

DATA BASE PROJECT: RESIDENCE MANAGEMENT

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DESCRIPTION

- Apply concepts seen during the MySQL course by creating a database with good practices
- Create a database with 4N technique

OBJECTIVE

- Create a database to store all pertinent details for the residents of a condominium, primary focused on the access control

PROBLEMATIC

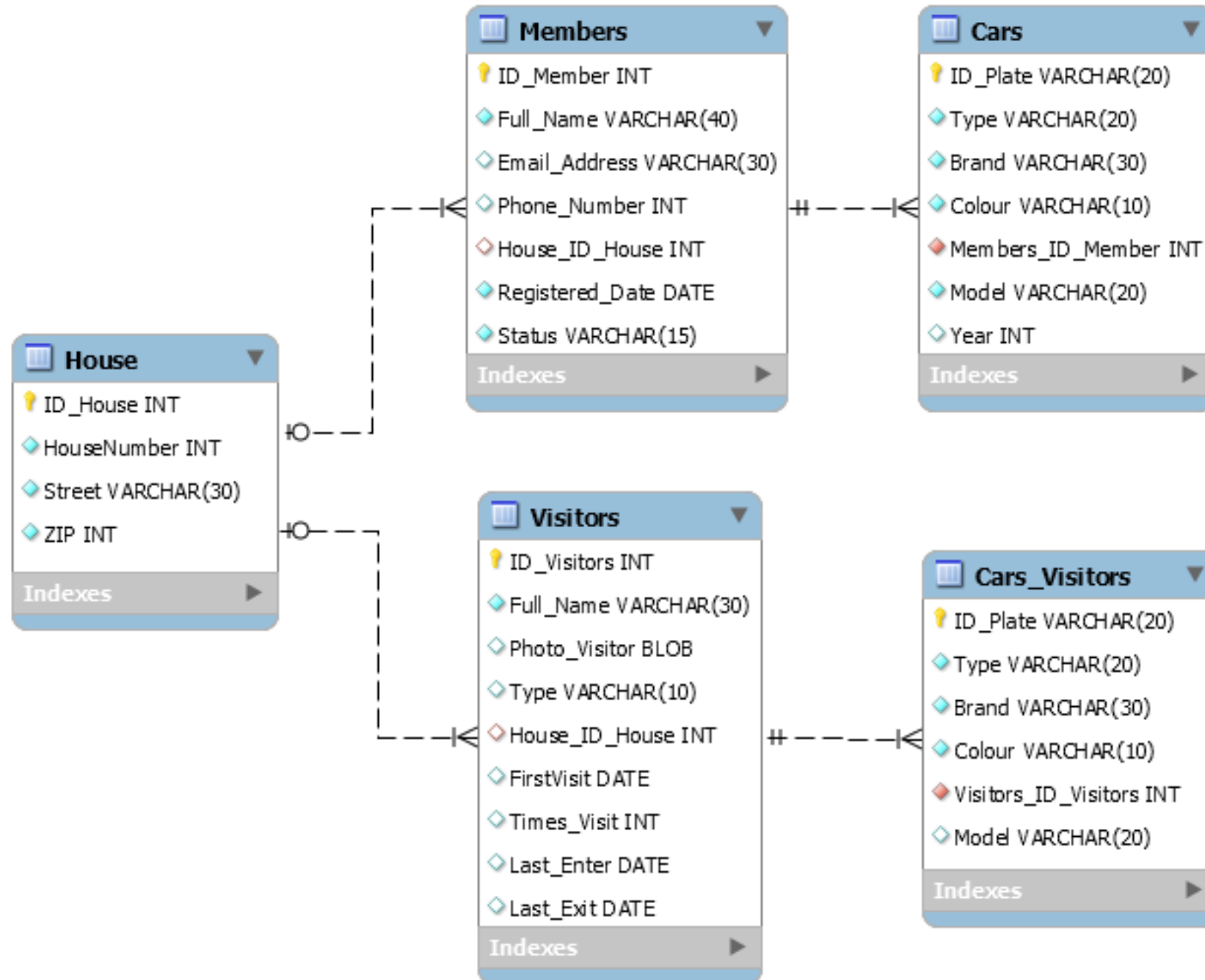
- Some residences still registering visitors and movements in a manual form using paper and pen. This practice is error prone, inefficient, inaccurate and hard to maintain, additionally is insecure for the householders

