

Homeowners Association Project Case

Logical Data Modeling for Section 1.0



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Section 1.0 Components

- About the HOA
- Homeowner (HO) Registration
- Property Registration
- Resident ID Card
- HOA Officer Registration
- Assets



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Section 1.0 Components

- About the HOA
- Homeowner (HO) Registration
- Property Registration
- Resident ID Card
- HOA Officer Registration
- Assets



Information Technology
Department

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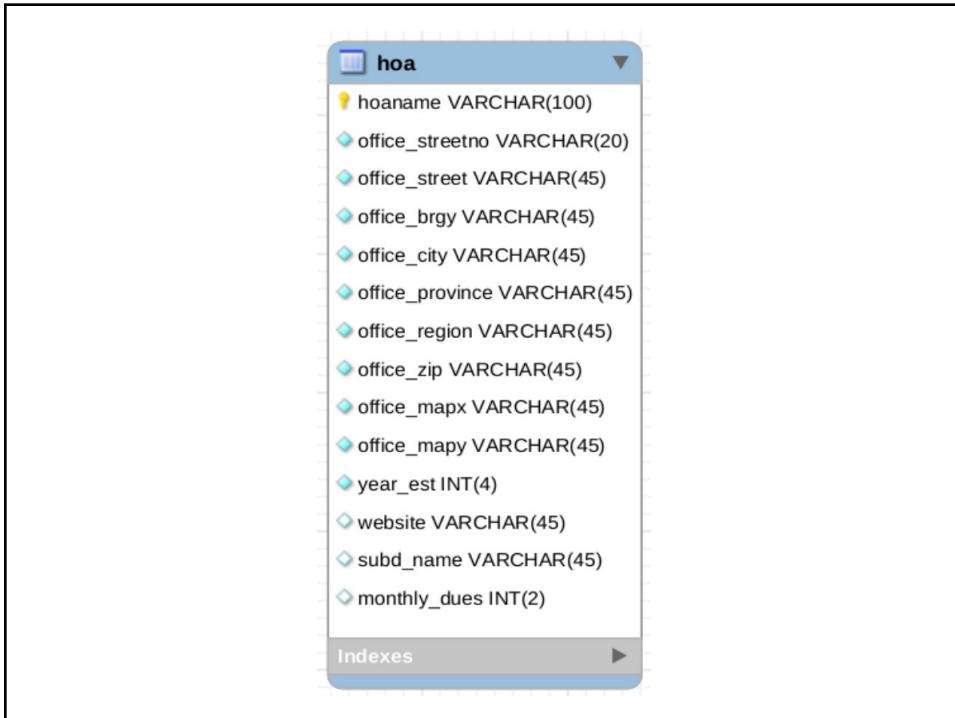
SECTION 1.0 Case to be used during the lesson to demonstrate Relational DB Design

Important to the system is the information about the Homeowners Association (HOA) of the subdivision. This information includes the (a) Name of the HOA, (b) official office address (details will include the street no, street, barangay, city/municipality, province, region and zip code, also included is the location in the map), (c) year of establishment and its (d) official website (e) subdivision name. The following are also recorded about the HOA:

1. Scanned copy of the notarized articles of incorporation signed on each and every page by all incorporators
2. Notarized By-Laws signed on each end every page by the members of the board
3. Minutes of the General Assembly meeting approving the By-Laws certified by the board by the Secretary and President
4. Attendance sheet signed by the homeowners (or their authorized resident) present and their corresponding votes approving or disapproving the By-Laws certified by the board by the Secretary and President
5. General Information of each registered homeowner of the HOA
6. Certification issued by the President, as to the existence or absence of any HOA in the subdivision. If there are existing HOA in the subdivision, the following information needs to be recorded - Name and address of the HOA (details will include the street no, street, barangay, city/municipality, province, region and zip code, also included is the location in the map)
7. Code of Ethics document signed by all members of the board and officers of the HOA
8. Regular Monthly Dues to be collected and its regular collection day (choice of 1st up to 20th of the Month)

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5

Table	Columns	Indexes	Foreign Keys	Triggers	Partitioning	Options	Inserts	Privileges	
Column Name	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	G
hoaname	VARCHAR(100)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
office_streetno	VARCHAR(20)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
office_street	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
office_brgy	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
office_city	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
office_province	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
office_region	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
office_zip	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
office_mapx	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
office_mapy	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
year_est	INT(4)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
website	VARCHAR(45)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
subd_name	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
monthly_dues	INT(2)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					

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SECTION 1.0 Case to be used during the lesson to demonstrate Relational DB Design

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8. Regular Monthly Dues to be collected and its regular collection day (choice of 1st up to 20th of the Month)

↓

Documents

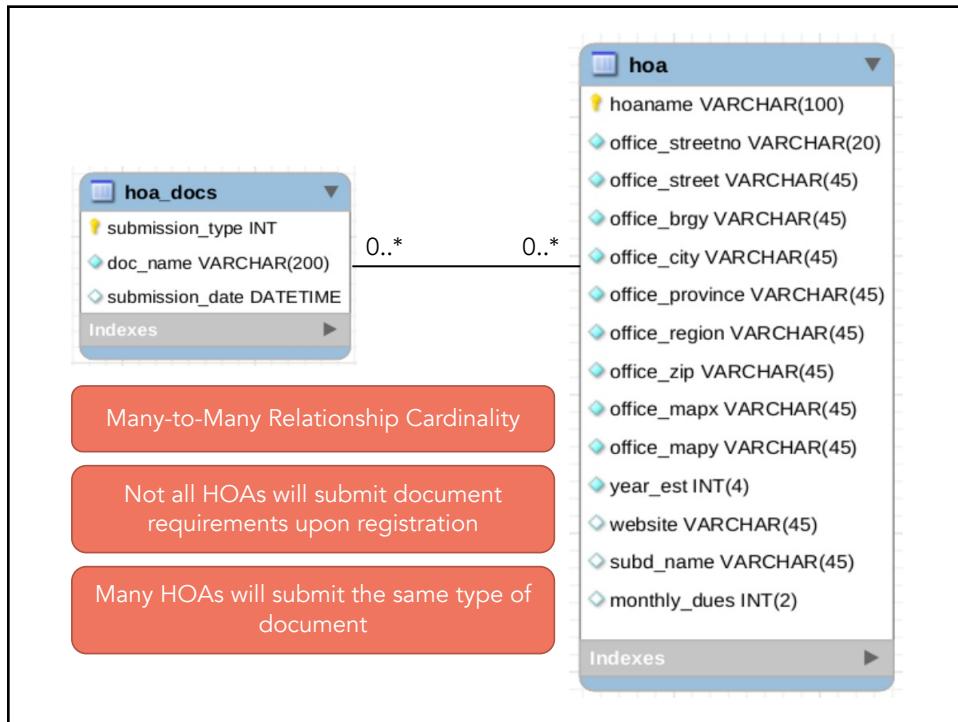
Only file names will be stored in the DB

7

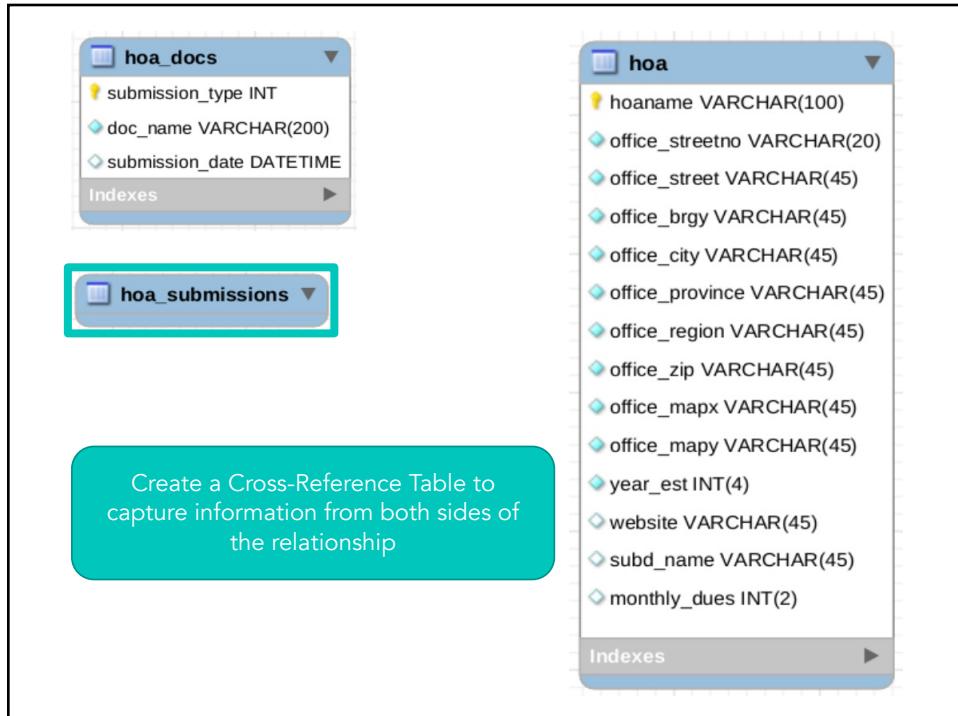
The screenshot shows the 'hoa_docs' table structure and its properties. The table has three columns: 'submission_type' (INT), 'doc_name' (VARCHAR(200)), and 'submission_date' (DATETIME). The 'Indexes' section is collapsed.

hoa_docs - Table										
Table	Columns	Indexes	Foreign Keys	Triggers	Partitioning	Options	Inserts	Privileges		
	Column Name	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	G
	submission_type	INT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
	doc_name	VARCHAR(200)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
	submission_date	DATETIME	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					

