

E-DiaCare

Goals	Tables	Associated dashboards	Associated features
Manage patient demographic data.	tbl_PATIENT_OTHER_ILLNESS tbl_PATIENT_ADDRESSES tbl_PATIENT_DIABETESTYPE tbl_PATIENT tbl_PatientHealthData tbl_DAILY_HEALTH_METRICS tbl_PatientFeedback tbl_REVIEW	(patient,doctor, nutritionist) (patient,admin) (patient,doctor,nutritionist) (patient,admin) (patient,doctor,nutritionist) (patient,doctor,nutritionist) (patient,admin) (patient,admin)	Demographics form , demographics table Demographics form , demographics table Demographics form , demographics table Demographics form , demographics table Demographics form , demographics table Demographics form , demographics table Feedback feature Feedback feature
Manage patient diagnosis data.	tbl_DIAGNOSIS_RECORD tbl_DIAGNOSIS_RECORD_OBSERVATION tbl_DIAGNOSIS_RECORD_RESULT tbl_DIAGNOSIS_RECORD_TEST_ITEM	(patient,doctor) (patient,doctor) (patient,doctor) (patient,doctor)	Diagnosis Form. Diagnosis symptom table Diagnosis Form. Diagnosis symptom table Diagnosis Form. Diagnosis symptom table Diagnosis Form. Diagnosis symptom table

	tbl_DIAGNOSIS_REC ORD_REFERENCE_VA LUE	(patient,doctor)	Diagnosis Form, Diagnosis symptom table
	tbl_DIAGNOSIS_TEST	(patient,doctor)	Diagnosis Form, Diagnosis symptom table
	tbl_DIAGNOSIS_TEST _TEST_NAME	(patient,doctor)	Diagnosis Form, Diagnosis symptom table
	tbl_DIAGNOSIS_TEST _TEST_TYPE	(patient,doctor)	Diagnosis Form, Diagnosis symptom table
	tbl_DIAGNOSED_SYM PTOM	(doctor)	Diagnosis symptom table
	tbl_DIAGNOSED_SYM PTOM_NAME	(doctor)	Diagnosis symptom table
	tbl_Diagnostic_Tests_ Under_Center	(patient,systemAdmin)	Diagnosis Form, Health facilities list
	tbl_Diagnosis_Record_ Indicates_Symptoms	(patient,doctor)	Diagnosis Form, Diagnosis symptom table
Manage relevant physician s' informati on.	tbl_HEALTHCARE_PR OFessionals	systemAdmin.Nutritionist, doctor	Physician Database, Doctor profile table, Nutritionist profile table
	tbl_HEALTHCARE_PR OFessionals_Addre ss	systemAdmin.Nutritionist, doctor	Physician Database, Doctor profile table, Nutritionist profile table
	tbl_HEALTHCARE_PR OFessionals_Certifi cations	systemAdmin.Nutritionist, doctor	Physician Database, Doctor profile table,

	tbl_HEALTHCARE_PROFESSIONALS_Education	systemAdmin.Nutritionist, doctor	Nutritionist profile table
	tbl_HEALTHCARE_PROFESSIONALS_HospitalAffiliation	systemAdmin.Nutritionist, doctor	Physician Database, Doctor profile table, Nutritionist profile table
	tbl_DOCTOR	(doctor,admin)	Physician Database, Doctor Profile table
	tbl_DOCTOR_SPECIALITY	(systemAdmin,Doctor)	Physician Database, Doctor Profile table
	tbl_NUTRITIONIST	systemAdmin,Nutritionist	Physician Database, Nutritionist profile table
	tbl_NUTRITIONIST_TYPE	systemAdmin,Nutritionist	Physician Database, Nutritionist profile table
	tbl_DoctorAffiliation	(systemAdmin,doctor)	Physician Database, Doctor Profile table
Manage hospitals, diagnosis centers and other related facilities information.	tbl_HEALTHCARE_FACILITY	systemAdmin	Health Facilities List
	tbl_HEALTHCARE_FACILITY_DEPT	systemAdmin	Health Facilities List
	tbl_HEALTHCARE_FACILITY_LOCATION	systemAdmin	Health Facilities List
	tbl_HEALTHCARE_FACILITY_SERVICE	systemAdmin	Health Facilities List
	tbl_HOSPITAL	systemAdmin	Health Facilities List

