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| Business Template  **ReAL ASTATE AGENCY** |
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# Business Description

## Business background

## A real estate agency is a business where apartments and houses are constantly being bought and sold. Every day, agents communicate with numerous clients, show them different housing options, process sales documents, and earn their commissions.

## 1.2 Problems. Current Situation

There are no clear analytics and structured objects for analysis, because there is no common database for this.

## the Benefits of implementing a database. Project Vision

1. One data source
2. Optimizing the creation of analytical objects
3. Automation of analytical processes

# Model description

## Definitions & Acronyms

## Logical Scheme

## **1. Property**

## **property\_id (INT, PK)**

## **address (varchar(150))**

## **price (decimal)**

currency(varchar(5))

## **property\_type (varchar(45))**

## **description (varchar(250))**

## **is\_sold (boolean)**

## **2. Client**

## **client\_id (INT, PK)**

## **first\_name (varchar(150))**

## **last\_name (varchar(150))**

## **email (varchar(150))**

## **phone (varchar(20))**

## **client\_type (varchar(10))**

## **activity\_ind (boolean)**

## **3. Agent**

## **agent\_id (INT, PK)**

## **first\_name (varchar(100))**

## **last\_name (varchar(100))**

## **date\_of\_birth (date)**

## **phone\_num (varchar(20))**

## **start\_date (date)**

## **end\_date (date)**

## **4. Property\_viewing**

## **viewing\_id (INT, PK)**

## **property\_id (INT, FK)**

## **client\_id (INT, FK)**

## **agent\_id (INT, FK)**

## **viewing\_date (date)**

## **result\_of\_viewing (varchar(250))**

## **5. Transaction**

## **transaction\_id (INT, PK)**

## **property\_id (INT, FK)**

## **seller\_id (INT, FK)**

## **buyer\_id (INT, FK)**

## **agent\_id (INT, FK)**

## **sale\_price (decimal)**

## **transaction\_date (date)**

## **status (varchar(50))**

## **6. Commission**

## **commission\_id (INT, PK)**

## **transaction\_id (INT, FK)**

## **agent\_id (INT, FK)**

## **payment\_date (date)**

## **amount\_lcy (decimal)**

## Objects

Table Description

1. Property

Contains information about subway stations

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| Property | property\_id | Unique property identifier(PK) | INT |
| address | Property address | varchar |
| price | Property price | decimal |
| currency | Amount currency | varchar |
| property\_type | Type of property (apartment, house and other) | varchar |
| desscription | Property description | varchar |
| Is\_sold | Sale status (true/false) | boolean |

Comments on table relationships

Property table connects via its primary key property\_id to Property\_viewing and Transaction tables.

Example with data

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| property\_id | address | price | currency | property\_type | Description | Is\_sold |
| 1 | Vokzalna 29/1 | 30000 | USD | apartment | Apartment with big balcony | No |

2. Client

Contains information about subway lines

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| Client | client\_id | Unique client identifier (PK) | INT |
| First\_name | Client's first name | varchar |
| Last\_name | Client's last name | varchar |
|  | Email | Email address | varchar |
|  | Phone | Phone number | varchar |
|  | Client\_type | Client type (buyer/seller) | varchar |
|  | Activity\_ind | Client activity indicator | boolean |

Comments on table relationships

This table links through its primary key client\_id to Property\_viewing and has two connections to Transaction table (as seller\_id and buyer\_id)

Example with data

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| line\_id | First\_name | Last\_name ` | Email | Phone | Client type | Activity\_ind |
| 1 | Volodymyr | Kotelnytskyi | Volodymyr78@gmail.com | 38098238945 | seller | Yes |

3. Agent

Contains information about trains

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| Agent | agent\_id | Unique agent identifier (PK) | INT |
| First\_name | Agent's first name | varchar |
| Last\_name | Agent's last name | varchar |
| Date\_of\_birth | Date of birth | date |
| Phone\_num | Phone number | varchar |
| Start\_date | Employment start date | date |
| End\_date | Employment end date | date |

Comments on table relationships

This table connects via its primary key agent\_id to Property\_viewing, Transaction, and Commission tables

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| agent\_id | First\_name | Last\_name` | Date\_of\_birth | Phone\_num | Start\_date | End\_date |
| 1 | Andrii | Kyrychenko | 02.11.2000 | 38063159483 | 13.01.2023 | Null |

4.Property viewing

Contains information about train schedules.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| Property viewing | viewing\_id | Unique viewing identifier (PK) | INT |
| property\_id | Property reference ID (FK) | INT |
| client\_id | Client reference ID (FK) | INT |
| agent\_id | Agent reference ID (FK) | INT |
| viewing\_date | Viewing date | date |
| result\_of\_viewing | Viewing result | varchar |

Comments on table relationships

*This table contains foreign keys linking to Property (property\_id), Client (client\_id), and Agent (agent\_id) tables*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| viewing\_id | property\_id | client\_id | Agent\_id | Viewing date | Result\_of\_viewing |
| 1 | 2 | 1 | 1 | 03.09.2024 | the client did not like it |

5. Transaction

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| transaction | Transaction\_id | Unique transaction identifier (PK) | INT |
| Property\_id | Property reference ID (FK) | INT |
| Seller\_id | Seller reference ID (FK) | INT |
| Buyer\_id | Buyer reference ID (FK) | INT |
| Agent\_id | Agent reference ID (FK) | INT |
| Sale\_price | Sale price | Decimal |
| Transaction\_date | Transaction date | Date |
| status | Transaction status | varchar |

Comments on table relationships

This table has its primary key transaction\_id linking to Commission table and contains foreign keys connecting to Property (property\_id), Client (as seller\_id and buyer\_id), and Agent (agent\_id) tables

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Transaction\_id | Property\_id | Seller\_id | Buyer\_id | Agent\_id | Sale\_price | Transaction\_date | status |
| 1 | 2 | 1 | 2 | 1 | 25 500 | 01.01.2024 | Failed |

6. Commission

Contains information about employee positions

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| Commission | commission\_id | Unique commission identifier (PK) | INT |
| transaction\_id | Transaction reference ID (FK) | INT |
| agent\_id | Agent reference ID (FK) | INT |
| payment\_date | Payment date | Date |
| Amount\_LCY | Commission amount in a local currency | Decimal |

Comments on table relationships

This table connects via foreign keys to Transaction (transaction\_id) and Agent (agent\_id) tables

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| commission\_id | Transaction\_id | Agent\_id | Payment\_date | Amount |
| 1 | 34 | 2 | 02.11.2024 | 2000 |