USES OF DB

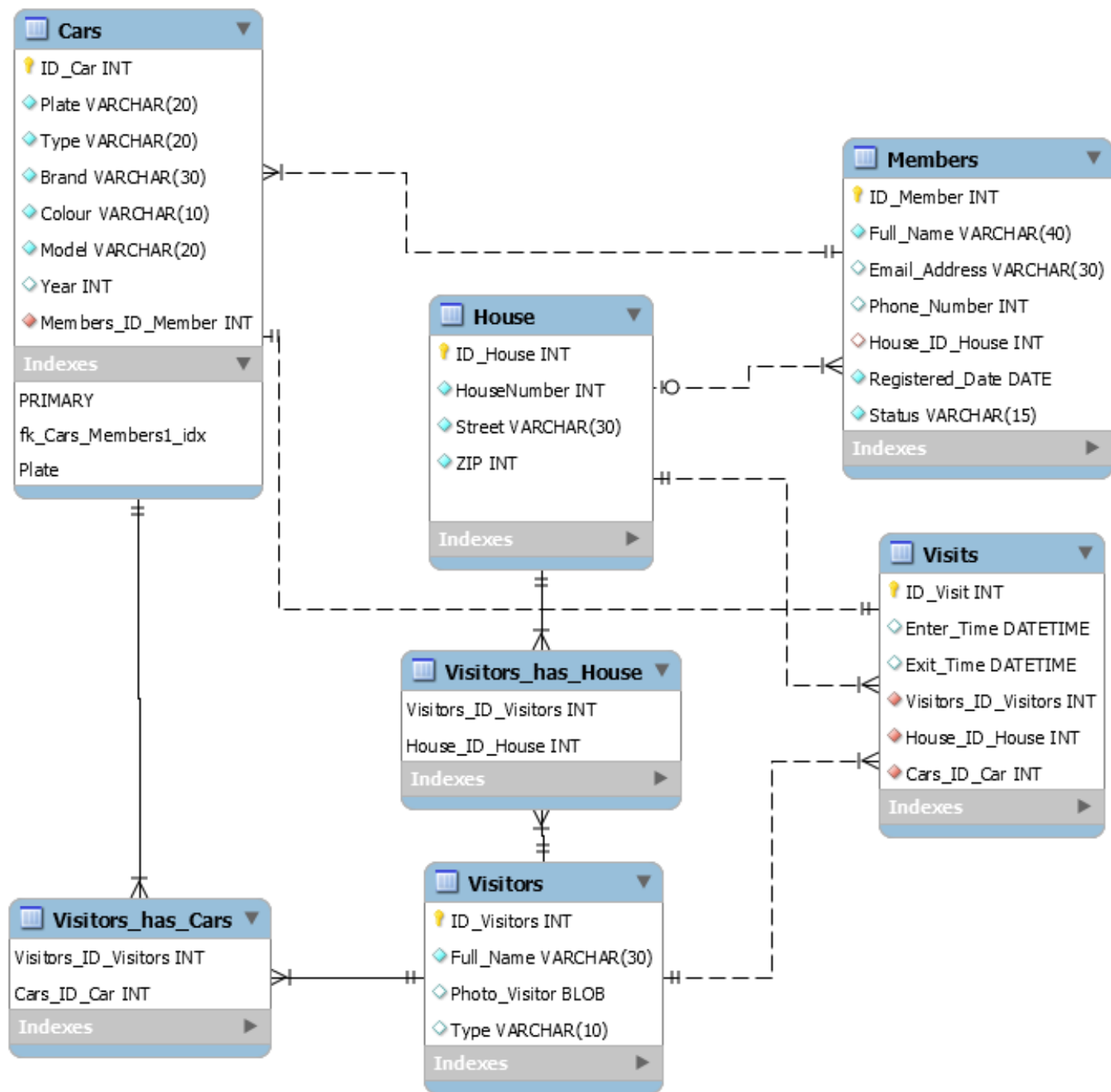
- Desktop application, web application, mobile application for house holders, management or security guards