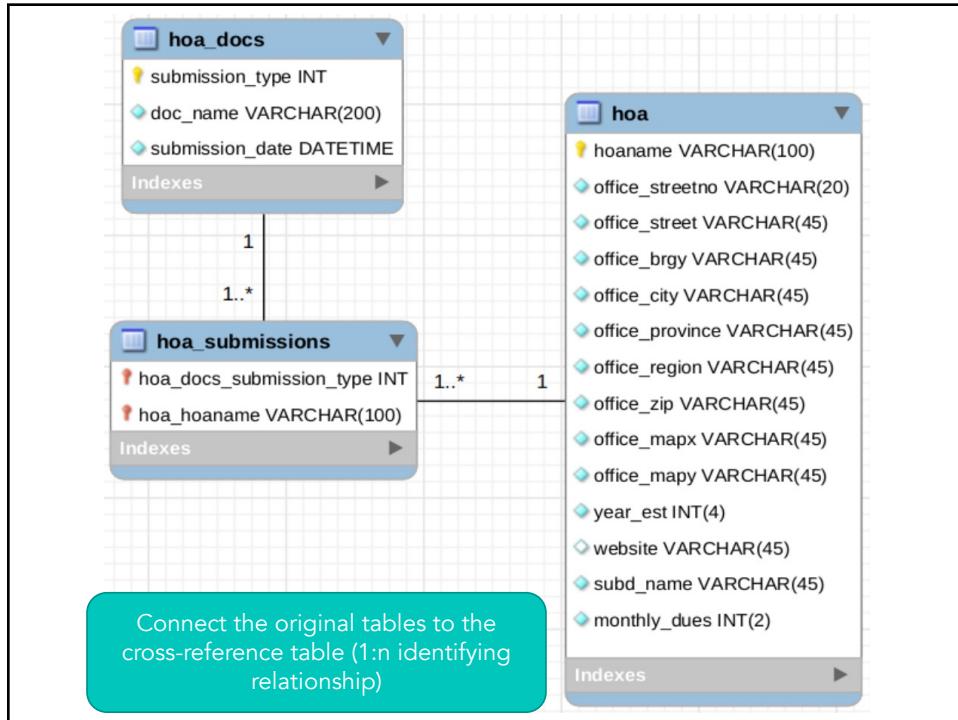
8



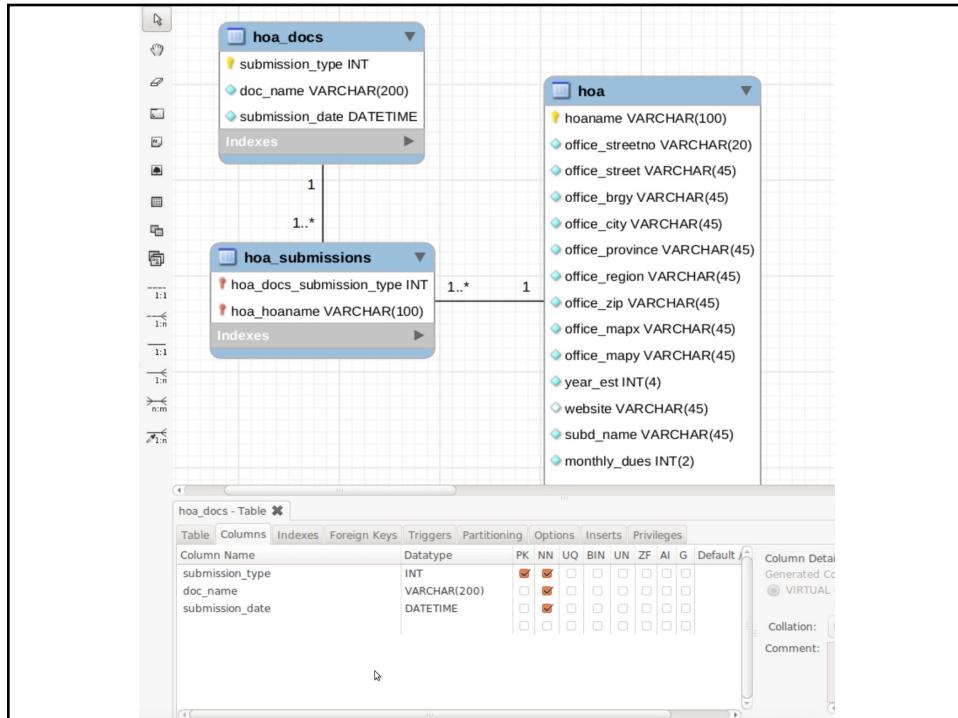
9



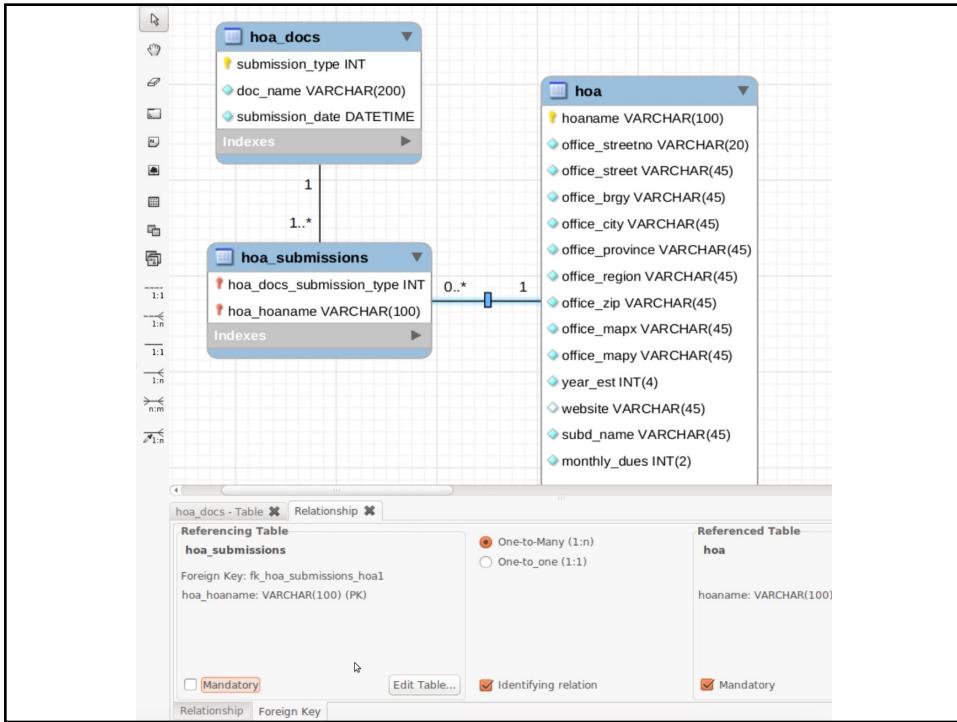
10



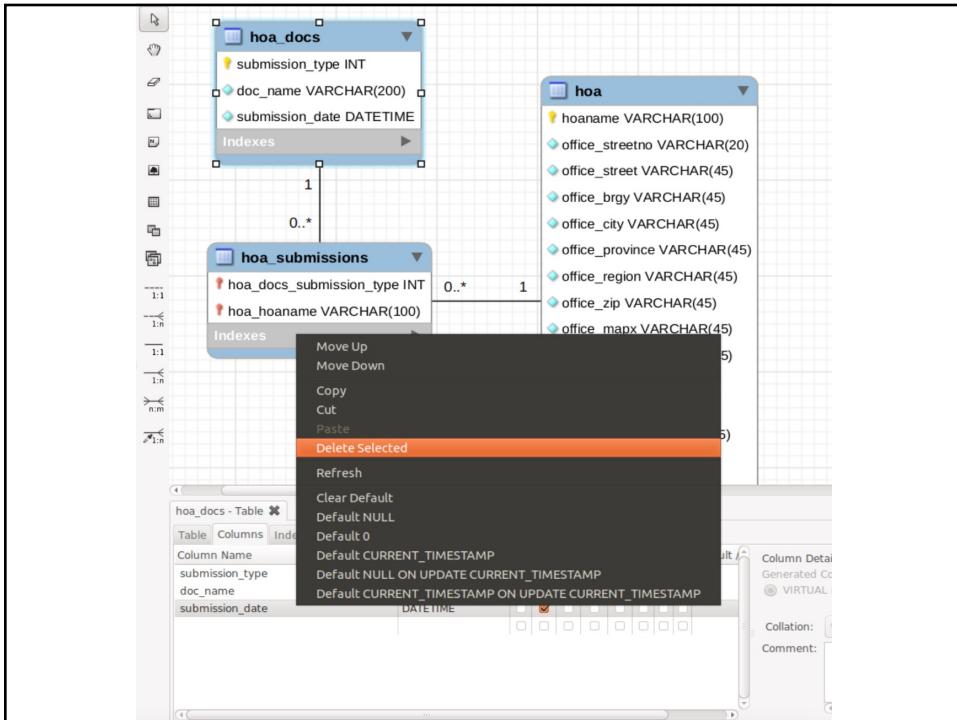
11



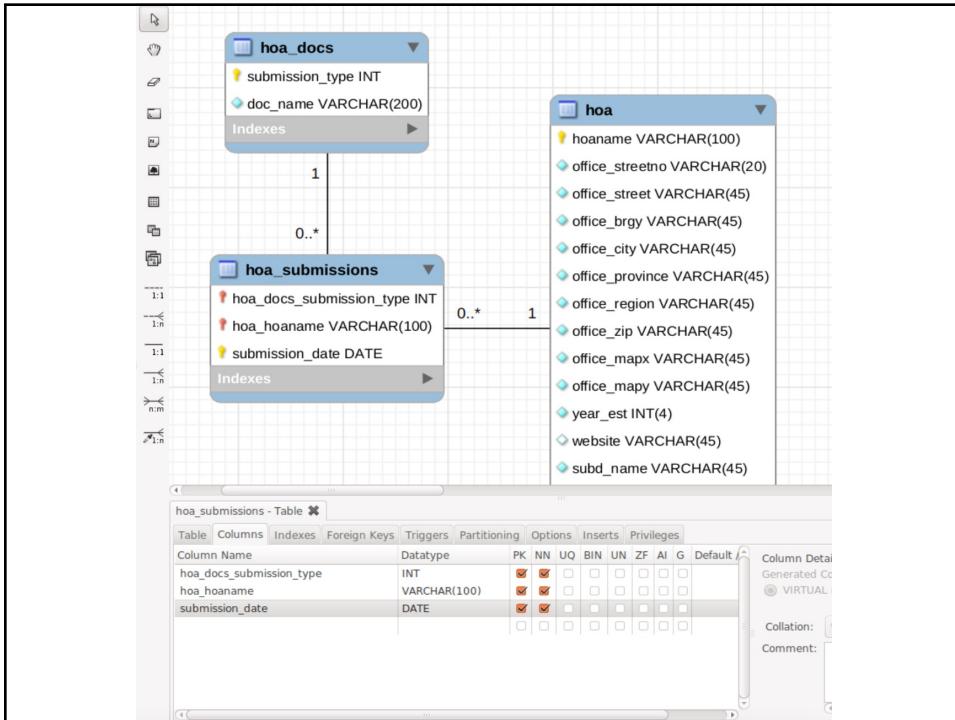
12



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SECTION 1.0 Case to be used during the lesson to demonstrate Relational DB Design

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To be stored as a separate entity

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Section 1.0 Components

- About the HOA
- [Homeowner \(HO\) Registration](#)
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Homeowner Registration (HO)

The general information of **each homeowner** of the HOA includes – (a) Complete name of the Homeowner, (b) Years as homeowner in the subdivision (c) properties he/she owns in the subdivision, (d) household in each of his/her properties, (e) birthday, (f) gender, (g) homeowner email address, (h) homeowner mobile numbers (i) Facebook URL of the member if there is any, (j) picture of the homeowner, (k) undertaking that the information provided is correct, accurate and (l) his/her expression to become member of the HOA. If the homeowner is residing in his/her property, then he/she is also a resident. A homeowner is identifiable by a homeowner's ID. A homeowner can own several properties in the subdivision. Homeowner's other address (street no, street, barangay, city/municipality, province, region and zip code, also included is the location in the map) and contact information (other email and other mobile number) is also recorded, especially if the homeowner is not a resident in the community.

Single-valued Attributes

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The screenshot shows a table named "homeowner" with the following columns and data types:

- homeownerid INT
- lastname VARCHAR(45)
- firstname VARCHAR(45)
- mi VARCHAR(2)
- residency_start DATE
- birthday DATE
- gender ENUM('M', 'F')
- email VARCHAR(45)
- facebook_url VARCHAR(45)
- pic_filename VARCHAR(45)
- undertaking BOOLEAN
- membership BOOLEAN
- isresident BOOLEAN
- add2_streetno VARCHAR(20)
- add2_street VARCHAR(45)
- add2_brgy VARCHAR(45)
- add2_city VARCHAR(45)
- add2_province VARCHAR(45)
- add2_mapx VARCHAR(45)
- add2_mapy VARCHAR(45)
- email2 VARCHAR(45)
- mobile2 INT(11)

Below the table, there is a section labeled "Indexes".

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The screenshot shows the "Table" tab for the "homeowner" table. The columns and their properties are as follows:

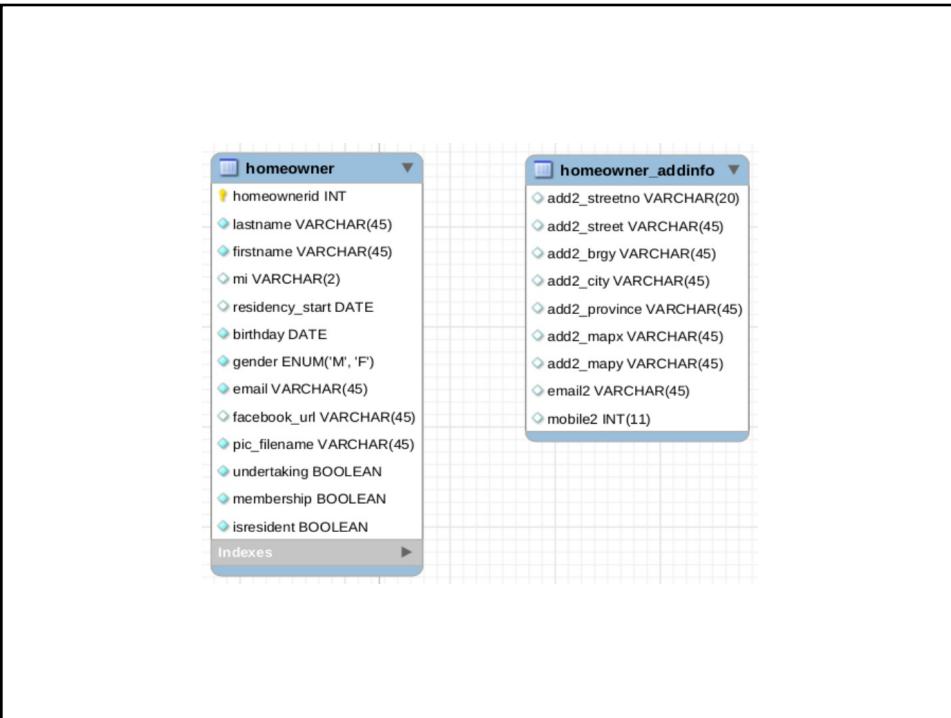
Column Name	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	G
homeownerid	INT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
lastname	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
firstname	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
mi	VARCHAR(2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
residency_start	DATE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
birthday	DATE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
gender	ENUM('M', 'F')	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
email	VARCHAR(45)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
facebook_url	VARCHAR(45)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
pic_filename	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
undertaking	BOOLEAN	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
membership	BOOLEAN	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
isresident	BOOLEAN	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
add2_streetno	VARCHAR(20)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
add2_street	VARCHAR(45)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
add2_brgy	VARCHAR(45)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
add2_city	VARCHAR(45)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
add2_province	VARCHAR(45)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
add2_mapx	VARCHAR(45)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
add2_mapy	VARCHAR(45)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
email2	VARCHAR(45)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
mobile2	INT(11)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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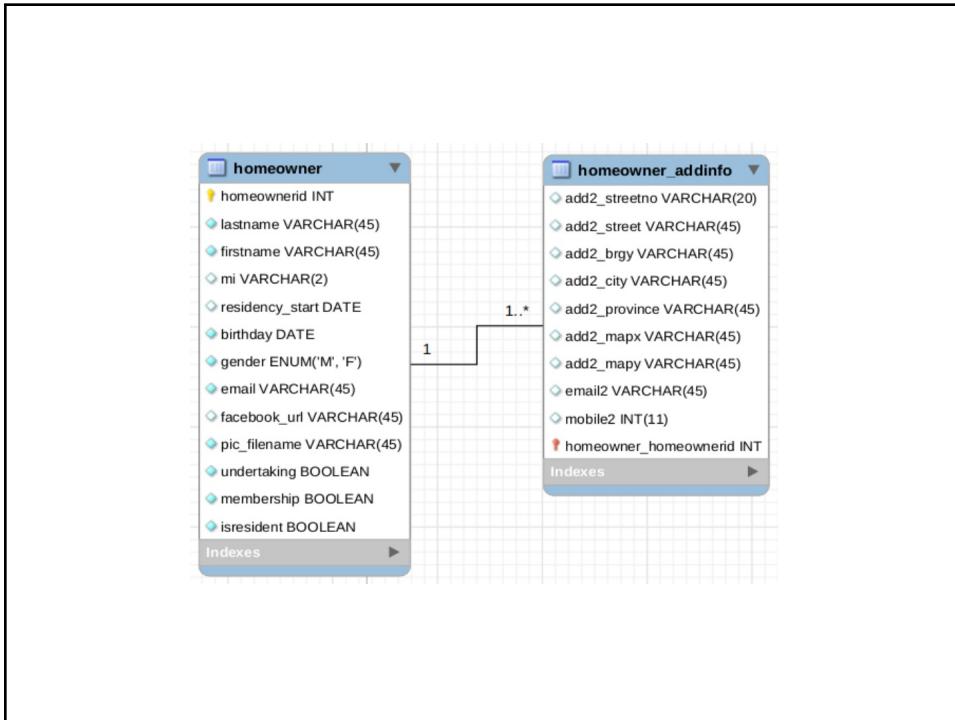
homeowner - Table

Column Name	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	G
homeownerid	INT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
lastname	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
firstname	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
mi	VARCHAR(2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
residency_start	DATE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
birthday	DATE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
gender	ENUM('M', 'F')	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
email	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
facebook_url									
pic_filename									
undertaking									
membership									
isresident	BOOLEAN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
add2_streetno	VARCHAR(20)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
add2_street	VARCHAR(45)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
add2_brgy	VARCHAR(45)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
add2_city	VARCHAR(45)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
add2_province	VARCHAR(45)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
add2_mapx	VARCHAR(45)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
add2_mapy	VARCHAR(45)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
email2	VARCHAR(45)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
mobile2	INT(11)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

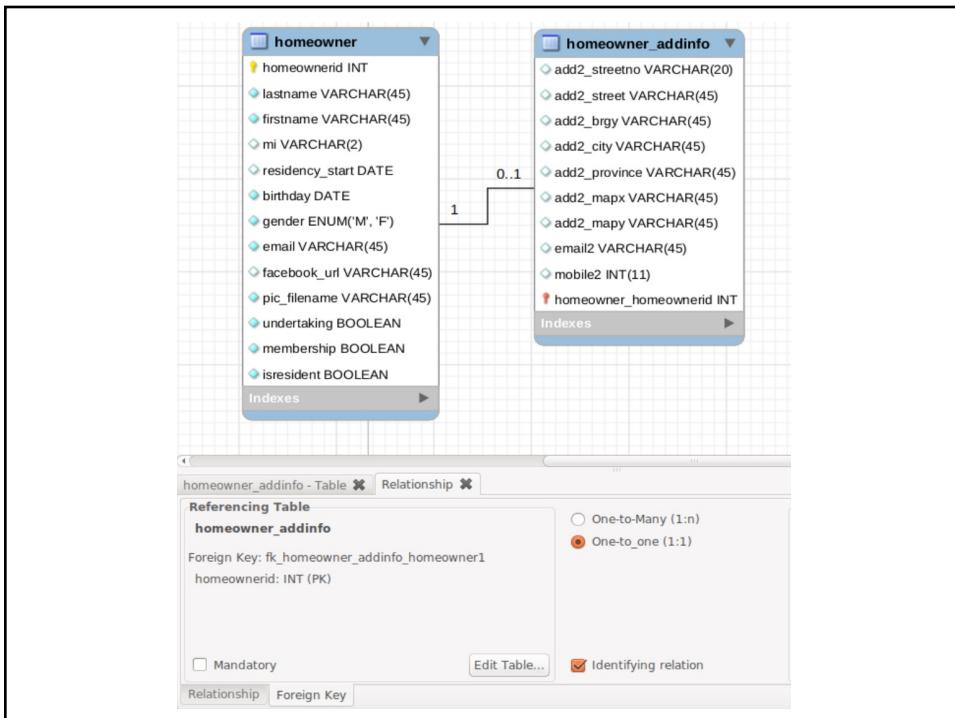
21



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23



24



25

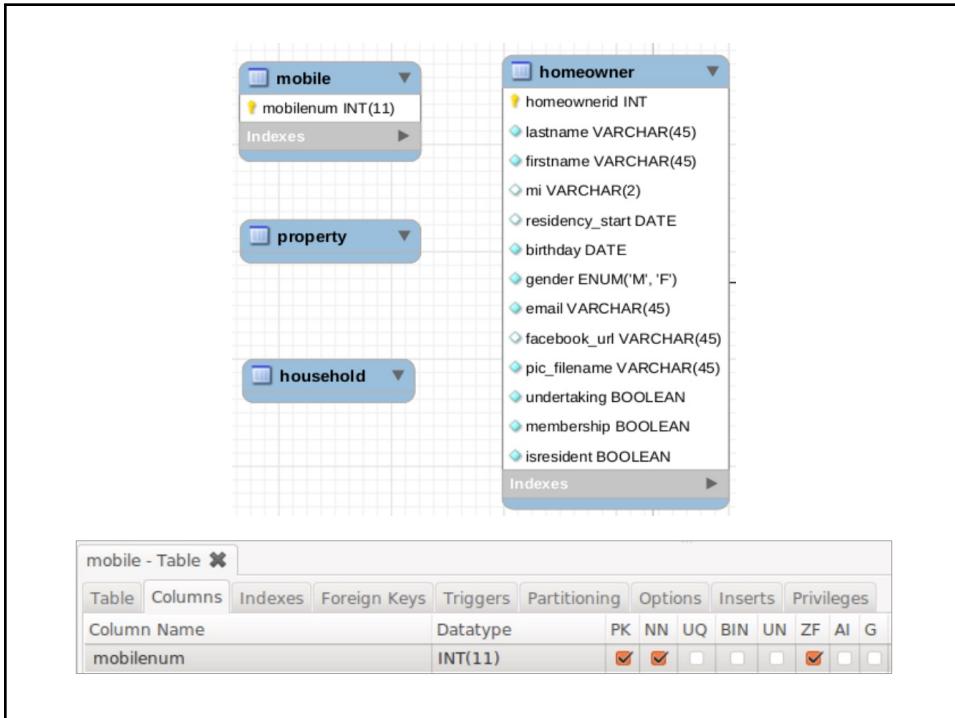
Homeowner Registration (HO)

The general information of each homeowner of the HOA includes – (a) Complete name of the Homeowner, (b) Years as homeowner in the subdivision (c) properties he/she owns in the subdivision, (d) household in each of his/her properties, (e) birthday, (f) gender, (g) homeowner email address, (h) homeowner mobile numbers, (i) Facebook URL of the member if there is any, (j) picture of the homeowner, (k) undertaking that the information provided is correct, accurate and (l) his/her expression to become member of the HOA. If the homeowner is residing in his/her property, then he/she is also a resident. A homeowner is identifiable by a homeowner's ID. A homeowner can own several properties in the subdivision. Homeowner's other address (street no, street, barangay, city/municipality, province, region and zip code, also included is the location in the map) and contact information (other email and other mobile number) is also recorded, especially if the homeowner is not a resident in the community.

