

Data Management and Database Design (DAMG 6210)

P3. Final ERD - Spring 2023

Database Design – Property Listings Management System

Team Members

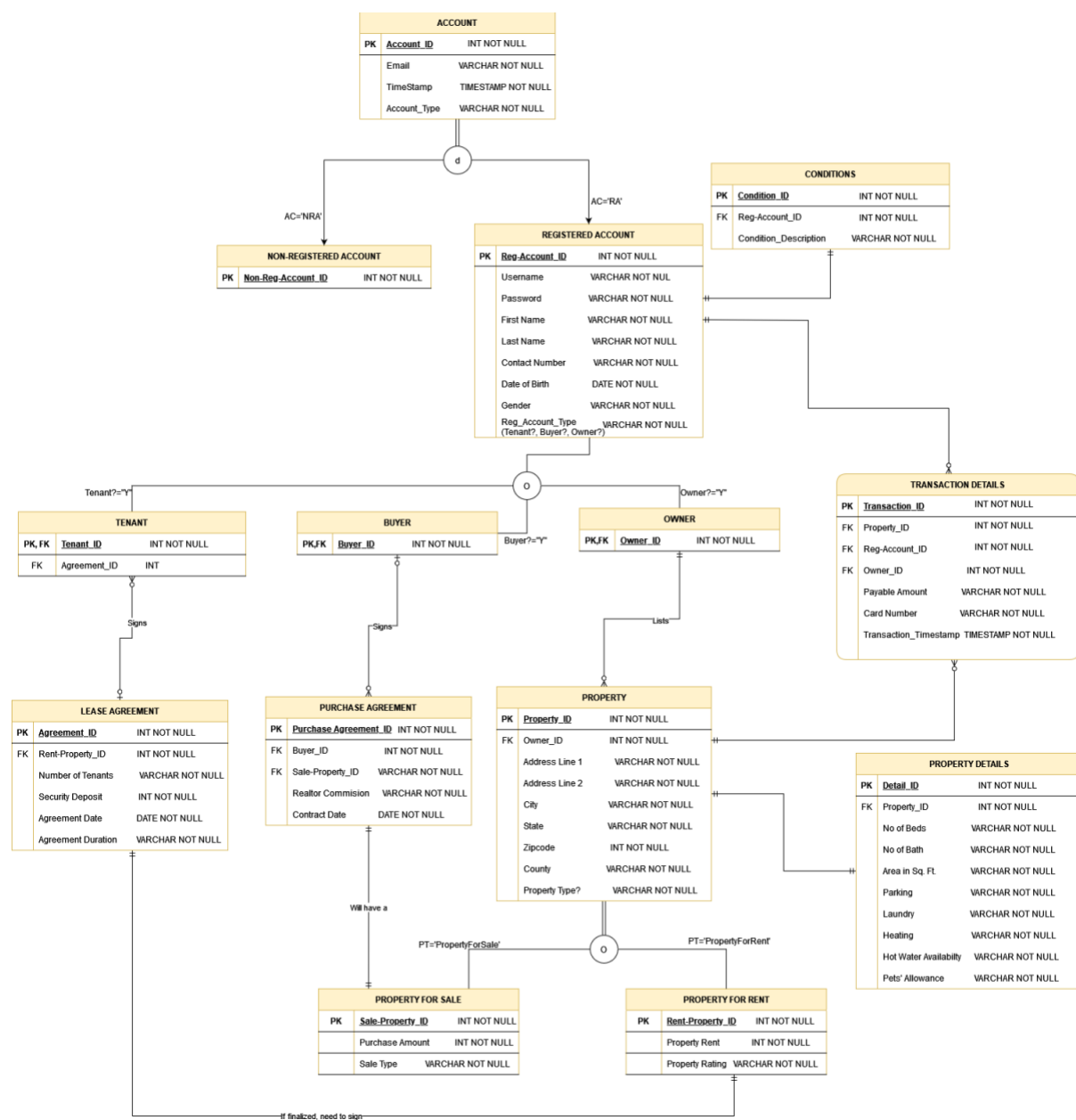
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Final Entity Relationship Diagram (ERD)



Changes from Initial ERD

1. New sub-type entity 'Buyer' was added under the 'Registered Account' entity. Please refer below for details. 'Registered Account' entity will now have 3 sub-type entities 'Owner', 'Tenant' and 'Buyer'

Entity Name: Buyer

Super-type Entity: Registered Account

Attributes: Buyer ID (Primary Key, Foreign Key), Username, Password, First Name, Last Name, Contact Number, Date of Birth, Gender, Reg_Account_Type

Primary Key: Buyer ID

2. 'Purchase Agreement' Entity was added

Entity Name: Purchase Agreement

Attributes: Purchase Agreement ID, Buyer_ID, Sale-Property_ID, Realtor Commission, Contract Date

Primary Key: Purchase Agreement ID

3. 'Transaction Details' Entity attributes were modified. Please refer below for details

Entity Name: Transaction Details

Attributes: Transaction_ID, Property_ID (Foreign Key), Reg-Account_ID (Foreign Key), Owner ID (Foreign Key), Payable Amount, Card Number, Transaction_Timestamp

Primary Key: Transaction ID

4. 2 new sub-type entities 'Properties for Sale' and 'Properties for Rent' were added under the 'Property' entity. Please refer below for details.

Entity Name: Properties for Sale

Super-type Entity: Property

Unique Attributes: Sale-Property_ID (Primary Key), Purchase Amount, Sale Type

Primary Key: Sale-Property ID

Entity Name: Properties for Rent

Super-type Entity: Property

Unique Attributes: Rent-Property_ID (Primary Key), Property Rent, Property Rating

Primary Key: Rent-Property ID

5. As per feedback received from Professor in the comments for Initial ERD, 'Agreement Date' and 'Agreement Duration' attributes have been added to the 'Lease Agreement' entity in order to add a timing component to the lease signed between Owner and Tenant.

New Business Rules Added

1. A Registered Account can be a Tenant, Buyer or Owner on the system or all three if required.
2. Once a Buyer has finalized a property for purchasing, they must sign a Purchase Agreement for that particular property.
3. Each property which is sold to a Buyer must have a corresponding Purchase Agreement.
4. A Property can be a part of 'Property for Sale' or 'Property for Rent' or both. An Owner can list their respective property for sale, rent or both.
5. For all the payment transactions made on the system (monthly rental or property purchase), payment records will be stored under the 'Transaction Details' relation.