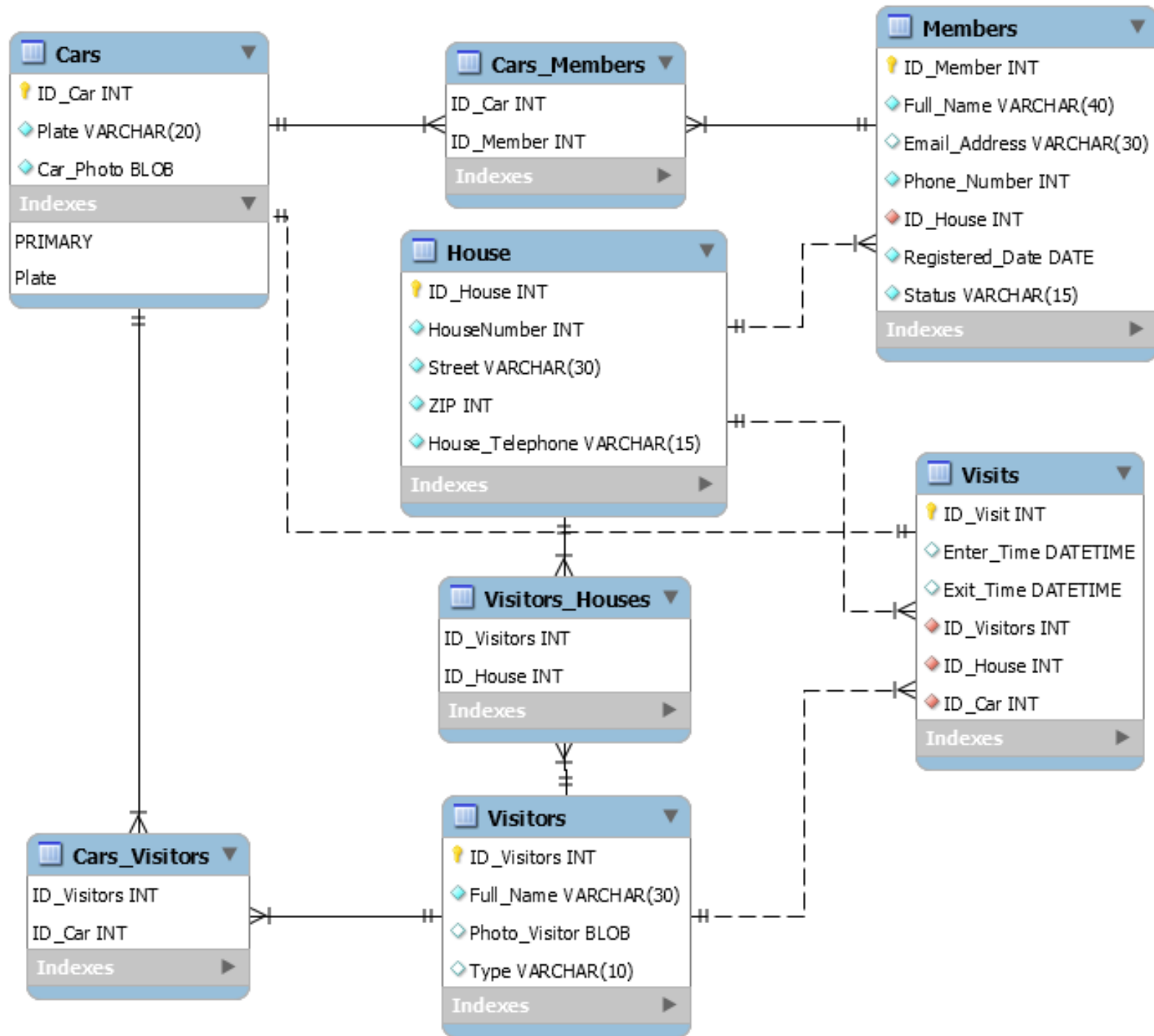
V1



V2



V3



Houses					
ID_House	HouseNumber	Street	ZIP	House_Telephone	
1	5	Recinto Viñedos	20138	4492032134	
2	128	Paseo de los Chopos	20138	4492032179	
3	110	Jacarandas	20137	4472346572	

Members						
ID_Member	Full_Name	Email_Address	Phone_Number	ID_House	Registered_Date	Status
1	Jose Olmedo	jolmedo@gmail.com	4492032179	1	23/12/2020	Active
2	Paola Olmedo	kpom32@hotmail.com	4493094387	1	15/11/2019	Active
3	Alex Pavia	alexpv97@hotmail.com	4492743645	2	03/02/2019	Active
4	Emmanuel Pavia	emmanuelpr@gmail.com	4456453424	2	04/04/2019	Active
5	Ken Lara	kenlaram@gmail.com	4424857622	3	05/04/2019	Active
6	Angelo Vaghi	angelv@gmail.com	4472345679	3	05/04/2018	Disable

Visitors			
ID_Visitors	Full_Name	Photo_Visitor	Type
1	Christopher Olmedo	photo1.jpeg	Personal
2	Ximena Pavia	photo2.jpeg	Personal
3	Mariana Gutierrez	photo3.jpeg	Personal
4	Susana Lopez	photo3.jpeg	Servicio

Visits					
ID_Visit	Enter_Time	Exit_Time	Visitors_ID_Visit	House_ID_House	Cars_ID_Car
1	22/12/2020 10:23	22/12/2020 11:04	1	1	5
2	23/12/2020 11:03	23/12/2020 11:46	2	2	6
3	23/12/2020 11:36	23/12/2020 12:07	3	3	7
4	24/12/2020 12:05	22/12/2020 23:10	4	2	8
5	25/12/2020 12:27	25/12/2020 16:13	3	1	5

Cars		
ID_Car	Plate	Car_Photo
1	AXB120	car1.jpeg
2	ABD201	car2.jpeg
3	EBG320	car3.jpeg
4	EQW230	car4.jpeg
5	EQW234	car5.jpeg
6	XRE435	car6.jpeg
7	TRE432	car7.jpeg
8	PLO298	car8.jpeg

Sample Data

Cars_Visitors		
ID_Visitors	ID_Car	
1		5
2		6
3		7
4		8
3		5

Cars_Members		
ID_Car	ID_Member	
1		1
2		2
3		3
4		4
1		2

Visitors_Houses		
ID_Visitors	ID_House	
1		1
2		2
3		3
4		2
3		1




```
CREATE SCHEMA IF NOT EXISTS ResidenceDB DEFAULT CHARACTER SET utf8;
USE ResidenceDB;
/*Extra Describe
DESCRIBE cars;
DESCRIBE houses;
DESCRIBE members;
DESCRIBE visitors;
DESCRIBE visits;
DESCRIBE cars_members;
DESCRIBE cars_visitors;
DESCRIBE visitors_houses;
```

