ	VARCHAR(50)	Not Null	Bill/Invoice number
BILL_admission_id	FK	INT	Not Null	Admission ID (→ ADMISSION)
BILL_patient_id	FK	INT	Not Null	Patient ID (→ PATIENT_RECORDS)
BILL_location_id	FK	INT	Not Null	Organization/Facility ID (→ LOCATION)
BILL_admission_date		DATE	Not Null	Admission date
BILL_discharge_date		DATE	Null	Discharge date
BILL_room_ward_name		VARCHAR(50)	Null	Room/Ward name
BILL_room_type		ENUM(...)	Null	Room type
BILL_number_of_days		INT	Null	Number of days admitted
BILL_rate_per_day		DECIMAL(10,2)	Null	Rate per day
BILL_total_room_charge		DECIMAL(10,2)	Null	Total room charge
BILL_attending_physician_fee		DECIMAL(10,2)	Null	Attending physician professional fee
BILL_specialist_fee		DECIMAL(10,2)	Null	Specialist consultation fee
BILL_surgeon_anesthesiologist_fee		DECIMAL(10,2)	Null	Surgeon/Anesthesiologist fee
BILL_other_professional_fees		DECIMAL(10,2)	Null	Other professional/Nursing fees
BILL_diet_type		ENUM(...)	Null	Diet type
BILL_total_dietary_cost		DECIMAL(10,2)	Null	Total dietary cost
BILL_supplies_charge		DECIMAL(10,2)	Null	Medical supplies charge
BILL_procedures_surgery_charge		DECIMAL(10,2)	Null	Procedures/Surgery charge
BILL_nursing_monitoring_charge		DECIMAL(10,2)	Null	Nursing/Monitoring charge
BILL_diagnostics_charge		DECIMAL(10,2)	Null	Diagnostics/Lab charge
BILL_imaging_charge		DECIMAL(10,2)	Null	Imaging/Radiology charge
BILL_medicine_charge		DECIMAL(10,2)	Null	Medications charge
BILL_miscellaneous_charge		DECIMAL(10,2)	Null	Miscellaneous charge
BILL_subtotal		DECIMAL(12,2)	Null	Subtotal
BILL_discounts_deductions		DECIMAL(10,2)	Null	Discounts/Deductions
BILL_philhealth_insurance_coverage		DECIMAL(10,2)	Null	PhilHealth/Insurance coverage
BILL_patient_out_of_pocket		DECIMAL(10,2)	Null	Patient out-of-pocket

				payment
BILL_total_amount		DECIMAL(12,2)	Not Null	Total amount due
BILL_status		ENUM(...)	Not Null	Billing status (PH Core aligned)
BILL_finalized_datetime		DATETIME	Null	Finalized date and time
BILL_created_at		TIMESTAMP	Not Null	Record creation timestamp
BILL_updated_at		TIMESTAMP	Not Null	Record update timestamp
BILL_created_by	FK	INT	Not Null	User who created record (→ USER)

TABLE 7: PHILHEALTH_CLAIMS

Column Name	PK/FK/UQ	Data Type	Nullable	Description
PHC_claim_id	PK	VARCHAR(20)	Not Null	PhilHealth claim ID
PHC_billing_id	FK	INT	Not Null	Billing ID (→ BILLING)
PHC_patient_id	FK	INT	Not Null	Patient ID (→ PATIENT_RECORDS)
PHC_patient_philhealth_id		VARCHAR(20)	Not Null	Patient PhilHealth ID (PH Core)
PHC_claim_type		VARCHAR(100)	Null	Claim type (Inpatient, Outpatient, Emergency, etc.)
PHC_procedure_code		VARCHAR(20)	Null	Procedure code (CPT/ICD-10)
PHC_procedure_description		VARCHAR(200)	Null	Procedure description
PHC_icd_code		VARCHAR(20)	Null	ICD-10 diagnosis code
PHC_hospital_code		VARCHAR(20)	Null	Hospital code (PH Core)
PHC_hospital_name		VARCHAR(100)	Null	Hospital name
PHC_amount_claimed		DECIMAL(10,2)	Null	Amount claimed
PHC_amount_approved		DECIMAL(10,2)	Null	Amount approved by PhilHealth
PHC_date_submitted		DATE	Null	Date submitted to PhilHealth
PHC_date_processed		DATE	Null	Date processed
PHC_status		ENUM(...)	Not Null	Claim status (PH Core standard)
PHC_processing_time_days		INT	Null	Processing time in days
PHC_denial_reason		TEXT	Null	Reason for denial (if denied)
PHC_remarks		TEXT	Null	Remarks/Notes
PHC_created_at		TIMESTAMP	Not Null	Record creation timestamp
PHC_updated_at		TIMESTAMP	Not Null	Record update timestamp
PHC_updated_by	FK	INT	Null	User who updated record (→ USER)