Multi-valued Attributes

Store in a separate entity

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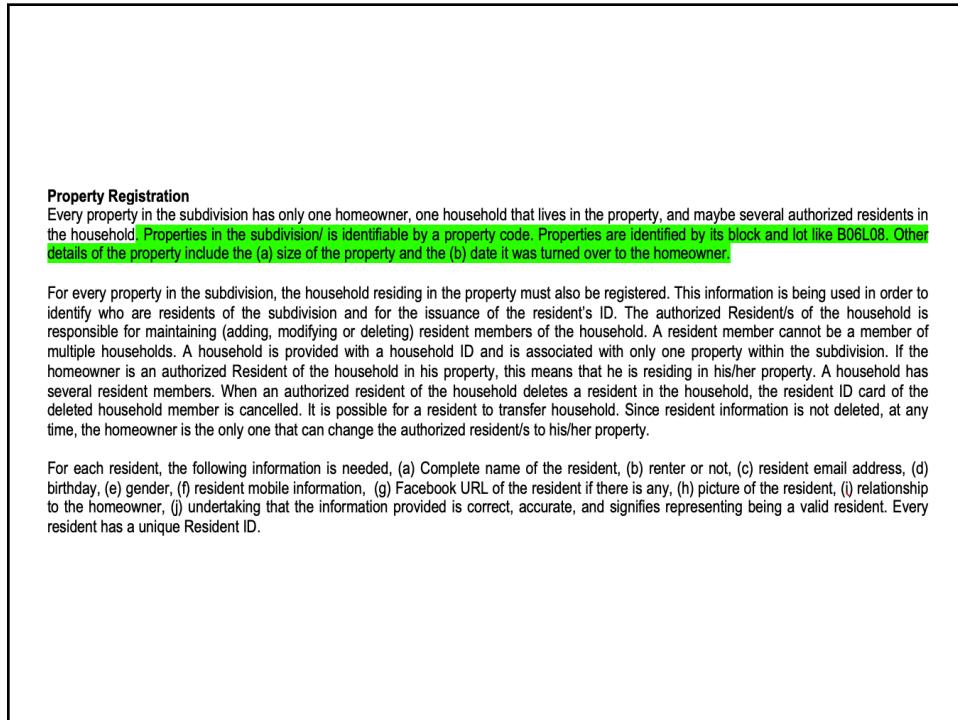
27

Section 1.0 Components

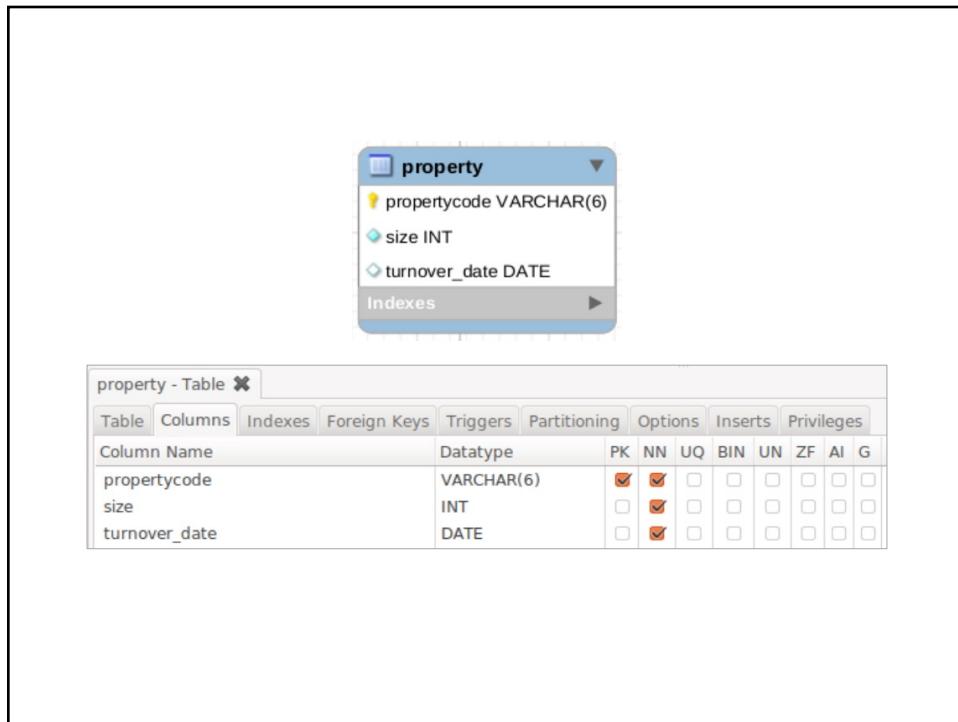
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- [Property Registration](#)
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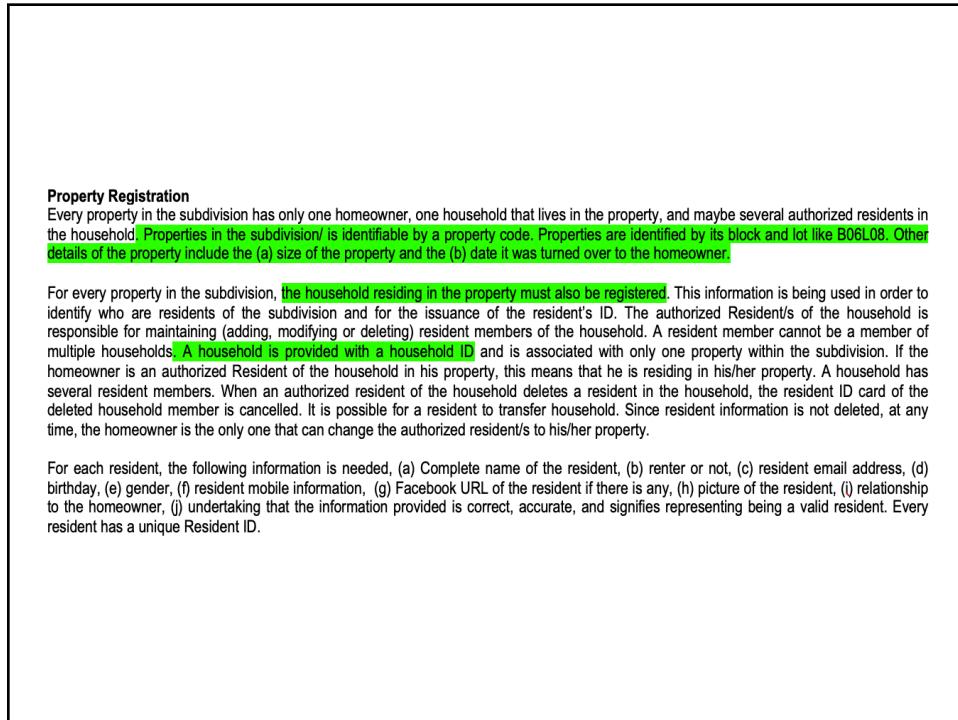
28



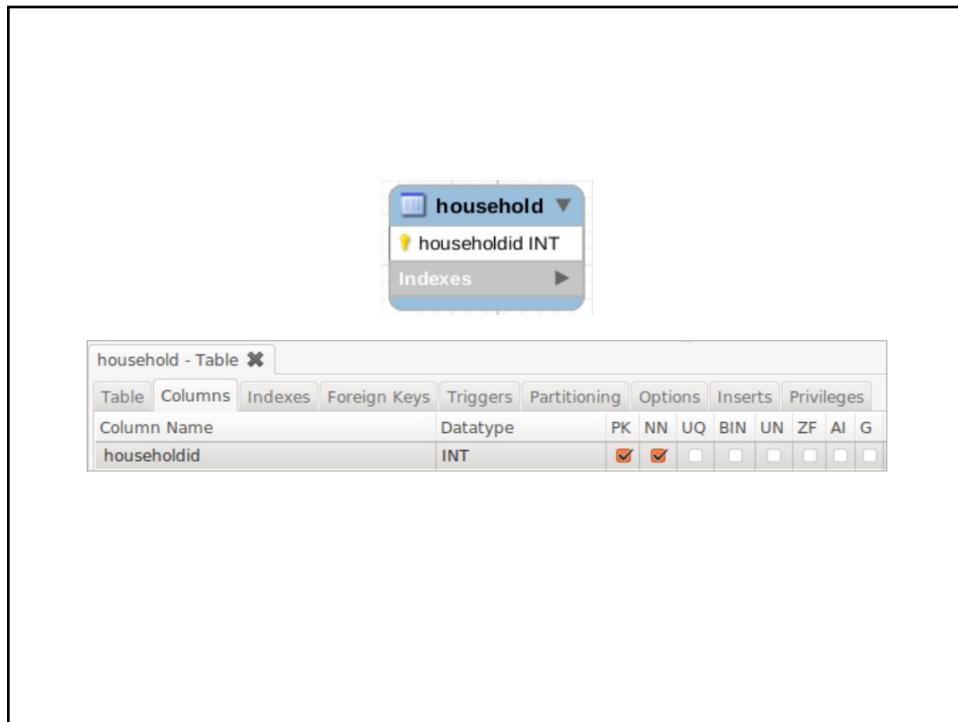
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Property Registration

Every property in the subdivision has only one homeowner, one household that lives in the property, and maybe several authorized residents in the household. Properties in the subdivision is identifiable by a property code. Properties are identified by its block and lot like B06L08. Other details of the property include the (a) size of the property and the (b) date it was turned over to the homeowner.

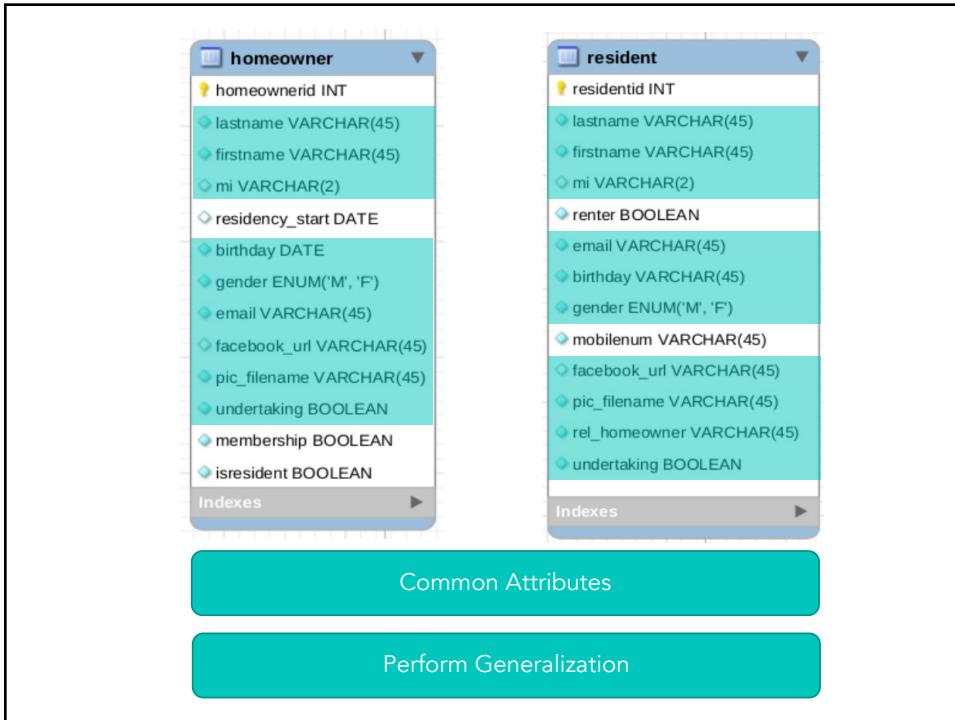
For every property in the subdivision, the household residing in the property must also be registered. This information is being used in order to identify who are residents of the subdivision and for the issuance of the resident's ID. The authorized Residents of the household is responsible for maintaining (adding, modifying or deleting) resident members of the household. A resident member cannot be a member of multiple households. A household is provided with a household ID and is associated with only one property within the subdivision. If the homeowner is an authorized Resident of the household in his property, this means that he is residing in his/her property. A household has several resident members. When an authorized resident of the household deletes a resident in the household, the resident ID card of the deleted household member is cancelled. It is possible for a resident to transfer household. Since resident information is not deleted, at any time, the homeowner is the only one that can change the authorized resident/s to his/her property.

For each resident, the following information is needed, (a) Complete name of the resident, (b) renter or not, (c) resident email address, (d) birthday, (e) gender, (f) resident mobile information, (g) Facebook URL of the resident if there is any, (h) picture of the resident, (i) relationship to the homeowner, (j) undertaking that the information provided is correct, accurate, and signifies representing being a valid resident. Every resident has a unique Resident ID.

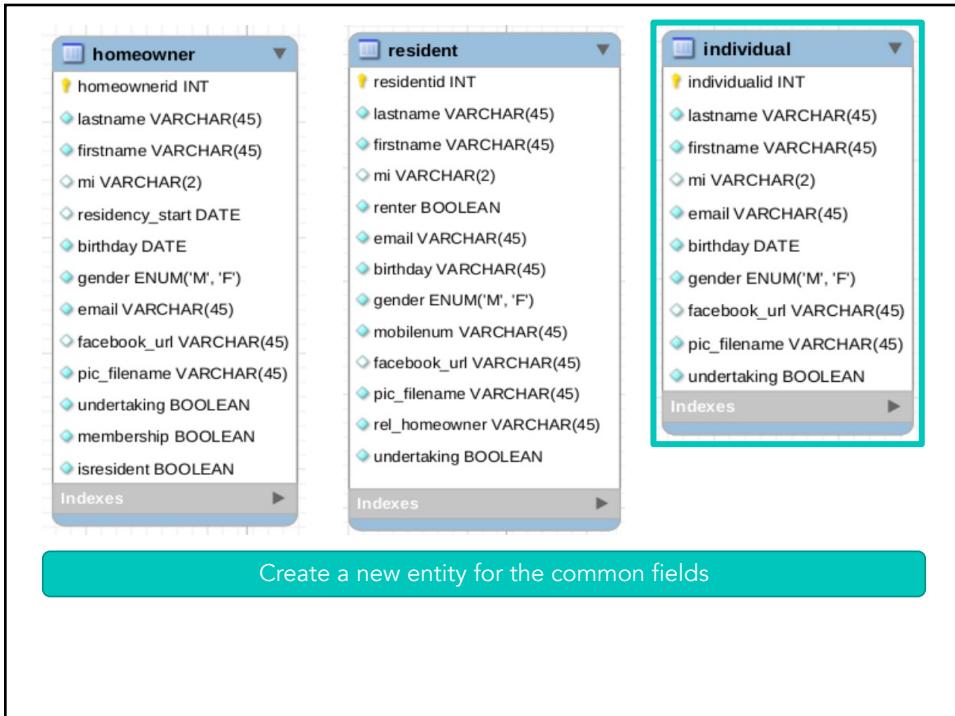
33

Column Name	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	G
residentid	INT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
lastname	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
firstname	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
mi	VARCHAR(2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
renter	BOOLEAN	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
email	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
birthday	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
gender	ENUM('M', 'F')	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
mobilenum	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
facebook_url	VARCHAR(45)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
pic_filename	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
rel_homeowner	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
undertaking	BOOLEAN	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				

34



35

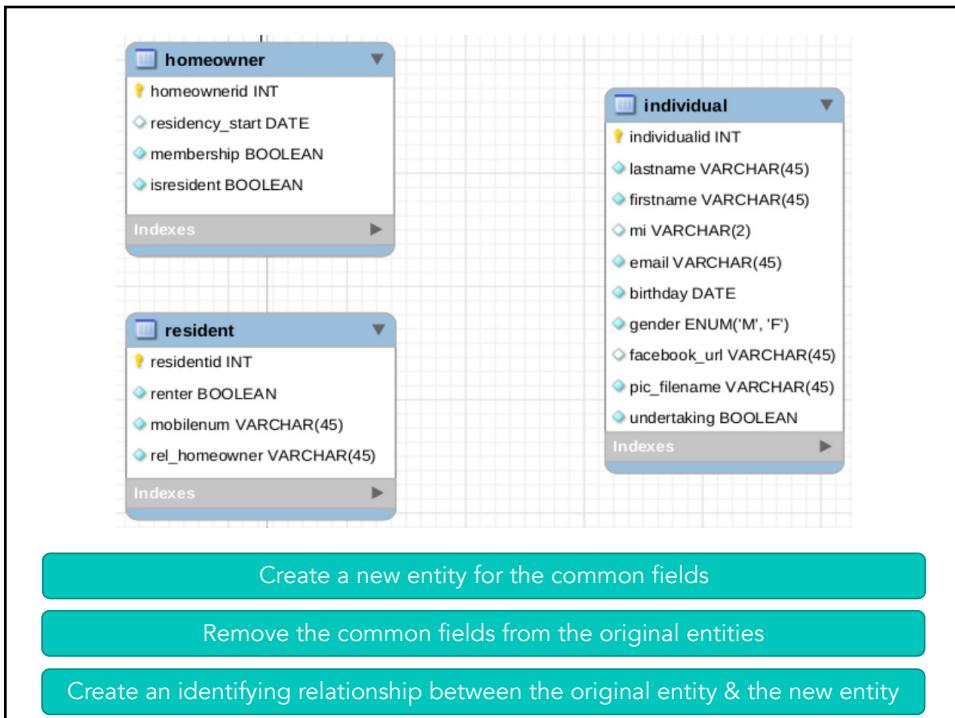


36

individual - Table

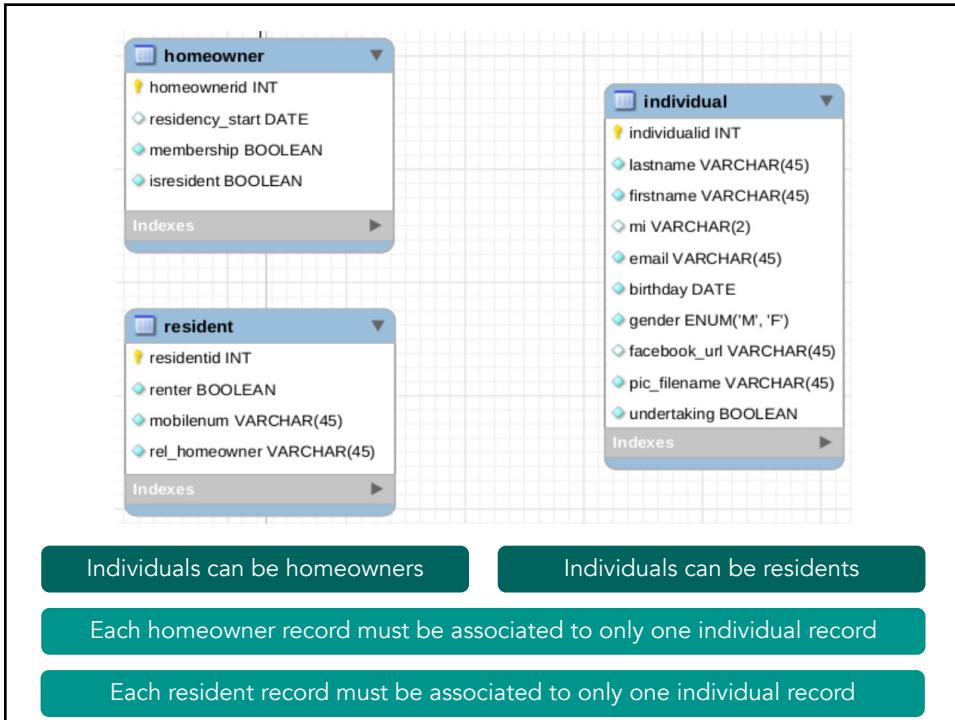
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	Column Name	Datatype		PK	NN	UQ	BIN	UN	ZF	AI	G
	lastname	VARCHAR(45)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	firstname	VARCHAR(45)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	individualid	INT		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	mi	VARCHAR(2)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	email	VARCHAR(45)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	birthday	DATE		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	gender	ENUM('M', 'F')		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	facebook_url	VARCHAR(45)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	pic_filename	VARCHAR(45)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	undertaking	BOOLEAN		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

