

Database Management System Project

**DEPARTMENT OF COMPUTER SYSTEMS ENGINEERING**

**Doctor's Database**

**Exploring Specialties and Disease Management**

* Group Members:
* Kashif Mujeeb (133-20-0009)
* Muhammad Usman (133-20-0004)
* Abdul Raqeeb (133-20-0001)
* Shahroz Majid (133-20-0006)

# Contents

[INTRODUCTION 3](#_Toc135572868)

[PROBLEM DEFINITION 4](#_Toc135572869)

[FUNCTIONALITIES 5](#_Toc135572870)

[E-R DIAGRAM 6](#_Toc135572871)

[TYPES OF DISEASES 7](#_Toc135572873)

[DATABASE MANAGEMENT 18](#_Toc135572874)

[RESULT 29](#_Toc135572875)

[CONCLUSION 30](#_Toc135572876)

# INTRODUCTION

Welcome to the "Doctor's Database: Exploring Specialties and Disease Management" project, where we delve into the world of medical specialties and their associated diseases using SQL queries. This project aims to provide a simplified yet insightful exploration of the types of doctors and the diseases they treat using a database-driven approach.

By utilizing SQL queries, we can effectively navigate through the vast array of medical specialties and gain a better understanding of the specific diseases that doctors in each specialty typically handle. This approach allows us to extract valuable information from the database, enabling us to make informed observations and draw meaningful conclusions.

Throughout this project, we will leverage the power of SQL to pose queries that help us explore different medical specialties and their corresponding diseases. We will focus on retrieving relevant data, such as the names of specialties, key attributes associated with each specialty, and the diseases commonly treated by doctors within those specialties.

By examining the relationships between medical specialties and diseases in a structured manner, we can gain insights into the diverse expertise that doctors possess and how they apply it to effectively manage various health conditions. This project aims to present the information in a simplified format, making it accessible to individuals with varying levels of familiarity with SQL.

In conclusion, the "Doctor's Database: Exploring Specialties and Disease Management" project uses SQL queries to unravel the connections between medical specialties and the diseases they handle. Through this approach, we aim to provide a straightforward introduction to the topic, facilitating a deeper understanding of the roles doctors play in addressing specific health concerns. Let's embark on this database-driven exploration and uncover the fascinating world of medical specialties and disease management.

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# PROBLEM DEFINITION

The "Doctor's Database: Exploring Specialties and Disease Management" project addresses the need for a comprehensive and accessible resource that explores the different types of doctors and the diseases they treat. In today's complex healthcare landscape, it can be challenging for individuals to navigate through the multitude of medical specialties and understand which doctors are best suited to address their specific health concerns.

The lack of easily accessible information on medical specialties and their associated diseases poses a significant problem for patients seeking specialized care. Without a clear understanding of which type of doctor to consult for their condition, individuals may experience delays in receiving appropriate treatment or may not receive the most effective care for their specific health issue.

Furthermore, medical professionals themselves may benefit from a centralized resource that provides a comprehensive overview of medical specialties and the diseases they manage. Having access to a well-organized database that outlines the key attributes and areas of expertise associated with each specialty can assist doctors in making more informed referrals and collaborative decisions in patient care.

Thus, the problem at hand is the need for a project that presents a comprehensive overview of medical specialties and the diseases they treat, providing a reliable resource for both patients and medical practitioners. By addressing this problem, we aim to enhance patient outcomes, facilitate more efficient healthcare delivery, and empower individuals to make well-informed decisions about their medical care.

The "Doctor's Database: Exploring Specialties and Disease Management" project seeks to fill this gap by utilizing SQL queries to create a comprehensive database that captures the relationships between medical specialties and the diseases they commonly address. By doing so, we aim to provide individuals with an accessible resource that helps them navigate the healthcare landscape, understand the roles of different types of doctors, and make informed decisions regarding their healthcare needs.

# FUNCTIONALITIES

The database provided includes several tables related to different medical specialties such as pediatricians, allergists, dermatologists, ophthalmologists, gynecologists, cardiologists, endocrinologists, gastroenterologists, nephrologists, and urologists. Each table contains information specific to the respective medical specialty, such as disease names, symptoms, affected organs, and specialist doctors.

The functionality of this database allows you to perform various operations, including:

1. Inserting Data: You can insert new entries into each table to add information about diseases, symptoms, affected organs, and specialist doctors.

2. Retrieving Data: You can retrieve data from the tables to view information about diseases, symptoms, affected organs, and specialist doctors. You can use SELECT queries to retrieve specific columns or filter data based on certain conditions.

3. Updating Data: You can update existing data in the tables to modify disease names, symptoms, affected organs, or specialist doctors. Use UPDATE queries with appropriate conditions to update specific records.

4. Deleting Data: You can delete entries from the tables to remove information about diseases, symptoms, affected organs, or specialist doctors. Use DELETE queries with suitable conditions to remove specific records.

With the provided database, you can perform various operations to manage and analyze medical information related to different specialties. This can include querying specific diseases or symptoms, identifying affected organs, retrieving specialist doctors, and more. The database can serve as a valuable resource for medical professionals, researchers, or anyone interested in exploring medical data in the specified specialties.

