



REALTY MANAGEMENT SYSTEM

GROUP 1

AJIN ABRAHAM - 002745287

MAKARAND - 002772931

MANI DEEPAK REDDY AILA - 002728148

PRANITHA - 002728140

SIDDHI SAWANT - 002737346



Overview

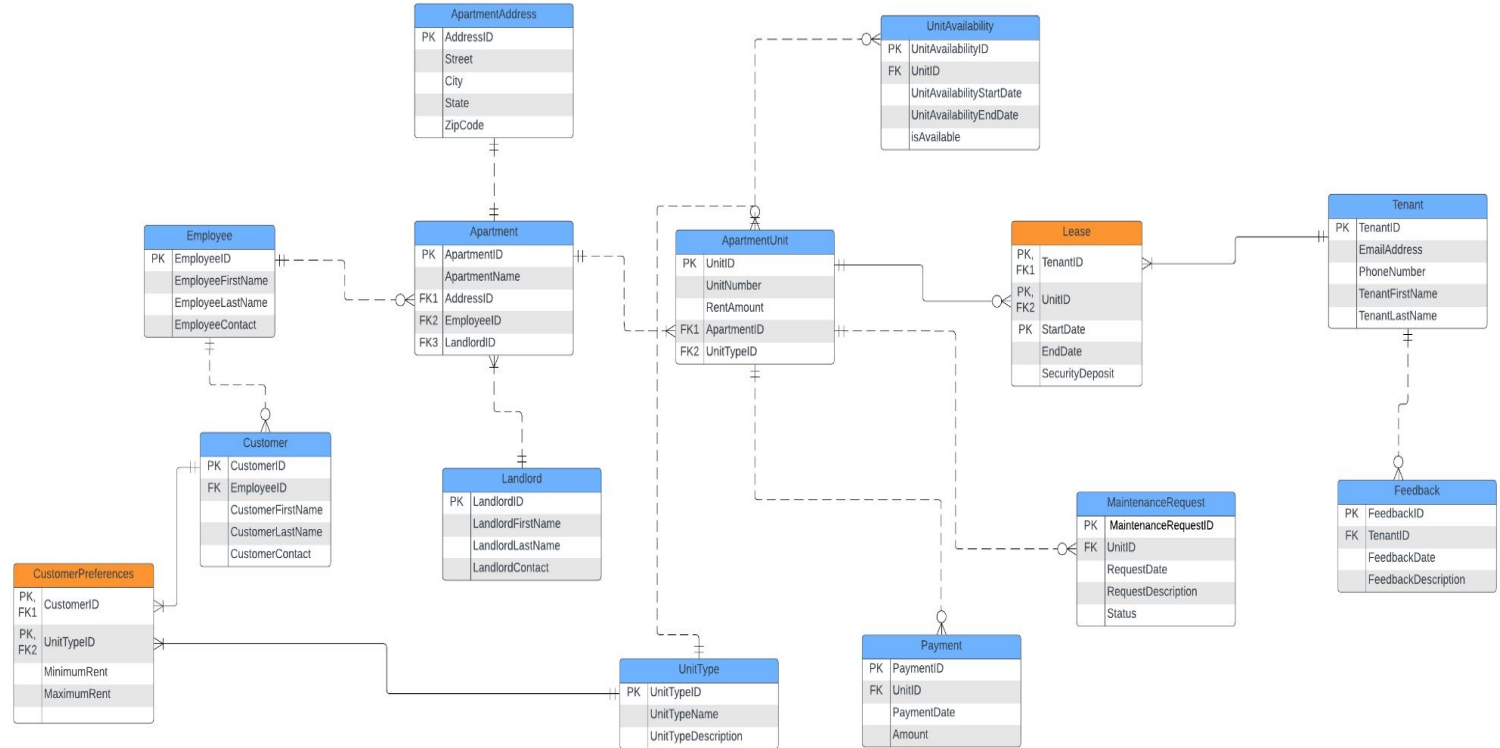
This project aims to simplify the process of managing rental properties for landlords/property owners by proposing a database management system.

It offers a centralized and effective platform for tracking tenant details, rental payments, customer preferences, maintenance requests.

Additionally, it also helps in simplifying the task of maintaining the personal and contact information related to employees, landlords, customers and lease holders.