37

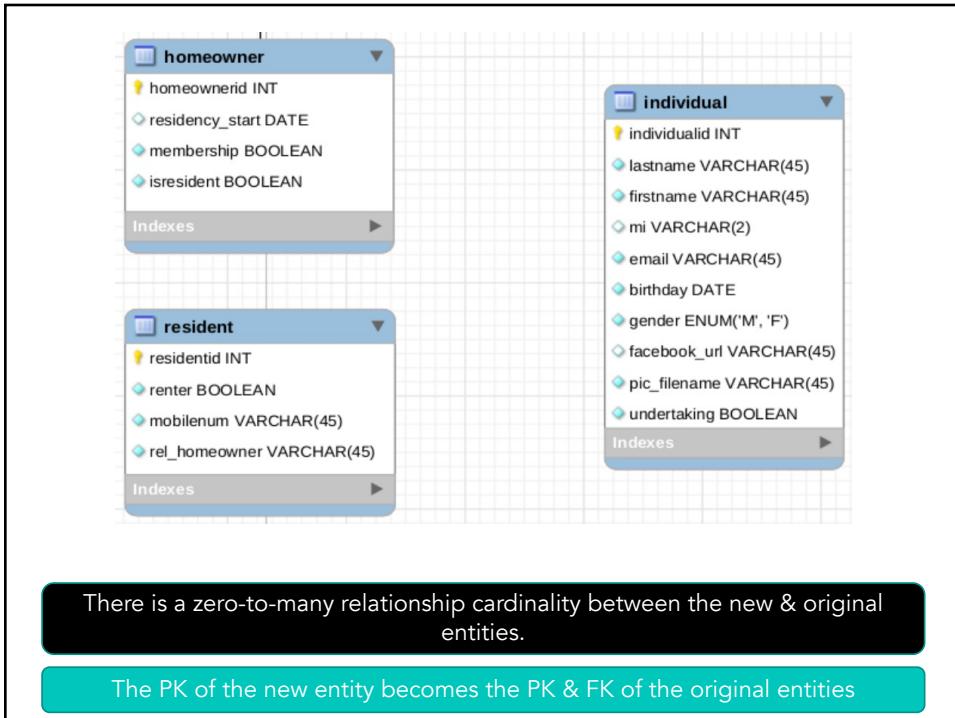


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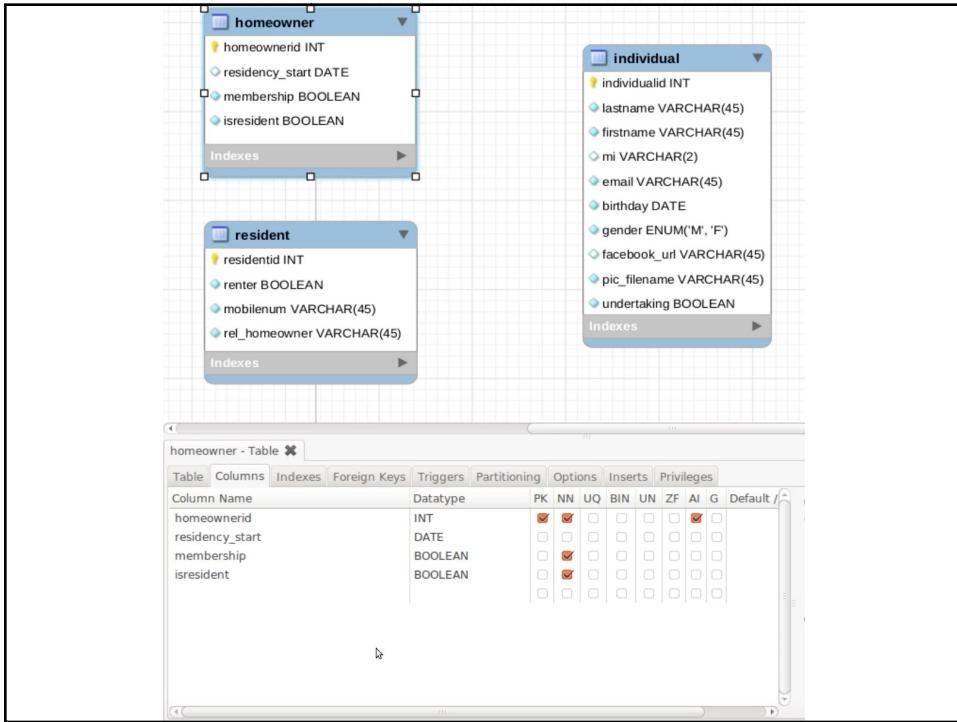
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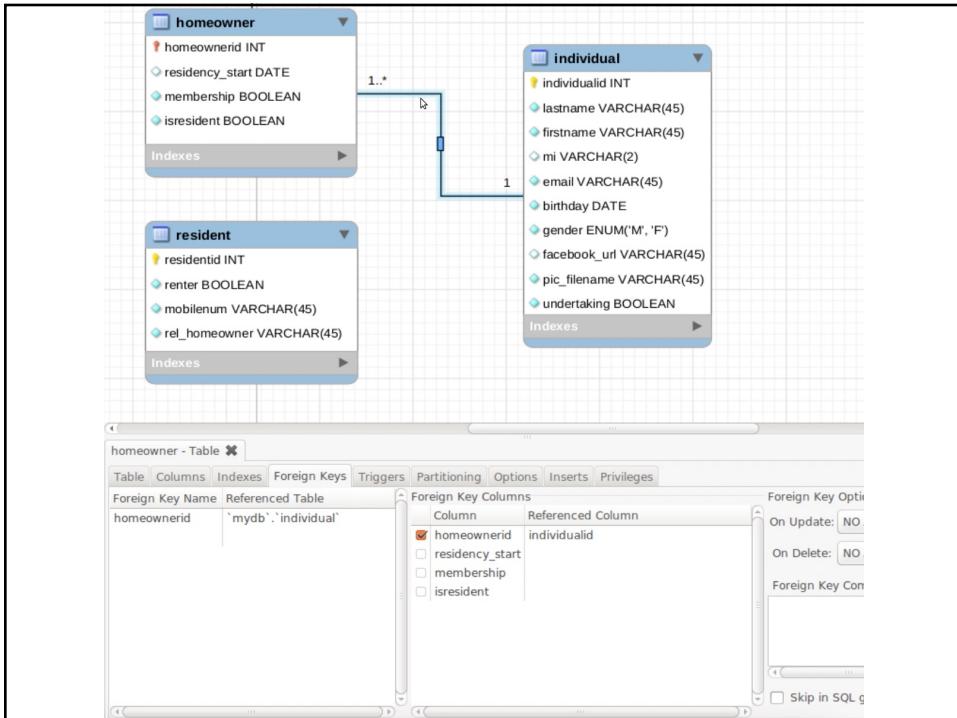
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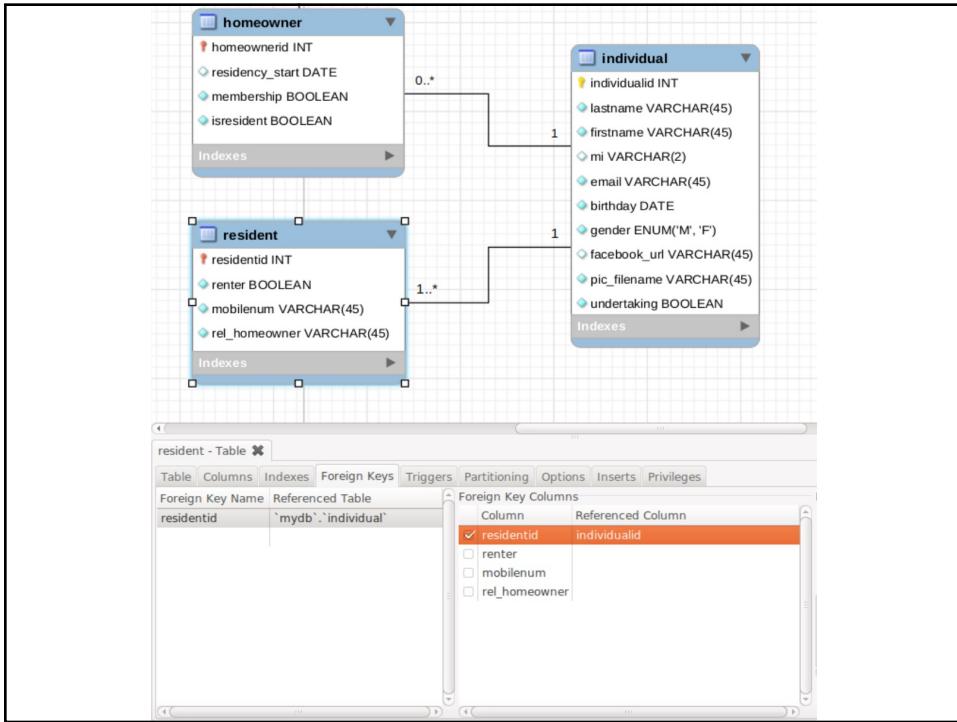
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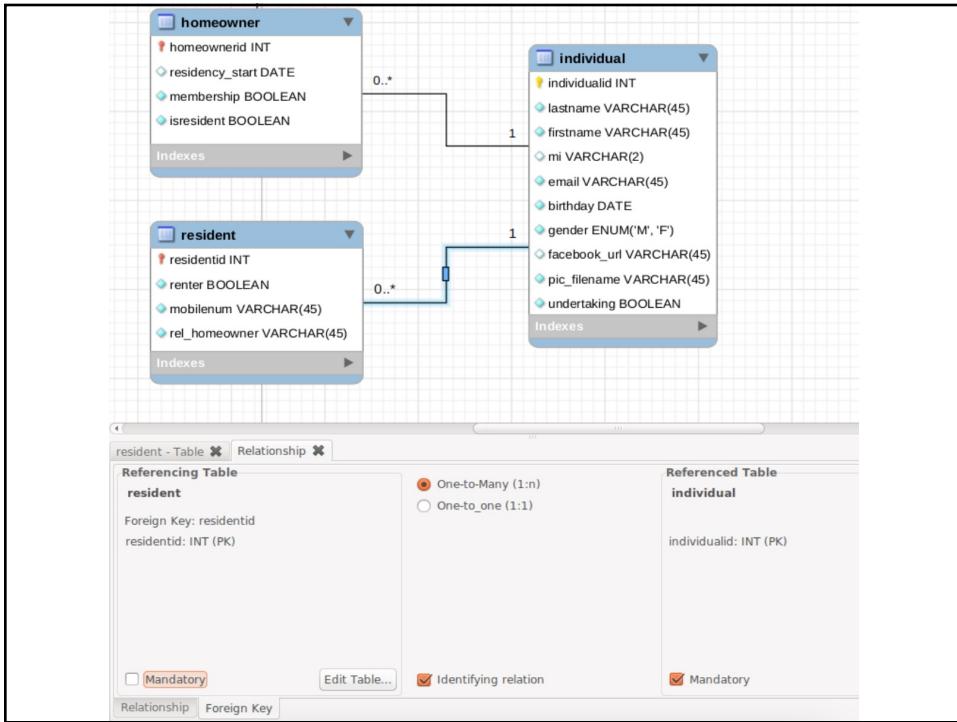
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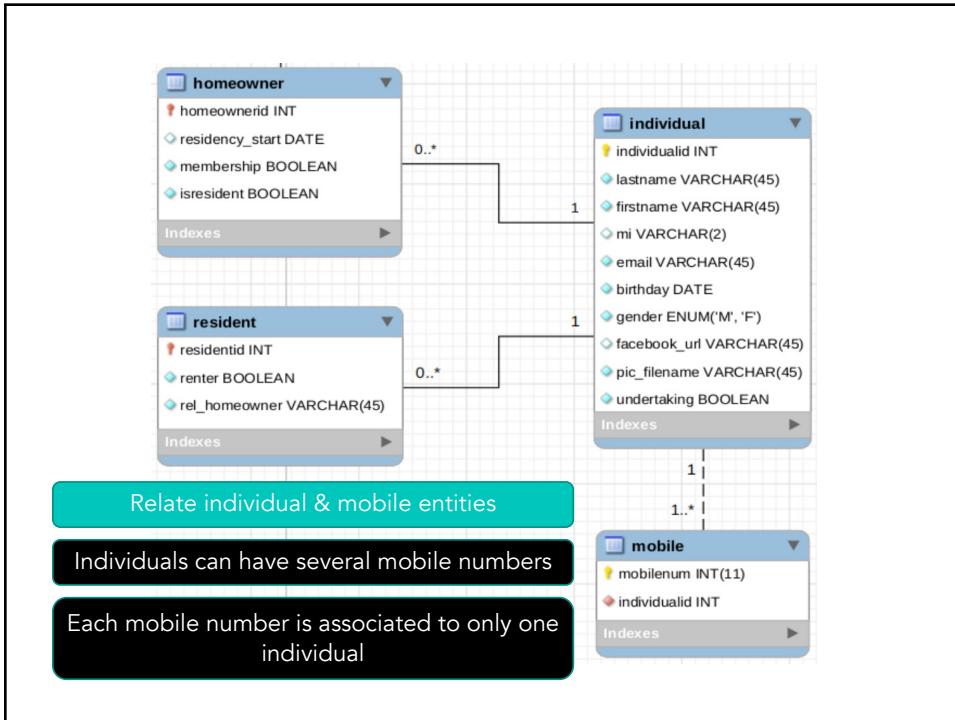
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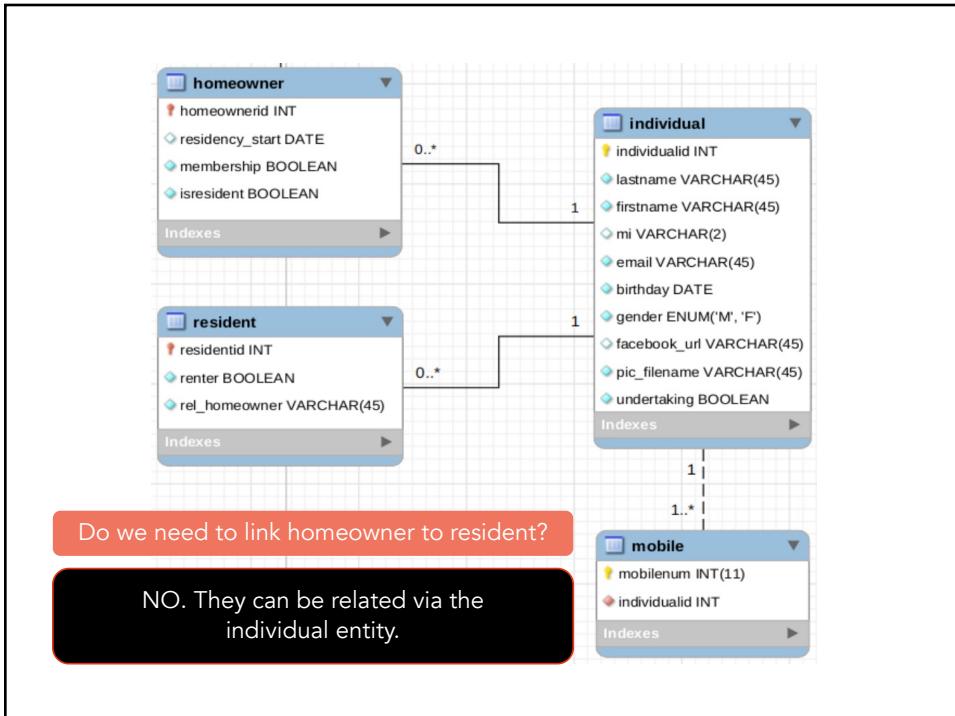
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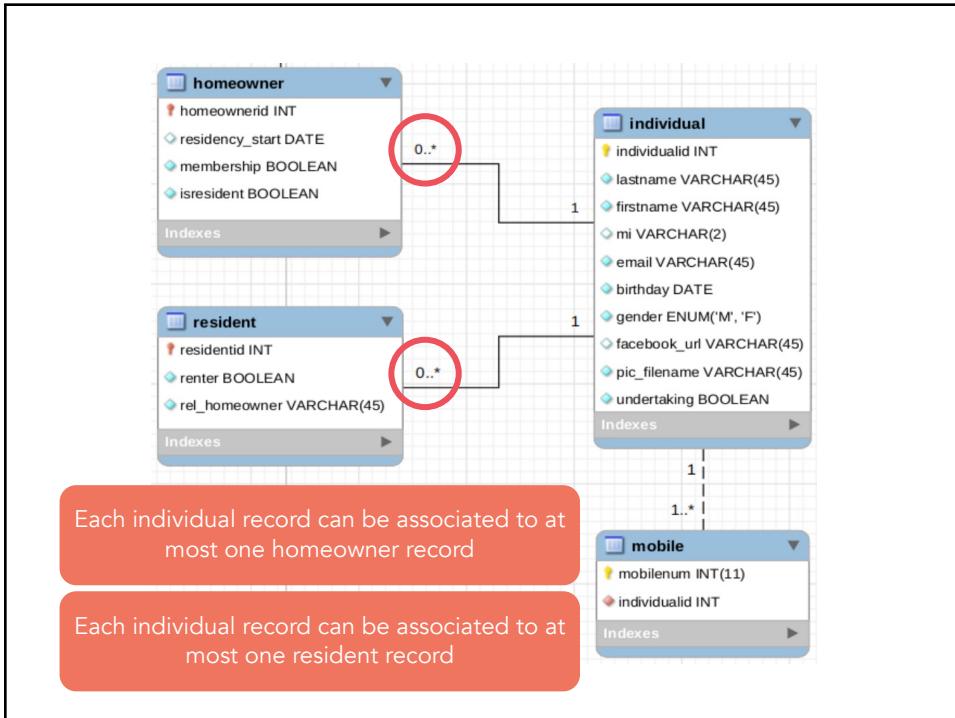
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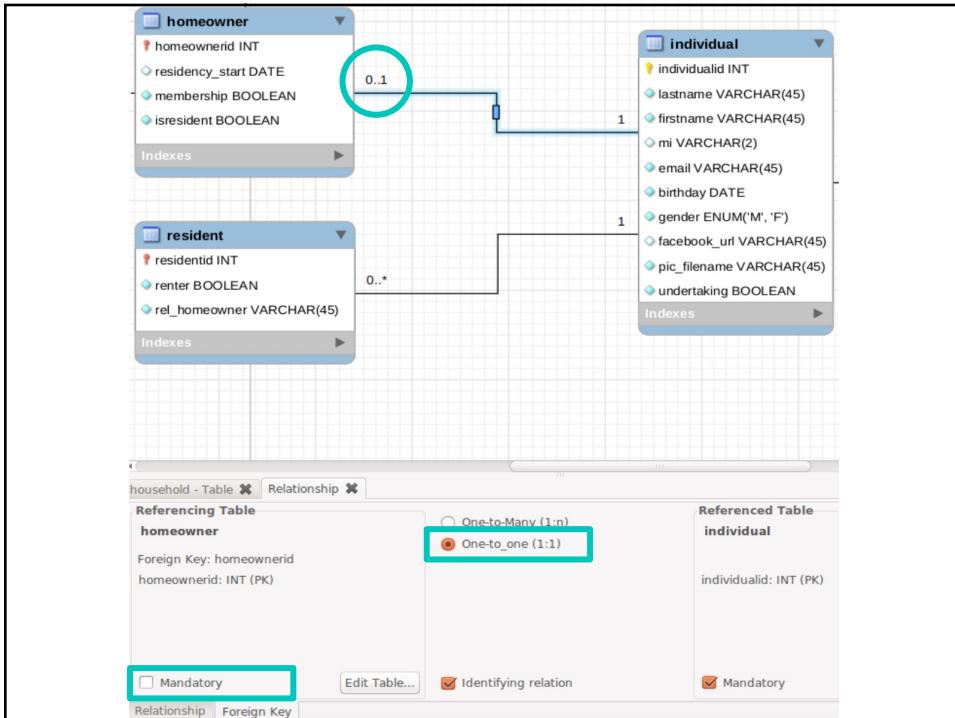
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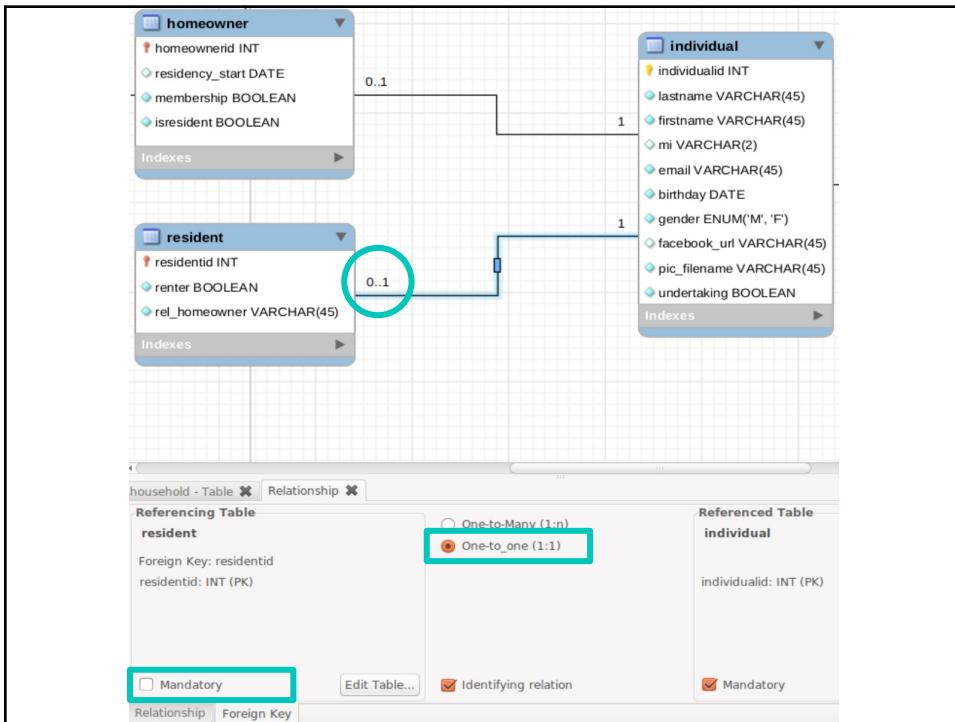
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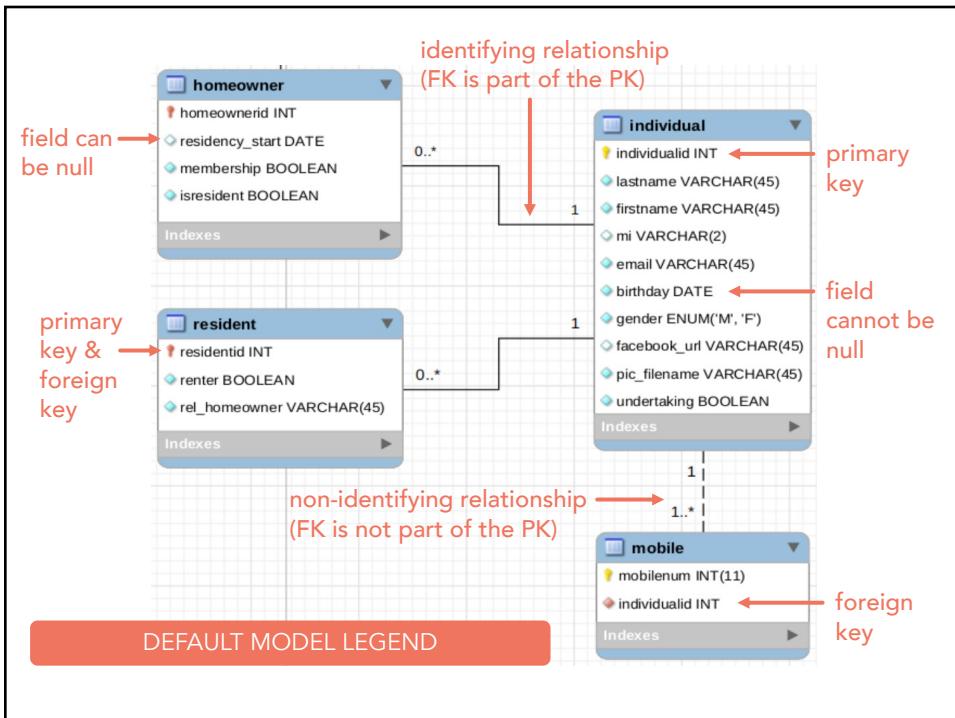
47