# E-R DIAGRAM

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Figure

# TYPES OF DISEASES

|  |
| --- |
| Pediatricians |
| Diseases\_Name | Symptom\_1 | Symptom\_2 | Symptom\_3 | Effected\_Organ\_1 |
| Asthma | Wheezing | Shortness of breath | Coughing | Lungs |
| Bronchiolitis | Cough | Wheezing | Rapid breathing | Airways |
| Chickenpox | Itchy rash | Fever | Fatigue | Skin |
| Common cold | Runny nose | Sneezing | Sore throat | Upper respiratory tract |
| Croup | Barking cough | Stridor | Hoarseness | Upper airways |
| Urinary tract infection (UTI) | Painful urination | Frequent urination | Abdominal pain | Urinary system |
| Whooping cough (Pertussis) | Severe coughing fits | "Whoop" sound during inhale | Vomiting | Respiratory system |
| Gastroenteritis | Diarrhea | Vomiting | Abdominal pain | Digestive system |
| Eczema | Dry, itchy skin | Redness | Rash | Skin |
| Allergies | Sneezing | Itchy, watery eyes | Runny nose | Various organs/systems |

Allergists

| Diseases\_Name | Symptom\_1 | Symptom\_2 | Symptom\_3 | Effected\_Organ\_1 | Effected\_Organ\_2 |
| --- | --- | --- | --- | --- | --- |
| Food Allergy | Nausea | Vomiting | Hives | Digestive system | Skin |
| Seasonal Allergy | Sneezing | Runny nose | Itchy eyes | Respiratory system | Eyes |
| Drug Allergy | Rash | Swelling | Difficulty breathing | Skin | Respiratory system |
| Insect Sting Allergy | Itching | Swelling | Difficulty breathing | Skin | Respiratory system |
| Latex Allergy | Skin rash | Itching | Hives | Skin |  |
| Mold Allergy | Sneezing | Coughing | Congestion | Respiratory system |  |
| Allergic Asthma | Wheezing | Shortness of breath | Cough | Respiratory system |  |
| Eczema | Dry, itchy skin | Redness | Rash | Skin |  |
| Contact Dermatitis | Skin rash | Itching | Blistering | Skin |  |
| Pollen Allergy | Sneezing | Runny nose | Watery eyes | Respiratory system | Eyes |

Dermatologists

| Diseases\_Name | Symptom\_1 | Symptom\_2 | Symptom\_3 | Effected\_Organ\_1 | Effected\_Organ\_2 |
| --- | --- | --- | --- | --- | --- |
| Acne | Pimples | Blackheads | Whiteheads | Skin |  |
| Eczema | Dry, itchy skin | Rash | Redness | Skin |  |
| Psoriasis | Thick, red patches | Silver scales | Itching | Skin |  |
| Rosacea | Facial redness | Flushing | Visible blood vessels | Skin | Eyes |
| Dermatitis | Rash | Itching | Swelling | Skin |  |
| Hives | Itchy welts | Redness | Swelling | Skin |  |
| Fungal Infections | Itchy, scaly rash | Redness | Peeling | Skin |  |
| Hair Loss | Thinning hair | Bald patches | Hair shedding | Scalp |  |
| Nail Fungus | Thickened nails | Discoloration | Brittle nails | Nails |  |
| Warts | Rough skin growths | Dark spots | Pain | Skin |  |

|  |
| --- |
| Ophthalmologists |
| Diseases\_Name | Symptom\_1 | Symptom\_2 | Symptom\_3 | Effected\_Organ\_1 |
| Cataracts | Blurred vision | Cloudy or dim vision | Sensitivity to light | Eyes |
| Glaucoma | Loss of peripheral vision | Eye pain | Blurred vision | Eyes |
| Macular Degeneration | Central vision loss | Distorted vision | Dark or empty areas in vision | Eyes |
| Diabetic Retinopathy | Blurred vision | Fluctuating vision | Dark spots or floaters | Eyes |
| Dry Eye Syndrome | Dryness | Burning or stinging sensation | Redness | Eyes |
| Conjunctivitis | Redness | Itching | Watery discharge | Eyes |
| Retinal Detachment | Floaters | Flashes of light | Sudden vision loss | Eyes |
| Retinitis Pigmentosa | Night blindness | Tunnel vision | Difficulty seeing colors | Eyes |
| Corneal Abrasion | Eye pain | Sensitivity to light | Foreign body sensation | Eyes |
| Blepharitis | Eyelid redness | Itching | Crusting | Eyes |

Gynecologists

| Diseases\_Name | Symptom\_1 | Symptom\_2 | Symptom\_3 | Effected\_Organ\_1 | Effected\_Organ\_2 |
| --- | --- | --- | --- | --- | --- |
| Ovarian Cysts | Abdominal pain | Bloating | Irregular periods | Ovaries |  |
| Endometriosis | Pelvic pain | Painful periods | Painful intercourse | Uterus | Pelvic cavity |
| Polycystic Ovary Syndrome (PCOS) | Irregular periods | Excess hair growth | Acne | Ovaries |  |
| Uterine Fibroids | Heavy menstrual bleeding | Pelvic pressure | Frequent urination | Uterus |  |
| Pelvic Inflammatory Disease (PID) | Pelvic pain | Abnormal vaginal discharge | Fever | Reproductive organs |  |
| Cervical Dysplasia | Abnormal Pap smear | Vaginal bleeding | Pelvic pain | Cervix |  |
| Vulvodynia | Chronic vaginal pain | Burning sensation | Rawness | Vulva |  |
| Menorrhagia | Excessive menstrual bleeding | Prolonged periods | Fatigue | Uterus |  |
| Vaginal Yeast Infection | Vaginal itching | White, clumpy discharge | Burning sensation | Vagina |  |
| Pelvic Organ Prolapse | Vaginal pressure | Urinary incontinence | Constipation | Pelvic organs |  |

|  |
| --- |
| Cardiologists |
| Diseases\_Name | Symptom\_1 | Symptom\_2 | Symptom\_3 | Effected\_Organ\_1 | Effected\_Organ\_2 |
| Coronary Artery Disease | Chest pain or discomfort | Shortness of breath | Fatigue | Heart |  |
| Hypertension | High blood pressure | Headaches | Dizziness | Cardiovascular system |  |
| Heart Failure | Shortness of breath | Fatigue | Swollen legs or ankles | Heart |  |
| Arrhythmia | Irregular heartbeat | Fluttering in the chest | Fainting or dizziness | Heart |  |
| Atherosclerosis | Narrowed or blocked arteries | Chest pain or discomfort | Fatigue | Blood vessels | Heart |
| Congenital Heart Defects | Cyanosis (bluish skin) | Poor growth in infants | Shortness of breath | Heart |  |
| Myocardial Infarction | Chest pain or discomfort | Shortness of breath | Nausea or vomiting | Heart |  |
| Valvular Heart Disease | Heart murmurs | Fatigue | Shortness of breath | Heart |  |
| Cardiomyopathy | Fatigue | Shortness of breath | Swollen legs or ankles | Heart |  |
| Peripheral Artery Disease | Leg pain or cramping | Numbness or weakness | Non-healing sores or wounds | Blood vessels |  |