TABLE 8: PRACTITIONER

Column Name	PK/FK/UQ	Data Type	Nullable	Description
PRAC_practitioner_id	PK	INT AUTO_INCREMENT	Not Null	Practitioner ID
PRAC_identifier_license_number	UQ	VARCHAR(50)	Not Null	Professional License number
PRAC_identifier_employee_id	UQ	VARCHAR(50)	Null	Employee ID
PRAC_identifier_philhealth_provider	UQ	VARCHAR(20)	Null	PhilHealth provider code
PRAC_first_name		VARCHAR(50)	Not Null	First name
PRAC_middle_name		VARCHAR(50)	Null	Middle name
PRAC_last_name		VARCHAR(50)	Not Null	Last name
PRAC_name_extension		VARCHAR(10)	Null	Name extension
PRAC_gender		ENUM(M, F, O, U)	Not Null	Gender (M=Male, F=Female, O=Other, U=Unknown)
PRAC_birthdate		DATE	Null	Date of birth
PRAC_specialization		VARCHAR(100)	Null	Medical specialization (e.g., Pediatrics, Surgery)
PRAC_qualification_code		VARCHAR(50)	Null	Qualification code (PH Core aligned)
PRAC_position_title		VARCHAR(100)	Null	Position title (e.g., Resident Doctor, Nurse II)
PRAC_department		VARCHAR(100)	Null	Department/Unit assigned
PRAC_contact_number		VARCHAR(15)	Null	Contact number
PRAC_email	UQ	VARCHAR(100)	Null	Email address
PRAC_address		VARCHAR(255)	Null	Home or clinic address
PRAC_license_expiry		DATE	Null	License expiration date
PRAC_employment_status		ENUM(A, I, R)	Not Null	Status (A=Active, I=Inactive, R=Retired)
PRAC_created_at		TIMESTAMP	Not Null	Record creation timestamp
PRAC_updated_at		TIMESTAMP	Not Null	Record update timestamp
PRAC_created_by	FK	INT	Not Null	Who created