	tbl_DIAGNOSIS_CENTR	systemAdmin	Health Facilities List
	tbl_HOSPITAL_EMERGENCY_SERVICE	systemAdmin	Health Facilities List
	tbl_DIAGNOSIS_CENTR_DIAGNOSTIC_SERVICE	systemAdmin	Health Facilities List
Recommend appropriate diet and facilities as per the patient's health condition.	tbl_DIET	(patient,nutritionist)	Diet recommendation table, meal plan table/form
	tbl_DIET_TYPE	(patient,nutritionist)	Diet recommendation table, meal plan table/form
	tbl_DIET_MEAL_TYPE	(patient,nutritionist)	Diet recommendation table, meal plan table/form
	tbl_DietRecommendation_Uses_Diagnosis	(patient)	Recommendations table, Diagnosis report form
	tbl_PatientDietRecommendationtbl_FOOD	(patient)	Recommendations table
	tbl_FOOD_OTHER_VITALS	(patient)	Diet recommendation table,
	tbl_DIET_RECOMMENDATION_SUGGEST_FOOD	(patient)	Diet recommendation table,
	TBL_DIET_PLAN	(patient,nutritionist)	Diet recommendation table, meal plan table/form
Keep track of medicine prescribed to the	tbl_APPOINTMENT	(patient,doctor)	Find a Doctor table, Manage Appointments table

patient which physician s can suggest to update based on recent visits.	tbl_MEDICINE	(patient,doctor)	Prescription manager table, prescribe medicine table
	tbl_PRESCRIPTION	(patient,doctor)	Prescription manager table, prescribe medicine form,Update Previous Prescriptions from
	tbl_PRESCRIPTION_T EST_RECOMMEND	(patient,doctor)	Prescription manager table,prescribe medicine form,
	tbl_PRESCRIPTION_T REAT_SYMPTOM	(patient,doctor)	Prescription manager table, prescribe medicine form, Diagnosis Symptom table
	tbl_PRESCRIPTION_ MEDICINE_DOSAGE	(patient,doctor)	Prescription manager table, prescribe medicine form.
	tbl_CONSULTATION	(patient,doctor)	Find a Doctor table,consultation form
	tbl_CONSULTATION_ SUGGESTED_ACTIÖ N	(patient,doctor)	Find a Doctor table,consultation form

Normalization :

Table:1 Attribute Literal Mapping

Entity	Attribute	Literal
HEALTH CARE FACILITY	FacilityID	x1
	Name	a1
	district	b1
	subDistrict	c1
	Department	d1
	Hotline	e1
	ServiceOffered	f1
	DiagnosisCenter?	g1

	Hospital?	h1
DIAGNOSIS CENTER	dFacilityID	x2
	DiagnosticService	a2
HOSPITAL	hFacilityID	x3
	EmergencyService	a3
	ICUCapacity	b3
DIAGNOSIS RECORD	diagnosisID	x4
	TestItem	a4
	Result	b4
	ResultSummary	c4
	observation	d4
	max	e4
	min	f4
	DiagnosisDate	g4
DIAGNOSTIC TEST	diagnosisTestID	x5
	TestName	a5
	TestSample	b5
	TestType	c5
	DiagnosisBill	d5
DIAGNOSED SYMPTOM	diagnosedSymptomID	x6
	Name	a6
	Duration	b6
PATIENT	PatientID	x7
	fName	a7
	lName	b7
	DOB	c7
	District	d7
	subdistrict	e7
	Gender	f7
	PhoneNumber	g7
	Email	h7
	DiabetesType	i7
	Weight	j7
	Height	k7
	InsulinStatus	l7
	OtherIllness	m7
APPOINTMENT	AppointmentID	x8
	AppointmentDate	a8
	Online	b8
	Offline	c8
	Time	d8
	metricID	x9
	BPUp	a9

DAILY HEALTH METRICS	BPLow	b9
	Weight	c9
	GlucoseLlevel	d9
	DailyCarolieConsumption	e9
	calorieBurned	f9
	WaterIntake	g9
	Date	h9
CONSULTATION	consultationID	x10
	SuggestedAdvice	a10
	FollowUpDate	b10
	Instruction	c10
MEDICINE	medicineID	x11
	DrugName	a11
	SideEffects	c11
	Indications	b11
	Precautions	d11
	Warnings	e11
	DosageInstructions	f11
PRESCRIPTION	prescriptionID	x12
	Date	a12
	UpdatedDate	b12
	TestRecommend	c12
DIET	dietID	x13
	Breakfast	a13
	Lunch	b13
	Dinner	c13
	Snack	d13
	DietRecommendedDate	e13
	weightloss	f13
	musclegain	g13
	maintenance	h13
	Time	i13
	NumberofMeal	j13
	Name	k13
	unit	l13
	calories	m13
	mineral	n13
	carbohydrates	o13
	proteins	p13
	fats	q13
	Description	r13
	StartingTime	s13
	EndTime	t13