Endocrinologists

| Diseases\_Name | Symptom\_1 | Symptom\_2 | Symptom\_3 | Effected\_Organ\_1 |
| --- | --- | --- | --- | --- |
| Diabetes Mellitus | Frequent urination | Increased thirst | Unexplained weight loss | Pancreas |
| Diabetes Mellitus | Fatigue | Increased hunger | Blurred vision | Pancreas |
| Hypothyroidism | Fatigue | Weight gain | Cold intolerance | Thyroid |
| Hyperthyroidism | Weight loss | Rapid heartbeat | Heat intolerance | Thyroid |
| Polycystic Ovary Syndrome (PCOS) | Irregular periods | Excess hair growth | Acne | Ovaries |
| Addison's Disease | Fatigue | Weight loss | Low blood pressure | Adrenal glands |
| Cushing's Syndrome | Weight gain | Thin skin | High blood pressure | Adrenal glands |
| Growth Hormone Deficiency | Short stature | Delayed puberty | Reduced muscle strength | Pituitary gland |
| Osteoporosis | Bone pain | Fractures | Loss of height | Bones |
| Hyperparathyroidism | Fatigue | Kidney stones | Excessive thirst | Parathyroid glands |

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| --- |
| Gastroenterologists |
| Diseases\_Name | Symptom\_1 | Symptom\_2 | Symptom\_3 | Effected\_Organ\_1 |
| Gastroesophageal Reflux Disease (GERD) | Heartburn | Regurgitation | Chest pain | Esophagus |
| Peptic Ulcer Disease | Abdominal pain | Nausea | Loss of appetite | Stomach |
| Inflammatory Bowel Disease (IBD) | Abdominal pain | Diarrhea | Blood in stool | Intestines |
| Irritable Bowel Syndrome (IBS) | Abdominal pain | Bloating | Changes in bowel habits | Intestines |
| Gallstones | Abdominal pain | Nausea | Jaundice | Gallbladder |
| Hepatitis | Fatigue | Jaundice | Abdominal pain | Liver |
| Pancreatitis | Abdominal pain | Nausea | Digestive problems | Pancreas |
| Diverticulitis | Abdominal pain | Fever | Change in bowel habits | Intestines |
| Celiac Disease | Abdominal pain | Diarrhea | Weight loss | Small intestine |
| Colorectal Cancer | Rectal bleeding | Change in bowel habits | Abdominal pain | Colon, Rectum |

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| --- |
| Nephrologists |
| Diseases\_Name | Symptom\_1 | Symptom\_2 | Symptom\_3 | Effected\_Organ\_1 |
| Chronic Kidney Disease | Fatigue | Swelling in legs | Decreased urine output | Kidneys |
| Kidney Stones | Flank pain | Blood in urine | Frequent urination | Kidneys |
| Polycystic Kidney Disease | Abdominal pain | High blood pressure | Enlarged kidneys | Kidneys |
| Acute Kidney Injury | Decreased urine output | Swelling in legs | Confusion | Kidneys |
| Glomerulonephritis | Hematuria (blood in urine) | Proteinuria (protein in urine) | Edema (swelling) | Kidneys |
| Nephrotic Syndrome | Proteinuria (protein in urine) | Edema (swelling) | Fatigue | Kidneys |
| Urinary Tract Infection | Frequent urination | Pain or burning sensation | Cloudy or bloody urine | Urinary system |
| Renal Failure | Decreased urine output | Swelling in legs | Fatigue | Kidneys |
| Hemolytic Uremic Syndrome | Bloody diarrhea | Fatigue | Kidney dysfunction | Kidneys |
| Renal Cell Carcinoma | Blood in urine | Flank pain | Weight loss | Kidneys |

|  |
| --- |
| Urologists |
| Diseases\_Name | Symptom\_1 | Symptom\_2 | Symptom\_3 | Effected\_Organ\_1 |
| Urinary Tract Infection | Frequent urination | Pain or burning sensation | Cloudy or bloody urine | Urinary system |
| Kidney Stones | Flank pain | Blood in urine | Frequent urination | Kidneys |
| Bladder Infection | Frequent urination | Pain or discomfort | Urgency to urinate | Bladder |
| Erectile Dysfunction | Difficulty achieving or maintaining an erection | Reduced sexual desire | Premature ejaculation | Reproductive system |
| Prostate Cancer | Urinary difficulties | Blood in urine or semen | Erectile dysfunction | Prostate gland |
| Benign Prostatic Hyperplasia (BPH) | Frequent urination | Weak urine flow | Incomplete emptying of the bladder | Prostate gland |
| Urinary Incontinence | Leakage of urine | Urgency to urinate | Nocturia (frequent urination at night) | Urinary system |
| Testicular Cancer | Lump or swelling in the testicles | Testicular pain | Heaviness or ache in the lower abdomen | Testicles |
| Bladder Cancer | Blood in urine | Urinary difficulties | Pelvic pain | Bladder |
| Interstitial Cystitis | Pelvic pain | Urinary urgency | Painful sexual intercourse | Bladder |