TABLE 9: FACILITY

Column Name	PK/FK/UQ	Data Type	Nullable	Description
FAC_facility_id	PK	INT AUTO_INCREMENT	Not Null	Facility ID
FAC_identifier_doh	UQ	VARCHAR(50)	Not Null	DOH Facility Code (PH Core)
FAC_identifier_bir	UQ	VARCHAR(50)	Null	BIR Registration Number
FAC_identifier_nhfr	UQ	VARCHAR(50)	Null	NHFR Facility Registry Number
FAC_name		VARCHAR(150)	Not Null	Facility/Organization name
FAC_short_name		VARCHAR(50)	Null	Facility acronym/short name
FAC_type		ENUM(Hospital, Infirmary, Clinic, Laboratory)	Not Null	Facility classification
FAC_level		ENUM(1, 2, 3)	Null	Hospital level (DOH classification)
FAC_address		VARCHAR(255)	Not Null	Facility address
FAC_barangay		VARCHAR(100)	Null	Barangay (PH Core Standard)
FAC_city_municipality		VARCHAR(100)	Null	City/Municipality (PH Core)
FAC_province		VARCHAR(100)	Null	Province (PH Core)
FAC_region		VARCHAR(100)	Null	Region (PH Core)
FAC_country		VARCHAR(100)	Not Null	Country (default: Philippines)
FAC_postal_code		VARCHAR(10)	Null	Postal code
FAC_phone		VARCHAR(15)	Null	Facility contact number
FAC_email	UQ	VARCHAR(100)	Null	Official facility email
FAC_website		VARCHAR(150)	Null	Facility website
FAC_license_status		ENUM(A, I, S)	Not Null	Status (A=Active, I=Inactive, S=Suspended)
FAC_license_validity		DATE	Null	License validity/expiration date
FAC_created_at		TIMESTAMP	Not Null	Record creation timestamp
FAC_updated_at		TIMESTAMP	Not Null	Record update timestamp
FAC_created_by	FK	INT	Not Null	User who created record (→ USER)

ENTITY RELATIONSHIPS

From (Child Table)	To (Parent Table)	Foreign Key	Relationship Type	Description
USER	PRACTITIONER	USER_practitioner_id → PRAC_practitioner_id	Optional 1:1	Links system user to their practitioner profile
PATIENT_RECORDS	USER	PAT_created_by → USER_user_id	M:1	Identifies which user created the patient record
ADMISSION	PATIENT_RECORDS	ADM_patient_id → PAT_patient_id	M:1	Each admission is tied to one patient
ADMISSION	PRACTITIONER	ADM_attending_physician_id → PRAC_practitioner_id	M:1	Attending physician of the admission
ADMISSION	PRACTITIONER	ADM_consulting_physician_id → PRAC_practitioner_id	Optional M:1	Consulting physician for the admission
ADMISSION	FACILITY	ADM_location_id →	M:1	Facility

		FAC_facility_id		where patient was admitted
OBSERVATION	PATIENT_RECORDS	OBS_patient_id → PAT_patient_id	M:1	Observation belongs to a patient
OBSERVATION	ADMISSION	OBS_admission_id → ADM_admission_id	M:1	Observation taken during an admission
OBSERVATION	PRACTITIONER	OBS_performer_id → PRAC_practitioner_id	M:1	Person performing the test
OBSERVATION	PRACTITIONER	OBS_reviewer_id → PRAC_practitioner_id	M:1	Person reviewing the results
MEDICATION	PATIENT_RECORDS	MED_patient_id → PAT_patient_id	M:1	Medication prescribed to a patient
MEDICATION	ADMISSION	MED_admission_id → ADM_admission_id	M:1	Prescription made during an admission

MEDICATION	PRACTITIONER	MED_requester_id → PRAC_practitioner_id	M:1	Prescribing doctor
MEDICATION	USER	MED_created_by → USER_user_id	M:1	User who encoded medication record
BILLING	ADMISSION	BILL_admission_id → ADM_admission_id	1:1	One billing record per admission
BILLING	PATIENT_RECORDS	BILL_patient_id → PAT_patient_id	M:1	Billing for a specific patient
BILLING	FACILITY	BILL_location_id → FAC_facility_id	M:1	Facility that issued the bill
BILLING	USER	BILL_created_by → USER_user_id	M:1	Staff who generated billing
PHILHEALTH_CLAIMS	BILLING	PHC_billing_id → BILL_billing_id	1:1	Each billing record may have a PhilHealth claim

PHILHEALTH_CLAIMS	PATIENT_RECORDS	PHC_patient_id → PAT_patient_id	M:1	Claim linked to patient
PHILHEALTH_CLAIMS	USER	PHC_updated_by → USER_user_id	M:1	User who last updated claim
PRACTITIONER	USER	PRAC_created_by → USER_user_id	M:1	Admin who created practitioner record
FACILITY	USER	FAC_created_by → USER_user_id	M:1	User who created facility record