FOOD	foodID	x14
	FoodName	a14
	Carbohydrates	b14
	Fats	c14
	Vitamins	d14
	Protein	e14
	Minerals	f14
	unit	g14
	min	h14
	max	i14
	vitalsName	j14
	unit	k14
REVIEW	reviewID	x15
	LikeStatus	a15
	ClientReviewDate	b15
	Description	c15
HEALTH CARE PROFESSIONAL	ID	x16
	Name	a16
	DOB	b16
	district	c16
	subDistrict	d16
	Gender	e16
	PhoneNumber	f16
	Email	g16
	NID	h16
	Certifications	i16
	Education	j16
	YearsofExperience	k16
	HospitalAffiliation	l16
	Doctor?	m16
	Nutritionist?	n16
DOCTOR	dID	x17
	Speciality	a17
NUTRITIONIST	nID	x18
	NutritionistType	a18
PRESCRIPTION _REFERS_MEDICINE	medicineID	x11
	prescriptionID	x12
	frequency	a11_12
	duration	b11_12
	PatientID	x7
	dietID	x13
	nID	x18

	DietPlan	a7_13_18
DOCTOR_AFFILIATED _WITH_HOSPITAL	hFacilityID	x3
	dID	x17
	starttime	a3_17
	endtime	b3_17
	ScDate	c3_17

Table:2 Dependency Mapping using Literal

x1 →	a1, b1, c1, d1, e1, f1, g1, h1
x2 →	a2
x3 →	a3, b3
x4 →	a4, b4, c4, d4, e4, f4, g4
x5 →	a5, b5, c5, d5
x6 →	a6, b6
x7 →	a7, b7, c7, d7, e7, f7, g7, h7, i7, j7, k7, l7, m7
x8 →	a8, b8, c8, d8
x9 →	a9, b9, c9, d9, e9, f9, g9, h9
x10 →	a10, b10, c10
x11 →	a11, b11, c11, d11, e11, f11
x12 →	a12, b12, c12
x13 →	a13, b13, c13, d13, e13, f13, g13, h13, i13, j13, k13, l13, m13, n13, o13, p13, q13, r13, s13, t13
x14 →	a14, b14, c14, d14, e14, f14, g14, h14, i14, j14, k14
x15 →	a15, b15, c15
x16 →	a16, b16, c16, d16, e16, f16, g16, h16, i16, j16, k16, l16, m16, n16
x17 →	a17
x18 →	a18
x11, x12 →	a11_12, b11_12
x7, x13, x18 →	a7_13_18
x3, x17 →	a3_17, b3_17, c3_17

Table 3: Dependency Mapping using attributes

FacilityID →	Name, district, subDistrict, Department, Hotline, ServiceOffered, DiagnosisCenter?, Hospital?
dFacilityID →	DiagnosticService
hFacilityID →	EmergencyService, ICUCapacity
diagnosisID →	TestItem, Result, ResultSummary, observation, max, min, DiagnosisDate
diagnosisTestID →	TestName, TestSample, TestType, DiagnosisBill
diagnosedSymptomID →	Name, Duration
PatientID →	fName, lName, DOB, district, subDistrict, Gender, PhoneNumber, Email, DiabetesType, Weight, Height, InsulinStatus, OtherIllness

appointmentID →	AppointmentDate, Online, Offline, Time
metricID →	BPUp, BpLow, Weight, GlucoseLevel, DailyCaloricConsumption, calorieBurned, WaterIntake, Date
consultationID →	SuggestedAdvice, FollowUpDate, Instruction
medicineID →	DrugName, Indications, Interaction, SideEffects, Precautions_Warnings, DosageInstructions
prescriptionID →	Date, UpdatedDate, TestRecommend
dietID →	Breakfast, Lunch, Dinner, Snack, DietRecommendedDate, weightloss, musclegain, maintenance, Time, NumberofMeal, Name, unit, calories, mineral, carbohydrates, proteins, fats, Description, StartingTime, EndTime
foodID →	FoodName, Carbohydrates, Fats, Vitamins, Protein, Minarals, unit, min, max, VitalsName, unit
reviewID →	LikeStatus, ClientReviewDate, Description
ID →	Name, DOB, district, subDistrict, Gender, PhoneNumber, Email, NID, Certifications, Education, YearsofExperience, HospitalAffiliation, Doctor?, Nutritionist?
dID →	Specialty
nID →	NutritionistType
medicineID,prescriptionID →	frequency,duration
PatientID,dietID,nID →	DietPlan
hFacilityID,dID →	starttime,endtime,ScDate