# DATABASE MANAGEMENT

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| -- Create the "diseases" database if it doesn't exist  CREATE DATABASE Diseases;  -- Use the "diseases" database  USE diseases;  -- Create the "Pediatricians" table  CREATE TABLE Pediatricians (      DiseaseName NVARCHAR(100),      Symptoms\_1 NVARCHAR(100),      Symptoms\_2 NVARCHAR(100),      Symptoms\_3 NVARCHAR(100),      AffectedOrgan\_1 NVARCHAR(100),      AffectedOrgan\_2 NVARCHAR(100)  );  -- Insert data into the Pediatricians table  INSERT INTO Pediatricians (DiseaseName, Symptoms\_1, Symptoms\_2, Symptoms\_3, AffectedOrgan\_1, AffectedOrgan\_2)  VALUES ('Common Cold', 'Runny nose', 'Sneezing', 'Cough', 'Upper respiratory tract', NULL),  ('Strep Throat', 'Sore throat', 'Difficulty swallowing', 'Fever', 'Throat', NULL),   ('Ear Infection', 'Ear pain', 'Fluid draining from the ear', 'Hearing difficulties', 'Ear', NULL),   ('Asthma', 'Wheezing', 'Shortness of breath', 'Coughing', 'Airways', 'Lungs'),  ('Gastroenteritis', 'Abdominal pain', 'Nausea and vomiting', 'Diarrhea', 'Stomach, Intestines', NULL),  ('Bronchiolitis', 'Cough', 'Runny or stuffy nose', 'Rapid breathing', 'Airways', NULL),  ('Urinary Tract Infection', 'Frequent urination', 'Pain or burning during urination', 'Abdominal pain', 'Urinary tract', NULL),  ('Hand, Foot, and Mouth Disease', 'Fever', 'Sore throat', 'Rash', 'Mouth, Hands, Feet', NULL),  ('Conjunctivitis (Pink Eye)', 'Redness and itching', 'Watery or discharge from the eye', 'Swelling', 'Eyes', NULL),  ('Chickenpox', 'Itchy rash', 'Fever', 'Fatigue', 'Skin, Nervous system', NULL);    -- Use the "diseases" database  USE diseases;  -- Create the "Allergists" table  CREATE TABLE Allergists (      DiseaseName NVARCHAR(100),      Symptoms\_1 NVARCHAR(100),      Symptoms\_2 NVARCHAR(100),      Symptoms\_3 NVARCHAR(100),      AffectedOrgan\_1 NVARCHAR(100),      AffectedOrgan\_2 NVARCHAR(100),      Specialist NVARCHAR(100)  );  -- Insert multiple entries into the "Allergists" table  INSERT INTO Allergists (DiseaseName, Symptoms\_1, Symptoms\_2, Symptoms\_3, AffectedOrgan\_1, AffectedOrgan\_2, Specialist)  VALUES      ('Hay Fever', 'Sneezing', 'Runny nose', 'Itchy eyes', 'Respiratory system', NULL, 'Allergist'),      ('Asthma', 'Wheezing', 'Shortness of breath', 'Coughing', 'Airways', 'Lungs', 'Allergist'),      ('Food Allergy', 'Hives', 'Nausea', 'Swelling', 'Gastrointestinal system', NULL, 'Allergist'),      ('Eczema', 'Dry, itchy skin', 'Rash', 'Redness', 'Skin', NULL, 'Allergist'),      ('Anaphylaxis', 'Difficulty breathing', 'Swollen throat', 'Dizziness', 'Multiple organs', NULL, 'Allergist'),      ('Allergic Rhinitis', 'Sneezing', 'Nasal congestion', 'Itchy nose', 'Respiratory system', NULL, 'Allergist'),      ('Atopic Dermatitis', 'Itchy, inflamed skin', 'Rash', 'Dryness', 'Skin', NULL, 'Allergist'),      ('Drug Allergy', 'Rash', 'Hives', 'Swelling', 'Multiple organs', NULL, 'Allergist'),      ('Insect Sting Allergy', 'Swelling at the sting site', 'Itching', 'Difficulty breathing', 'Skin, Respiratory system', NULL, 'Allergist'),      ('Latex Allergy', 'Skin rash', 'Hives', 'Itching', 'Skin, Mucous membranes', NULL, 'Allergist');  -- Use the "diseases" database  USE diseases;  -- Create the "Dermatologists" table  CREATE TABLE Dermatologists (      DiseaseName NVARCHAR(100),      Symptoms\_1 NVARCHAR(100),      Symptoms\_2 NVARCHAR(100),      Symptoms\_3 NVARCHAR(100),      AffectedOrgan\_1 NVARCHAR(100),      AffectedOrgan\_2 NVARCHAR(100),      Specialist NVARCHAR(100)  );    -- Insert multiple entries into the "Dermatologists" table  INSERT INTO Dermatologists (DiseaseName, Symptoms\_1, Symptoms\_2, Symptoms\_3, AffectedOrgan\_1, AffectedOrgan\_2, Specialist)  VALUES      ('Acne', 'Pimples', 'Blackheads', 'Whiteheads', 'Skin', NULL, 'Dermatologist'),      ('Eczema', 'Dry, itchy skin', 'Rash', 'Redness', 'Skin', NULL, 'Dermatologist'),      ('Psoriasis', 'Red, scaly patches', 'Silvery scales', 'Itching', 'Skin', NULL, 'Dermatologist'),      ('Rosacea', 'Facial redness', 'Visible blood vessels', 'Bumps and pimples', 'Skin', NULL, 'Dermatologist'),      ('Hives', 'Raised, itchy welts', 'Redness', 'Swelling', 'Skin', NULL, 'Dermatologist'),      ('Fungal Infections', 'Redness', 'Itching', 'Flaking', 'Skin', NULL, 'Dermatologist'),      ('Vitiligo', 'Loss of skin color', 'Patchy depigmentation', 'Premature graying of hair', 'Skin', NULL, 'Dermatologist'),      ('Warts', 'Flesh-colored growths', 'Rough to the touch', 'Black dots', 'Skin', NULL, 'Dermatologist'),      ('Skin Cancer', 'Unusual moles', 'Skin growths', 'Changes in skin appearance', 'Skin', NULL, 'Dermatologist'),      ('Dermatitis', 'Skin inflammation', 'Itching', 'Blisters', 'Skin', NULL, 'Dermatologist');  -- Use the "diseases" database  USE diseases;  -- Create the "Ophthalmologists" table  CREATE TABLE Ophthalmologists (      DiseaseName NVARCHAR(100),      Symptoms\_1 NVARCHAR(100),      Symptoms\_2 NVARCHAR(100),      