Name: Ruchir M. Adnaik

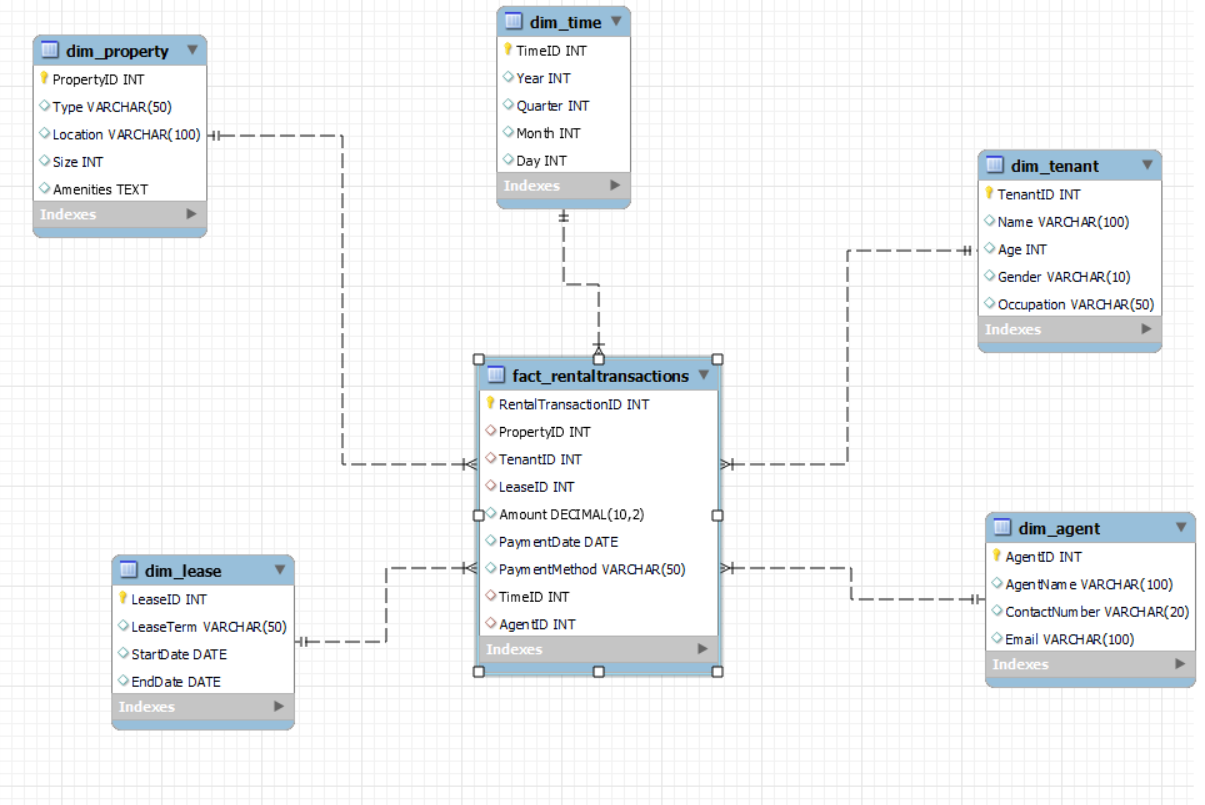
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DWDM ASSIGNMENT 04