We have used this database to also draw some useful inferences like- average rent for each unit type, which unit type has been preferred the most, number of apartments in each city, number of vacant units in a given year.

Entity-Relationship Diagram





Project Description

The database created in this project has been used to achieve following objectives:

Maintaining data(enter, update, delete) on apartments, units, apartment addresses, tenant details, maintenance requests, lease details, payments, landlord details, employees, customers, customer preferences, feedback.

Performing searches on apartments, unit types, available units, customers, employees, tenants, landlords, payment dues, lease dates.

To track the status of monthly rent payments, maintenance requests, lease periods, customer preferences, units' availability.

Reporting on apartments, apartments' addresses, employees, payment details, customers' details, landlords, tenants' feedback



Technical Approach

Table-level check constraints:

Chk_Dates(_ua): This constraint will check whether the lease end date is later than the lease start date while inserting a new row in Lease and UnitAvailability Tables.

CK_Payment_AmountEqualsRent: This ensures that the amount paid by tenant is at least equal to the actual rent amount.

Chk_RentAmount: This ensures that the rent amount for an ApartmentUnit is greater than zero.

Computed columns:

GetFullName: Merges the FirstName and LastName of customers, landlords, employees and tenants to return their full name.

CalculateLeaseDays: Calculates the lease period for a particular ApartmentUnit.



Technical Approach

Views:

ViewAvailableUnits: This view is used to store the details about only those units that are available.

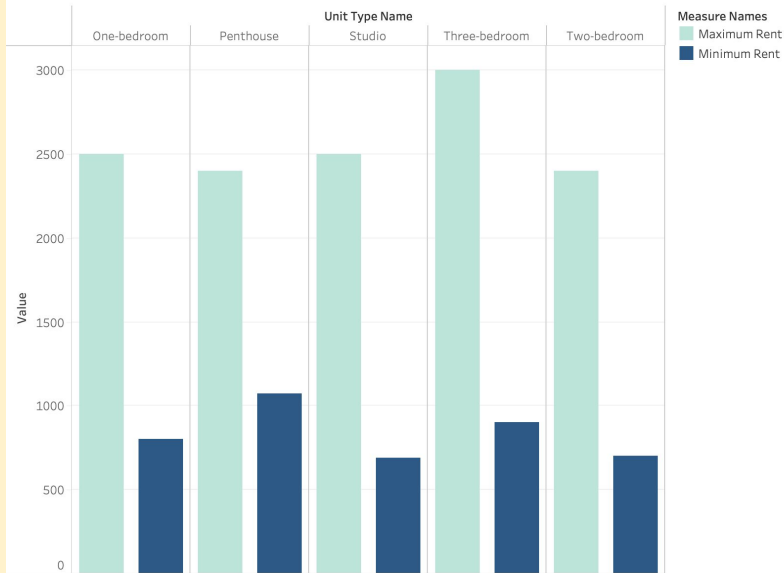
MaxMinRents/AvgRents: We can gain insight about the Rent range (Min & Max, Avg) for different Apartment UnitTypes.

UnitAvailabilityPerYear: Helps in understanding how the average rent is varying over time (yearly).

TenantLeases: Detailed report about Tenants and their Leases for the occupied ApartmentUnits.