Symptoms\_3 NVARCHAR(100),      AffectedOrgan\_1 NVARCHAR(100),      AffectedOrgan\_2 NVARCHAR(100),      Specialist NVARCHAR(100)  );  -- Insert multiple entries into the "Ophthalmologists" table  INSERT INTO Ophthalmologists (DiseaseName, Symptoms\_1, Symptoms\_2, Symptoms\_3, AffectedOrgan\_1, AffectedOrgan\_2, Specialist)  VALUES      ('Cataracts', 'Blurry vision', 'Clouded vision', 'Difficulty seeing at night', 'Eyes', NULL, 'Ophthalmologist'),      ('Glaucoma', 'Increased eye pressure', 'Vision loss', 'Eye pain', 'Eyes', NULL, 'Ophthalmologist'),      ('Conjunctivitis', 'Redness of the eye', 'Itching', 'Watery eyes', 'Eyes', NULL, 'Ophthalmologist'),      ('Macular Degeneration', 'Blurred central vision', 'Blank spots', 'Distorted vision', 'Eyes', NULL, 'Ophthalmologist'),      ('Dry Eye Syndrome', 'Dryness', 'Burning sensation', 'Foreign body sensation', 'Eyes', NULL, 'Ophthalmologist'),      ('Retinal Detachment', 'Floaters', 'Flashes of light', 'Sudden vision loss', 'Eyes', NULL, 'Ophthalmologist'),      ('Corneal Ulcer', 'Eye pain', 'Redness', 'Tearing', 'Eyes', NULL, 'Ophthalmologist'),      ('Amblyopia', 'Reduced vision', 'Lazy eye', 'Poor depth perception', 'Eyes', NULL, 'Ophthalmologist'),      ('Ptosis', 'Drooping eyelid', 'Tired eyes', 'Vision obstruction', 'Eyes', NULL, 'Ophthalmologist'),      ('Strabismus', 'Misaligned eyes', 'Double vision', 'Eye strain', 'Eyes', NULL, 'Ophthalmologist');    -- Use the "diseases" database  USE diseases;  -- Create the "Gynecologists" table  CREATE TABLE Gynecologists (      DiseaseName NVARCHAR(100),      Symptoms\_1 NVARCHAR(100),      Symptoms\_2 NVARCHAR(100),      Symptoms\_3 NVARCHAR(100),      AffectedOrgan\_1 NVARCHAR(100),      AffectedOrgan\_2 NVARCHAR(100),      Specialist NVARCHAR(100)  );  -- Insert multiple entries into the "Gynecologists" table  INSERT INTO Gynecologists (DiseaseName, Symptoms\_1, Symptoms\_2, Symptoms\_3, AffectedOrgan\_1, AffectedOrgan\_2, Specialist)  VALUES      ('Menstrual Disorders', 'Irregular periods', 'Heavy bleeding', 'Painful cramps', 'Reproductive system', NULL, 'Gynecologist'),      ('Polycystic Ovary Syndrome (PCOS)', 'Irregular periods', 'Excess hair growth', 'Acne', 'Ovaries', 'Reproductive system', 'Gynecologist'),      ('Endometriosis', 'Pelvic pain', 'Painful periods', 'Pain during intercourse', 'Reproductive system', NULL, 'Gynecologist'),      ('Pelvic Inflammatory Disease (PID)', 'Pelvic pain', 'Abnormal vaginal discharge', 'Painful urination', 'Reproductive system', NULL, 'Gynecologist'),      ('Cervical Cancer', 'Abnormal vaginal bleeding', 'Pelvic pain', 'Pain during intercourse', 'Cervix', NULL, 'Gynecologist'),      ('Ovarian Cysts', 'Pelvic pain', 'Bloating', 'Abdominal discomfort', 'Ovaries', NULL, 'Gynecologist'),      ('Urinary Tract Infections (UTIs)', 'Burning sensation during urination', 'Frequent urination', 'Cloudy or bloody urine', 'Urinary system', NULL, 'Gynecologist'),      ('Premenstrual Syndrome (PMS)', 'Mood swings', 'Breast tenderness', 'Fatigue', 'Reproductive system', NULL, 'Gynecologist'),      ('Vaginal Infections', 'Vaginal itching', 'Abnormal discharge', 'Pain or discomfort', 'Reproductive system', NULL, 'Gynecologist'),      ('Infertility', 'Difficulty getting pregnant', 'Irregular periods', 'Recurrent miscarriages', 'Reproductive system', NULL, 'Gynecologist');  -- Use the "diseases" database  USE diseases;  -- Create the "Cardiologists" table  CREATE TABLE Cardiologists (      DiseaseName NVARCHAR(100),      Symptoms\_1 NVARCHAR(100),      Symptoms\_2 NVARCHAR(100),      Symptoms\_3 NVARCHAR(100),      AffectedOrgan\_1 NVARCHAR(100),      AffectedOrgan\_2 NVARCHAR(100),      Specialist NVARCHAR(100)  );  -- Insert multiple entries into the "Cardiologists" table  INSERT INTO Cardiologists (DiseaseName, Symptoms\_1, Symptoms\_2, Symptoms\_3, AffectedOrgan\_1, AffectedOrgan\_2, Specialist)  VALUES      ('Coronary Artery Disease', 'Chest pain', 'Shortness of breath', 'Fatigue', 'Heart', NULL, 'Cardiologist'),      ('Heart Attack', 'Chest pain', 'Shortness of breath', 'Nausea', 'Heart', NULL, 'Cardiologist'),      ('Hypertension (High Blood Pressure)', 'Headaches', 'Dizziness', 'Blurred vision', 'Cardiovascular system', NULL, 'Cardiologist'),      ('Heart Failure', 'Shortness of breath', 'Fatigue', 'Swelling in legs', 'Heart', NULL, 'Cardiologist'),      ('Arrhythmia', 'Palpitations', 'Dizziness', 'Fainting', 'Heart', NULL, 'Cardiologist'),      ('Valvular Heart Disease', 'Fatigue', 'Shortness of breath', 'Heart murmur', 'Heart', NULL, 'Cardiologist'),      ('Congenital Heart Defects', 'Cyanosis (blue-tinted skin)', 'Poor growth', 'Heart murmur', 'Heart', NULL, 'Cardiologist'),      ('Peripheral Artery Disease', 'Leg pain', 'Numbness or weakness', 'Poor wound healing', 'Peripheral arteries', NULL, 'Cardiologist'),      ('Cardiomyopathy', 'Fatigue', 'Shortness of breath', 'Swelling in legs', 'Heart', NULL, 'Cardiologist'),      ('Deep Vein Thrombosis', 