Field	Type	Null	Key	Default
ID_Visit	int	NO	PRI	NULL
Enter_Time	datetime	YES		NULL
Exit_Time	datetime	YES		NULL
ID_Visitor	int	NO	MUL	NULL
ID_House	int	NO	MUL	NULL
ID_Car	int	NO	MUL	NULL

```
-- Create Table ResidenceDB.Houses
```

```
CREATE TABLE IF NOT EXISTS ResidenceDB.Houses (
  ID_House INT NOT NULL AUTO_INCREMENT,
  HouseNumber INT NOT NULL,
  Street VARCHAR(30) NOT NULL,
  ZIP INT NOT NULL,
  House_Telephone VARCHAR(15) NOT NULL,
  PRIMARY KEY (ID_House))
ENGINE = InnoDB;
```

```
-- Create Residence.Visitors
```

```
CREATE TABLE IF NOT EXISTS ResidenceDB.Visitors (
  ID_Visitor INT NOT NULL AUTO_INCREMENT,
  Full_Name VARCHAR(30) NOT NULL,
  Photo_Visitor BLOB NULL,
  Type VARCHAR(10) NULL,
  PRIMARY KEY (ID_Visitor))
ENGINE = InnoDB;
```

```
-- Create Table Residence.Visits
```

```
CREATE TABLE IF NOT EXISTS ResidenceDB.Visits (
  ID_Visit INT NOT NULL,
  Enter_Time DATETIME NULL,
  Exit_Time DATETIME NULL,
  ID_Visitor INT NOT NULL,
  ID_House INT NOT NULL,
  ID_Car INT NOT NULL,
  PRIMARY KEY (ID_Visit),
  INDEX fk_Visits_Visitors1_idx (ID_Visitor ASC) VISIBLE,
  INDEX fk_Visits_House1_idx (ID_House ASC) VISIBLE,
  INDEX fk_Visits_Cars1_idx (ID_Car ASC) VISIBLE,
  CONSTRAINT fk_Visits_Visitors1
    FOREIGN KEY (ID_Visitor)
    REFERENCES ResidenceDB.Visitors (ID_Visitor)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION,
  CONSTRAINT fk_Visits_House1
    FOREIGN KEY (ID_House)
    REFERENCES ResidenceDB.Houses (ID_House)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION,
  CONSTRAINT fk_Visits_Cars1
    FOREIGN KEY (ID_Car)
    REFERENCES ResidenceDB.Cars (ID_Car)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION)
ENGINE = InnoDB;
```

```
-- Create Table ResidenceDB.Members
```

```
CREATE TABLE IF NOT EXISTS ResidenceDB.Members (
  ID_Member INT NOT NULL AUTO_INCREMENT,
  Full_Name VARCHAR(40) NOT NULL,
  Email_Address VARCHAR(30) NULL,
  Phone_Number VARCHAR(15) NOT NULL,
  ID_House INT NOT NULL,
  Registered_Date DATE NOT NULL,
  Status_Member VARCHAR(15) NOT NULL,
  PRIMARY KEY (ID_Member),
  INDEX fk_Members_Houses_idx (ID_House ASC) VISIBLE,
  CONSTRAINT fk_Members_Houses
    FOREIGN KEY (ID_House)
    REFERENCES ResidenceDB.Houses (ID_House)
    ON DELETE NO ACTION
    ON UPDATE NO ACTION)
ENGINE = InnoDB;
```

```
-- Create Table Residence.Cars
```

```
CREATE TABLE IF NOT EXISTS ResidenceDB.Cars (
  ID_Car INT NOT NULL,
  Plate VARCHAR(20) NOT NULL,
  Car_Photo BLOB NOT NULL,
  PRIMARY KEY (ID_Car),
  INDEX Plate (Plate ASC) VISIBLE)
ENGINE = InnoDB;
```

```
-- Create Table ResidenceDB.Visitors_Houses
```

```
-----  
CREATE TABLE IF NOT EXISTS ResidenceDB.Visitors_Houses (  
  ID_Visitor INT NOT NULL,  
  ID_House INT NOT NULL,  
  PRIMARY KEY (ID_Visitor, ID_House),  
  INDEX fk_Visitors_has_House_House1_idx (ID_House ASC) VISIBLE,  
  INDEX fk_Visitors_has_House_Visitors1_idx (ID_Visitor ASC) VISIBLE,  
  CONSTRAINT fk_Visitors_has_House_Visitors1  
    FOREIGN KEY (ID_Visitor)  
    REFERENCES ResidenceDB.Visitors (ID_Visitor)  
    ON DELETE NO ACTION  
    ON UPDATE NO ACTION,  
  CONSTRAINT fk_Visitors_has_House_House1  
    FOREIGN KEY (ID_House)  
    REFERENCES ResidenceDB.Houses (ID_House)  
    ON DELETE NO ACTION  
    ON UPDATE NO ACTION)  
ENGINE = InnoDB;
```

```
-----  
-- Create Table ResidenceDB.Cars_Members
```

```
-----  
CREATE TABLE IF NOT EXISTS ResidenceDB.Cars_Members (  
  ID_Car INT NOT NULL,  
  ID_Member INT NOT NULL,  
  PRIMARY KEY (ID_Car, ID_Member),  
  INDEX fk_Cars_has_Members_Members1_idx (ID_Member ASC) VISIBLE,  
  INDEX fk_Cars_has_Members_Cars1_idx (ID_Car ASC) VISIBLE,  
  CONSTRAINT fk_Cars_has_Members_Cars1  
    FOREIGN KEY (ID_Car)  
    REFERENCES ResidenceDB.Cars (ID_Car)  
    ON DELETE NO ACTION  
    ON UPDATE NO ACTION,  
  CONSTRAINT fk_Cars_has_Members_Members1  
    FOREIGN KEY (ID_Member)  
    REFERENCES ResidenceDB.Members (ID_Member)  
    ON DELETE NO ACTION  
    ON UPDATE NO ACTION)  
ENGINE = InnoDB;
```

```
-----  
-- Create Table ResidenceDB.Cars_Visitors
```

```
-----  
CREATE TABLE IF NOT EXISTS ResidenceDB.Cars_Visitors (  
  ID_Visitor INT NOT NULL,  
  ID_Car INT NOT NULL,  
  PRIMARY KEY (ID_Visitor, ID_Car),  
  INDEX fk_Visitors_has_Cars_Cars1_idx (ID_Car ASC) VISIBLE,  
  INDEX fk_Visitors_has_Cars_Visitors1_idx (ID_Visitor ASC) VISIBLE,  
  CONSTRAINT fk_Visitors_has_Cars_Visitors1  
    FOREIGN KEY (ID_Visitor)  
    REFERENCES ResidenceDB.Visitors (ID_Visitor)  
    ON DELETE NO ACTION  
    ON UPDATE NO ACTION,  
  CONSTRAINT fk_Visitors_has_Cars_Cars1  
    FOREIGN KEY (ID_Car)  
    REFERENCES ResidenceDB.Cars (ID_Car)  
    ON DELETE NO ACTION  
    ON UPDATE NO ACTION)  
ENGINE = InnoDB;
```




```
-- Insert Data Into Table ResidenceDB.Houses
```

```
INSERT INTO ResidenceDB.Houses (ID_House, HouseNumber, Street, ZIP, House_Telephone)
VALUES (1, 5, "Recinto Vinedos", 20138, "4492032134");
INSERT INTO ResidenceDB.Houses (ID_House, HouseNumber, Street, ZIP, House_Telephone)
VALUES (2, 128, "Paseo de los Chopos", 20138, "4492032179");
INSERT INTO ResidenceDB.Houses (ID_House, HouseNumber, Street, ZIP, House_Telephone)
VALUES (3, 110, "Jacarandas", 20137, "4472346572");
```

```
-- Insert Data Into Table ResidenceDB.Visitors
```

```
INSERT INTO ResidenceDB.Visitors (ID_Visitor, Full_Name, Photo_Visitor, Type)
VALUES (1, "Christopher Olmedo Martinez", "photo1.jpeg", "Personal");
INSERT INTO ResidenceDB.Visitors (ID_Visitor, Full_Name, Photo_Visitor, Type)
VALUES (2, "Karla Ximena Pavia Romo", "photo2.jpeg", "Personal");