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homeowner_addinfo	
!	homeownerid INT
◊	add2_streetno VARCHAR(20)
◊	add2_street VARCHAR(45)
◊	add2_brgy VARCHAR(45)
◊	add2_city VARCHAR(45)
◊	add2_province VARCHAR(45)
◊	add2_mapx VARCHAR(45)
◊	add2_mapy VARCHAR(45)
◊	email2 VARCHAR(45)
◊	mobile2 INT(11)
Indexes	

mobile2 can already be removed

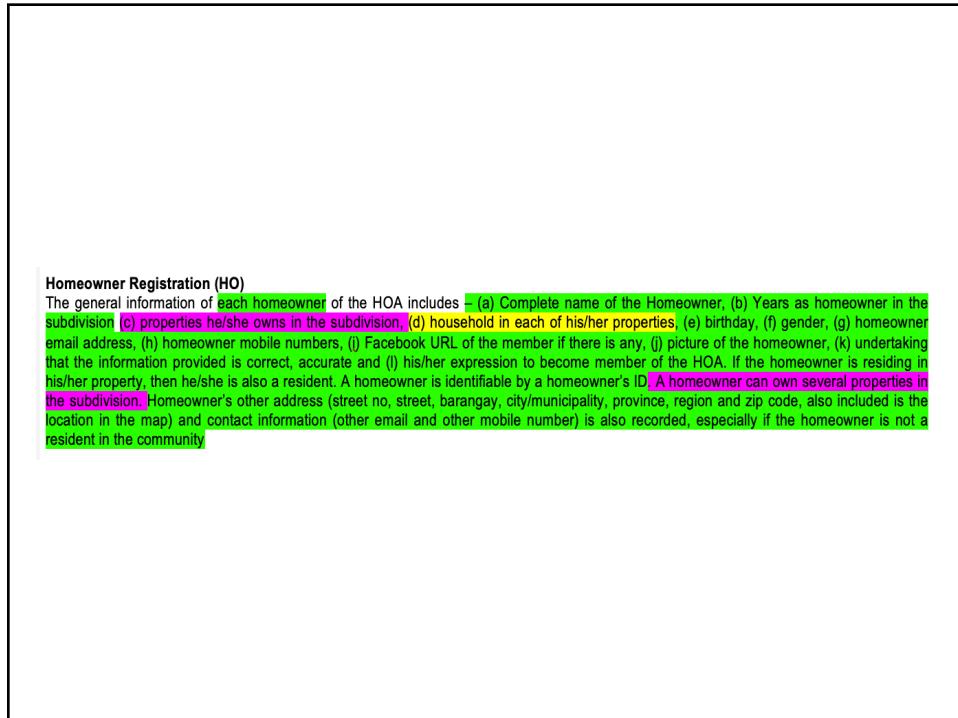
51

Section 1.0 Components

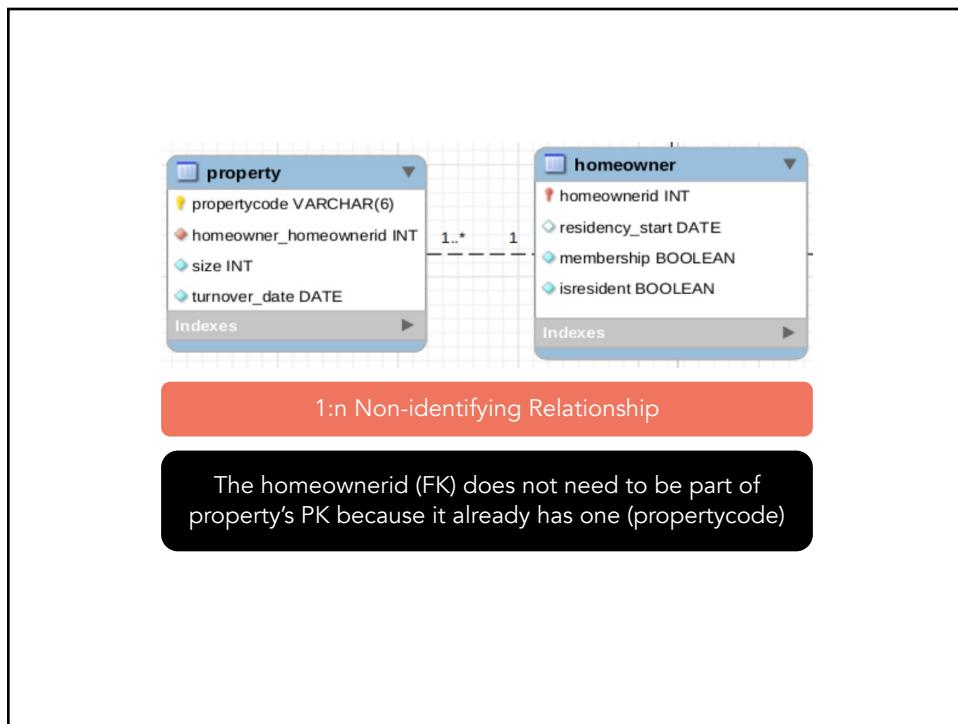
- ✓ About the HOA
- [Homeowner \(HO\) Registration](#)
- Property Registration
- Resident ID Card
- HOA Officer Registration
- Assets



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Homeowner Registration (HO)

The general information of each homeowner of the HOA includes – (a) Complete name of the Homeowner, (b) Years as homeowner in the subdivision (c) properties he/she owns in the subdivision, (d) household in each of his/her properties, (e) birthday, (f) gender, (g) homeowner email address, (h) homeowner mobile numbers, (i) Facebook URL of the member if there is any, (j) picture of the homeowner, (k) undertaking that the information provided is correct, accurate and (l) his/her expression to become member of the HOA. If the homeowner is residing in his/her property, then he/she is also a resident. A homeowner is identifiable by a homeowner's ID. A homeowner can own several properties in the subdivision. Homeowner's other address (street no, street, barangay, city/municipality, province, region and zip code, also included is the location in the map) and contact information (other email and other mobile number) is also recorded, especially if the homeowner is not a resident in the community.

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Section 1.0 Components

- About the HOA
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- [Property Registration](#)
- Resident ID Card
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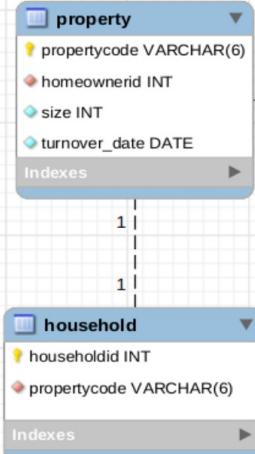
Property Registration

Every property in the subdivision has only one homeowner, one household that lives in the property, and maybe several authorized residents in the household. Properties in the subdivision/ is identifiable by a property code. Properties are identified by its block and lot like B06L08. Other details of the property include the (a) size of the property and the (b) date it was turned over to the homeowner.

For every property in the subdivision, the household residing in the property must also be registered. This information is being used in order to identify who are residents of the subdivision and for the issuance of the resident's ID. The authorized Resident/s of the household is responsible for maintaining (adding, modifying or deleting) resident members of the household. A resident member cannot be a member of multiple households. A household is provided with a household ID and is associated with only one property within the subdivision. If the homeowner is an authorized Resident of the household in his property, this means that he is residing in his/her property. A household has several resident members. When an authorized resident of the household deletes a resident in the household, the resident ID card of the deleted household member is cancelled. It is possible for a resident to transfer household. Since resident information is not deleted, at any time, the homeowner is the only one that can change the authorized resident/s to his/her property.