'Swelling in leg', 'Pain or tenderness', 'Warmth or redness', 'Veins', NULL, 'Cardiologist');  -- Use the "diseases" database  USE diseases;  -- Create the "Endocrinologists" table  CREATE TABLE Endocrinologists (      DiseaseName NVARCHAR(100),      Symptoms\_1 NVARCHAR(100),      Symptoms\_2 NVARCHAR(100),      Symptoms\_3 NVARCHAR(100),      AffectedOrgan\_1 NVARCHAR(100),      AffectedOrgan\_2 NVARCHAR(100),      Specialist NVARCHAR(100)  );  -- Insert multiple entries into the "Endocrinologists" table  INSERT INTO Endocrinologists (DiseaseName, Symptoms\_1, Symptoms\_2, Symptoms\_3, AffectedOrgan\_1, AffectedOrgan\_2, Specialist)  VALUES      ('Diabetes Mellitus', 'Frequent urination', 'Excessive thirst', 'Fatigue', 'Pancreas', NULL, 'Endocrinologist'),      ('Hypothyroidism', 'Fatigue', 'Weight gain', 'Depression', 'Thyroid gland', NULL, 'Endocrinologist'),      ('Hyperthyroidism', 'Weight loss', 'Rapid heartbeat', 'Anxiety', 'Thyroid gland', NULL, 'Endocrinologist'),      ('Polycystic Ovary Syndrome (PCOS)', 'Irregular periods', 'Excess hair growth', 'Acne', 'Ovaries', 'Reproductive system', 'Endocrinologist'),      ('Osteoporosis', 'Bone pain', 'Fractures', 'Loss of height', 'Bones', NULL, 'Endocrinologist'),      ('Cushings Syndrome', 'Weight gain', 'Round face', 'Muscle weakness', 'Adrenal glands', NULL, 'Endocrinologist'),      ('Addisons Disease', 'Fatigue', 'Weight loss', 'Low blood pressure', 'Adrenal glands', NULL, 'Endocrinologist'),      ('Growth Hormone Deficiency', 'Short stature', 'Delayed puberty', 'Reduced muscle mass', 'Pituitary gland', NULL, 'Endocrinologist'),      ('Hyperparathyroidism', 'Fatigue', 'Kidney stones', 'Bone pain', 'Parathyroid glands', NULL, 'Endocrinologist'),      ('Pituitary Tumors', 'Headaches', 'Vision problems', 'Hormone imbalances', 'Pituitary gland', NULL, 'Endocrinologist');    -- Use the "diseases" database  USE diseases;  -- Create the "Gastroenterologists" table  CREATE TABLE Gastroenterologists (      DiseaseName NVARCHAR(100),      Symptoms\_1 NVARCHAR(100),      Symptoms\_2 NVARCHAR(100),      Symptoms\_3 NVARCHAR(100),      AffectedOrgan\_1 NVARCHAR(100),      AffectedOrgan\_2 NVARCHAR(100),      Specialist NVARCHAR(100)  );  -- Insert multiple entries into the "Gastroenterologists" table  INSERT INTO Gastroenterologists (DiseaseName, Symptoms\_1, Symptoms\_2, Symptoms\_3, AffectedOrgan\_1, AffectedOrgan\_2, Specialist)  VALUES      ('Gastroesophageal Reflux Disease (GERD)', 'Heartburn', 'Regurgitation', 'Difficulty swallowing', 'Esophagus', NULL, 'Gastroenterologist'),      ('Peptic Ulcer Disease', 'Abdominal pain', 'Bloating', 'Nausea', 'Stomach', NULL, 'Gastroenterologist'),      ('Irritable Bowel Syndrome (IBS)', 'Abdominal pain', 'Bloating', 'Altered bowel habits', 'Intestines', NULL, 'Gastroenterologist'),      ('Crohns Disease', 'Abdominal pain', 'Diarrhea', 'Fatigue', 'Intestines', NULL, 'Gastroenterologist'),      ('Ulcerative Colitis', 'Abdominal pain', 'Bloody diarrhea', 'Weight loss', 'Colon', NULL, 'Gastroenterologist'),      ('Gallstones', 'Abdominal pain', 'Nausea', 'Jaundice', 'Gallbladder', NULL, 'Gastroenterologist'),      ('Hepatitis', 'Fatigue', 'Jaundice', 'Abdominal pain', 'Liver', NULL, 'Gastroenterologist'),      ('Pancreatitis', 'Abdominal pain', 'Nausea', 'Fever', 'Pancreas', NULL, 'Gastroenterologist'),      ('Celiac Disease', 'Abdominal pain', 'Diarrhea', 'Weight loss', 'Intestines', NULL, 'Gastroenterologist'),      ('Diverticulitis', 'Abdominal pain', 'Fever', 'Change in bowel habits', 'Intestines', NULL, 'Gastroenterologist');    -- Use the "diseases" database  USE diseases;  -- Create the "Nephrologists" table  CREATE TABLE Nephrologists (      DiseaseName NVARCHAR(100),      Symptoms\_1 NVARCHAR(100),      Symptoms\_2 NVARCHAR(100),      Symptoms\_3 NVARCHAR(100),      AffectedOrgan\_1 NVARCHAR(100),      AffectedOrgan\_2 NVARCHAR(100),      Specialist NVARCHAR(100)  );  -- Insert multiple entries into the "Nephrologists" table  INSERT INTO Nephrologists (DiseaseName, Symptoms\_1, Symptoms\_2, Symptoms\_3, AffectedOrgan\_1, AffectedOrgan\_2, Specialist)  VALUES      ('Chronic Kidney Disease', 'Fatigue', 'Swelling in legs', 'Frequent urination', 'Kidneys', NULL, 'Nephrologist'),      ('Acute Kidney Injury', 'Decreased urine output', 'Swelling in legs', 'Confusion', 'Kidneys', NULL, 'Nephrologist'),      ('Kidney Stones', 'Severe pain in the side or back', 'Blood in urine', 'Frequent urination', 'Kidneys', NULL, 'Nephrologist'),      ('Urinary Tract Infections (UTIs)', 'Burning sensation during urination', 'Frequent urination', 'Cloudy or bloody urine', 'Urinary system', NULL, 'Nephrologist'),      ('Polycystic Kidney Disease', 'Abdominal pain', 'High blood pressure', 'Blood in urine', 'Kidneys', NULL, 'Nephrologist'),      ('Glomerulonephritis', 'Blood in urine', 'Foamy urine', 'Swelling in face or ankles', 'Kidneys', NULL, 'Nephrologist'),      ('Nephrotic Syndrome', 'Swelling in face or ankles', 