INSERT INTO ResidenceDB.Visitors (ID_Visitor, Full_Name, Photo_Visitor, Type)
VALUES (3, "Mariana Gutierrez Balcazar", "photo3.jpeg", "Personal");
INSERT INTO ResidenceDB.Visitors (ID_Visitor, Full_Name, Photo_Visitor, Type)
VALUES (4, "Susana Lopez Hernandez", "photo4.jpeg", "Servicio");
```

```
-- Insert Data Into Table ResidenceDB.Members
```

```
INSERT INTO ResidenceDB.Members (ID_Member, Full_Name, Email_Address, Phone_Number, ID_House, Registered_Date, Status_Member)
VALUES (1, "Jose Manuel Olmedo Martinez", "j.olmedo@gmail.com", 4492032179, 1, "2020-12-23", "Active");
INSERT INTO ResidenceDB.Members (ID_Member, Full_Name, Email_Address, Phone_Number, ID_House, Registered_Date, Status_Member)
VALUES (2, "Karla Paola Olmedo Martinez", "kpom32@hotmail.com", 4493094387, 1, "2019-11-15", "Active");
INSERT INTO ResidenceDB.Members (ID_Member, Full_Name, Email_Address, Phone_Number, ID_House, Registered_Date, Status_Member)
VALUES (3, "Joaquin Alejandro Pavia Romo", "alexpv97@hotmail.com", 4492743645, 2, "2019-02-03", "Active");
INSERT INTO ResidenceDB.Members (ID_Member, Full_Name, Email_Address, Phone_Number, ID_House, Registered_Date, Status_Member)
VALUES (4, "Christian Emmanuel Pavia Romo", "emmanuelpr@gmail.com", 4456453424, 2, "2019-04-04", "Active");
INSERT INTO ResidenceDB.Members (ID_Member, Full_Name, Email_Address, Phone_Number, ID_House, Registered_Date, Status_Member)
VALUES (5, "Alan Ken Lara Mishima", "kenlaram@gmail.com", 4424857622, 3, "2019-04-05", "Active");
INSERT INTO ResidenceDB.Members (ID_Member, Full_Name, Email_Address, Phone_Number, ID_House, Registered_Date, Status_Member)
VALUES (6, "Angelo Vaghi Martinez", "angelv@gmail.com", 4472345679, 3, "2018-04-05", "Disable");
```

```
-- Insert Data Into Table ResidenceDB.Cars
```

```
INSERT INTO ResidenceDB.Cars (ID_Car, Plate, Car_Photo) VALUES (1, "AXB120", "car1.jpeg");
INSERT INTO ResidenceDB.Cars (ID_Car, Plate, Car_Photo) VALUES (2, "ABD201", "car2.jpeg");
INSERT INTO ResidenceDB.Cars (ID_Car, Plate, Car_Photo) VALUES (3, "EBG320", "car3.jpeg");
INSERT INTO ResidenceDB.Cars (ID_Car, Plate, Car_Photo) VALUES (4, "EQW230", "car4.jpeg");
INSERT INTO ResidenceDB.Cars (ID_Car, Plate, Car_Photo) VALUES (5, "EQW234", "car5.jpeg");
INSERT INTO ResidenceDB.Cars (ID_Car, Plate, Car_Photo) VALUES (6, "XRE435", "car6.jpeg");
INSERT INTO ResidenceDB.Cars (ID_Car, Plate, Car_Photo) VALUES (7, "TRE432", "car7.jpeg");
INSERT INTO ResidenceDB.Cars (ID_Car, Plate, Car_Photo) VALUES (8, "PLO298", "car8.jpeg");
```

```
-- Insert Data Into Table ResidenceDB.Visits
```

```
INSERT INTO ResidenceDB.Visits (ID_Visit, Enter_Time, Exit_Time, ID_Visitor, ID_House, ID_Car)
VALUES (1, "2020-12-22 10:23:17", "2020-12-22 11:04:23", 1, 1, 5);
INSERT INTO ResidenceDB.Visits (ID_Visit, Enter_Time, Exit_Time, ID_Visitor, ID_House, ID_Car)
VALUES (2, "2020-12-23 11:03:12", "2020-12-23 11:46:32", 2, 2, 6);
INSERT INTO ResidenceDB.Visits (ID_Visit, Enter_Time, Exit_Time, ID_Visitor, ID_House, ID_Car)
VALUES (3, "2020-12-23 11:36:45", "2020-12-23 12:07:19", 3, 3, 7);
INSERT INTO ResidenceDB.Visits (ID_Visit, Enter_Time, Exit_Time, ID_Visitor, ID_House, ID_Car)
VALUES (4, "2020-12-24 12:05:19", "2020-12-22 23:10:30", 4, 2, 8);
INSERT INTO ResidenceDB.Visits (ID_Visit, Enter_Time, Exit_Time, ID_Visitor, ID_House, ID_Car)
VALUES (5, "2020-12-25 12:27:16", "2020-12-25 16:13:35", 3, 1, 5);
```



```
-- Insert Data Into Table ResidenceDB.Cars_Visitors
```

```
INSERT INTO ResidenceDB.Cars_Visitors (ID_Visitor, ID_Car)VALUES(1,5);  
INSERT INTO ResidenceDB.Cars_Visitors (ID_Visitor, ID_Car)VALUES(2,6);  
INSERT INTO ResidenceDB.Cars_Visitors (ID_Visitor, ID_Car)VALUES(3,7);  
INSERT INTO ResidenceDB.Cars_Visitors (ID_Visitor, ID_Car)VALUES(4,8);  
INSERT INTO ResidenceDB.Cars_Visitors (ID_Visitor, ID_Car)VALUES(3,5);
```

```
-- Insert Data Into Table ResidenceDB.Cars_Members
```

```
INSERT INTO ResidenceDB.Cars_Members (ID_Car, ID_Member) VALUES (1, 1);  
INSERT INTO ResidenceDB.Cars_Members (ID_Car, ID_Member) VALUES (2, 2);  
INSERT INTO ResidenceDB.Cars_Members (ID_Car, ID_Member) VALUES (3, 3);  
INSERT INTO ResidenceDB.Cars_Members (ID_Car, ID_Member) VALUES (4, 4);  
INSERT INTO ResidenceDB.Cars_Members (ID_Car, ID_Member) VALUES (1, 2);
```

```
-- Insert Data Into Table ResidenceDB.Visitors_Houses
```

```
INSERT INTO ResidenceDB.Visitors_Houses (ID_Visitor, ID_House) VALUES (1,1);  
INSERT INTO ResidenceDB.Visitors_Houses (ID_Visitor, ID_House) VALUES (2,2);  
INSERT INTO ResidenceDB.Visitors_Houses (ID_Visitor, ID_House) VALUES (3,3);  
INSERT INTO ResidenceDB.Visitors_Houses (ID_Visitor, ID_House) VALUES (4,2);  
INSERT INTO ResidenceDB.Visitors_Houses (ID_Visitor, ID_House) VALUES (3,1);
```



```
-- Select query to obtain all the residents and their houses
```

```
-----
SELECT m.Full_Name, m.Phone_Number, h.HouseNumber, h.Street
FROM Members AS m
INNER JOIN Houses AS h
ON m.ID_House = h.ID_House;
```

```
-- Select query to obtain information about all the visits done
```

```
-----
SELECT vi.ID_Visit, vi.Enter_Time, vi.Exit_Time, vo.Full_Name,
vo.Photo_Visitor, vo.Type, h.HouseNumber, h.Street, c.Car_Photo, c.Plate
FROM Visits AS vi
INNER JOIN Visitors AS vo
ON vi.ID_Visitor = vo.ID_Visitor
INNER JOIN Houses AS h
ON vi.ID_House = h.ID_House
INNER JOIN Cars AS c
ON vi.ID_Car = c.ID_Car;
```

```
-- Select query to obtain information about residents who own a car
```

```
-----
SELECT m.Full_Name, c.Plate, c.Car_Photo
FROM Cars_Members AS cm
INNER JOIN Members AS m
ON m.ID_Member = cm.ID_Member
INNER JOIN Cars AS c
ON c.ID_Car = cm.ID_Car;
```