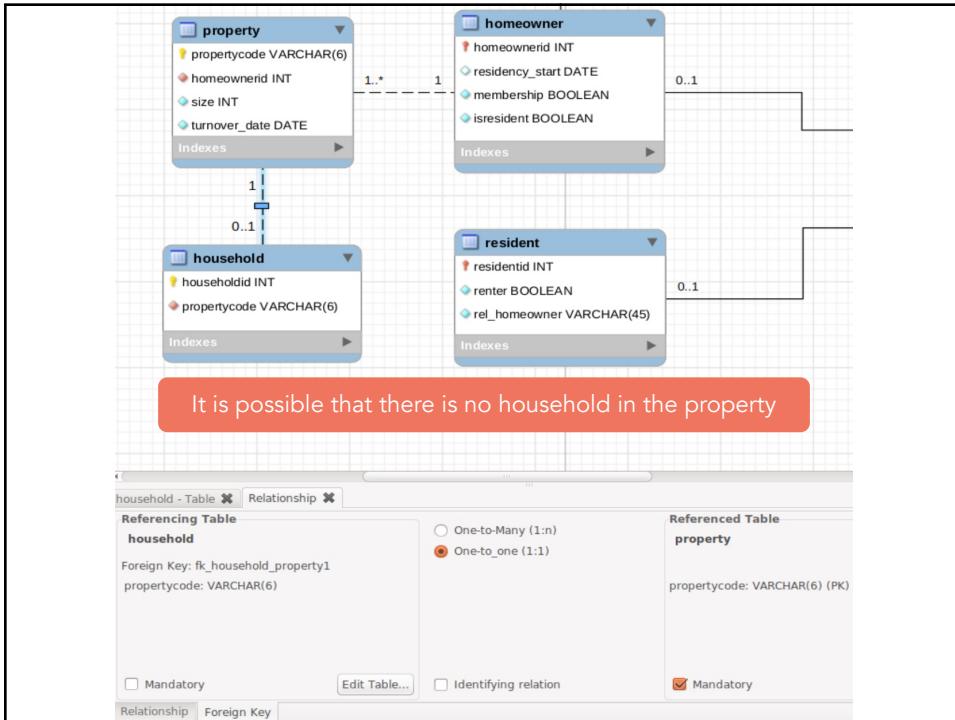
For each resident, the following information is needed: (a) Complete name of the resident, (b) renter or not, (c) resident email address, (d) birthday, (e) gender, (f) resident mobile information, (g) Facebook URL of the resident if there is any, (h) picture of the resident, (i) relationship to the homeowner, (j) undertaking that the information provided is correct, accurate, and signifies representing being a valid resident. Every resident has a unique Resident ID.

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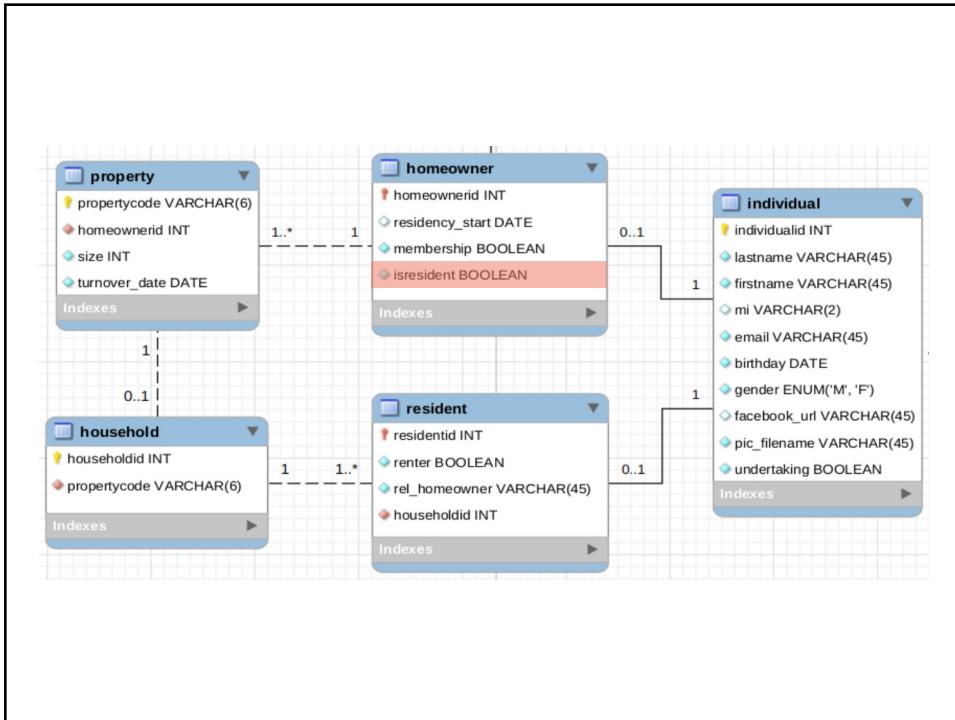
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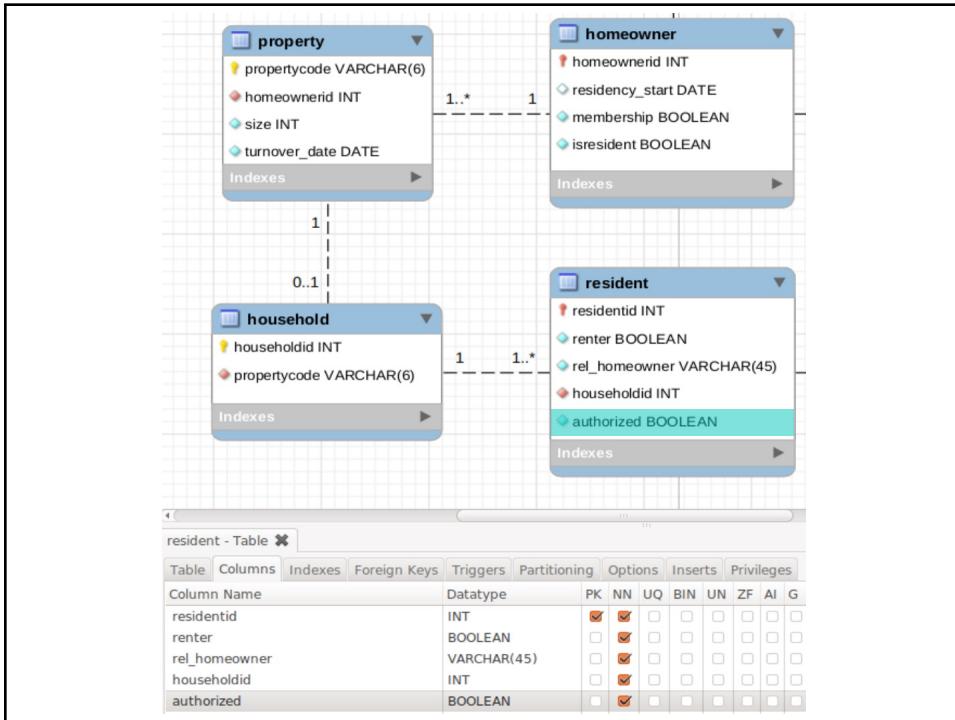
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Constraints to be implemented in the application design.

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Information Technology
Department

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Resident ID Card

A resident ID card is provided to each resident as part of the security of the subdivision. It is possible that a resident requests and is provided with a resident ID card multiple times within their stay in the subdivision, especially in situations where the ID card gets lost. The HOA maintains a record of all the resident ID cards issued to a resident, that contains, the (a) date it was requested, (b) reason for requesting the ID card, (c) the date it was provided, (d) the HOA officer that authorized the ID card, and the (e) OR# representing the payment made for the ID card. The first time the ID card is provided, it is given for free, but succeeding generations of ID cards has a fee. When generating the ID card, the resident information is being used. This is why it is important for the resident to update his/her information annually. If the resident information is more than one year old, the HOA will require the resident to update his/her information. The ID Card has its own unique card number.

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resident_id

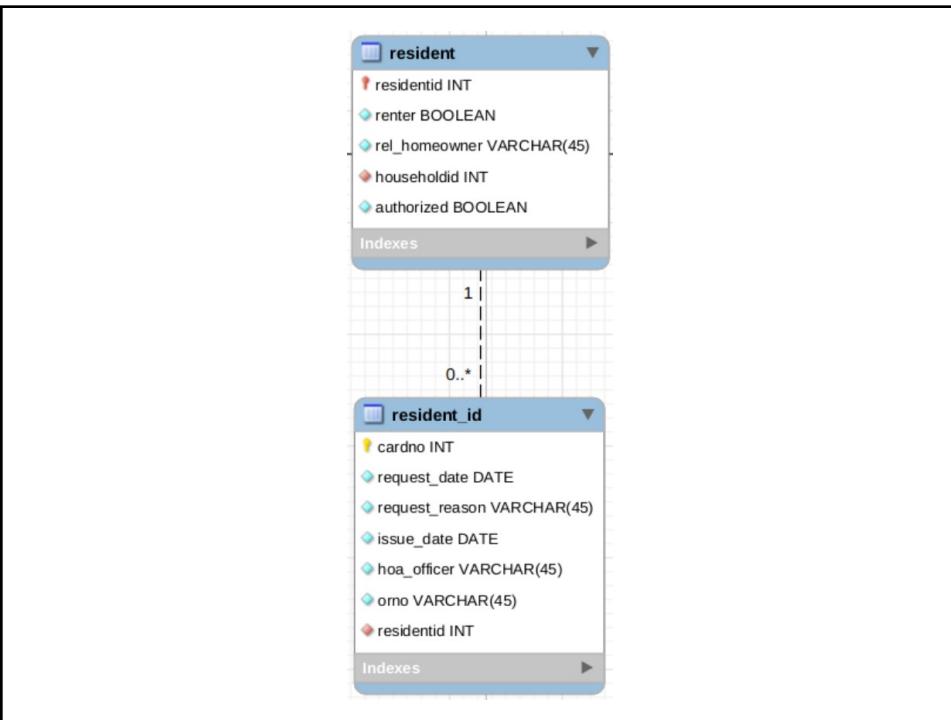
Column Name	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	G
cardno	INT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
request_date	DATE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
request_reason	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
issue_date	DATE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
hoa_officer	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
orno	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					

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Possible ID Card Status: Active or Lost

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Property Registration

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Possible ID Card Status: Active, Lost, or Cancelled

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The screenshot shows the MySQL Workbench interface with the resident_id table selected. The top part displays the table structure with columns: cardno, request_date, request_reason, issue_date, hoa_officer, orno, residentid, and status. The bottom part shows the table properties, specifically the 'Indexes' tab, which is currently active. The 'Indexes' tab contains a table with columns: Column Name, Datatype, PK, NN, UQ, BIN, UN, ZF, AI, and G. The rows correspond to the columns of the resident_id table, with checkboxes indicating index properties. For example, 'residentid' is set as the primary key (PK checked). The 'status' column is defined as ENUM('A', 'L', 'C').

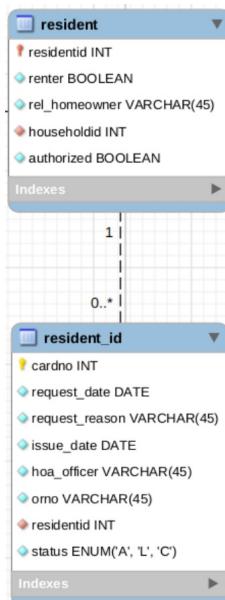
Column Name	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	G
cardno	INT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
request_date	DATE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
request_reason	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
issue_date	DATE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
hoa_officer	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
orno	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
residentid	INT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
status	ENUM('A', 'L', 'C')	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					

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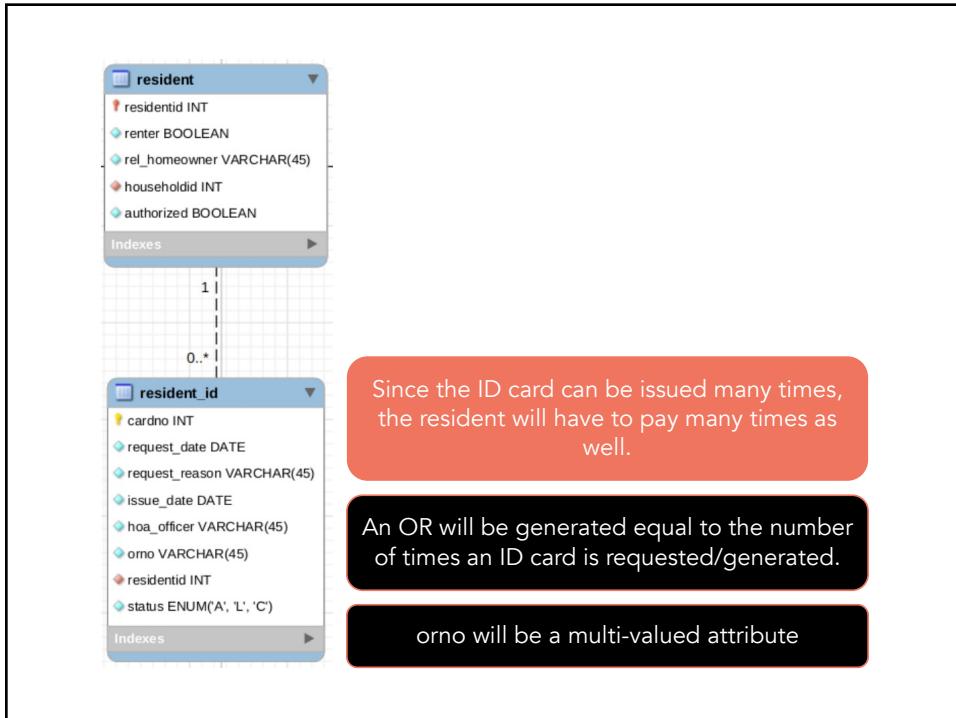


Is there enough data captured in the current DB design to determine the number of times an ID card had been issued to a resident?

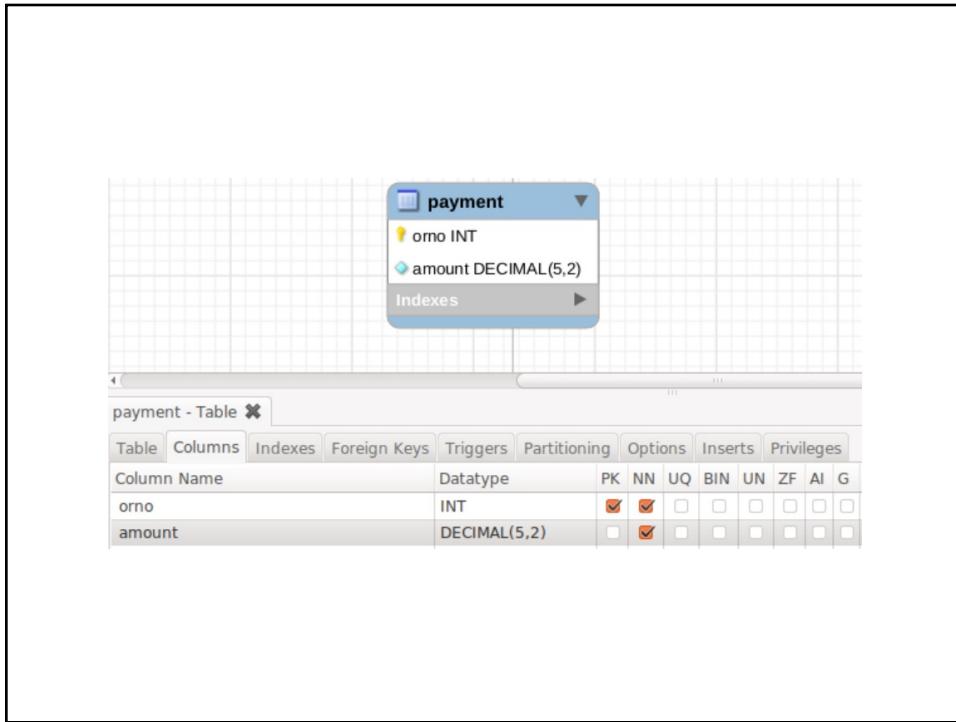
YES. We can count the number of times the residentid appears in the resident_id table.

IF count=0, then it will be the 1st time to generate the card.