'Foamy urine', 'Loss of appetite', 'Kidneys', NULL, 'Nephrologist'),      ('Renal Failure', 'Fatigue', 'Swelling in legs', 'Shortness of breath', 'Kidneys', NULL, 'Nephrologist'),      ('Hematuria', 'Blood in urine', 'Abdominal pain', 'Frequent urination', 'Urinary system', NULL, 'Nephrologist'),      ('Hydronephrosis', 'Flank pain', 'Frequent urination', 'Nausea', 'Kidneys', NULL, 'Nephrologist');  -- Use the "diseases" database  USE diseases;  -- Create the "Urologists" table  CREATE TABLE Urologists (      DiseaseName NVARCHAR(100),      Symptoms\_1 NVARCHAR(100),      Symptoms\_2 NVARCHAR(100),      Symptoms\_3 NVARCHAR(100),      AffectedOrgan\_1 NVARCHAR(100),      AffectedOrgan\_2 NVARCHAR(100),      Specialist NVARCHAR(100)  );  -- Insert multiple entries into the "Urologists" table  INSERT INTO Urologists (DiseaseName, Symptoms\_1, Symptoms\_2, Symptoms\_3, AffectedOrgan\_1, AffectedOrgan\_2, Specialist)  VALUES      ('Urinary Tract Infections (UTIs)', 'Burning sensation during urination', 'Frequent urination', 'Cloudy or bloody urine', 'Urinary system', NULL, 'Urologist'),      ('Kidney Stones', 'Severe pain in the side or back', 'Blood in urine', 'Frequent urination', 'Kidneys', NULL, 'Urologist'),      ('Bladder Cancer', 'Blood in urine', 'Frequent urination', 'Pelvic pain', 'Bladder', NULL, 'Urologist'),      ('Prostate Cancer', 'Difficulty urinating', 'Weak urine flow', 'Blood in semen', 'Prostate', NULL, 'Urologist'),      ('Erectile Dysfunction', 'Difficulty achieving or maintaining an erection', 'Reduced sexual desire', 'Premature ejaculation', 'Genital organs', NULL, 'Urologist'),      ('Benign Prostatic Hyperplasia (BPH)', 'Frequent urination', 'Weak urine flow', 'Nocturia', 'Prostate', NULL, 'Urologist'),      ('Urinary Incontinence', 'Leakage of urine', 'Frequent urination', 'Sudden urge to urinate', 'Urinary system', NULL, 'Urologist'),      ('Testicular Cancer', 'Lump or swelling in the testicles', 'Testicular pain', 'Heaviness in the scrotum', 'Testicles', NULL, 'Urologist'),      ('Cystitis', 'Frequent urination', 'Burning sensation during urination', 'Pelvic pain', 'Bladder', NULL, 'Urologist'),      ('Hydrocele', 'Swelling in the scrotum', 'Discomfort or pain', 'Heaviness in the scrotum', 'Scrotum', NULL, 'Urologist');    -- Use the "diseases" database  USE diseases;  -- Create the "Specialties" table  CREATE TABLE Specialties (      SpecialtyID INT PRIMARY KEY,      SpecialtyName NVARCHAR(100)  );  -- Insert specialty data  INSERT INTO Specialties (SpecialtyID, SpecialtyName)  VALUES      (1, 'Pediatrics'),      (2, 'Allergy and Immunology'),      (3, 'Dermatology'),      (4, 'Ophthalmology'),      (5, 'Gynecology'),      (6, 'Cardiology'),      (7, 'Endocrinology'),      (8, 'Gastroenterology'),      (9, 'Nephrology'),      (10, 'Urology');  -- Modify the "Pediatricians" table  ALTER TABLE Pediatricians  ADD SpecialtyID INT,      FOREIGN KEY (SpecialtyID) REFERENCES Specialties(SpecialtyID);  -- Modify the "Allergists" table  ALTER TABLE Allergists  ADD SpecialtyID INT,      FOREIGN KEY (SpecialtyID) REFERENCES Specialties(SpecialtyID);  -- Modify the "Dermatologists" table  ALTER TABLE Dermatologists  ADD SpecialtyID INT,      FOREIGN KEY (SpecialtyID) REFERENCES Specialties(SpecialtyID);  -- Modify the "Ophthalmologists" table  ALTER TABLE Ophthalmologists  ADD SpecialtyID INT,      FOREIGN KEY (SpecialtyID) REFERENCES Specialties(SpecialtyID);  -- Modify the "Gynecologists" table  ALTER TABLE Gynecologists  ADD SpecialtyID INT,      FOREIGN KEY (SpecialtyID) REFERENCES Specialties(SpecialtyID);  -- Modify the "Cardiologists" table  ALTER TABLE Cardiologists  ADD SpecialtyID INT,      FOREIGN KEY (SpecialtyID) REFERENCES Specialties(SpecialtyID);  -- Modify the "Endocrinologists" table  ALTER TABLE Endocrinologists  ADD SpecialtyID INT,      FOREIGN KEY (SpecialtyID) REFERENCES Specialties(SpecialtyID);  -- Modify the "Gastroenterologists" table  ALTER TABLE Gastroenterologists  ADD SpecialtyID INT,      FOREIGN KEY (SpecialtyID) REFERENCES Specialties(SpecialtyID);  -- Modify the "Nephrologists" table  ALTER TABLE Nephrologists  ADD SpecialtyID INT,      FOREIGN KEY (SpecialtyID) REFERENCES Specialties(SpecialtyID);  -- Modify the "Urologists" table  ALTER TABLE Urologists  ADD SpecialtyID INT,      FOREIGN KEY (SpecialtyID) REFERENCES Specialties(SpecialtyID);  SELECT \* FROM Pediatricians;  SELECT DiseaseName, Symptoms\_1, AffectedOrgans FROM Allergists;  SELECT \* FROM Dermatologists WHERE SpecialtyID = 3;  SELECT p.DiseaseName, g.Symptoms\_1 FROM Pediatricians p INNER JOIN Gynecologists g ON p.SpecialtyID = g.SpecialtyID;  SELECT \* FROM Cardiologists WHERE Symptoms\_1 = 'Chest pain';  SELECT \* FROM Endocrinologists ORDER BY DiseaseName ASC;  SELECT DISTINCT DiseaseName FROM Gastroenterologists;  SELECT COUNT(\*) AS TotalEntries FROM Nephrologists;  SELECT \* FROM Urologists WHERE DiseaseName LIKE '%stone%';  SELECT TOP 5 \* FROM Specialties; |

