Model::Main

Rare Disease Diagnosis Support System

Administrator

Lab Technician

Request Additional Tests

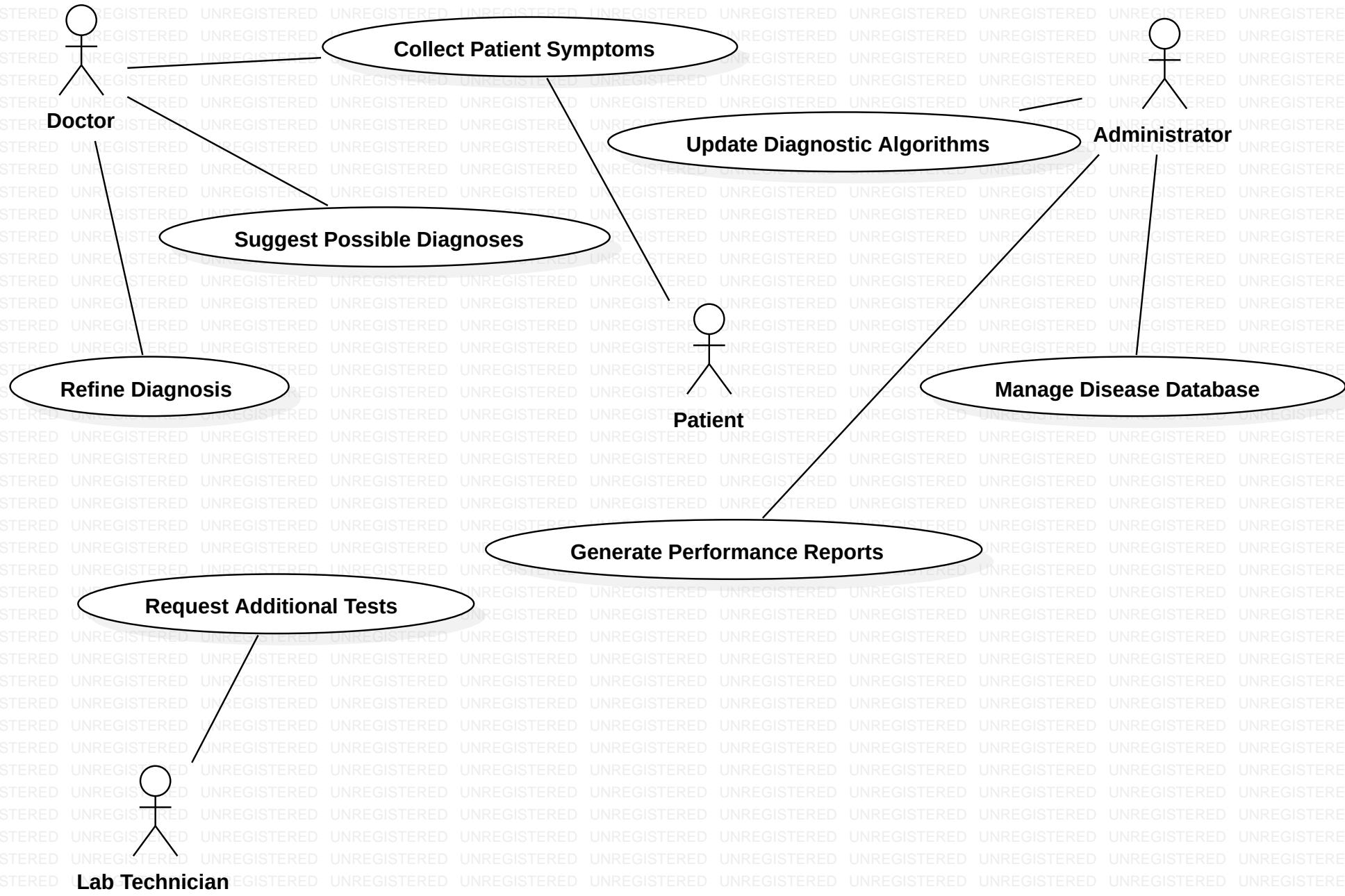Update Diagnostic Algorithms,Manage Disease Database,Generate Performance Reports