**Star Schema:**

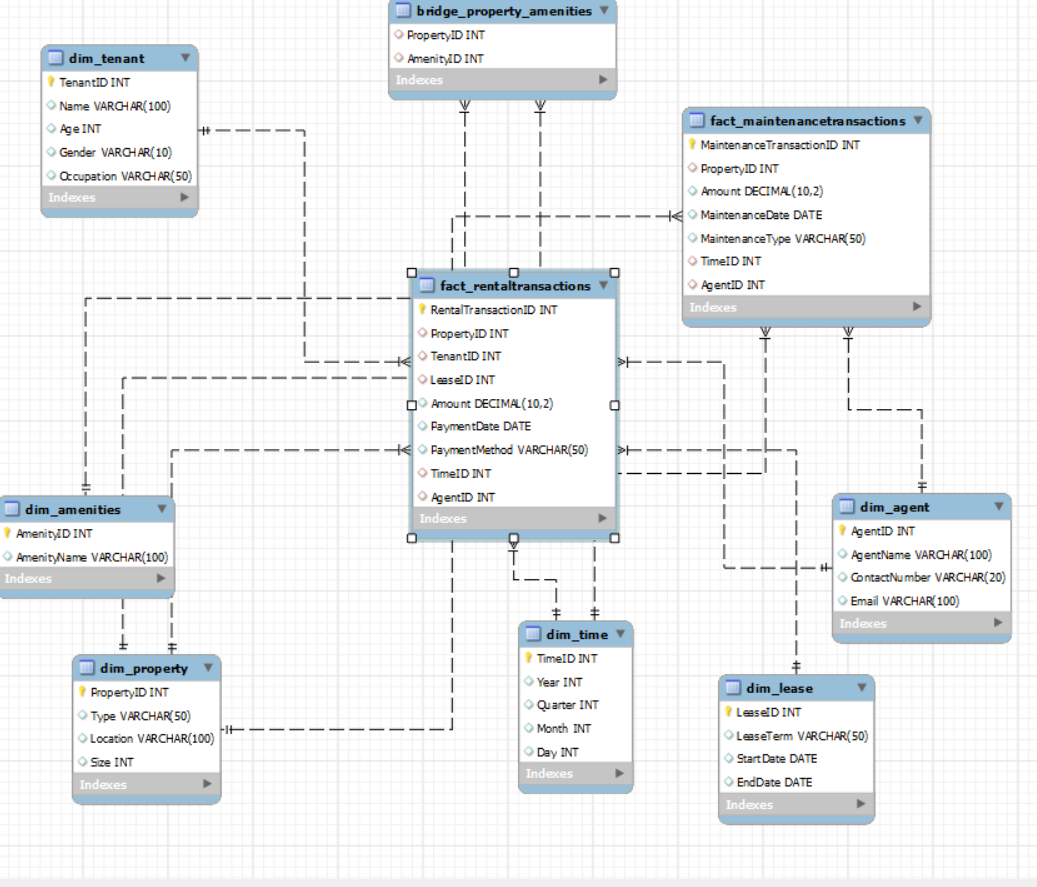


**Snowflakes Schema:**

A computer screen shot of a diagram

Description automatically generated

**Galaxy Schema:**



**SQL STATEMENTS:**

CREATE DATABASE DWDM\_assign4;

USE DWDM\_assign4;

-- Create Dim\_Property

CREATE TABLE Dim\_Property (

PropertyID INT PRIMARY KEY,

Type VARCHAR(50),

Location VARCHAR(100),

Size INT

);

-- Create Dim\_Amenities

CREATE TABLE Dim\_Amenities (

AmenityID INT PRIMARY KEY,

AmenityName VARCHAR(100)

);

-- Create Bridge\_Property\_Amenities (Property-Amenity bridge table)

CREATE TABLE Bridge\_Property\_Amenities (

PropertyID INT,

AmenityID INT,

FOREIGN KEY (PropertyID) REFERENCES Dim\_Property(PropertyID),

FOREIGN KEY (AmenityID) REFERENCES Dim\_Amenities(AmenityID)

);

-- Create Dim\_Tenant

CREATE TABLE Dim\_Tenant (

TenantID INT PRIMARY KEY,

Name VARCHAR(100),

Age INT,

Gender VARCHAR(10),

Occupation VARCHAR(50)

);

-- Create Dim\_Lease

CREATE TABLE Dim\_Lease (

LeaseID INT PRIMARY KEY,

LeaseTerm VARCHAR(50),

StartDate DATE,

EndDate DATE

);

-- Create Dim\_Time

CREATE TABLE Dim\_Time (

TimeID INT PRIMARY KEY,

Year INT,

Quarter INT,

Month INT,

Day INT

);

-- Create Dim\_Agent

CREATE TABLE Dim\_Agent (

AgentID INT PRIMARY KEY,

AgentName VARCHAR(100),

ContactNumber VARCHAR(20),

Email VARCHAR(100)

);

-- Create Fact\_RentalTransactions

CREATE TABLE Fact\_RentalTransactions (

RentalTransactionID INT PRIMARY KEY,

PropertyID INT,

TenantID INT,

LeaseID INT,

Amount DECIMAL(10, 2),

PaymentDate DATE,

PaymentMethod VARCHAR(50),

TimeID INT,

AgentID INT,

FOREIGN KEY (PropertyID) REFERENCES Dim\_Property(PropertyID),

FOREIGN KEY (TenantID) REFERENCES Dim\_Tenant(TenantID),

FOREIGN KEY (LeaseID) REFERENCES Dim\_Lease(LeaseID),

FOREIGN KEY (TimeID) REFERENCES Dim\_Time(TimeID),

FOREIGN KEY (AgentID) REFERENCES Dim\_Agent(AgentID)

);

-- Insert data into Dim\_Property

INSERT INTO Dim\_Property (PropertyID, Type, Location, Size) VALUES

(1, 'Apartment', 'Downtown', 849),

(2, 'House', 'Suburb', 2200),

(3, 'Studio', 'City Center', 450),

(4, 'Townhouse', 'Uptown', 1800),

(5, 'Condo', 'Waterfront', 1200);