# RESULT

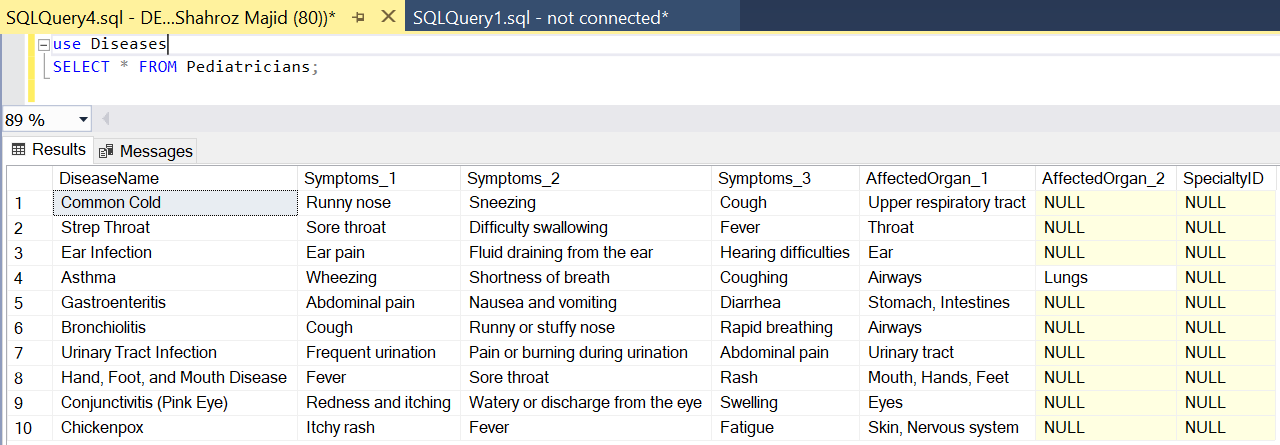


Figure 2

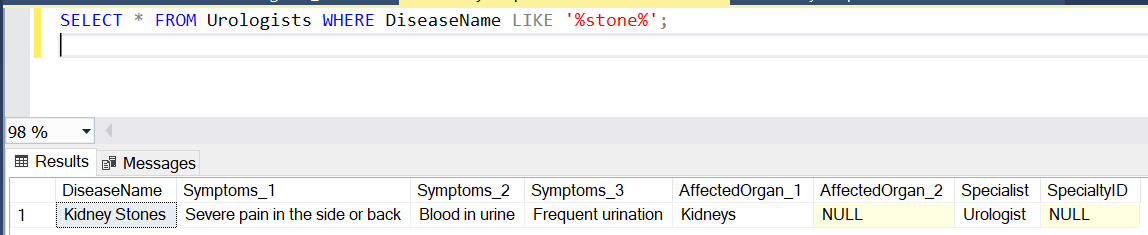


Figure 3

# CONCLUSION

In conclusion, the provided script creates a "diseases" database and populates it with tables representing various medical specialties, including Pediatricians, Allergists, Dermatologists, Ophthalmologists, Gynecologists, Cardiologists, and Endocrinologists. Each table contains information about specific diseases or conditions related to the respective specialty.

The Pediatricians table includes diseases such as Common Cold, Strep Throat, and Asthma, along with their corresponding symptoms and affected organs. The Allergists table lists conditions like Hay Fever, Food Allergy, and Anaphylaxis, along with their symptoms and affected organs. The Dermatologists table covers skin-related diseases such as Acne, Psoriasis, and Skin Cancer. The Ophthalmologists table includes diseases like Cataracts, Glaucoma, and Dry Eye Syndrome. The Gynecologists table focuses on conditions related to the reproductive system, such as Menstrual Disorders, Polycystic Ovary Syndrome (PCOS), and Infertility. The Cardiologists table contains cardiovascular diseases like Coronary Artery Disease, Heart Attack, and Hypertension. The Endocrinologists table covers endocrine-related disorders like Diabetes Mellitus, Hypothyroidism, and Polycystic Ovary Syndrome (PCOS).

By organizing the diseases into specialty-specific tables, the database allows for efficient management and retrieval of information. Medical professionals can query the database to access relevant data for diagnosis, treatment, and research purposes. The structure of the database promotes collaboration and knowledge sharing among different specialties, facilitating comprehensive healthcare services.

Overall, the creation of the "diseases" database and the inclusion of specialty-specific tables provide a valuable resource for medical practitioners and researchers to study, understand, and address various diseases and conditions across different medical domains.