Patient

Doctor
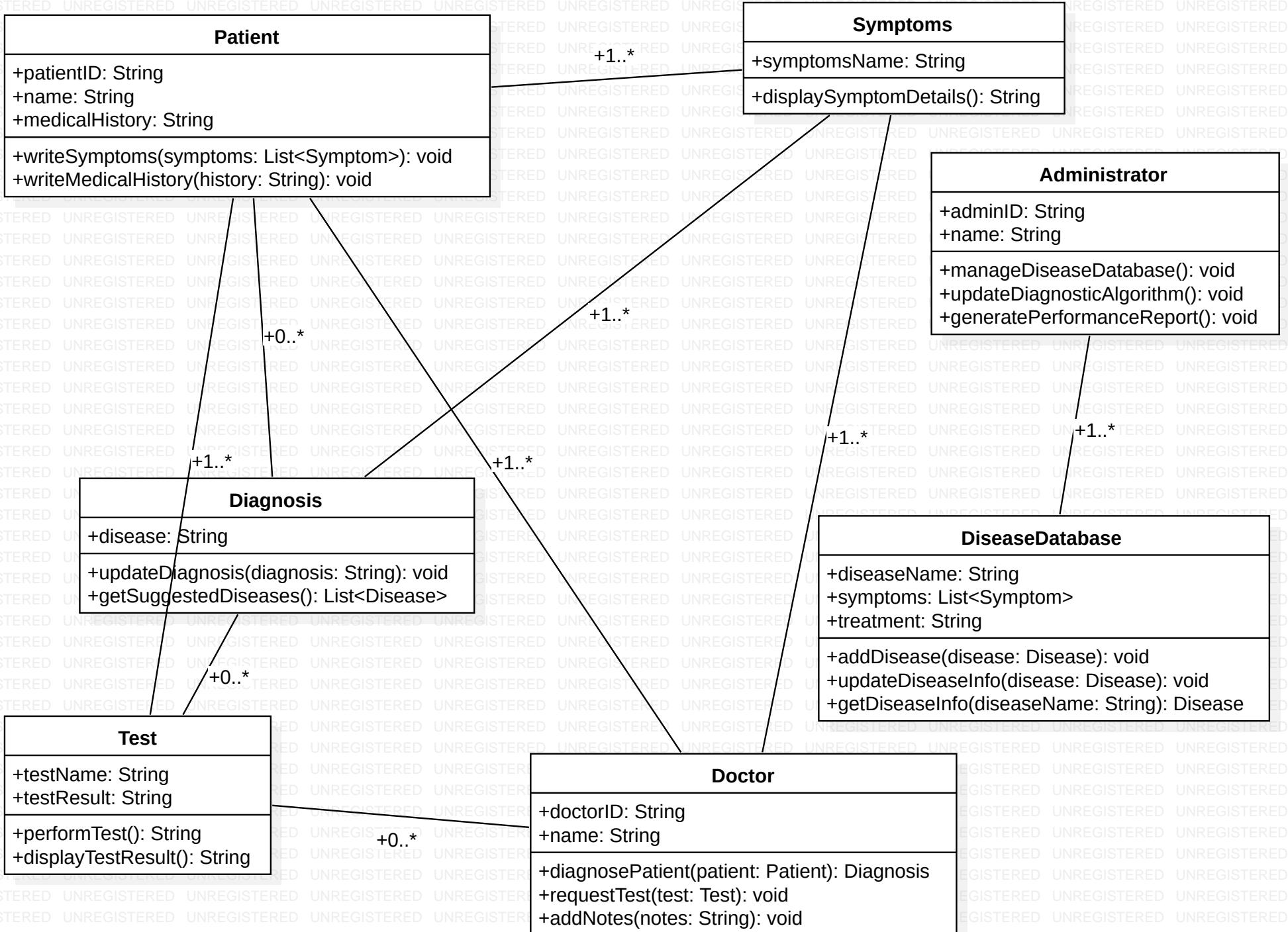
Refine Diagnosis,Suggest Possible Diagnoses,Collect Patient Symptoms

Collect Patient Symptoms

Model1::UseCaseDiagram1

Doctor

Collect Patient Symptoms

Update Diagnostic Algorithms

Administrator

Suggest Possible Diagnoses

Refine Diagnosis

Patient

Manage Disease Database

Generate Performance Reports

Request Additional Tests

Lab Technician

Model2::ClassDiagram1

Patient

+patientID: String
+name: String
+medicalHistory: String

+writeSymptoms(symptoms: List<Symptom>): void
+writeMedicalHistory(history: String): void

Symptoms

+symptomsName: String

+displaySymptomDetails(): String

+1..*

Administrator

+adminID: String
+name: String

+manageDiseaseDatabase(): void
+updateDiagnosticAlgorithm(): void
+generatePerformanceReport(): void

+0..*

+1..*

+1..*

+1..*

+1..*

Diagnosis

+disease: String

+updateDiagnosis(diagnosis: String): void
+getSuggestedDiseases(): List<Disease>

DiseaseDatabase

+diseaseName: String
+symptoms: List<Symptom>
+treatment: String

+addDisease(disease: Disease): void
+updateDiseaseInfo(disease: Disease): void
+getDiseaseInfo(diseaseName: String): Disease

+0..*

Test

+testName: String
+testResult: String

+performTest(): String
+displayTestResult(): String

+0..*

Doctor

+doctorID: String
+name: String

+diagnosePatient(patient: Patient): Diagnosis
+requestTest(test: Test): void
+addNotes(notes: String): void

Collaboration1::Interaction1::SequenceDiagram1

sd SequenceDiagram1

Doctor	System	DiseaseDatabase	Patient	Test

1 : Submit Symptoms and Medical History

2 : Query for Disease Diagnosis

3 : Return Disease List

4 : Suggest Possible Diagnosis

5 : Request Additional Tests

6 : Initiate Test

7 : Return Test Results

8 : Update Diagnosis Based on Test Results