-- Insert data into Dim\_Amenities

INSERT INTO Dim\_Amenities (AmenityID, AmenityName) VALUES

(1, 'Pool'),

(2, 'Gym'),

(3, 'Parking'),

(4, 'Garden'),

(5, 'Garage'),

(6, 'Fireplace'),

(7, 'Balcony');

-- Insert data into Bridge\_Property\_Amenities

INSERT INTO Bridge\_Property\_Amenities (PropertyID, AmenityID) VALUES

(1, 1), (1, 2), (1, 3),

(2, 4), (2, 5), (2, 6),

(3, 2),

(4, 4), (4, 3),

(5, 1), (5, 7);

-- Insert data into Dim\_Tenant

INSERT INTO Dim\_Tenant (TenantID, Name, Age, Gender, Occupation) VALUES

(1, 'Ayush Penkar', 30, 'Male', 'Software Engineer'),

(2, 'Bob Joglekar', 45, 'Male', 'Teacher'),

(3, 'Pradnesh White', 29, 'Male', 'Designer'),

(4, 'Rudra Brown', 35, 'Male', 'Accountant'),

(5, 'Malhar Davis', 40, 'Male', 'Doctor');

-- Insert data into Dim\_Lease

INSERT INTO Dim\_Lease (LeaseID, LeaseTerm, StartDate, EndDate) VALUES

(1, '12 Months', '2024-01-01', '2024-12-31'),

(2, '6 Months', '2024-02-01', '2024-07-31'),

(3, '24 Months', '2024-03-01', '2026-02-28'),

(4, '12 Months', '2024-04-01', '2025-03-31'),

(5, '18 Months', '2024-05-01', '2025-10-31');

-- Insert data into Dim\_Time

INSERT INTO Dim\_Time (TimeID, Year, Quarter, Month, Day) VALUES

(1, 2024, 1, 1, 1),

(2, 2024, 1, 1, 15),

(3, 2024, 1, 2, 1),

(4, 2024, 2, 4, 15),

(5, 2024, 3, 6, 1);

-- Insert data into Dim\_Agent

INSERT INTO Dim\_Agent (AgentID, AgentName, ContactNumber, Email) VALUES

(1, 'John Smith', '555-1234', 'john.smith@agency.com'),

(2, 'Ruchir Jones', '555-5678', 'ruchi.jones@agency.com'),

(3, 'Michael Mahadeokar', '555-8765', 'michael.maha@agency.com'),

(4, 'Swarupa Brown', '555-4321', 'swara.brown@agency.com'),

(5, 'James Rane', '555-6789', 'james.rane@agency.com');

-- Insert data into Fact\_RentalTransactions

INSERT INTO Fact\_RentalTransactions (RentalTransactionID, PropertyID, TenantID, LeaseID, Amount, PaymentDate, PaymentMethod, TimeID, AgentID) VALUES

(1, 1, 1, 1, 1500.00, '2024-01-01', 'Credit Card', 1, 1),

(2, 2, 2, 2, 2500.00, '2024-02-01', 'Bank Transfer', 2, 2),

(3, 3, 3, 3, 1200.00, '2024-03-01', 'Credit Card', 3, 3),

(4, 4, 4, 4, 1800.00, '2024-04-01', 'Cash', 4, 4),

(5, 5, 5, 5, 2000.00, '2024-05-01', 'Bank Transfer', 5, 5);

-- Create Fact\_MaintenanceTransactions

CREATE TABLE Fact\_MaintenanceTransactions (

MaintenanceTransactionID INT PRIMARY KEY,

PropertyID INT,

Amount DECIMAL(10, 2),

MaintenanceDate DATE,

MaintenanceType VARCHAR(50),

TimeID INT,

AgentID INT,

FOREIGN KEY (PropertyID) REFERENCES Dim\_Property(PropertyID),

FOREIGN KEY (TimeID) REFERENCES Dim\_Time(TimeID),

FOREIGN KEY (AgentID) REFERENCES Dim\_Agent(AgentID)

);

-- Insert data into Fact\_MaintenanceTransactions

INSERT INTO Fact\_MaintenanceTransactions (MaintenanceTransactionID, PropertyID, Amount, MaintenanceDate, MaintenanceType, TimeID, AgentID) VALUES

(1, 1, 500.00, '2024-01-10', 'Plumbing', 2, 1),

(2, 2, 800.00, '2024-02-15', 'Electrical', 3, 2),

(3, 3, 300.00, '2024-03-05', 'Painting', 4, 3),

(4, 4, 400.00, '2024-04-20', 'Landscaping', 5, 4),

(5, 5, 700.00, '2024-05-18', 'HVAC Repair', 1, 5);