Full_Name	Phone_Number	HouseNumber	Street
Jose Manuel Olmedo Martinez	4492032179	5	Recinto Vinedos
Karla Paola Olmedo Martinez	4493094387	5	Recinto Vinedos
Joaquin Alejandro Pavia Romo	4492743645	128	Paseo de los Chopos
Christian Emmanuel Pavia Romo	4456453424	128	Paseo de los Chopos
Alan Ken Lara Mishima	4424857622	110	Jacarandas
Angelo Vaghi Martinez	4472345679	110	Jacarandas

ID_V	Enter_Time	Exit_Time	Full_Name	Phot	Type	HouseNumber	Street	Car_Ph	Plate
1	2020-12-22 10:23:17	2020-12-22 11:46:23	Christopher Olmedo Martinez	BLOB	Personal	5	Recinto Vinedos	BLOB	EQW234
2	2020-12-23 11:03:12	2020-12-23 11:46:32	Karla Ximena Pavia Romo	BLOB	Personal	5	Recinto Vinedos	BLOB	XRE435
3	2020-12-23 11:36:45	2020-12-23 12:07:19	Mariana Gutierrez Balcazar	BLOB	Personal	110	Jacarandas	BLOB	TRE432
4	2020-12-24 12:05:19	2020-12-22 23:10:30	Susana Lopez Hernandez	BLOB	Servicio	128	Paseo de los Chopos	BLOB	PLO298
5	2020-12-25 12:27:16	2020-12-25 16:13:35	Mariana Gutierrez Balcazar	BLOB	Personal	5	Recinto Vinedos	BLOB	EQW234