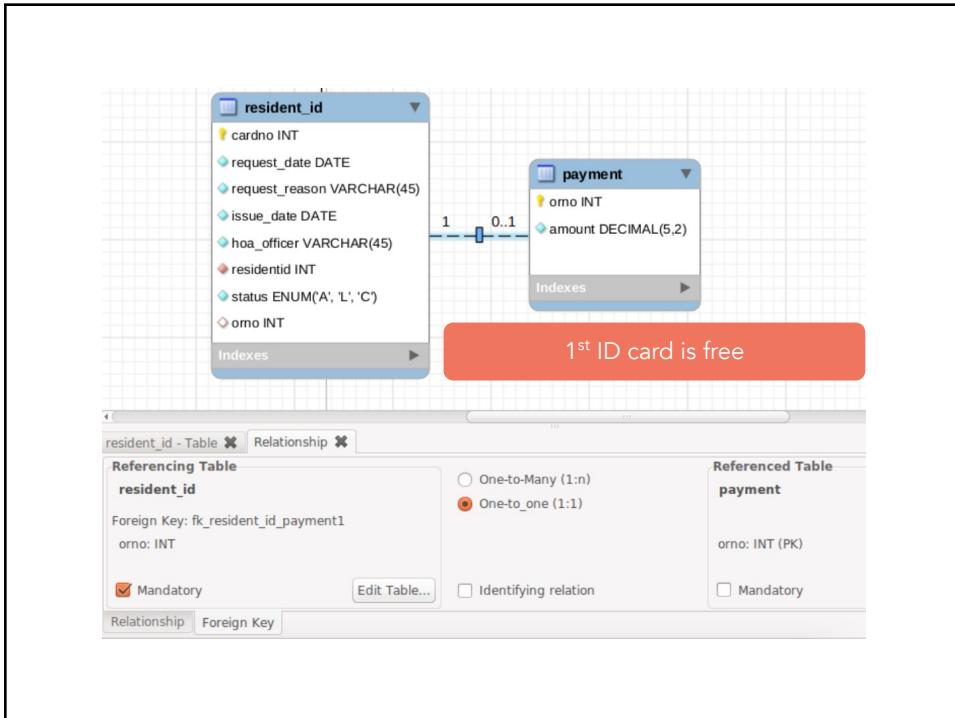
74



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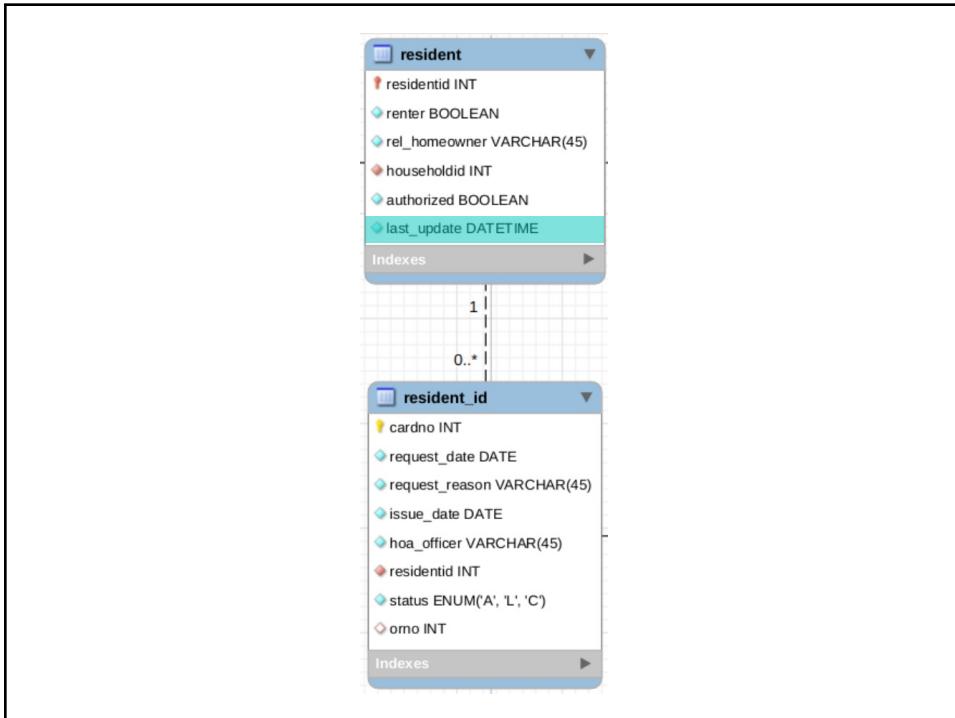


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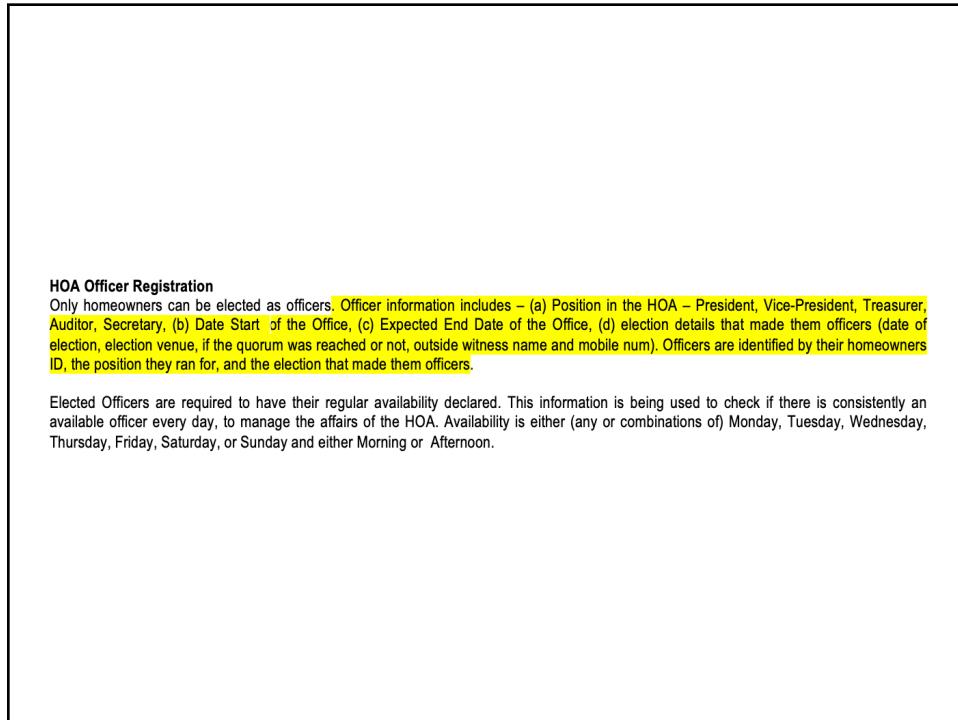
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- Assets



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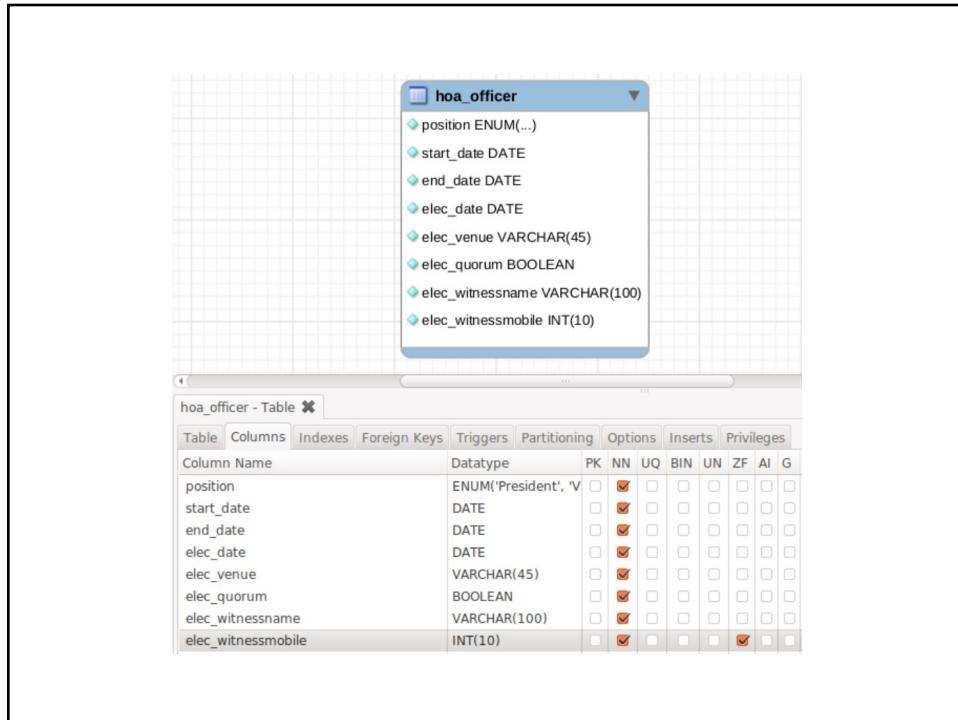


HOA Officer Registration

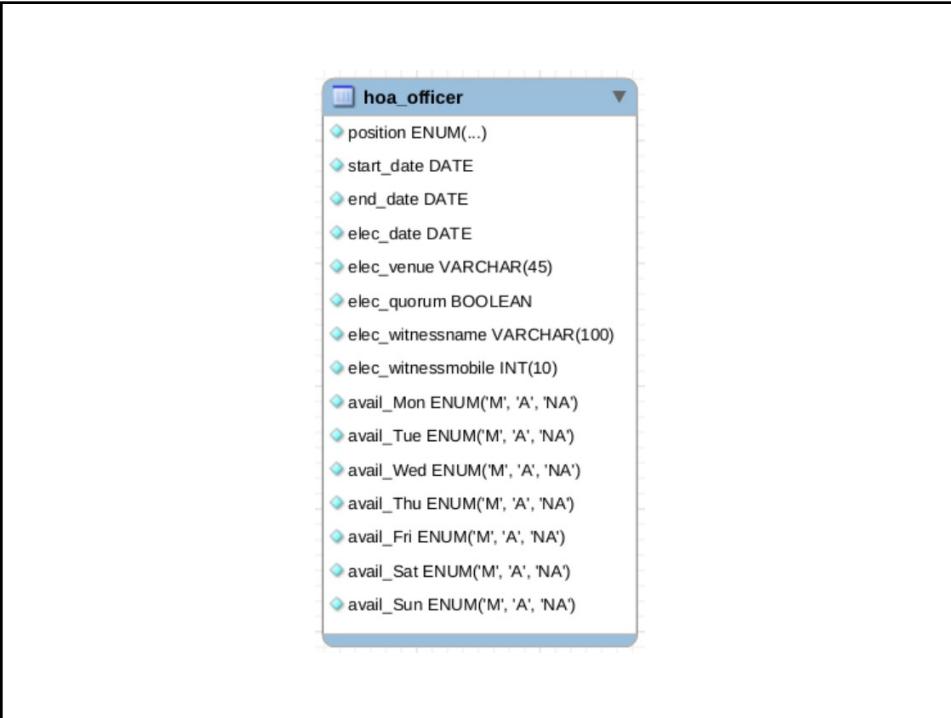
Only homeowners can be elected as officers. Officer information includes – (a) Position in the HOA – President, Vice-President, Treasurer, Auditor, Secretary, (b) Date Start of the Office, (c) Expected End Date of the Office, (d) election details that made them officers (date of election, election venue, if the quorum was reached or not, outside witness name and mobile num). Officers are identified by their homeowners ID, the position they ran for, and the election that made them officers.

Elected Officers are required to have their regular availability declared. This information is being used to check if there is consistently an available officer every day, to manage the affairs of the HOA. Availability is either (any or combinations of) Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, or Sunday and either Morning or Afternoon.

81



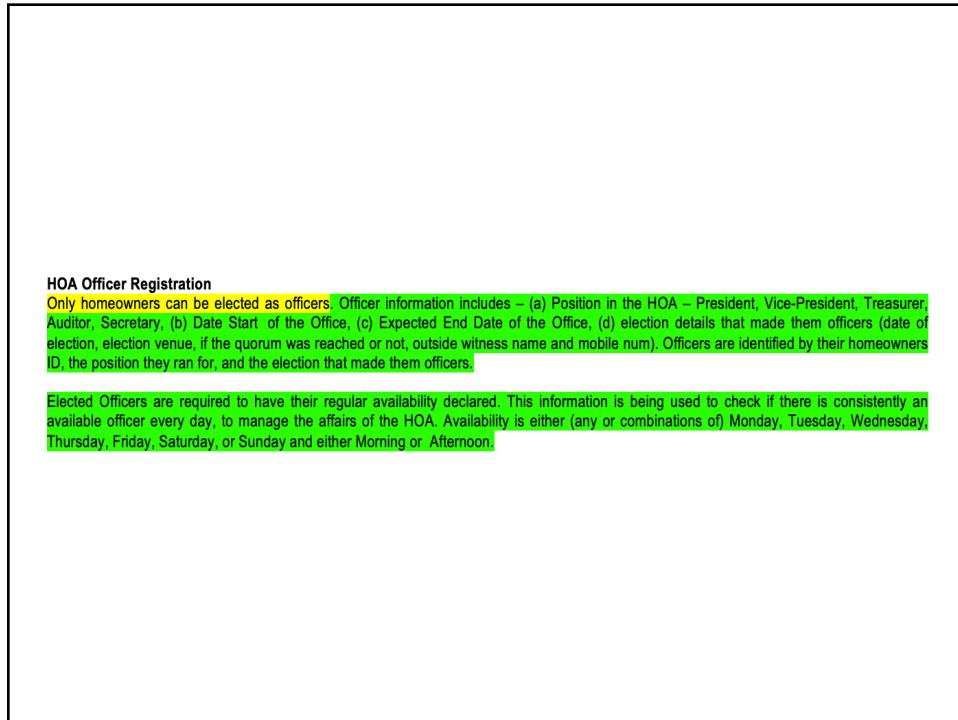
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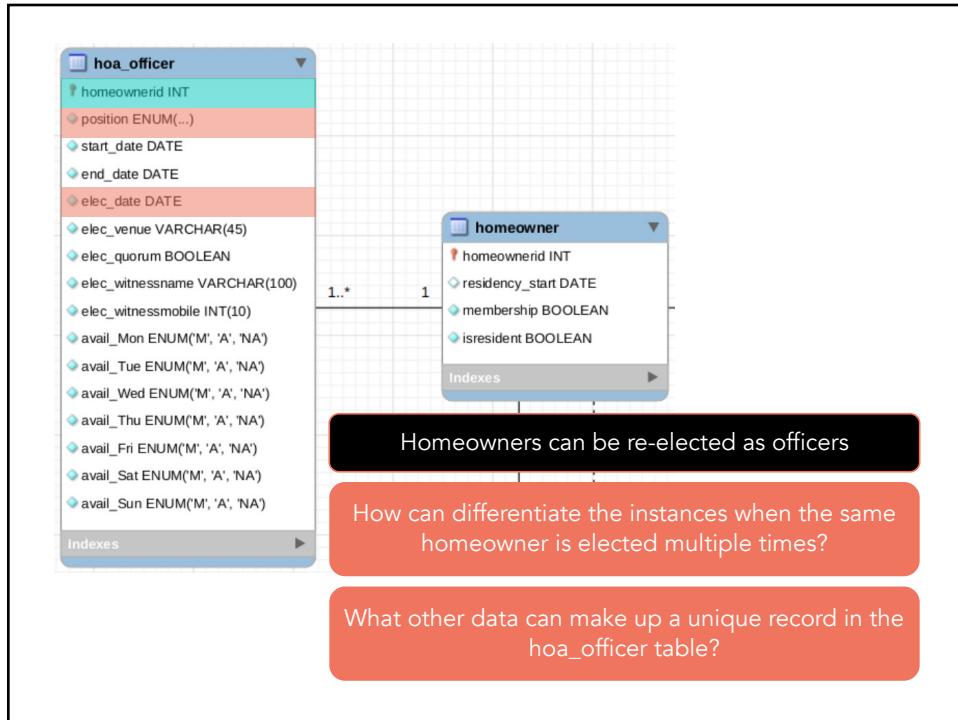
83

Column Name	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	G
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start_date	DATE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
end_date	DATE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
elec_date	DATE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
elec_venue	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
elec_quorum	BOOLEAN	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
elec_witnessname	VARCHAR(100)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
elec_witnessmobile	INT(10)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
avail_Mon	ENUM('M', 'A', 'NA')	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
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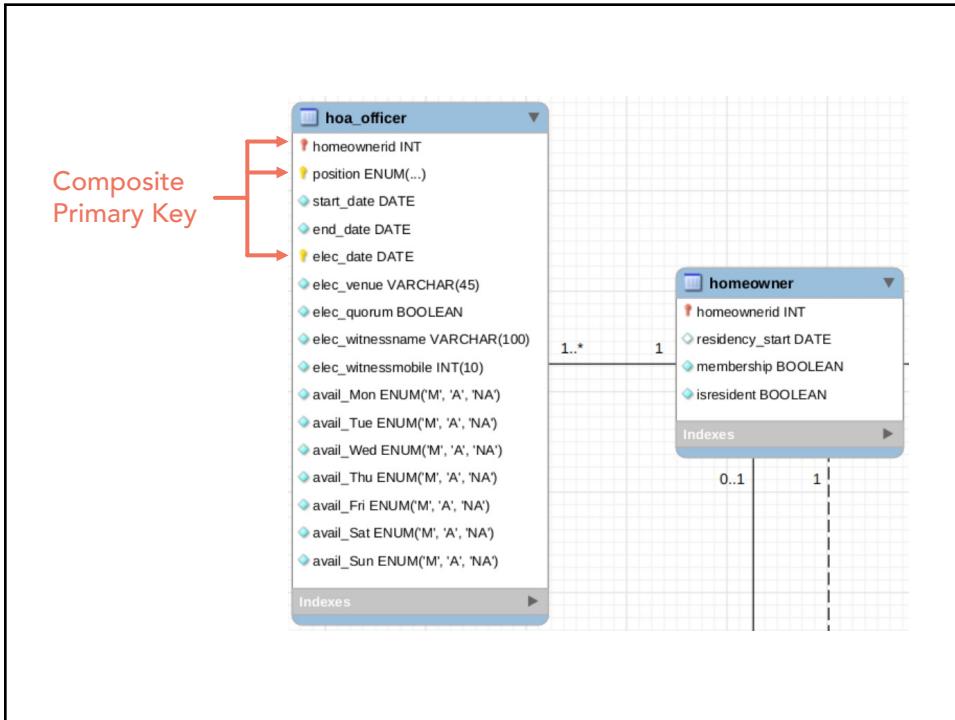
84