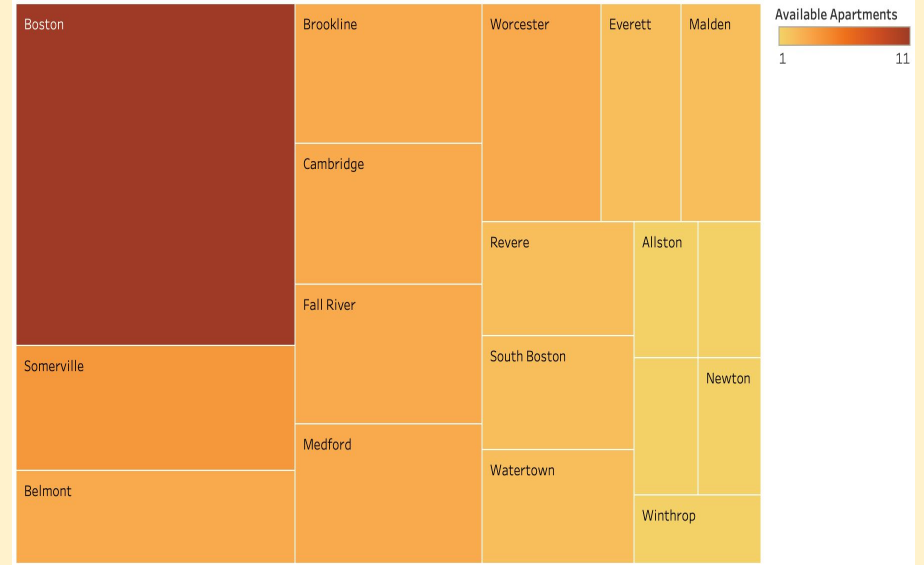
Visualisations

Maximum & Minimum rent for each unit type



Maximum Rent and Minimum Rent for each Unit Type Name. Color shows details about Maximum Rent and Minimum Rent.

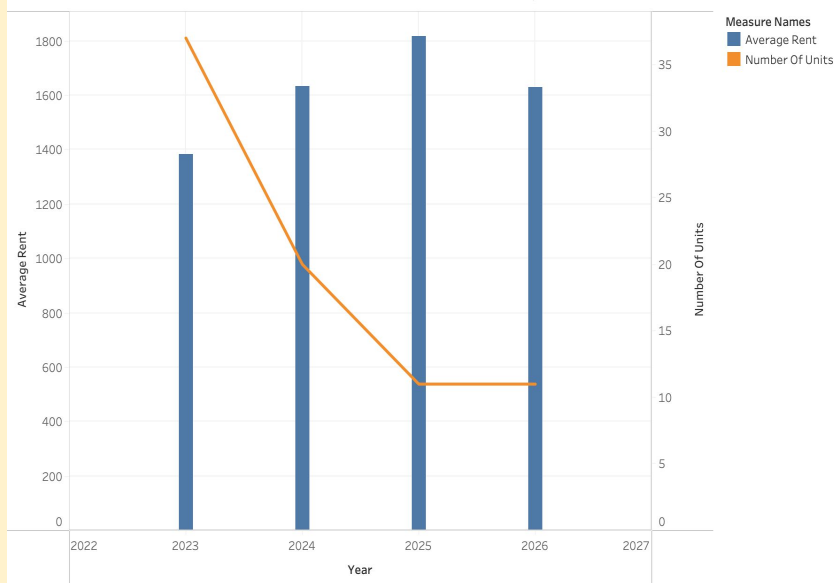
Total available apartments in each city



City. Color shows sum of Available Apartments. Size shows sum of Available Apartments. The marks are labeled by City.

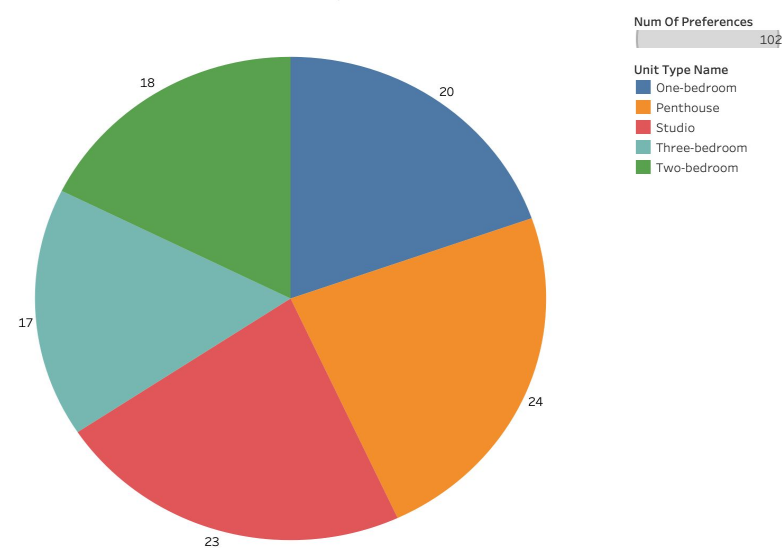
Visualisations

Number of units available and their average rent in a given year



The trends of Average Rent and Number Of Units for Year. Color shows details about Average Rent and Number Of Units.

Number of preferences for each unit type



Unit Type Name (color) and sum of Num Of Preferences (size).



THANK YOU