Full_Name	Plate	Car_Ph
Jose Manuel Olmedo Martinez	AXB120	BLOB
Karla Paola Olmedo Martinez	AXB120	BLOB
Karla Paola Olmedo Martinez	ABD201	BLOB
Joaquin Alejandro Pavia Romo	EBG320	BLOB
Christian Emmanuel Pavia Romo	EQW230	BLOB



```
-- Select query to obtain information about visitors who own a car
```

```
SELECT vo.Full_Name, c.Plate, c.Car_Photo
FROM Cars_Visitors AS cavo
INNER JOIN Visitors AS vo
    ON cavo.ID_Visitor = vo.ID_Visitor
INNER JOIN Cars AS c
    ON cavo.ID_Car = c.ID_Car;
```

Full_Name	Plate	Car_Photo
Christopher Olmedo Martinez	EQW234	BLOB
Mariana Gutierrez Balcazar	EQW234	BLOB
Karla Ximena Pavia Romo	XRE435	BLOB
Mariana Gutierrez Balcazar	TRE432	BLOB
Susana Lopez Hernandez	PLO298	BLOB

```
-- Select query to obtain what houses the visitors have visited
```

```
SELECT vo.Full_Name, vo.Photo_Visitor, vo.Type, h.HouseNumber, h.Street
FROM Visitors_Houses AS vh
INNER JOIN Houses AS h
    ON vh.ID_House = h.ID_House
INNER JOIN Visitors AS vo
    ON vh.ID_Visitor = vo.ID_Visitor;
```