85



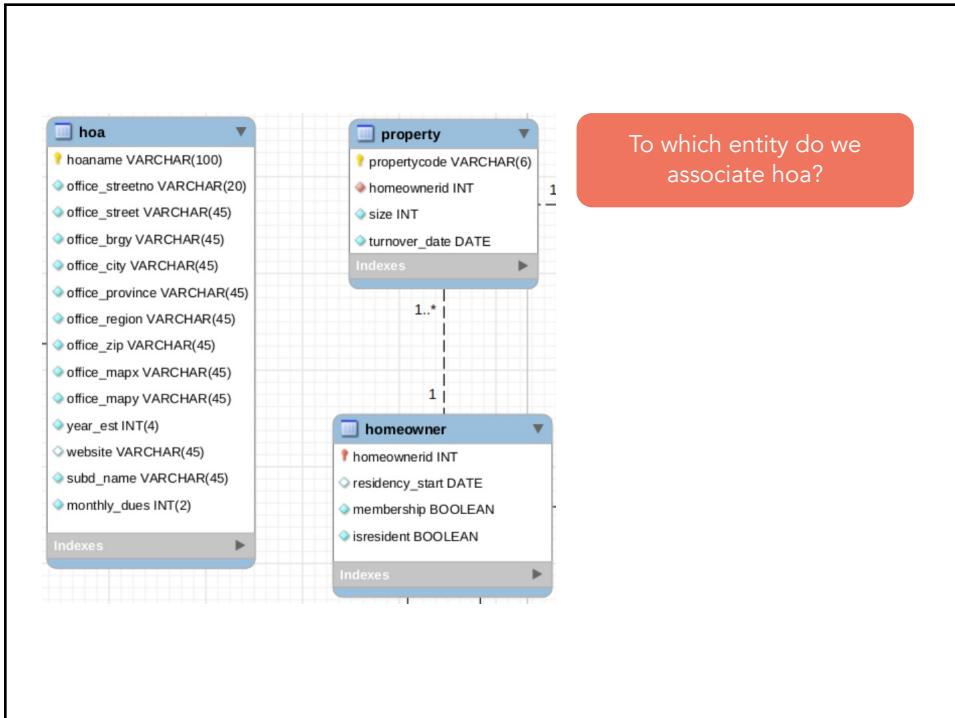
86



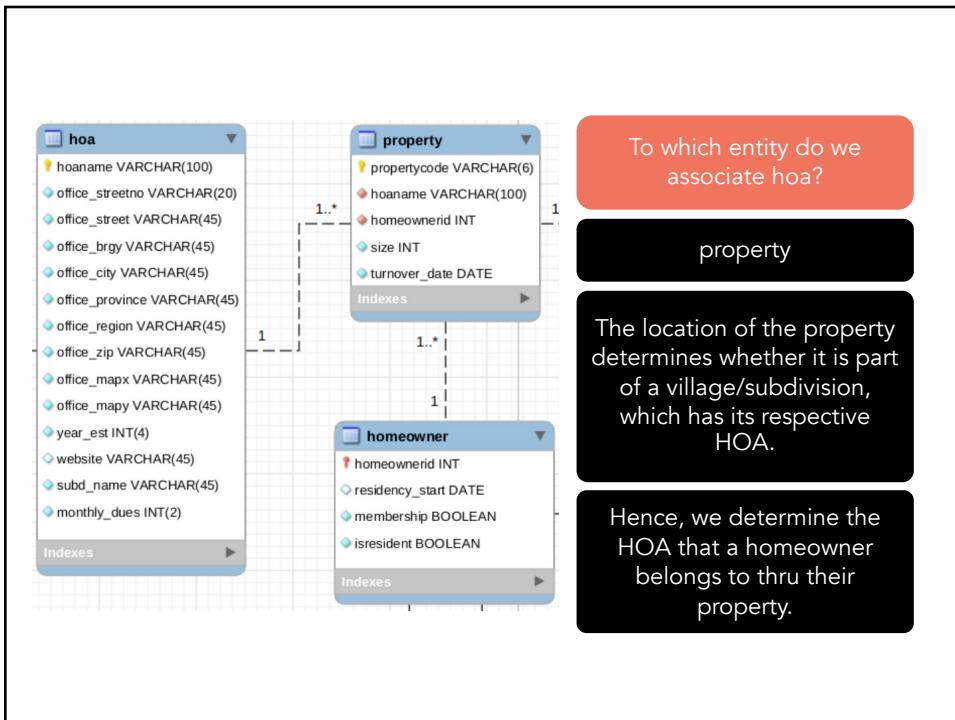
87

Relating Other Entities

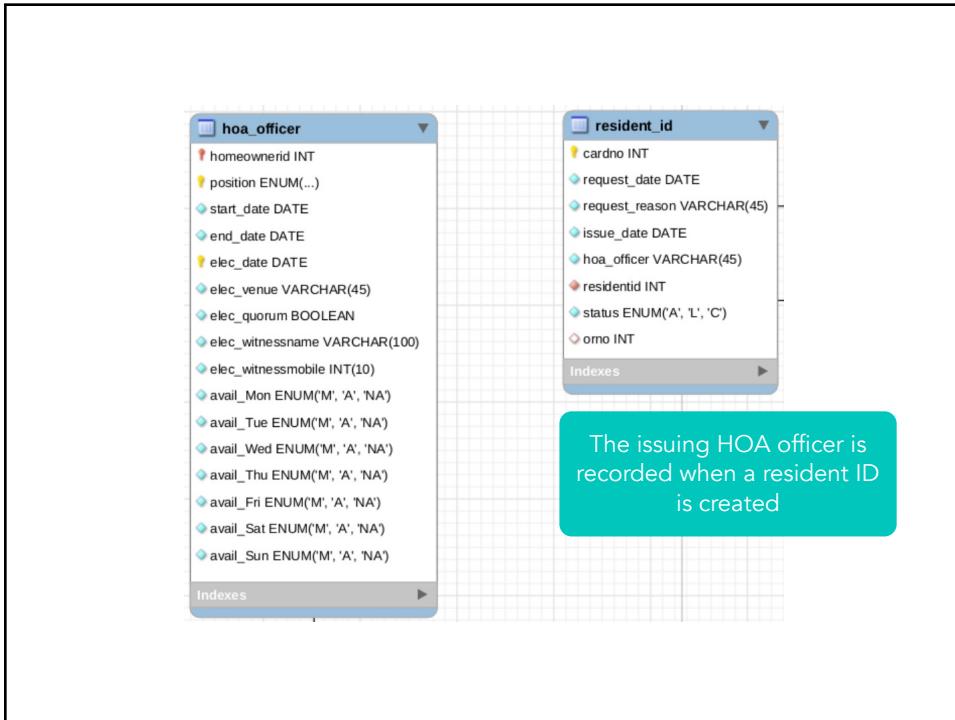
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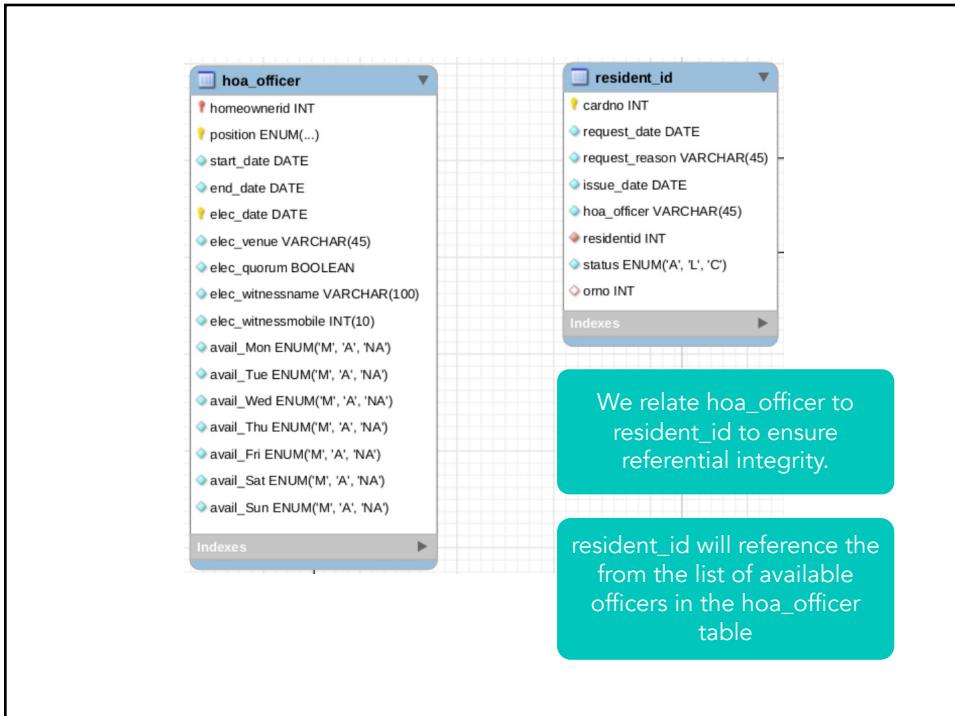
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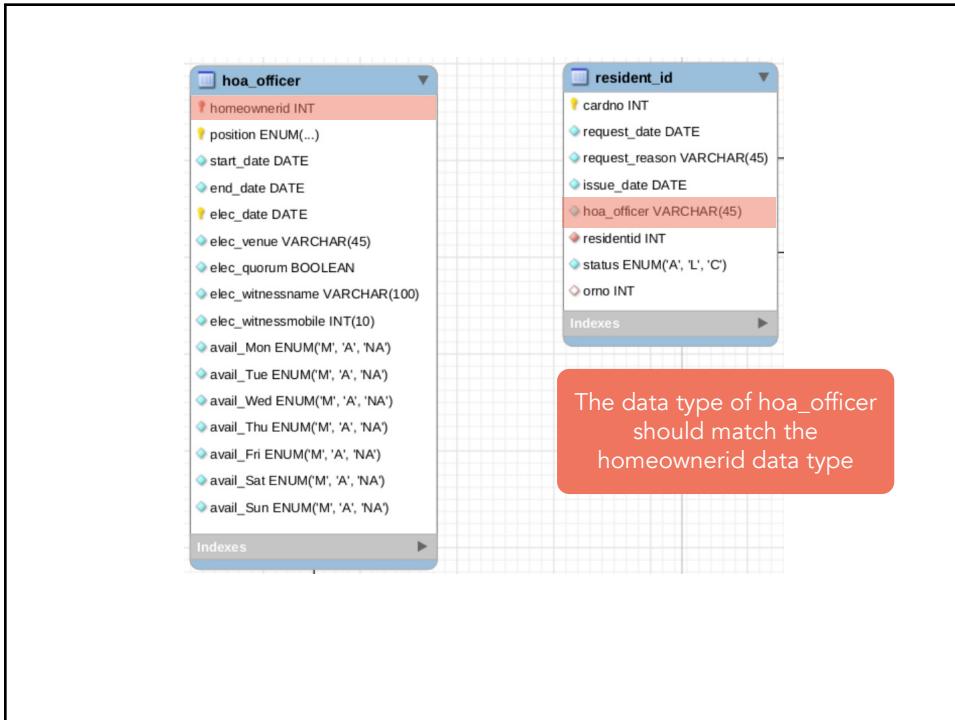
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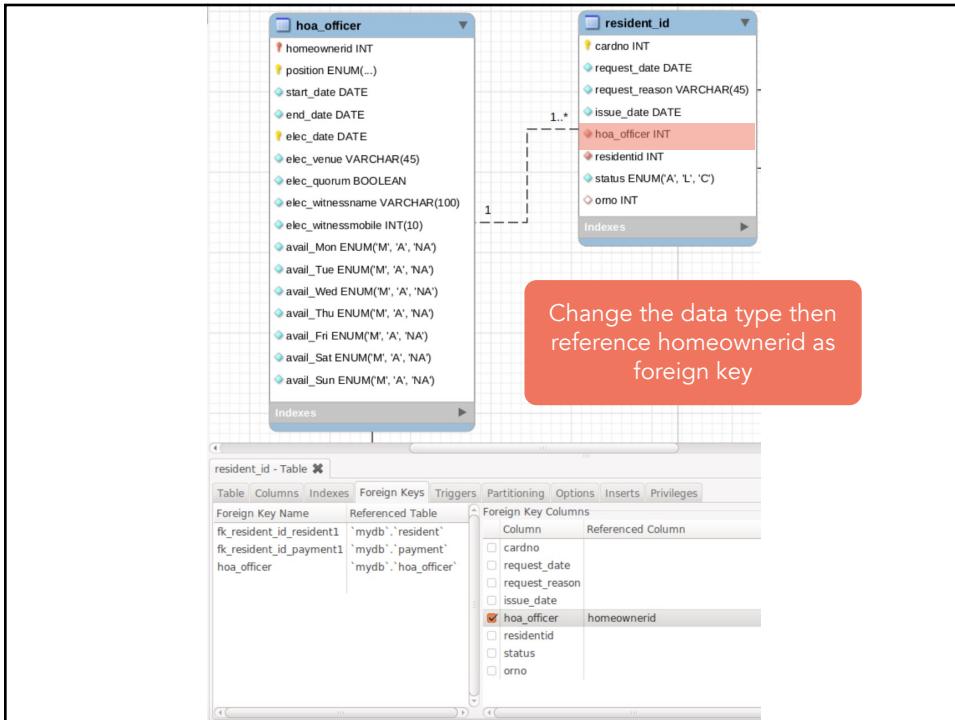
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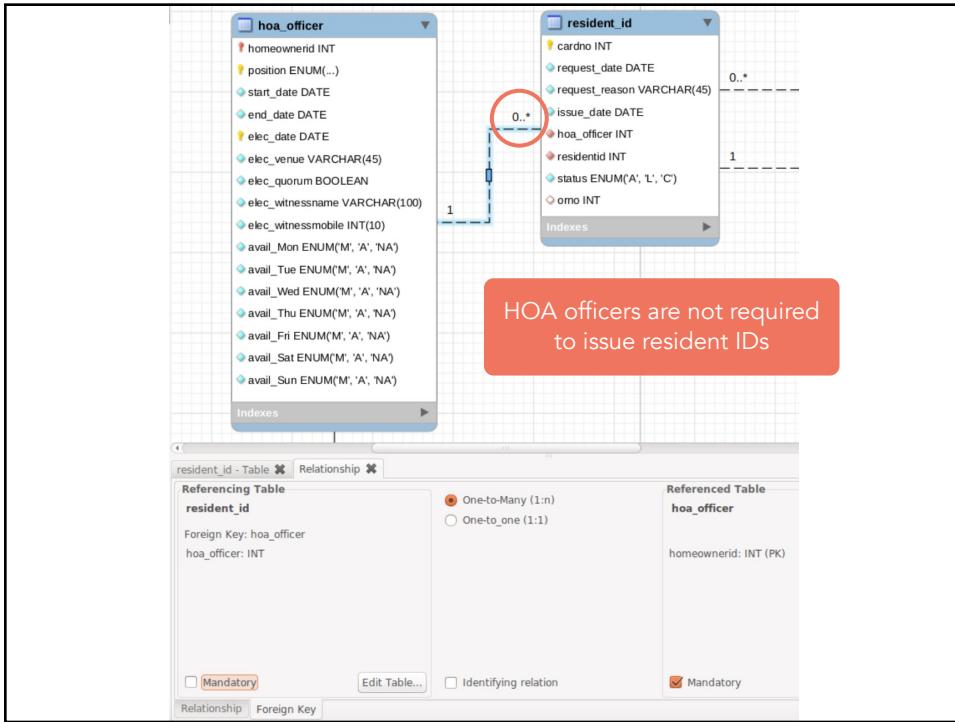
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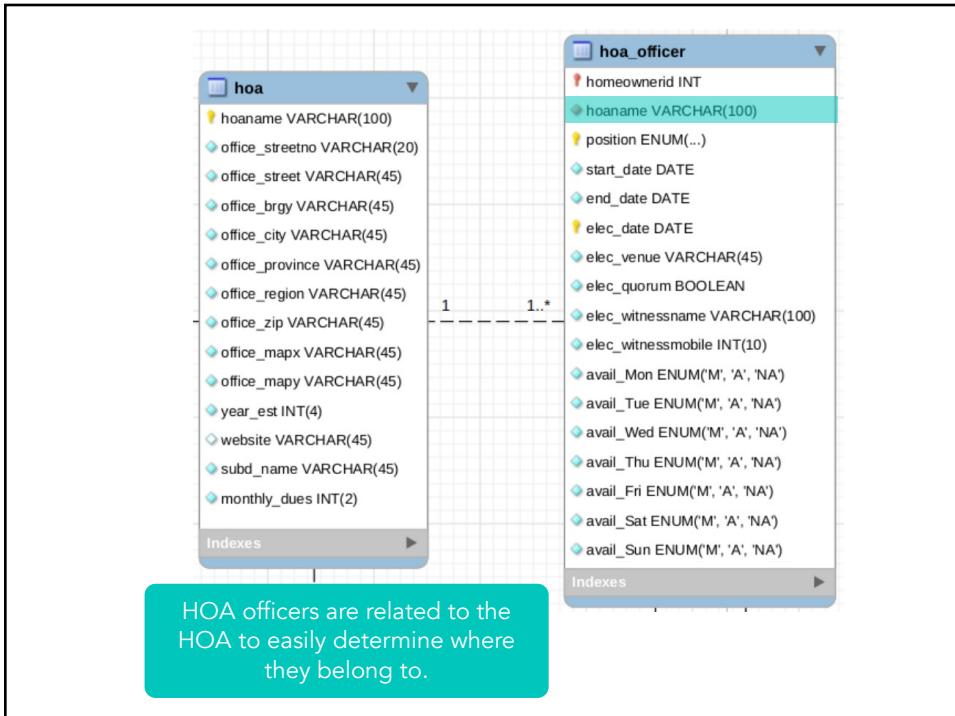
93



94



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96



Thank you!

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