Real Estate Analytics System

Introduction

The Real Estate Analytics System is a database-driven project designed to efficiently manage and analyze property listings, agents, buyers, transactions, and regional data. It enables easy tracking of real estate trends and agent performance through structured views and queries.

Abstract

This project focuses on creating a centralized real estate database that supports analytical operations and reporting. The system uses SQL queries and views to summarize data such as top-performing agents, average regional prices, and buyer purchase insights. It serves as a foundation for modern data analytics in real estate management.

Tools Used

- MySQL Workbench – for database creation and management.
- VS Code – for editing and executing SQL scripts.
- dbdiagram.io – for visualizing ER diagrams.
- ReportLab – for generating project documentation.

Steps Involved in Building the Project

1. Database schema was designed with tables for agents, buyers, properties, transactions, and regions.
2. Data was inserted to simulate real-world property sales and agent performance.
3. Views were created for analytics: top agents, buyer summaries, regional price averages, and property trends.
4. Queries were tested and validated in MySQL Workbench for accuracy.
5. ER diagram was generated using dbdiagram.io to visualize relationships.

Conclusion

The Real Estate Analytics System successfully demonstrates how structured SQL design can simplify property data analysis and management. The project provides valuable insights into sales trends, agent performance, and market behavior, serving as a base for more advanced data analytics solutions.