Full_Name	Photo	Type	HouseNumber	Street
Christopher Olmedo Martinez	BLOB	Personal	5	Recinto Vinedos
Mariana Gutierrez Balcazar	BLOB	Personal	5	Recinto Vinedos
Karla Ximena Pavia Romo	BLOB	Personal	128	Paseo de los Chopos
Susana Lopez Hernandez	BLOB	Servicio	128	Paseo de los Chopos
Mariana Gutierrez Balcazar	BLOB	Personal	110	Jacarandas

```
-- Select query to obtain the number of houses visited in total ordered
```

```
SELECT h.Street, h.HouseNumber, concat(h.Street," ",h.HouseNumber ) AS Address, COUNT(*) AS Times
from Visits AS vi
INNER JOIN Houses AS h
    ON vi.ID_House = h.ID_House
GROUP BY Address
order by Times desc;
```

Street	HouseNumber	Address	Times
Recinto Vinedos	5	Recinto Vinedos 5	3
Paseo de los Chopos	128	Paseo de los Chopos 128	1
Jacarandas	110	Jacarandas 110	1



```
-- Select query to obtain the number of cars owned by residents
```

```
-----  
SELECT m.Full_Name, c.Plate, COUNT(*) AS Count  
from Members AS m  
INNER JOIN Cars_Members AS cm  
    ON m.ID_Member = cm.ID_Member  
INNER JOIN Cars AS c  
    ON cm.ID_Car = c.ID_Car  
GROUP BY Full_Name  
ORDER BY Count DESC;
```

Full_Name	Plate	Count
Karla Paola Olmedo Martinez	AXB120	2
Jose Manuel Olmedo Martinez	AXB120	1
Joaquin Alejandro Pavia Romo	EBG320	1
Christian Emmanuel Pavia Romo	EQW230	1

```
-- Select query to obtain the number of cars owned by residents that have more or equal to 2 cars
```

```
-----  
SELECT m.Full_Name, CONCAT(h.Street, " ", h.HouseNumber) AS Address, COUNT(*) AS CarsCount  
from Members AS m  
INNER JOIN Cars_Members AS cm  
    ON m.ID_Member = cm.ID_Member  
INNER JOIN Cars AS c  
    ON cm.ID_Car = c.ID_Car  
INNER JOIN Houses AS h  
    ON m.ID_House = h.ID_House  
GROUP BY Full_Name  
HAVING CarsCount >= 2  
ORDER BY CarsCount DESC;
```

Full_Name	Address	CarsCount
Karla Paola Olmedo Martinez	Recinto Vinedos 5	2

```
-- Select query to obtain all residents whose name is Jose and where they live
```

```
-----  
SELECT m.Full_Name, m.Phone_Number, CONCAT(h.Street, " ", h.HouseNumber) AS Address  
FROM Members AS m  
INNER JOIN Houses AS h  
    ON m.ID_House = h.ID_House  
WHERE full_name LIKE "%Jose%";
```

Full_Name	Phone_Number	Address
Jose Manuel Olmedo Martinez	4492032179	Recinto Vinedos 5



```
-- Select query to obtain how many dates the visit has been on the house
```

```
SELECT vo.Full_Name AS Visitor, concat(h.Street," ",h.HouseNumber) AS AddressVisited,
vi.Enter_Time, vi.Exit_Time, datediff(vi.Enter_Time, vi.Exit_Time) AS DaysDifference
FROM Visits AS vi
INNER JOIN Houses AS h
    ON vi.ID_House = h.ID_House
INNER JOIN Visitors AS vo
    ON vi.ID_Visitor = vo.ID_Visitor
ORDER BY DaysDifference DESC
```

Visitor	AddressVisited	Enter_Time	Exit_Time	DaysDifference
Susana Lopez Hernandez	Paseo de los Chopos 128	2020-12-24 12:05:19	2020-12-22 23:10:30	2
Christopher Olmedo Martinez	Recinto Vinedos 5	2020-12-22 10:23:17	2020-12-22 11:46:23	0
Karla Ximena Pavia Romo	Recinto Vinedos 5	2020-12-23 11:03:12	2020-12-23 11:46:32	0
Mariana Gutierrez Balcazar	Jacarandas 110	2020-12-23 11:36:45	2020-12-23 12:07:19	0
Mariana Gutierrez Balcazar	Recinto Vinedos 5	2020-12-25 12:27:16	2020-12-25 16:13:35	0

```
-- Select query to obtain which visitor are service
```

```
SELECT vo.Full_Name AS Visitor_Name, vo.Photo_Visitor, concat(h.Street," ",h.HouseNumber) AS House_Visited
FROM Visits AS vi
INNER JOIN Visitors AS vo
    ON vi.ID_Visitor = vo.ID_Visitor
INNER JOIN Houses AS h
    ON vi.ID_House = h.ID_House
WHERE vo.Type IN ("Servicio");
```

Visitor_Name	Phot	House_Visited
Susana Lopez Hernandez	BLOB	Paseo de los Chopos 128

